



DIRECTORATE-GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES

AGRICULTURE AND RURAL DEVELOPMENT

**FINANCIAL INSTRUMENTS AND LEGAL
FRAMEWORKS OF DERIVATIVES
MARKETS IN EU AGRICULTURE:
CURRENT STATE OF PLAY
AND FUTURE PERSPECTIVES**

STUDY

This document was requested by the European Parliament's Committee on Agriculture and Rural Development.

AUTHORS¹

SOMO, the Netherlands: Myriam VANDER STICHELE

RESPONSIBLE ADMINISTRATOR

Albert MASSOT
Policy Department B: Structural and Cohesion Policies
European Parliament
B-1047 Brussels
E-mail: poldep-cohesion@europarl.europa.eu

EDITORIAL ASSISTANCE

Catherine MORVAN

ABOUT THE PUBLISHER

To contact the Policy Department or to subscribe to its monthly newsletter please write to: poldep-cohesion@europarl.europa.eu

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¹ **Contributors:** Ann E. BERG (Senior consultant at the United Nations, Food and Agricultural Organization - FAO); Jaap BOS (Maastricht University, the Netherlands); Benoît LALLEMAND (Finance Watch); David FRENK (Better Markets); Indra RÖMGENS (SOMO, the Netherlands), Rens VAN TILBURG (SOMO, the Netherlands)
Advisors: Daniël MÜGGE (University of Amsterdam, the Netherlands)
Peer Review: Patrick STEPHAN (FOM University of Applied Sciences, Germany)
Editor: Gioia Marini



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Abstract

For the first time, new EU laws regulate the agricultural commodity derivatives markets and their participants. By 1st July 2014, some important technical standards and other instruments that determine the effectiveness and the enforcement of these laws still needed to be decided. This study finds that the price discovery and hedging functions of European agricultural commodity derivatives markets and their related infrastructure in the physical agricultural markets need improvements from the perspective of European farmers and the agricultural sector.

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LIST OF ABBREVIATIONS

AIF	Alternative Investment Funds
AIFMD	Alternative Investment Fund Managers Directive
AMIS	Agriculture Market Information System
BCBS	Basel Committee on Banking Supervision
CAP	Common Agricultural Policy
CCP	Central Counterparty
CFTC	Commodity Futures Trading Commission
COMAGRI	Agricultural and Rural Development Committee
CRD & CRR	Capital Requirements Directive & Capital Requirements Regulation
EC	European Commission
ECB	European Central Bank
EMIR	European Market Infrastructure Regulation
EP	European Parliament
ESCB	European System of Central Banks
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETFs	Exchange Traded Funds
ETNs	Exchange Traded Notes
ETPs	Exchange Traded Products
IOSCO	International Organisation of Securities Commissions
FSB	Financial Stability Board
FAO	Food and Agricultural Organisation of the UN
HFT	High Frequency Trading
IMF	International Monetary Fund
IOSCO	International Organisation of Securities Commissions
MAD	Market Abuse Directive
MIFID&MiFIR	Markets in Financial Instruments Directive and Regulation
MTF	Multilateral Trading Facility

- OECD** Organisation of Economic Cooperation and Development
- OJ** Official Journal of the European Union
- OTC** Over-the-counter, off exchange
- OTF** Organised Trading Facility
- POs** Producer Organisations
- PRIP** Packaged Retail Investment Product
- PRIPs** Regulation on Packaged Retail Investment Products
- SEF** Swap Execution Facility
- UCITS** Undertaking for Collective Investment in Transferable Securities
- UNCTAD** United Nations Conference on Trade and Development
- WFP** World Food Programme
- WTO** World Trade Organisation

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GLOSSARY

Algorithmic trading	A trading system that utilizes very advanced (computerised) mathematical models ('algorithms') in order to make optimal transaction decisions in the financial markets, (mostly) without human intervention.
Alternative investment funds (AIFs)	All funds that are under EU law not regulated by UCITS Directives (see UCITS), such as hedge funds and private equity funds.
Arbitrage	Buying and selling of a same asset (e.g. a commodity, a financial instrument) that is being traded in two or more different markets in order to profit from price differences.
Asset	Anything with a commercial or exchange value and owned by a business, institution or individual.
Basis	The price difference between a spot contract and futures contract for a commodity.
Bid price	The highest price which a buyer is willing to pay for a commodity or security.
Block trading	Buying or selling very large numbers of securities, mostly outside exchanges or electronic markets in order to avoid too much undesired impact on the price.
Broker	An individual or firm who is an intermediary between a buyer and a seller, and charges a fee or commission for executing buy and sell orders.
Capital requirements	Regulations that set criteria for the minimum own capital a bank, or other financial institution, has to hold when granting loans or undertaking other financial activities.
Cash settlement	A way of settling a futures contract which involves an exchange of cash rather than an exchange of physical commodity, e.g. when a buyer is not interested in taking a delivery.
Central counterparty (CCP)	An entity that interposes itself between the counterparties to a derivatives contract, becoming the buyer to every seller and the seller to every buyer. If one of the counterparties defaults, the CCP absorbs the loss and pays the other counter party.
Circuit breaker	Mechanism employed by an exchange to temporarily suspend trading when prices fall, or increase, beyond a pre-set percentage in a specified period (in order to prevent mass panic selling or buying).
Clearing	Process by which risks and obligations arising from a derivative or other financial security are managed over the lifetime of a financial contract by a CCP or clearing house.
Clearing house	An entity that becomes the counter party to the buyer and the seller of a derivatives contract. It reduces counterparty risk by absorbing losses (see CCP) and ensures that underlying commodities are actually delivered to fulfil futures contracts.
Collective investment schemes	Funds that pool together many different individuals' savings and then invest them collectively. For example, commodity index funds or exchange-traded funds (ETFs) are all examples of collective investment schemes.

Commodity	A physical substance, such as food, grains, and metals, which are traded on the spot market and on exchanges.
Commodity derivative	A financial instrument the value of which depends on that of a commodity. One of the most important types of commodity derivative is a futures contract traded on an exchange.
Commodity exchange	A central market place, being a (for-profit) entity that determines and enforces rules and procedures for the trading of commodity derivatives. In this study it does not refer to the physical centre where trading takes place.
Commodity index	A price indicator, or benchmark, that reflects the price of a commodity future, or a composition ('basket') of commodity futures which are traded on exchanges. The price is regularly determined by the application of a formula on the basis of the value of the underlying commodities.
Commodity index fund	A fund for (institutional) investors who get a return on their investment based on the performance, i.e. the value, of the commodity index that the fund is tracking.
Convergence	The tendency for prices in spot markets to be similar as futures prices when the delivery dates of the contract approach.
Cornering	To corner a commodity market is to get sufficient control of trade in a commodity to allow the price to be manipulated.
Counterparty	A legal term for the other party in a financial transaction. For a buyer of a derivatives contract, the seller is the counterparty and vice versa.
Dealer	An individual or firm that buys and sells securities for his/her own account and own risk.
Delivery	Receiving the actual commodity or warehouse receipts covering such commodity at the time of the settlement of a futures contract.
Depositories	Entities that are entrusted with the duty of 'safekeeping' and 'supervision' of the assets belonging to a collective investment scheme.
Derivative	A financial contract that gets (derives) its value from an underlying asset, such as foreign currencies, interest rates or commodities.
Electronic trading facility	A trading venue which operates solely via telecommunication, internet or electronics rather than floor trading where traders see each other.
Exchange traded commodity (index) fund (ETF)	The value of the ETF and its shares, which are sold on a (specialised) stock exchange, is related to the value of a commodity index that it tracks, a commodity or a basket of commodities. A synthetic ETF bases its value on an commodity index or commodities but the money invested in that fund is not used to buy the named assets but to buy (or to swap with) other assets.
Exchange traded note (ETN)	An unsecured debt obligation issued by a bank who promises to pay at a pre-determined date the amount reflecting the value of the underlying asset of index.
Exchange traded products (ETPs)	Reference to ETFs, ETNs and other financial instruments or funds whose shares are sold on exchanges.
Financial counterparties	Financial entities trading in derivatives, including investment firms, banks, providers of investment products (such as commodity index ETFs), pension funds and hedge funds.

Forward (contract)	A contractual agreement, not traded on an exchange, between two parties to buy or to sell a specific quantity of a commodity, or other asset, at a specified future time at a price agreed upon today.
Fundamentals	Information and data on the supply and demand of goods and services in the real economy.
Futures	Standardized contractual agreements to buy or sell a fixed quantity of a particular commodity, a currency, bond or stock at a pre-determined price in the future. The contract can be physically settled (through) delivery of the underlying) or cash settled.
Hedge funds	Specialist investment funds for institutional investors, using speculative strategies and leverage to obtain the highest possible return on their investments in the short term.
(Bona-fide) hedging	Selling or buying commodity derivatives contracts to manage risks of price changes in the commodities directly related of a firm's core business (definition for this study).
High frequency trading (HFT)	A type of extremely fast electronic trading based on algorithms using advanced computer systems, which is characterised by holding positions very briefly (micro-seconds) in order to take advantage of opportunities small price rises and falls.
Intra-day trading	Taking positions several times a day to capitalize on price movement within one trading day and by closing all trades before the end of the trading day.
Insider dealing	Trading on the basis of non-public information (not available to other traders) to make a profit.
'Level 2' decision making (technical regulation)	Decision-making in the EU, after a law has passed, on the (regulatory or implementing) technical standards, EC delegated acts, or guidelines and recommendations issued by the European regulators or supervisory authorities.
Leverage	Leverage is the use of borrowed funds that are (re)invested with the intent to earn a greater rate of return from an investment.
Liquid Market	Any market where buying and selling can be easily conducted with minimal effect on the price or where large number of buyers and sellers are present offering and willing to buy for instance a same commodity.
Liquidity	Liquidity is a complex concept reflecting how easy or difficult it is to buy or sell a particular asset, e.g. the same commodity derivative, without affecting the price significantly.
Long position ('long')	The party holding a contract agreeing to buy the underlying asset, such as a quantity of a commodity, in the future, or to settle in cash.
Margin	Collateral or deposit (of cash or eligible securities) that counterparties who are clearing are required to provide to the CCP or clearing house, and which can change daily according to the risks of default and changing value of the contract being cleared.
Market integrity	Market integrity is the fair and safe operation of markets, without misleading information, manipulated prices or insider trades, so that investors have confidence and are sufficiently protected.
Market maker	A trader/company which ensures liquidity for other market participants by standing ready to buy or sell at publicly quoted bid and offer prices for a same security throughout the trading session.

Multilateral trading facility (MTF)	A trading venue or system operated by investment firms or market operators, which brings together multiple third-party buying and selling interests in financial instruments, including commodity derivatives, in a way that results in a contract.
Netting	Offsetting the value of multiple positions, one against a similar one.
Net position	The difference between 'long' and 'short' market positions held by an individual or a company, after netting.
Non-financial counterparties	Entities holding commodity derivatives contracts, whose main business is producing, storing, trading and processing commodities.
Open interest	The total number of active or outstanding contracts in a futures or options market.
Open position	Holding a derivatives contract that is not yet closed.
Option	A derivative contract offering the buyer the right, but not the obligation, to buy or sell a security or financial asset at an agreed-upon price during a certain period of time or on a specific date.
Organised trading facility (OTF)	A facility or system operated by an investment firm or a market operator that on an organised basis brings together third party buying and selling interests or orders relating to financial instruments, not being a MTF.
Over-the-counter (OTC)	Trading that does not take place on an exchange, other regulated market or trading venue, and can take various forms such as direct bilateral trading.
Position limit	A pre-set limit defining the maximum number, or value, of derivatives contracts a (legal) person, or a class of traders, can hold in one particular underlying security at a particular moment.
Position management	Monitoring the positions held by different entities, including to ensure that position limits are adhered to, and potentially intervening when disorderly trading occurs.
Post-trade transparency	Public trade reporting every time a transaction of a security has been concluded.
Pre-trade transparency	Publication (in real-time) of information about current orders and quotes (i.e. prices and amounts of selling and buying interests) relating to securities' trade.
Price discovery	Mechanism of price formation on a market, based on the activity of buyers and sellers actually agreeing on prices for transactions.
Regulatory arbitrage	Practice whereby firms use loopholes in regulatory systems or differences between different jurisdictions in order to circumvent unfavourable regulation.
Retail investor	A person investing his own money on a non-professional basis.
Securities	All kinds of tradable assets, financial instruments or electronic book entries, negotiable instruments or certificates, which entitle the holder to rights transferred by the issuer or an intermediary, such as shares, derivatives, and bonds.
Securitisation	The process of transforming an illiquid asset, or group of assets e.g. financial contracts, into a (tradable) security through financial engineering.
Settlement	The completion of a transaction, discharging participants' obligations through the transfer of money and/or securities and/or commodities.

Short position	A counterparty holding a derivatives contract agreeing to sell the asset in the future.
Speculator	A trader who does not take a bona fide hedging position in the market with the intention of making profits.
Spot market	A market in which physical commodities are bought and sold for cash and immediate delivery. Also called cash market or physical market.
Spot month	Month in which a commodity derivative contract expires and delivery of a physically settled commodity derivative takes place at the end of the contract, or cash is paid in accordance with the terms of the contract.
Spot price	The marketplace price for the physical commodity, also referred to as cash price.
Systematic internaliser	Investment firm or other financial firm that matches client orders internally, or against their own books on an organised and systematic basis, outside a regulated trading venue.
Swap	A derivative that involves an exchange of payment flows over a specified period for a specified quantity based on a particular reference price. In the US, 'swaps' are all derivatives traded OTC.
Swap execution facility (SEF)	A trading system open to multiple participants through which multiple participants trade swaps.
Tick size	The smallest possible change in price for a financial instrument in a market.
Trade repository	An entity that centrally collects and maintains the records of trading in financial contracts, storing the essential characteristics of those contracts for future reference.
Trading book	All the financial instruments held by a brokerage or a bank with the intention of re-selling them in the short term, to hedge other instruments in the trading book or to make profits.
Trading platform	The software or computer system, frequently offered by brokers, through which trading orders for financial products can be placed.
Trading venue	A regulated venue where securities are exchanged, including exchanges, MTFs and OTFs.
Treasury financing activities	Management of financial flows and financial/bank relationships of a firm, which may include trading in currencies and financial derivatives for financial risk management.
Undertakings for collective investment in transferable securities (UCITS)	A standardised and regulated type of asset pooling, often an investment fund, subject to harmonised EU rules and typically devised for, and marketed to, retail investors.
Underlying	The stock, commodity, futures contract, or index against which a derivatives contract is valued.
Volatility	The rises and falls in value, or the general fluctuation of prices or markets in a period of time, usually expressed as a percentage.
Volume of Trade	The number of contracts traded during a specified period of time.

EXECUTIVE SUMMARY

The reforms of the financial markets following the financial crisis of 2008 resulted for the first time in a common EU regulatory and supervisory framework for **agricultural commodity derivatives**.

The **aim** of this study is, firstly, to assess the current state² of the EU legislative framework regulating agricultural commodity derivatives markets from the perspective of EU farmers and the EU agricultural sector. Special attention is paid to the integrity of the key functions of trading in agricultural commodity derivatives, namely managing the risks of price changes (*'bona fide hedging'*) and indicating agricultural prices (*'price discovery'*). The second aim of this study is to make concrete recommendations based on assessments of the legislative framework in general as well as specificities in the relevant laws.

This study concludes that the perspective of EU farmers and the food chain has not been explicitly taken into consideration in the new legislative framework, even if farmers may in general benefit from it. Since few of the new rules on derivatives protect the specific interests of EU agricultural markets and EU farmers, this study finds many opportunities to further improve the technical standards, rules, regulations and supervision governing European agricultural derivatives traded both on exchanges and over the counter (OTC), as well as the related infrastructure and supervision of the physical agricultural markets.

The **first section** of this study describes how agricultural commodity derivatives markets work and how different traders operate, how the common agricultural policy relates to them, and how they are analysed in the academic literature. The **second section** briefly describes eleven of the most recent EU laws that regulate different aspects of agricultural commodity derivatives and the various participants in these derivatives markets. The EU regulatory framework is then compared with that of the US and India. **Section 3** is the most important section and assesses in detail various aspects of the regulatory framework. It provides concrete recommendations to improve the standards, regulations, supervision as well as the working of agricultural derivatives markets for farmers. **Section 4** highlights the elements that are missing in this regulatory framework for a comprehensive agricultural commodity derivatives policy.

This study starts by describing how the EU common agricultural policy (CAP) is becoming more market-oriented, which in turn is resulting in more volatility in agricultural prices. The latest CAP reform has, however, not included agricultural commodity derivatives as risk management instruments and therefore not built the capacity to do so. In addition, the new financial markets reform did nothing to ensure that **the infrastructure for hedging price risks through derivatives markets** is well-suited to the EU's agricultural spot markets. This is because the EU financial legislation as well as the EU CAP reforms have not taken into consideration those farmers interested in hedging through derivatives. Similarly, little attention has been paid to whether the format of agricultural commodity derivatives contracts fits the needs of agricultural farmers in the EU. This contrasts with the instruments available to US farmers, who use futures and options for bona-fide hedging much more intensively than EU farmers, who tend to be much smaller and rely much more on cooperatives and off-exchange derivatives to manage price risk.

² By 1st of July 2014.

Commodity derivatives markets have changed dramatically since 2000, largely due to the growing participation of new financial parties such as investment banks, hedge funds, pension funds and providers of commodity (index) investment products. The spike in food prices in 2007-2008, and the more general increase in volatility of agricultural commodity derivatives prices since then, have given rise to much political discussion and have spawned a range of academic studies on commodity derivatives markets. Although there still is no clear consensus among academics on the extent to which financial participants affect commodity derivatives markets and spot market price volatility, the EU has decided to adhere to G20 policy orientations to improve the functioning of these markets, and to limit the influence and size of financial participants in commodity trading both on and off exchanges, and to reduce the risks posed by various financial and speculative actors in the commodity derivatives markets. This has resulted in a series of **new EU laws** (see Table 2 of this study), **which this study assesses**. Despite the best of intentions, however, these EU laws will enter into force much later than **the scheduled implementation of the G20 reform agenda and moreover fall short of comprehensively applying some of the principles agreed upon**.

The EU laws aim to protect the integrity, efficiency and transparency of commodity derivatives markets in general. To this end, these laws could significantly reduce: the risks of defaults (through '*clearing*'), the lack of information, the disorderly functioning of commodity derivatives markets, resulting financial instability, the excessive influence of financial participants, market manipulation and conflicts of interest. **The most significant EU instruments** regulating the commodity derivatives markets, including agricultural derivatives trade, are:

- the obligation to **clear** derivatives traded on and off exchange,
- the obligation to **report** all OTC derivatives,
- the obligation to have particular, especially standardised, **OTC derivatives** traded on exchanges or other regulated trading venues ('*trading obligation*'),
- **limits** to the amount of commodity derivatives contracts a participant can hold for non-hedging purposes, through a quantitative threshold ('*position limits*'),
- **risk-mitigating** requirements for trading venues, clearing houses and trade-reporting entities.

In addition, the powers given to the competent authorities to regulate and intervene against **market abuse** aim to protect spot agricultural markets from abusive practices on derivatives market and vice versa. Importantly, to deal with new developments, high frequency trading ('*HFT*') will be restricted to a certain extent, although instruments for close supervision are lacking. Regarding the direct regulation of the different **financial participants** (see Table 1 of this study), most have been subject to stricter risk-mitigation requirements (e.g. banks that trade in agricultural commodity derivatives). Managers of commodity index funds, which have been very active on US commodity derivatives exchanges, have been forbidden in the EU to directly hold any commodity derivatives. In contrast, the EU has introduced for the first time legislation directed at some of the most speculative financial participants in the agricultural commodity derivatives markets — hedge funds — but authorities have little means to intervene in their activities related to agricultural commodity derivatives markets.

The different EU laws contain some **significant loopholes**. For instance, the limits on positions held by financial participants are not imposed on a whole class of speculative traders. Position limits will be imposed on a netted position, which means that (agricultural)

commodity contracts held by a financial participant can be much higher than the position on which his position limits is imposed, while risks from different counterparties (e.g. different clearing houses) might remain. There is little regulation on how trading venues will monitor whether or not positions are for bona fide hedging, with HFT traders likely to evade the rules. Other potential loopholes are the exemptions from the clearing and trading obligation for 'ancillary' activities or intra-group activities. In practice, there is no guarantee that the clearing and trading obligation of OTC commodity derivatives will significantly reduce the less regulated OTC agricultural commodity derivatives traded by financial participants.

It will be some years before reports with aggregate data on (agricultural) commodity trade on EU trading venues become publicly available, in contrast to the US where such reports have been published on a weekly basis already for decades. This study found that there will be a **lack of publicly available information about OTC agricultural derivatives trading**, which are relatively extensively used by EU farmers and other users in food chain. Note that transparency is an important prerequisite for the efficient implementation, supervision and enforcement of the EU legislation. Transparency also provides farmers, public policymakers and scientific researchers with better data. The **lack of real-time and detailed reporting to supervisors** on trading in agricultural commodity derivatives prevents them from intervening swiftly in disorderly functioning markets, such as those caused by HFT trading.

Common EU **supervisory measures and intervention powers** for authorities have been introduced, but they will be implemented mainly at the national level, which has its strengths and weaknesses. In some of the financial laws covered in this study, the degree of coordination among national supervisors as well as supervision at the EU level by ESMA are weak, especially in the EU law on hedge funds (AIFMD). **The cooperation of financial supervisors with national or EU authorities and 'public bodies' from the agricultural sector** in the areas of information sharing and joint supervisory and enforcement activities on agricultural commodity derivatives markets are **not specific enough** or even deficient in some new laws. For example, access to OTC agricultural derivatives trade data by agricultural authorities is not foreseen (EMIR). This study recommends that **agricultural authorities increase their capacity to monitor** agricultural spot and financial markets as well as hedging and speculative trading by agribusinesses in commodity derivatives so as to build up their capacity for supervision jointly with financial supervisors of both physical and financial agricultural markets. Doubts remain as to whether supervisory bodies have the capacity, the expertise, the financial and technological resources, or even the willingness to supervise and enforce the many new rules being introduced. Important arrangements still have to be agreed upon regarding how to deal with providers, operators and traders from third countries. Such agreements have proven to be a politically difficult exercise, despite the fact that commodity derivatives trade has become very much an international business, particularly across the Atlantic.

The EU's framework to regulate and supervise the agricultural commodity derivatives markets has **far from finalised** by 1st of July 2014 (date of this study). How the strengths and weaknesses of many of the EU laws will be amplified or reduced are to be decided upon in the period 2014-2016 (or later). Indeed, **many significant technical standards still need to be set by regulatory bodies** (especially ESMA and the European Commission) regarding definitions, exemptions, operational requirements, agreements between competent authorities in the EU and third countries, and agreements between ESMA and national competent authorities. In order to ensure that the perspective of European farmers is taken into consideration, the European Parliament's Committee on Agriculture and Rural

Development (COMAGRI) should voice its opinions on the technical standards while they are being decided upon. Once developed (draft) technical standards are submitted to the European Parliament (EP) before their adoption, the COMAGRI should find ways to assess how the interests of the agricultural sector and farmers have sufficiently been taken into account. This study also recommends that agricultural EU and national policymakers, COMAGRI, farmers' organisations and agricultural experts make their own assessments of the implementation of the current legislation, and take measures to fill the gaps (e.g. the detailed reporting of agricultural commodity derivatives; defining the list of agricultural derivatives in the EU, the agricultural derivatives contract formats and related delivery points). Once the overall regulatory and supervisory framework is clear, farmers can judge whether or not agricultural commodity derivatives markets are useful price risk management tools adapted to their specific needs, and whether or not they are effective market price benchmarks that are protected against manipulation.

The **final remarks and recommendations (Section 5) highlight in short what is missing for a comprehensive commodity derivative legislation and agricultural price risk mitigation policy.** Different problems of connecting the agricultural spot markets and derivatives markets have to be solved. Financial and commercial market participants sometimes react to changes in commodity prices with risky new strategies that not only affect the commodity derivatives but also other financial or physical markets. Supervisors and regulators should have sufficient capacity and powers to deal with new financial products and trading practices that are risky and destabilising.

Upcoming EU regulatory developments and new negotiations on liberalising trade and investment in financial services should be accompanied by initiatives that prevent them from undermining or contradicting the financial reforms that protect the hedging and price discovery functions of agricultural commodity derivatives markets.

Scope of the study

According to its terms of reference, this study has used a multidisciplinary approach focused on regulatory regimes of agricultural derivatives markets regarding hedging potential and price formation in the context of the ongoing liberalisation of agriculture. The guidance offered to the EP from this study is therefore based on: (1) the policy goals as embraced by the EU laws, (2) what we know from scholarly research about the functioning of agricultural derivatives markets, (3) an appraisal of existing relevant regulation in the field, and (4) an analysis of how well this legislation enables EU farmers to use agricultural derivatives markets for their price risk management and price formation needs.

This study did not look into the particular details and specific regulations (and exemptions) in the described EU laws relating to energy commodity derivatives markets. However, these are of particular importance to farmers because:

- Energy prices, and thus orderly pricing mechanisms, are important for the prices farmers pay for their energy, fertilizer and transport needs (input prices).
- Commodity index funds must be based on mixed commodity indexes in order to be accepted as a reference in EU-regulated commodity investment funds (UCITS IV). If energy prices are volatile or unduly increasing, this influences the composition of the whole index and, in the EU mixed index system, can lead to indirect non-hedging buying of agricultural futures. This can influence the functioning and orderly pricing of agricultural commodity derivatives exchanges.

It was not within this study's terms of reference to assess the potential socio-economic impact, in particular on rural areas, of the use of agricultural commodity derivatives in the context of more intense competition among farmers following the liberalisation of the agricultural market. Questions can be asked about the relationship between the use of these derivatives, the incentive structures they generate for farmers, and other goals of agricultural policy, including environmental sustainability and food security.

1 HOW AGRICULTURAL COMMODITY DERIVATIVES MARKETS AND SPOT MARKETS FUNCTION

KEY FINDINGS

- Commodity derivatives markets are used by farmers to manage the risk of an adverse change in prices (**'hedging'**). They also function as an important instrument for price indication (**'price discovery'**).
- The increased use of commodity futures by **financial parties** and the growth of off-exchange agricultural derivatives over the last ten years have dramatically altered both speculative and hedging transactions in the agricultural derivatives market. The financial parties represent a range of actors with different behaviour patterns and profit-making strategies.
- Large **differences** exist between the EU and the US. US farmers use futures and options markets much more intensively than EU farmers, who tend to be much smaller and rely much more on cooperatives and off-exchange derivatives to manage price risk.
- A survey of the existing peer-reviewed literature reveals **three different views** on the **functioning and impact of commodity derivatives markets**. The first view holds that developments in futures markets have no impact on spot prices and their volatility. According to the second view, developments in futures markets do affect spot prices, but these effects are short-lived. And the third view argues that developments in futures markets and distortions caused by financial players directly affect the volatility and levels of spot prices.

1.1 Introduction

Commodity derivatives markets are unique mechanisms. Unlike securities markets, which provide a forum for raising capital, commodity derivatives markets provide instruments for transferring the risk of price changes of an underlying commodity (this is referred to as hedging). This allows farmers to 'lock in' a harvest price. In addition, the buying and selling on exchanges of derivatives contracts — namely futures and options — help to determine the spot prices of commodities and therefore perform the valuable function of price discovery.

Over the last ten years, there has been a drastic increase in speculative flows in agricultural derivatives markets. This increase in speculation can be attributed to a number of factors: the growth in the US of off-exchange agricultural derivatives (also known as over-the-counter or OTC derivatives), the accelerating trend towards financialisation of commodity futures trading (i.e. the increasing dominance of financial participants with no motives related to producing, trading or selling physical agricultural commodities), the incorporation of futures in commodity investment products (**'securitisation'**), the increasing presence of commodity hedge funds, and the entry of banks into the commodity space. These developments have compounded the difficulty of creating a comprehensive and consistent regulatory framework that preserves the primary functions of price discovery and risk

transfer for those for whom the exchanges were originally intended, i.e., those involved in the production, storage, distribution, and processing of basic agricultural goods.

1.2 Market-oriented CAP reform and producers' risk management tools

Under the former Common Agricultural Policy (**CAP**), agricultural prices were set by the EU, which required excess production to be bought up and stored. This system of intervention worked as follows: EU farmers would sell their products at harvest time to local cooperatives or producer organisations (POs) that were approved by EU intervention agencies to tender their stocks to be bought up.³ As the CAP policy was gradually liberalised over the years, the cooperative/PO became the likely agent for its continued role as crop collector and risk aggregator due to the relatively small size of EU farms (about one-tenth that of the average US farm), their limited on-farm storage (Mathie, 2010), and over a century of legal certainty (France). The cooperative/PO thus became responsible for storage and inputs and also arranged sales outlets for farmers. The most recent CAP reform Regulation issued in December 2013 reaffirms its commitment to Member State support for producer organisations.⁴

However, the CAP has been progressively moving towards greater market orientation. This market orientation was strengthened in the latest CAP reform that formally started with the European Commission's Communication on Common Agricultural Policy (CAP) towards 2020, issued in November 2010.⁵ In the Communication's section 6.1. on market measures, the European Commission (EC) listed the well-functioning transmission of market signals as one of the key issues to be pursued and made a reference to the 'functioning of the **agricultural commodity derivatives markets**'. Note that especially agricultural futures and options exchanges are important **agricultural commodity derivatives markets** that signal prices to the agricultural markets and are functioning well when they reflect the reality of agricultural production, demand and supply, and international trade.

The ongoing liberalisation and market orientation of EU agricultural markets have been expected to lead to fluctuations in agricultural prices. The EC Communication's Section 4 identified 'rising price volatility' as one of the challenges that the CAP reform had to meet. Also at the international level, such as the G20, increased food price volatility was considered a problem that had to be confronted.⁶ In July 2010, the EP's Resolution on the future of Common Agricultural Policy after 2013⁷ had already identified 'increasing market price volatility' as a challenge and called for 'instruments designed to help reduce volatility and provide stable conditions for agricultural business and planning', including innovative economic and financial tools such as 'futures markets...as a way of dealing with extreme market or climate conditions' without disturbing any private schemes that are being developed (Paragraph 80). Futures markets are indeed also tools for the management of the risk of agricultural price volatility, as is explained below in Section 1.3. of this study.

³ Commission Regulation (EU) No 1272/2009 of 11 December 2009 laying down common detailed rules for the implementation of Council Regulation (EC) No 1234/2007 as regards buying-in and selling of agricultural products under public intervention, Title 1, Chapter 1, Article 1.

⁴ Regulation (EU) No 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) of 17 December 2013, Art. 27.

⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future, COM(2010) 672 final, 18 November 2010.

⁶ For more information, see Section 3.1.1. of this study.

⁷ European Parliament resolution of 8 July 2010 on the future of the Common Agricultural Policy after 2013, (2009/2236(INI)), 8 July 2010.

Following the CAP legislative package presented by the European Commission in October 2011⁸, the reformed CAP 2014-2020 included a risk management toolkit as one of the EU's priorities for rural development, namely promoting **risk management** in agriculture (the second pillar of the CAP, financed by the European Agricultural Fund for Rural Development (EAFRD)). However, no specific measures related to agricultural derivatives markets can be found in the CAP 2014-2020 reform proposals. In order to deal more effectively with farmers' income uncertainties and market volatility, risk management is dealt with by providing financial contributions for (a) insurance against economic losses to farmers caused by adverse climatic events and animal or plant diseases, for instance; (b) mutual funds that pay financial compensation for economic losses; and (c) an income stabilisation tool that supports mutual funds and compensates farmers in case of serious income losses.⁹

In practice, since CAP reforms have continuously liberalised agricultural markets over the years and increasingly exposed the entire agricultural supply chain to price volatility, the cooperatives and producer organisations had to adapt to a new situation. In **Western Europe**, where price risk management tends to be integrated with the cooperative/PO system, cooperatives have consolidated across regions, with several becoming transnational. They have also integrated their upstream and downstream operations through subsidiarisation (Filippi, 2012). Different types of profit-sharing arrangements are available, reflecting the cooperative structure of marketing.¹⁰ There is a lack of statistics, however, on how many producers or cooperatives/POs use these contracts. These structural changes reflect adaptations to a more volatile price environment following the 'decoupling' of price supports from specific commodities, while being shaped by historical, cultural and legal precedents. There are also spot contracts ('forwards') in the EU that include fixed-price contracts, average-price contracts and 'basis' contracts.

In **Eastern Europe**, a lingering distrust of collectivism has meant that very few cooperatives exist. Market fragmentation, asymmetrical pricing between producers and buyers and a lack of institutional support tend to impede producer price realisation (Garcia Azcarate, 2014). Producers' grain tends to be sold at harvest, often at distressed prices, meaning that in many regions of Eastern Europe, farmers lack pricing power and are isolated from marketing channels that aid in the transmission of price along the supply chain. Thus, price risk management in the EU varies considerably among states and across regions, with the differences most pronounced between Western and Eastern Europe.

In addition to the adaptations mentioned above, Western European cooperatives and producer organisations have increasingly sought price risk management for their farmer members via over-the-counter (OTC) instruments that guarantee a particular price for their products in the future. These OTC agricultural commodity derivatives (referred to as swaps¹¹ in the US) are contracts negotiated between large grain firms, brokers or banks — called swap dealers — and cooperatives/POs. Swap dealers may or may not themselves hedge the risks in their OTC contracts via equivalent futures in the exchange-traded markets. Grain firms that offer pure financial OTC risk management tools to farmers may in turn buy the underlying physical goods. OTC derivatives tend to be opaque, and as long as they remain unregulated (see EU reforms in the next chapters), the quantity of contracts being concluded and their riskiness are unknown. Also unknown is whether farmers — as

⁸ For the different parts of the legislative package, see: http://ec.europa.eu/agriculture/cap-post-2013/legal-proposals/index_en.htm.

⁹ OJ L 347, 20.12.2013, p. 517-519: Regulation (EU) No 1305/2013, Art. 36-40.

¹⁰ For a list of spot market contracts available within the marketing chain, see: Habert, 2011: 32-35.

members of cooperatives — are fully advised on the details of these contracts, including price formulae and fee structures.

Although agricultural regulations in the EU and the US continue to be harmonised in an ongoing process due to pressures from negotiations and agreements made within the World Trade Organisation, the goal of increasing farmers' reliance on price risk management may not be suitable to the EU marketing system, which is quite distinct from the US. Indeed, in contrast to the EU, US farms are large with unequalled levels of on-farm storage (over 300 million metric tonnes in total according to USDA estimates). They therefore tend to make decisions on risk management or crop sales autonomously, having had many decades of experience using agricultural exchanges. The new US Farm Bill will reinforce risk management tools in order to deal more effectively with income uncertainties and market volatility.

In this context of increasing market reliance, agricultural price volatility and competition with US farmers who use derivatives as risk instruments, increasing transparency and well-functioning agricultural commodity derivatives markets in the EU can complement CAP reforms. At the EU level, the power to initiate regulations on derivatives markets in general, including those pertaining to agriculture, lies with the Commissioner for Internal Market and Services. From 2010 to 2014, this Commissioner was Michel Barnier. He initiated a range of financial sector reforms that have been coined the *Barnier Package*. The proposed reforms enabled the EU to deliver on its G20 commitments on reforming derivatives/swap markets, as will be explained in full in Section 3 of this study. In Section 2, the EU's financial reforms relating to agricultural derivatives markets are explained in detail.

Following the reform of the derivatives markets, the issue has turned to which risk management mechanisms would form part of the CAP model as from 2017 (under a possible Mid-Term Review) or 2020 (after the end of the current Multiannual Financial Framework 2014/2020). In addition, broader reforms in agricultural policies at the local (national/European) and international/multilateral levels (WTO, G20) are to mitigate the effects of commodity price volatility on farmers and consumers (see Section 4).

1.2.1 Price risk management through futures markets: key elements

Price risk management tools derive prices from the prices discovered by the derivatives traded on exchanges, as is the case with other advanced agricultural marketing systems. Among the derivatives traded on agricultural exchanges, 'futures' are the most important for the hedging and price discovery functions of commodity exchanges. In the EU, only a small percentage of farmers use futures to manage risk.¹²

Agricultural futures operate on the **principle of convergence**. Convergence is the process by which futures prices converge to the spot prices of the underlying good at the location where the underlying commodities are delivered, as designated in the futures contract's terms. Convergence works as a result of arbitrage, i.e. through traders buying and selling in different markets to profit from differences between futures and spot prices, during the contract expiration period. In countries with well-functioning futures markets, farm-gate prices are well correlated to futures. The difference between the farm-gate price and the futures price is known as the basis (or base). The details of the derivative contract —

¹¹ There are many varieties of swap contracts. The CFTC defines a swap as any bilateral contract that is not an exchange-traded contract or a spot-market contract.

¹² Estimates vary between 3% and 10%.

including the size of the contract, quality specifications, load-out terms and delivery points — largely determine how relevant price discovery through exchanges is for the various actors along the supply chain.

Transparency on prices is a primary determinant of price transmission and important for the convergence between futures and spot markets to work. **EU** spot prices are, to varying degrees, opaque, except in France, where the acceptance of milling wheat and maize futures as regional benchmarks has increased the transparency of spot and futures prices. At the farm level, price transparency is reportedly medium to poor for farmers among the various EU farming regions (Valluis, 2014a). There are several internet sites, however, that post futures price quotations as well as terminal spot grain prices delivered to the ports of La Pallice, Rouen or Port la Nouvelle in France.¹³ Lack of 'streaming' farm-gate prices — i.e., data transmitted in real time over the internet — is probably attributable to the cooperative/PO structure which integrates farmers' marketing and revenue distribution systems.

The EU situation differs markedly from that of the **US**, where transparency along the entire supply chain has a long history. The US Department of Agriculture (USDA) and farm advisory services collect daily prices from hundreds of locations in all farming regions and make them available on the internet (previously radio). They keep farmers aware of important export information or policy developments. They also report prices when they diverge from previous basis levels. US farmers keep records of basis levels going back many years to help them with the timing of their sales. Although only about a third of US farmers use futures, they are extremely cognizant of futures prices. They also carefully record historical basis levels in different seasons and rely on their convergence-to-cash principle. The availability of multiple prices as well as farmers' access to delivery points greatly help farmers in achieving higher crop prices (Berg, 2008), especially since US farmers can access several competing bids on the websites of farm advisory services simply by submitting a postal code.

Where markets and prices are opaque and fragmented, such as in Ukraine which is similar to eastern EU member states, and in China and India — the 1st and 2nd largest wheat producers — small farmers are captive to several intermediary mark-ups along the supply chain and remain bound to a persistently low level of income.¹⁴

Another key element of the design of futures contracts are the **delivery points**, i.e., the location from which the commodity will be delivered once the physically settled futures contract expires. The **distance** between the delivery point and the place of production of the commodity will affect the price due to the costs of transporting the product to the delivery point. Globally, futures delivery systems vary widely, which can greatly affect their utility for producers. For example, the white and yellow maize contracts on the Johannesburg Stock Exchange allow for delivery across a broad production area, which includes 200 silos registered with the exchange. These contracts are used widely by South African producers for locking in prices in advance of harvest (Gravelet-Blondin, 2014) or alternatively as a marketing outlet for their grain. When the Maize Board was abolished in 1997, producers accustomed to delivering production to their local silo successfully lobbied to have the futures contracts include a broad geographical delivery area to accommodate producers' risk management as well as their logistical needs. By contrast, the London cocoa contract¹⁵ features delivery points in store silos at various northern European ports such as

¹³ See: www.agritel.fr; www.terre-net.fr.

¹⁴ Renaissance Capital Agriculture, *Economics of grain export trading*, 12 May 2008.

¹⁵ Cocoa and sugar futures contracts are listed on NYSE Euronext.

Hamburg or Rotterdam. While this contract is useful for multinational cocoa processors, its utility for cocoa producers in Western Africa is questionable.

In the **EU**, the NYSE Euronext contract specifies a public silo in Rouen (Fr) as a delivery point for milling wheat which, although simple to understand, may add to farmers' basis risk if they are located far from this point. Unlike South Africa, where deliveries across the country are announced publicly and are available for bidding, the Rouen delivery point tends to give an advantage to export operations. Moreover, having just one delivery point means that information on futures prices are not disseminated down to farmers. For this reason, the exchange has added Dunkerque (Northern France) as an additional delivery point effective September 2015.¹⁶ As for the NYSE Euronext maize contract, the futures contract's function is undermined by its restriction to delivery at Atlantic ports, which is inconvenient for distant parts of the supply chain, particularly in Eastern European countries. Hungary¹⁷ is landlocked and gets discounted prices accordingly (Habert, 2011), although it has tried to develop derivatives markets since it produces twice as much as its landlocked neighbour, Czechoslovakia. Prices tend to be higher when countries have coastal access, such as Bulgaria and Romania which have access to the Black Sea export market. In other words, geography matters greatly with regard to price realisation. Overall, trade sources estimate that producer price realisation by EU farmers might be around 75-80% of the futures price due to transport costs and intermediary margins (Valluis, 2014b).

In the **US**, there is also an array of farm advisory groups to help producers map out the various sales strategies and pricing options available to them. Since exchange-traded options were introduced in the 1980s, farmers have grown increasingly sophisticated in the use of options as derivatives instruments in addition to futures trading. Because option buyers pay only an upfront premium for the right to establish a futures position, they are not subject to collateral, or '*margin calls*' as are the grantors (sellers) of these options rights. In 1993, the USDA launched an options pilot programme (OPP) that gave farmers the funds to buy 'put options' in lieu of deficiency payments. Although the OPP was not renewed in the succeeding farm bill, options' trading has since soared and farmers are reportedly making great use of them by entering the futures markets directly or having them embedded into spot contracts, such as minimum price contracts (MPCs).

The US *Commodity Futures Trading Commission (CFTC)* provides a **weekly overview** of the trading activities of different players on the commodity exchanges. Prior to 2000, apart from the operations of a few commodity hedge funds, trade in agricultural derivatives was conducted between '*commercial hedgers*' — entities such as large multinational grain firms, regional warehouses and a small percentage of producers — and a community of local speculators. Since the turn of the century, however, the derivatives trading landscape has clearly become more complex, transforming itself into an international electronic arena encompassing many actors (see below).

In sum, the challenge for policymakers trying to encourage price risk management among EU agricultural producers through futures markets will be to take into account the current realities of market structure shaped by the institutional, cultural and legal evolution of European agricultural markets while developing the means for bringing transparency to multiple layers of market activities and pricing.

¹⁶ NYSE Liffe, Milling wheat futures and options contracts – listing of new delivery months, 8 July 2013, <https://derivatives.euronext.com/sites/derivatives.euronext.com/files/mo2013-12.pdf> (viewed 2 July 2014).

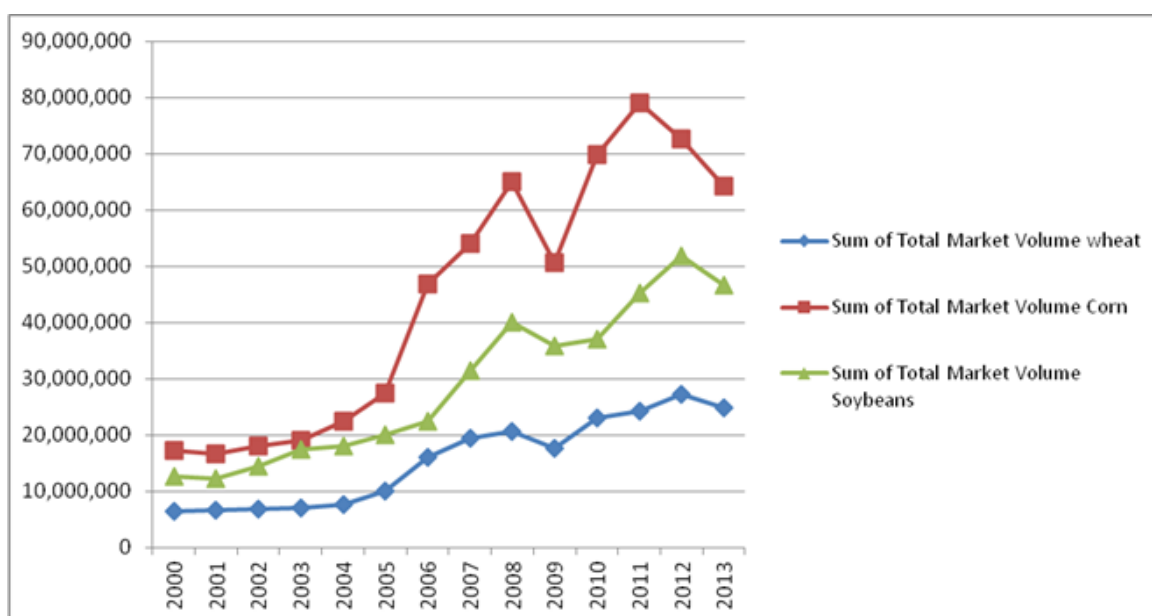
¹⁷ The use of the exchange of Hungary is very limited.

1.3 Current landscape of agricultural derivatives markets

There are approximately twenty major commodity derivatives exchanges around the world on which various agricultural derivatives are traded. The main EU exchanges are in Paris (milling wheat, corn, barley, rapeseed, skimmed milk) and London (feed wheat, sugar, coffee, cocoa), belonging respectively to **Euronext** and **ICE**. The major exchanges are in the US, which belong to the Chicago Mercantile Exchange (**CME**).

By any standard, the **growth in derivatives markets has been spectacular**. Trading volumes in agricultural futures contracts at the CME more than quadrupled over the last 10 years.

Figure 1: Trading volumes in agricultural futures contracts at the CME (2000-2013)



source: CME - number of contracts traded

This growth can be largely attributed to the US trend towards deregulation throughout the 2000s, the liberalisation of global markets, and advancements in technology, including electronic trading and increasingly sophisticated proprietary algorithmic trading systems. These factors have transformed commodity derivatives markets from fairly insular centres where risk was transferred from commercial hedgers to a small community of local speculators into financial supermarkets that attract portfolio managers, index-tracking funds, pension funds, proprietary trading desks of banks and multi-billion-dollar hedge funds.

When the food crisis hit in 2007 and commodity futures prices and volumes soared, derivatives markets came into sharp focus especially among global regulators.

In 2007/2008 and again in 2010, soaring US wheat futures prices diverged significantly from spot market prices.¹⁸ Contending that futures had become too volatile and

¹⁸ For description of this issue, see: United States Senate, Permanent Subcommittee on Investigations (USS/PSI), *Excessive Speculation in the Wheat Market*, Washington, D.C., 24 June 2009, p.11.

disassociated from the real market, some banks refused to lend to US farmers who had to pay high levels of collateral (*'margin calls'*) on their wheat futures due to the risks of volatile prices. Consequently, many farmers had to buy back their hedges, i.e. their *'short'* derivatives contracts, at enormous losses.

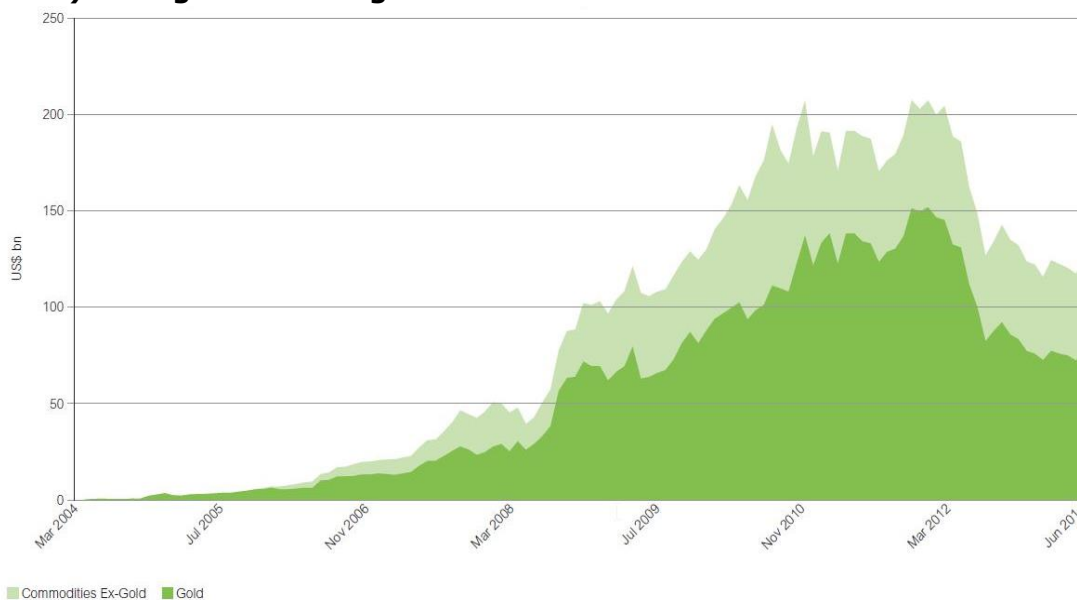
In Europe, where agricultural commodity futures trading was relatively new and no regulatory framework or purposeful supervision of commodity derivatives markets existed, the crisis in soaring food prices made it painfully clear that more transparency and supervision were needed for these markets.

1.3.1 Securities and managed funds active agricultural derivatives markets

The mid-2000s saw the growing trend toward the securitisation of futures instruments in commodity investment products. One such product is the *'commodity index fund'* as offered in the US, which buys and sells commodity futures in order to replicate the performance of a commodity price index. *Standard and Poor's Goldman Sachs Commodity Index (S&P GSCI)*, which tracks the prices of 24 commodity futures contracts (called a *'basket'*) of which 14.4 per cent are agricultural (Vander Stichele and Van Tilburg, 2011: 18), is one of the most well-known commodity indices.

Other types of commodity investment funds are *commodity index 'exchange-traded funds' (ETFs)*, whose return is based on indices and whose shares are sold to investors. *'Exchange-traded notes' (ETNs)* are unsecured debt obligations sold on exchanges. ETFs and ETNs are categorised as exchange traded products (**ETPs**).

Figure 2: Evolution of global commodity ETP assets under management (2004 - 2014): non-gold ETPs vs gold ETPs



Source: ETF, Global Commodity ETP Quarterly – Trends in the global commodity exchange traded products markets, July 2014, p. 5: figures up to 30 June 2014.

In the US, there are several ETFs and ETNs based purely on agricultural commodity futures, of which the *PowerShares DB Agricultural Fund* (listed by Deutsche Bank on the US exchange NYSE Arca) is the largest (total net assets of \$1,406,572,583 as of 30 June 2014

2014).¹⁹ An ETF fund manager in the US may purchase the futures of the (agricultural) commodities in the index, and roll these positions forward prior to contract maturity. In the EU, commodity index ETFs are '*synthetic*', as they are not allowed to invest directly in (agricultural) commodity derivatives nor track an index with a single commodity (see section 2.2.7: UCITS IV law). US and EU fund managers may seek a swap with a bank to perform the management function or to ensure a return that equals the index.

Following ten years of growth, a drop in commodity prices caused the level of investment in commodity index funds and exchange-traded funds to decline from a peak of \$460 billion in notional value in April 2011²⁰ to \$299 billion in as of January 2014²¹, slightly increasing by end of May 2014 to \$311.4 billion notional value²².

'Hedge funds' — called '*alternative investment funds*' in EU legislation and categorised as '*managed money*' by the CFTC in the US, including Commodity Trading Advisors (CTAs) and Commodity Pool Operators — solicit investors funds and trade aggressively on the futures markets, in both the US and the EU. Hedge fund activities in the US are monitored exclusively by the CFTC. In the EU, it is only since July 2011 that hedge funds have begun to be regulated and monitored (see section 2.2.5). The lack of EU regulation and supervision became evident in July 2010 when a single commodity hedge fund was able to '*corner*' the NYSE Euronext cocoa market, causing prices to spike higher and then collapse following the July contract expiration (Berg, 2013: 66-68).

Some hedge funds often employ totally automated systems using algorithms and may engage in '*high-frequency trading*' (**HFT**), which has come under scrutiny for its possible price-destabilising effects²³ and manipulation. Similar to index funds and exchange-traded funds, the hedge fund sector generated losses since 2012 according to industry analysts. From 2013 onwards, the managed (or hedge) fund industry has come under CFTC scrutiny for its opaque fee structure which allegedly consumes up to 89% of profits generated (Evans, 2013). Pure agricultural hedge fund statistics are difficult to come by because exchanges do not report them separately and because the majority of funds are multi-sector (Vander Stichele, 2012), combining several agricultural products, energy commodities and metals as underlying values. Moreover, in the EU, public reporting by hedge funds is minimal. CFTC figures reported by AMIS give some guidance (see Figure 3).

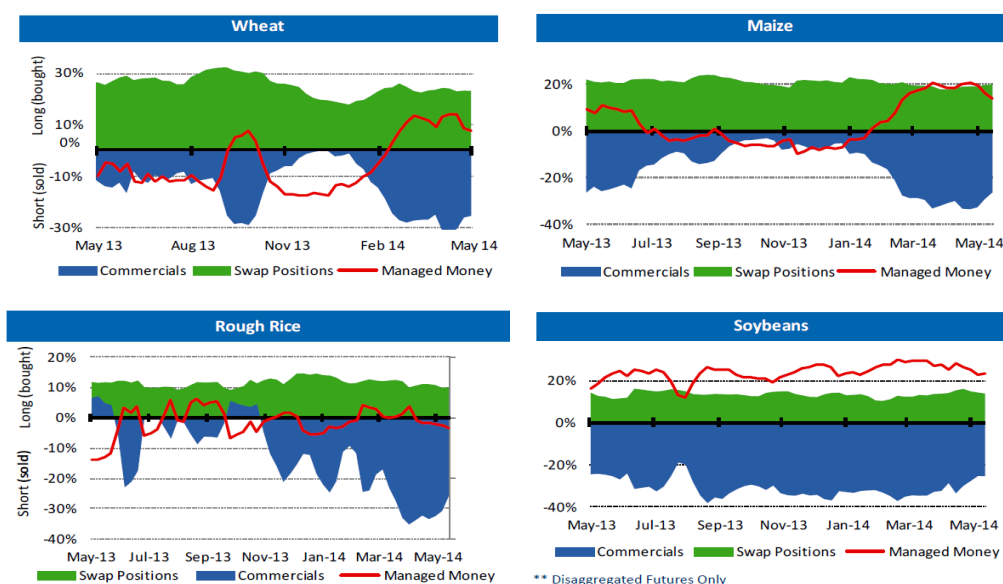
¹⁹ Updated information about the PowerShares DB Agricultural Fund can be found on: www.dbxus.com/products/commodities/agriculture/agriculture-etfs/powershares-db-agriculture-fund (viewed 2 July 2014).

²⁰ CFTC, Index Investment Data, <http://www.cftc.gov/ucm/groups/public/@marketreports/documents/file/indexinvestment0411.pdf> (viewed 21 April 2014): equals \$255.8 billion net 'long' notional value.

²¹ CFTC, Index Investment Data, <http://www.cftc.gov/ucm/groups/public/@marketreports/documents/file/indexinvestment0114.pdf> (viewed 21 April 2014): equals \$176.6 billion net 'long' notional value.

²² CFTC, Index Investment Data, <http://www.cftc.gov/ucm/groups/public/@marketreports/documents/file/indexinvestment0514.pdf> (viewed 1 July 2014): equals \$182.2 billion net 'long' notional value.

²³ Office of Financial Research, *Annual Report 2013*, U.S. Department of the Treasury, p. 28-30, http://www.treasury.gov/initiatives/ofr/about/Documents/OFR_AnnualReport2013_FINAL_12-17-2013_Accessible.pdf (viewed 8 February 2014).

Figure 3: CFTC Commitment of Traders (May 2013-May 2014) Major Categories Net Length as % of Open Interest**

Source: AMIS, Market Monitor, No. 19 – June 2014, http://www.amis-outlook.org/fileadmin/user_upload/amis/docs/Market_monitor/AMIS_Market_Monitor_current.pdf
 ** Disaggregated Futures Only

1.3.2 Over-the-counter (OTC) derivatives

Transactions in OTC commodity derivatives have also grown over the last 10 years. An OTC derivative is a bi-lateral financial transaction normally involving an exchange of payment flows between two counterparties for a particular quantity during a particular timeframe with reference to a specific price. OTC derivatives can be options, swaps, and other derivatives, called in general 'swaps' in the US. The agricultural OTC swaps market in the US is small.²⁴ In the EU, however, OTC transactions appear to be a growing class of risk management tools offered by major grain firms and brokerage houses to agricultural cooperatives. Volumes and pricing structures are opaque and will remain so until the EU requires trade repositories to publish their OTC trades (no definite starting date by mid-March 2014; see also Section 3.2.1.).

1.3.3 Bank participation in futures markets

Banks — both US and foreign — have traded heavily in US futures markets having various roles:

- Large investment banks may be directly involved by operating a proprietary derivatives trading desk or hedging their swaps provisions.
- Banks (along with broker dealers) provide OTC swaps to agricultural commercial players.
- Banks can operate large brokerages for futures.
- Banks are the primary issuers of exchange traded commodity products (ETPs) for which they earn a management fee.

²⁴ In 2014, the CFTC lists do not report on (outstanding notional amounts of) agricultural swaps, <http://www.cftc.gov/MarketReports/SwapsReports/L2CommGrossExp> (viewed 2 July 2014).

The CFTC publishes a weekly report showing the positions held by both US and non-US banks in the most heavily traded contracts.²⁵ Weekly reporting will also be done in the EU. In the US, bank holding companies have been allowed to own commodities market infrastructure such as warehouses, while some banks such as Goldman Sachs (who owns agricultural trading house J. Aron) have been exempt from restrictions on owning non-financial businesses such as commodities trading houses. The Fed is to re-examine its ruling on this matter. In 2014, top banks trading in commodity derivatives are to a certain extent retreating from the derivatives' and physical commodity business, due to lower profitability and tighter regulation.²⁶

1.3.4. Overview of actors in agricultural commodity derivatives markets

The various participants in the agricultural derivatives markets, with their different strategies and motives, can be summarised as follows:

- **Commercial entities ('commercials')**: Include participants along the supply line such as farmers and other producers, merchants, silo operators, wheat millers and other processors, users and exporters. 'Commercials' use derivatives to manage price risks. These traders benefit from sufficient liquid futures markets that result in reasonable costs of hedging and smooth convergence of futures prices into spot prices as contracts approach their expiration date. Commercial traders on futures markets benefit from (low cost and accessible) storability of commodities. Large commercials may also speculate on these markets because of their superior information, or anticipatory financial needs, which they may refer to as 'treasury financing.'
- **Banks**: Especially investment banks and large banks trading derivatives are involved in different ways, including to provide OTC swaps to agricultural commercial actors and speculators, to operate brokerages for futures, proprietary trading in commodity derivatives e.g. to hedge their commodity swaps, , or issuing exchange traded commodity (index) products for which they earn a management fee.
- For these participants, commodity futures markets are interesting when prices are volatile and trading volumes are high. These participants are particularly active when there is an increasing difference in the demand for and supply of futures by commercial and other traders. Banks may also own and operate, mostly non-agricultural, commodity trade houses and infrastructure, which might result in blurring hedging and speculative trading.
- **Hedge funds**: In the US referred to as managed money, including Commodity Trading Advisors and Commodity Pool Operators. They solicit investor funds and pursue a variety of trading strategies, *inter alia* fundamental approaches, technical modelling, algorithmic programming, and high frequency trading. They trade based on financial profit strategies, and only based on agricultural market fundamentals. Hedge funds may also borrow money. Hedge funds traditionally impose large fees. These traders tend to benefit from, and contribute to, highly volatile markets.
- **Providers of commodity index products and commodity (index) exchange traded products (ETPs)**: include banks, limited liability investment corporations securities brokers, or other investment firms. They offer products such as commodity index funds, commodity (index) exchange traded funds (ETFs) with their

²⁵ <http://www.cftc.gov/MarketReports/BankParticipationReports/index.htm>.

²⁶ Arnold, M. and Schäffer, D., *Barclays to pull out of commodity trading*, Financial Times, 21 April 2014.

shares sold to retail investors, or exchange trade notes (ETNs –unsecured debt obligations). Fund managers of a commodity index fund track the returns on the commodity futures specified in the index, often a mixture of agricultural and non-agricultural commodities. The EU managers may not directly purchase the futures of the commodities in the index. US and EU fund managers may seek a swap (OTC derivative). The issuers receive commissions and lucrative fees from the sales of these products. Buyers of these products are individuals, businesses and professional investors, including pension funds, who seek a low-cost means of diversification of their investment strategies. Therefore, these commodity products are attractive when having a low correlation with, or making higher profits than, prices of financial assets (stocks, bonds). However, the funds' trading practices might increase the correlation as they trade based on financial incentives rather than based on 'fundamentals'.

- **Pension funds and other institutional investors:** Some pension funds enter futures orders directly into the exchanges to avoid the fees associated with ETPs when investing in commodities as portfolio diversification strategy. These funds more commonly track in commodity futures indices or invest passively, i.e. rolling-over 'long' futures contracts and not acting according to price developments.
- **Broker-dealers, brokers, dealers:** Are persons, companies and sometimes divisions of banks or other organisations that act as intermediaries for clients' buying and selling orders and trade on behalf their clients (brokering) and/or engage in trading for their own account (dealing).
- **OTC commodity derivatives traders (EU), swaps dealers (US), and swap execution facilities (SEFs, US):** OTC traders and swap dealers are usually banks or brokerage firms that provide and trade a bilateral swap contract not traded on a commodity exchange. Swaps dealers offer swaps to make profits by embedding fees within the OTC product and relying on careful management of price risks. Regulated platforms for swap trading (US). These traders and trading platforms benefit from a large trading volume and low price elasticity.
- **Agricultural commodity trading venues:** The exchanges are publicly traded corporations, i.e. their shares are listed on stock exchanges, and are important actors. Exchanges such as CME and NYSE Euronext rely primarily on high volumes for maximizing revenue and therefore market their products aggressively to all potential participants.
- **Clearing houses and central counter parties (CCPs):** Provide settlement risk mitigating and management services related to OTC and on-venue trading operations.

1.4 Overview of the existing literature

There is, by now, an extensive literature on the functioning of commodities markets. Very little of this newly released scientific work, however, has made its way into peer-reviewed journals. Moreover, there is little consensus regarding the causes of price changes on commodity markets. The result is easily perceived as a grab bag of partial results from specialised studies aimed at testing highly contextual hypotheses.

This section will sketch a road map by which this growing literature can be read, to try to tie together the pieces of the puzzle in order to determine any commonalities.

1.4.1 A framework

Before discussing the literature, it is useful to briefly sketch the framework that (often implicitly) governs where studies can be placed in that literature. First, there is a literature that focuses on **price development in the spot market**. Key elements in this literature involve developments in 'fundamentals', i.e. demand and supply, often related to 'shocks' related to, for instance, droughts. Second, there is a literature that has focused on the **commodity futures market**. Since this is the market where most changes have taken place in the last decade, most of this literature focuses on these changes, investigating the relation between the microstructure of the commodity futures market and increased volatility. Third, there is a literature that looks at the **connections between spot and futures markets**, both in a physical sense (i.e., through inventories) and from an arbitrage point of view (i.e., exploiting price differences).

1.4.2 Limitations in the literature

There are a number of limitations to the available studies. First, most studies have focused on futures markets, for which there is an abundance of available data on prices from US exchanges. **Spot markets have received less attention**, however, as data availability is a serious problem. Second, most of the literature has **focused on the US**. Again, data availability seems to be an important driver for this choice, as is the fact that index investors are predominantly active on futures exchanges in the US. Third, a large part of the recent and peer-reviewed literature focuses on so-called hard commodities such as crude oil and metals, and **not on soft and/or agricultural commodities**. Oil (followed by metals) has by far the largest volume of trade and also occupies the largest share of commodity futures indices. Although most of the peer-reviewed studies focus on non-agricultural markets in the US, their findings are relevant for this study, which discusses the functioning and regulation of EU agricultural derivatives markets, as many of the mechanisms researched are to a large extent similar for commodity markets in both the US and EU.

1.4.3 Limitations in this overview

Given the rapid growth in the number of studies, rather than pretend to give a comprehensive overview of the papers on this topic, this section will try to give a comprehensive overview of the areas covered by this research. The focus will be limited to a number of recent, key papers — mostly published in top peer-reviewed journals — in order to avoid cherry picking and instead rely on the academic peer review process to select the relevant literature. In addition, by focusing on recent research, this overview includes especially those papers that have considered the so-called '*financialisation*' of commodity futures markets: the **influx of new types of financial parties** (see Table 1) that have changed the microstructure of these markets.

That is not to say that there are not much more papers that can be looked at. Recently, a number of literature reviews have appeared, all with a different mix of papers included and also with widely varying conclusions. Whereas some overview papers appear to conclude that speculation on futures market has no impact on prices (e.g. Shutes & Meijerink, 2012; Meijerink et al., 2011), other overview papers have reached conclusions that futures speculation does have a negative impact on prices (e.g. SOMO, 2012; for an overview of papers, see Henn, 2013 and Arezki et al., 2014).

Important in light of this study is also Project ULYSSES, aimed at 'Understanding and coping with food markets volatility towards more Stable World and EU food Systems'.²⁷ Part

²⁷ For more information, see: <http://www.fp7-ulysses.eu/index.html>.

of the European Union's Framework Programme 7, the project provides a broad overview of studies on the volatility of agricultural commodity markets. Part of Project ULYSSES is a recent overview study by Brümmer et al. (2013) who concludes that spill overs from input markets and fossil fuel markets increase the price volatility of agricultural commodities. Establishing the causal effect of futures speculation, however, is much more difficult as a result of measurement issues and the lack of exogenous shocks that facilitate the identification of causal effects. Nonetheless, some general trends can be detected in these papers as well as in the individual, key studies that are discussed below. In the conclusion to this section, these trends are distilled into three distinct views and explained in terms of how they relate to the selection of data and methodologies in empirical studies.

1.4.4 Commodity spot markets

The smallest part of the literature is devoted to commodity **spot markets**. The most important question here concerns the extent to which shifts in demand and/or supply can explain changes in the price of commodities earned by producers/sellers of these commodities. After all, if price changes reflect structural changes in market conditions, there is less reason to suspect that financial market developments affect prices.

Convincing evidence in this respect is brought forward by Hamilton (2009), who investigates the cause of the oil shock that sent oil prices upwards in 2007 and 2008. Similar evidence, however, does not exist for all markets. In a related paper, Gutierrez (2012) explores the existence of speculative bubbles in agricultural commodity markets. He finds evidence for bubbles in wheat, corn, rough rice and (to some extent) soybeans, without being able, however, to fully explain why these bubbles exist.

1.4.5 Commodity futures markets

Research on commodity futures markets is much more extensive. Interestingly, few if any studies explicitly analyse the effect on the market outcomes of the enormous increase in the size of these markets. What has come under much scrutiny, however, is the **microstructure** of these markets.

First, a large number of studies have focused on the rise of a particular type of investor in commodity futures: **US index fund managers**. These investors purchase a basket of commodity futures, are presumably less sensitive to changes in fundamentals and often only have 'long' positions, i.e. the buying side of the contract in the expectation that prices will rise. Second, a much smaller number of studies have considered the role played by their **counterparties**.

In a widely cited study, Tang and Xiong (2010) focus on US index fund investors. They find evidence of increased co-movement among commodities included in an index. Moreover, they find that this index, the Goldman Sachs Commodity Index (GSCI), has become more closely tied to the S&P 500 index, emerging market stock indices and the US dollar. Finally, individual commodities in the index have started to co-move with oil returns as well, but only after 2004.

More direct evidence in the same direction was given by Singleton (2014), who provides both a theoretical and an empirical explanation of the boom and bust in oil prices. He too relates these cycles to the price impact of US index investors, and finds that commodity index traders' positions predict crude oil returns. Amongst others, Wu and Hamilton (forthcoming) add nuance to Singleton's findings.

Irwin et al. (2010) even argue that the evidence that the microstructure of commodity futures markets has changed fundamentally is wrong. They argue that position changes are not material enough to allow for speculation to impact on spot prices, since index fund positions as a percentage of total open contracts have remained stable, at least for the period 2006-2008. In addition to index investors, swap dealers and a considerable amount of managed money has also moved into commodity futures, often as counterparties to index investors.

Gilbert (2010) offers evidence in line with Irwin et al. (2010). He finds that commodity index traders do not influence the futures returns for agricultural commodities. On the other hand, Du et al. (2011) find that there is an effect on the volatility of futures prices for corn and wheat (as well as for oil).

Rather than focusing on index investors' data, which they find unreliable, Henderson et al. (2013) look at commodity-linked *exchange traded notes (ETNs)*. They find much more solid evidence of financial investors having a price impact. Importantly, and discussed below, the approach taken by Henderson et al. allows them to study this impact contemporaneously rather than in a lead-lag setting as in many other papers. Put simply, their approach accounts for the fact that any effect of the financialisation of commodity markets may occur instantaneously in both the futures and spot markets at the same moment. The importance of the latter is also confirmed by Zhang (2013), who shows that whereas in a lead-lag setting, long positions by financial entities have no effect on crude oil returns, in a contemporaneous setting there is an effect.

Finally, there are a few studies that have looked at the '*other*' side of the market. Buyuksahin and Robe (2010) find that the increased **co-movement** between commodity and equity markets is mostly driven by hedge funds, particularly those present on both commodity and equity futures markets. Cheng et al. (2012) consider the role of financial institutions such as hedge funds, pension funds and insurance companies. They find that although financial institutions typically absorb commercial participants' risks, they in fact exacerbate market risk during financially stressful times. In addition, Narayan et al. (forthcoming) find evidence in favour of momentum trading strategies in commodity futures markets, although they conclude that whereas short selling is profitable, it is more so for some traders than for others. Unfortunately, they are not able to explain which traders may benefit most.

Some headway in this direction, is made by the few empirical studies on the impact of *High Frequency Trading (HFT)* on commodity derivatives markets. The most relevant are Biccheti and Maystre (2012) and Sornette et al. (2013). Both use similar data sets and methodology. They conclude that HFT tends to increase volatility and market instability in general, with more frequent, documented '*crashes*'. At the same time, financialisation in general and HFT strategies in particular have increased the correlation between different commodities, and between commodities and other asset classes (such as equities). In both cases, the effect is to disconnect prices from fundamentals affecting specific commodity markets.

1.4.6 Link between spot and futures markets

The mere fact that commodity spot and futures markets are connected does not have to result in excessive volatility. After all, if any arbitrage opportunities that arise because of price differences are invested away immediately, there may be no reason for concern.

Some recent studies have given arguments as to why this may not be the case. The main argument is referred to as '*limits to arbitrage*'. In a recent paper, Acharya et al. (2013) show that if speculators face tight capital constraints, or '*lack of liquidity*', this increases hedging costs and puts price pressure on futures, which can affect spot prices if producers react by changing supply. They validate their theoretical model with an empirical exercise aimed at oil and gas prices. For these markets, they show that limits to arbitrage affect equilibrium supply and prices. However, they also point out that position limits would not prevent this from happening. Mou (2010) reports similar evidence, based on an experimental design. He shows that during the so-called '*Goldman Roll*' — the sale and purchase of commodity derivatives tracking the Goldman Sachs Commodity Index — which takes place every month, investors suffered significant losses due to limits to arbitrage.

Limits to arbitrage do not necessarily require capacity constraints for speculators. Sockin and Xiong (2013) explore informational frictions regarding the global supply, demand, and inventory of commodities and show that they too can lead to a feedback effect of commodity futures prices on physical demand and supply.

Even in the absence of limits to arbitrage, however, there can be spill overs from spot to futures markets and vice versa. Szymanowska et al. (2014) rely on the fact that since commodity futures contracts are zero-cost securities, commodity futures returns are essentially risk premia. They provide an '*anatomy*' of these premia, and find that spot premia related to the underlying commodity explain most of the variation in returns, followed by term premia related to changes in the basis. Spot premia are essentially also the topic of investigation in Daskalaki et al. (2014), who show that there are common factors in commodity futures returns. Most concrete evidence as to what those factors may be is provided by Algieri (2014) who shows that energy market (ethanol and oil) developments affect commodity futures returns for agricultural commodities.

1.4.7 Perspectives

From the available peer-reviewed research literature, conclusions need to be carefully formulated. Not only are reliable data on agricultural (derivatives) markets and spot markets hard to come by (even more so for OTC trade), the available econometrical techniques often lack sufficient power to draw strong conclusions. However, looking at the available evidence along the dimensions described here, **three distinct perspectives** on the price process in commodity futures and spot markets emerge.

The first perspective holds that there is **no impact of futures market developments on spot prices and their volatility**. Any relationship between spot and futures markets is dynamic and arbitrage is effortless and fast, such that profit opportunities from selling on one market and buying on another are quickly gone. Studies that use this perspective typically use a lead-lag approach, where the price on one market is explained by previous prices on the other market without being conditional on other variables, and rely on one methodology — the Granger causality test— as their main test.

According to the second perspective, **futures market developments can affect spot prices and their volatility, but these effects are short-lived** and therefore have no impact on the different parties involved with the trade. Any relationship between spot and futures markets is contemporaneous, but arbitrage is still effortless and fast. Studies

relying on this perspective rely either on an instrumental variables approach, where variables that themselves are not part of any price-setting process are used, or on quasi-natural experiments, where sudden unexpected shocks are used. Evidence in this part of the literature is mixed, and seems to depend heavily on data and sample period as well as on the choice of instruments.

Finally, the third perspective holds that **futures market developments do affect spot price volatility and levels**. The relationship between spot and futures markets is still contemporaneous, but arbitrage is no longer effortless and may be less fast, depending on market conditions, inventory levels and other factors that intensify or relax the relationship between both markets (or between actors in the same market). Establishing a causal link is typically done in the same way as for the second perspective. Several papers found that pure financial players can distort futures markets through trading by index investors, exchange trade commodity-linked notes, hedge funds and/or high frequency trading. Since futures prices influence spot prices, this means that spot markets may also be distorted.

1.5 Concluding overview: background for EU regulation

A vast amount of literature exists on the functioning of commodities markets. However, there is **little consensus** regarding the sources of price changes on commodities markets. Surveying the existing peer-reviewed literature, one can identify three distinct perspectives on the functioning of commodities markets taken into account in the assessment (Section 3) of this study. According to the first perspective, developments in futures markets have no impact on spot prices and their volatility. According to the second perspective, developments in futures market do affect spot prices and their volatility but these effects are short-lived. And according to the third perspective, financial players can distort futures markets and developments in futures market do affect spot price volatility and levels.

There is very **little data available on commodity derivatives markets in the EU, let alone on agricultural commodity derivatives**. This explains why the literature on commodity derivatives markets does not include much about the situation in the EU. The practice of farmers to use commodity derivatives for price risk transfer or price discovery in the EU is still much different from the US. Given the increasing agricultural price volatility due to the market orientation of the CAP reforms, EU farmers and cooperatives/producers organisations have turned to the use of OTC agricultural derivatives for hedging price risks of. In the US, there is a long tradition of using futures and options for hedging and using exchanges for price discovery. The functioning of EU futures markets still need to overcome hurdles in price transparency and contract standards, e.g. regarding delivery points.

The following is to be taken into account when regulating the EU agricultural commodity derivatives markets. There are many and diverse, especially financial, **players active in the agricultural commodity derivatives markets**, each with their own motives and strategies. Commercial traders need '*liquidity*', i.e. sufficient volumes of trade for easy buying and selling, which for example hedge funds can bring to the market. The trading by commercial entities based on fundamentals provides financial players with profit making opportunities, i.e. speculation, on commodity futures markets where financial players also trade with each other. Since 2000 the agricultural derivatives trading landscape has transformed into an international electronic arena where mixes of traders with diverse incentives meet, each with their own motives and impacts.

An overview of the different participants who are active in agricultural commodity derivatives markets and will be taken into account in this study, is provided in Table 1.

With a balanced mix of traders, hedging costs are reasonable, as is market liquidity and price volatility. Excessive price volatility and excessive financial speculation harm the integrity of price discovery and hedging functions of the agricultural derivatives markets. As described in the rest of this study, financial legislators aimed at protecting the integrity of commodity markets and regulating financial players, even if the academic perspectives were not conclusive on the role of those diverse financial participants.

Table 1: Different participants who are active in agricultural commodity derivatives markets

CATEGORY	WHO	WAY OF INVOLVEMENT	MOTIVES
Commercial entities ('Commercials')	<ul style="list-style-type: none"> farmers and other agricultural producers merchants silo operators agricultural processors end-users of agricultural products, exporters 	<ul style="list-style-type: none"> bona-fide hedging may hedge for clients may speculate, including for treasury financing activities 	Protection against agricultural price changes/volatility, smooth convergence of futures prices into spot prices as contracts approach their expiration date.
Banks	<ul style="list-style-type: none"> investment banks large banks with commodity trading desk banks focusing on agricultural clients 	<ul style="list-style-type: none"> providing OTC contracts to hedgers and speculators trading futures and options for clients on regulated trading venues speculation (through proprietary trading) market making operating as brokers or broker-dealers operating (informal) trading venues issuing exchange traded commodity (index) products (ETPs) may design and operate indexes may own, mostly non-agricultural, physical commodity operations 	Profits from earning management or servicing fees, and from proprietary trading to carefully manage price risks, especially when prices are volatile and trading volumes are high.
Hedge funds	<ul style="list-style-type: none"> 'alternative investment funds' (EU definition) managed money (US definition) Commodity Trading Advisors (CTAs, US) Commodity Pool Operators (US) 	<ul style="list-style-type: none"> pursue a variety of speculative trading strategies, e.g. technical modelling, fundamental approaches, algorithmic programming, and high frequency trading are funded by rich and institutional investors hedge funds may borrow (operate with leverage) 	Aiming at very high profit making from speculative trading strategies and large fees.

Providers of commodity index products and commodity (index) exchange traded products (ETPs)	<ul style="list-style-type: none"> • banks • limited liability investment corporations • hedge funds and securities brokers • other investment firms 	<ul style="list-style-type: none"> • tracking the returns on the commodity futures specified in the index • US (not EU) ETF and other regulated fund managers may buy related futures on trading venues • trading strategies to reduce risks of ETPs • may use OTC derivatives (swap) 	Lucrative fees and commissions from the sales of commodity (index) ETFs, ETNs and investment funds for institutional investors.
Pension funds and other institutional investors	<ul style="list-style-type: none"> • private pension funds • portfolio managers for rich clients or other investors • other institutional investors 	<ul style="list-style-type: none"> • speculating by tracking commodity indices and buying related derivatives on trading venues • participate in commodity index funds or buying other ETPs • directly trading speculatively on trading venues • trading 'passively, i.e. rolling-over 'long' futures contracts • invest in hedge funds speculating in commodity derivatives 	'Investing' in commodities as portfolio diversification strategy to get long term overall stable and profitable returns to their total assets. When investing passively, they do not need to act according to price developments.
Broker-dealers, brokers, dealers	<ul style="list-style-type: none"> • persons • companies • sometimes divisions of banks or other firms 	<ul style="list-style-type: none"> • intermediaries for clients' buying and selling orders and trade on behalf their clients (brokering) and/or engage in trading for their own account (dealing) 	Profits from fees from the brokerage services and careful management of price risks when dealing for own account.
OTC commodity derivatives traders; US swap dealers and swap execution facilities	<ul style="list-style-type: none"> • banks • broker-dealer firms • institutional investors and others • regulated platforms for swap trading (US) 	<ul style="list-style-type: none"> • trading OTC derivatives/swaps • providing a bilateral OTC derivative/swap for hedging or speculative purposes • facilitating OTC/swap trading offering trading platforms 	Make profits by relying on careful price risk management and fees, including embedding fees within the offered OTC product.
Agricultural commodity exchanges and other regulated trading venues	<ul style="list-style-type: none"> • publicly listed firms operating exchanges (trading agricultural futures and options) • EU firms operating regulated multilateral trade facilities (MTFs) • EU firms operating regulated organised multilateral trade facilities (OTFs) 	<ul style="list-style-type: none"> • operating venues for commodity futures and options trading • may offer also related services (e.g. clearing), • may aggressively promote trading to all potential participants 	Fees from (large volumes of) trading and related activities on their trading venues.

Clearing houses and central counter parties (CCPs)	<ul style="list-style-type: none">• firms specialised in clearing• may be banks• may be corporations operating commodity exchanges or other trading venues	<ul style="list-style-type: none">• Provide settlement risk mitigating and management services related to OTC and on-venue trading operations.	Profits from fees for clearing services. May make profits from proprietary managing of collateral ('margins').
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2 STATE OF PLAY OF EU REGULATION AND ITS COMPARISON WITH OTHER LEGAL FRAMEWORKS

KEY FINDINGS

- For the first time, agricultural commodity derivatives markets are being **regulated at the EU level**, mainly through the Markets in Financial Instruments Directive and Regulation (MiFID2 and MiFIR), the European Markets Infrastructure Regulation (EMIR) covering OTC derivatives, and the Regulation and Directive on Market Abuse (MAR and CSMAD). These laws provide some protection of physical agricultural markets in case of negative influences from financial markets.
- These new EU laws, regulating agricultural commodity derivatives traded on and off exchanges, were part of the financial reform package that was proposed by the Commissioner responsible for the Internal Market and Services. After they were agreed by the European Parliament and the Council, MiFID2-MiFIR and MAR-CSMAD entered into force on 2 July 2014 while EMIR entered into force in August 2012. It takes **on average two to three years to have all technical standards agreed upon and have new laws fully implemented**.
- Other EU laws **regulate important financial entities active in the agricultural commodity markets**, such as banks and investment firms regulated by the Capital Requirements Directive and Regulation (CRD IV and CRR), hedge funds regulated by the Alternative Investment Fund Managers Directive (AIFMD) and managers of investment funds or other investment products related to agricultural commodities, regulated by the Directives on Undertakings in Collective Investment in Transferable Securities (UCITS IV and UCITS V) and the Regulation on Packaged Retail Investment Products (PRIIPs).
- Each EU law provides for **different levels of national and EU supervision** but relies largely on the national competent authorities to implement, oversee and enforce the regulations. A few laws explicitly refer to cooperation or exchange of information between agricultural market authorities and financial supervisors.
- There are **technical differences between the US and the new EU regulatory frameworks** for operators and traders engaging in the significant cross-Atlantic commodity derivatives business. Agreements among US and EU regulators are being negotiated to deal with these differences. The agreed provisional non-action of laws is currently a risk for the integrity of the commodity derivatives markets.

2.1 Introduction

Following the financial crisis of 2008, the causes of which lie for an important part with the derivatives markets, the EU has embarked on a series of legislations to reform financial markets and strengthen their integrity at the EU level. The Commissioner responsible for proposing financial regulations, Mr Barnier (2009-2014), presented a series of financial reforms to ensure all financial markets and entities would be regulated. Consequently, this *'Barnier package'* resulted in the agricultural commodity derivatives markets being regulated for the first time by EU legislation, through different laws. New EU laws also cover the diverse financial participants in agricultural commodity markets in different ways.

In order to provide the current state of play (as of 1st July 2014) in EU regulation of agricultural commodity derivatives markets, this section offers a technical overview of each of the relevant EU laws, focusing exclusively on what is important for agricultural commodity derivatives, farmers' and agricultural sector, with special focus on the actors and issues covered in Section 1. This section provides the background for the rest of the study, which will explain and assess these EU laws in a coherent way and offer recommendations.

The EU legislations analysed in this study are listed in Table 2, in order of their importance as regards agricultural commodity derivatives and their actors.

Table 2: The EU laws covering trading and the participants on agricultural derivatives markets

AB-BRE-VIA-TION	OFFICIAL NAME OF THE NEW LEGISLATION	REFERENCE IN OFFICIAL JOURNAL OF THE EUROPEAN UNION (OJ)	DATE OF ENTRY INTO FORCE	DATE OF FULL IMPLEMENTATION	REFERENCE TO THE PREVIOUS LEGAL TEXT & OJ
MiFID 2	Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments	OJ L 173, 12.6.2014, p.349-496	2 July 2014	3 January 2017	Amending: Directive 2002/92/EC, Directive 2011/61/EU
MiFIR	Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments	OJ L 173, 12.6.2014, p.84-148	2 July 2014	3 January 2017	Amending: Regulation (EU) No 648/2012
EMIR	Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories	OJ L201, 27.7.2012, p.1-59	16 August 2012	After 18 September 2014	
MAR	Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation)	OJ L 173, 12.6.2014, p.1-61	2 July 2014	2 July 2016	Repealing: Directive 2003/6/EC of the European Parliament and of the Council; Commission Directives 2003/124/EC, 2003/125/EC, 2004/72/EC
CS MAD	Directive 2014/57/EU of the European Parliament and of the Council of 16 April 2014 on criminal sanctions for market abuse (market abuse directive)	OJ L 173, 12.6.2014, p.179-189	2 July 2014	2 July 2016	

AIFMD	Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers	OJ L 174, 1.7.2011, p.1-73	22 July 2011	22 July 2015	Amending: Directives 2003/41/EC, 2009/65/EC; Regulations (EC) No 1060/2009, (EU) No 1095/2010
CRR	Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms	OJ L 176/1, 27.6.2013, p. 1-337	1 January 2014	Between 31 December 2014 and 1 January 2019	Amending: Regulation (EU) No 648/2012
CRD IV	Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms	OJ L 176/338, 27.6.2013, p. 338-436	1 January 2014	Most provisions to be implemented by 1 January 2019	Amending: Directive 2002/87/EC. Repealing: Directives 2006/48/EC, 2006/49/EC
UCITS IV	Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (recast)	OJ L 302, 17.11.2009, p.32-96	7 December 2009	1 July 2011	Amending: Council Directive 85/611/EEC of 20 December 1985 (UCITS I) and subsequent amendments
UCITS V	European Parliament legislative resolution of 15 April 2014 on the proposal for a directive of the European Parliament and of the Council amending Directive 2009/65/EC [UCITS IV] as regards depository functions, remuneration policies and sanctions	Not published before 2 July 2014. On 15 April 2014 the EP adopted the text ((COM(2012) 0350 – C7-0178/2012 – 2012/0168 (COD)) ²⁸	[? 2014]		Amending: Directive 2009/65/EC on coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)
KID-PRIPs	European Parliament legislative resolution of 15 April 2014 on the proposal for a regulation of the European Parliament and of the Council on key information documents for investment products	Not published before 2 July 2014. On 15 April 2014 the EP adopted the text (COM (2012)0352 – C7-0179/2012 – 012/0169 (COD)) ²⁹	[? 2014]		

²⁸ <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2014-0355&language=E> (viewed 2 July 2014).

²⁹ <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P7-TA-2014-0357> (viewed 2 July 2014).

Each law covered in this Section 2 describes the following aspects: relevant dates for the implementation, how activities and participants related to agricultural commodity derivatives are regulated, and the main supervisory mechanisms (incl. third country issues). Issues of transparency of prices and trade will also be touched on.

Note that each new EU law contains rules for which the technical standards still have to be developed at the so-called 'level 2', mostly by a given date, after the law has entered into force. This 'level 2' decision-making in the EU about derivatives markets' laws can be described in general³⁰ as follows:

- **'Regulatory technical standards'** and **'implementing technical standards'** are developed by the European Securities and Markets Authority (ESMA) and submitted to the EC, who in principle endorses these draft technical standards. If the EC refuses to endorse, a redrafting process starts. The draft texts have to be forwarded to the relevant Committee of the European Parliament (EP) and the Council, who have to give their consent or not about the 'regulatory technical standards' adopted by the EC, within one to six months (depending on the EC's endorsement decision). The EP and Council cannot refuse 'implementing technical standards'.
- The EC **'delegated acts'** are adopted by the EC after ESMA has given technical advice, and are submitted to the relevant committee of the EP and Council for approval or disapproval.
- **Guidelines** and **recommendations** by ESMA affirm how particular rules and standards have to be applied by the competent authorities and market participants.

Given the long experience of the US in agricultural commodity derivatives markets and the new US legislation introduced after the financial crisis, the second part of this Section 2 will make comparisons with regulation of the US. In order to get some lessons from agricultural commodity markets in a country with food security concerns, a short insight of Indian agricultural commodity markets and their regulation will be provided.

2.2 Crucial parts of EU laws regulating commodity derivatives markets

2.2.1 MiFID2 – a key legislation for agricultural commodity markets

Official name

Directive 2014/65/EU on 'markets in financial instruments'³¹ is abbreviated in this study as **MiFID2**.

Dates of implementation

This Directive 2014/65/EU, MiFID2, entered into force 2 July 2014, twenty days after its publication in the Official Journal of the European Union (OJ) on 12 June 2014. Between 2 July 2014 and 3 July 2016, over hundred technical standards and delegated acts have to be drafted and adopted, in order to further specify definitions, procedures and requirements contained within the Directive. ESMA started public consultations on 22 May 2014³² and will

³⁰ OJ L331, 15.12.2010, p. 96-99: Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Art. 10-16.

³¹ OJ L 173, 12.6.2014, p. 349-496: officially called in full 'Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU'.

³² See for the consultation documents and consultation hearing: <http://www.esma.europa.eu/page/Markets-Financial-Instruments-Directive-MiFID-II>;

submit to the EC: 1) its final technical advice for EC delegated acts by 2 January 2015, 2) its final draft regulatory technical standards by 3 July 2015, and 3) its final draft implementing technical standards by 3 January 2016.

The Directive must be implemented at the Member State level two years after its entry into force, i.e. 3 July 2016.

By 3 January 2017, MiFID2 is to be fully implemented and applied by market participants.

Regulatory aspects, explicitly regarding agricultural commodity derivatives markets

MiFID2 regulates and ensures supervision of agricultural commodity derivatives trading on exchanges and other trading venues, the trading venues themselves, those providing commodity derivatives investment services, and providers of derivatives trade data reporting services. It imposes limits to those trades that are not for hedging (agricultural) commodity price risks. MiFID2 rules on agricultural commodity derivatives are not separated from regulation and definition of other commodity derivatives.

Position limits: One key regulatory measure regarding commodity derivatives introduced by MiFID2 is the establishment of limits on ex-ante positions related to all commodity derivatives. These '*position limits*' prohibit participants from holding commodity derivatives contracts that are beyond a clear quantitative threshold or limit (Art. 57). Position limits are not imposed on those who trade for bona-fide hedging of price risks (defined as 'objectively measurable as reducing the risks directly related to the commercial activity of that non-financial entity'). This means that position limits are not imposed on non-financial or commercial participants, e.g. farmers, except when they trade for speculative reasons. Position limits do apply to financial entities, even if these are exempted from the rest of the scope of MiFID2, such as pension funds (for 3 years), as well as entities trading in commodity derivatives when for instance providing investment services on an ancillary basis to their suppliers (meeting the conditions in Art. 57.2.1.(j) and Art. 2.4.).

The **aim** of position limits is to support orderly pricing and settlement conditions, prevent market-distorting positions, ensure convergence between the prices of derivatives and the spot prices for the underlying commodity during the last month of the contract ('spot month'), and to prevent market abuse. The commodity derivatives to which position limits apply are mainly futures and options traded on commodity exchanges or other regulated trading venues, as well as OTC commodity derivatives that are economically equivalent to those traded on a regulated market.

The position limits are to be **set by** the national competent authorities or, when the same commodity derivative is traded on trading venues in different EU countries, by the competent authority of the venue where the largest volume of trading takes place. National authorities will need to calculate the position limits using the methodology drafted by ESMA by 3 July 2015, and thereafter adopted by the EC and approved by the EP and Council. The criteria which need to be taken into account when deciding the methodology (Art. 57.3.(a)-(g)) include for instance the deliverable supply in the commodity on which a particular derivatives class is based, and the volatility of the spot and derivatives markets, and the spot market characteristics such as production and consumption patterns.

Technically, position limits must (Art. 57.1.,4.,12: subject to regulatory standards drafted by 3 July 2015):

- apply to each kind of contract in a particular class of commodity derivatives, whether they are physically settled or cash settled;

- apply to the size of a netted ('net') position a person can hold, aggregated at a person's group level, held both on commodity derivatives trading venues as well as in economically equivalent OTC contracts, including positions held on venues outside the EU and held on a person's behalf;
- apply at all times, but are different for a position held in the spot month or in the other months of the duration of a commodity derivatives contract.

After national competent authorities have decided on each of the maximum size of the position limits that trading venues in their jurisdiction have to impose per particular commodity derivative, ESMA will determine whether these position limits are following the established methodology of calculation. If this is not the case, ESMA can ultimately, after a complex process, impose the trading venue operator to apply the position limits ESMA is setting. Once operational, the competent authorities must review and adjust the position limits whenever there is a significant change in the (physical or financial) market (Art. 57.4). ESMA must monitor on an annual basis that the limits are being set properly.

Regulation of trading venues: MiFID2 regulates the venues in which (agricultural) commodity derivatives are traded. The legislation stipulates governance rules, operational requirements, clearing and settlement arrangements, rules on access to trading and suspension of trading, transparency towards clients, etc. MiFID2 rules are applied differently to the following **three kinds of trading venues**:

- operators of (agricultural) commodity exchanges and similar market operators, which are fully authorised and regulated, and referred to as '**regulated markets**' (see for instance Art. 44-56);
- providers of '*multilateral trading facilities*' (**MTFs**), which are trading venues or platforms that have somewhat less stringent rules than regulated markets, bringing together multiple third-party interests in buying and selling, resulting in derivatives contracts (see for instance Art. 19);
- providers of '*organised trading facilities*' (**OTFs**), a category of lightly regulated trading platforms created by MiFID2 (Art. 20) that bring together, and can restrict admission for, third-party buying and selling and orders, e.g. inter-dealer broker systems.

Operators of any commodity trading venue are obliged to apply 'position management **controls**'. For instance, they must be able to verify if a trade is for speculative or for bona fide hedging purposes. They have the power to monitor and access all necessary information and documentation. They can require a trader to terminate or reduce a position, or provide liquidity back into the market.

Each operator of a trading venue has to publish a weekly **report** with aggregate information about the trade in different commodity derivatives on its venue, except when the number of persons trading and their open positions are below a threshold that is to be set by the EC. The report format will be drafted by ESMA by 3 January 2016. Trading venue operators, as well as investment firms, have to provide, at least on a daily basis, detailed reports about positions held to supervisors (Art. 58).

Regulating of investors and speculators: MiFID2 regulates investment firms, including those who offer commodity index ETFs. It does so by for instance stipulating operating conditions and ways to protect clients investing in commodity index ETFs.

MiFID2 introduced special rules for speculating entities (investment firms, banks, hedge funds) that engage in algorithmic and high-frequency trading strategies. Entities engaging in **algorithmic trading** must have appropriate technical system tests and controls as well as specific operational and organisational arrangements in place, and they must notify authorities and venues that they are engaging in algorithmic trading in order to avoid disorderly and abusive behaviour. When entities engage in **high-frequency** algorithmic trading, they must record all placed orders (including cancelled ones), and they will be denied direct electronic access to trading venues through other entities if no limits or controls are in place. Trading venues themselves need to be organised to avoid disruptive behaviour and manipulation caused by (high-frequency) algorithmic trading techniques and unfair trading advantages (Art. 17). They are obliged, for instance, to flag algorithmic orders as such, to have circuit breakers in place, to exclude orders exceeding certain thresholds, and to forbid trading based on extremely small changes in price (small 'tick sizes': Art. 49) in order to reduce abusive and gaming strategies.

Powers to supervisors and regulators

The responsibility and power to provide authorisation to the different actors, and to enforce the wide-ranging rules and operating conditions laid down in detail in the many articles, are granted in MiFID2 to the **national competent authorities**. These powers include access to detailed information from trading entities and trading venues. The competent national authorities have the power to intervene in the markets and to impose sanctions (as further detailed in MiFIR; see also MAR), including imposing position limits on an individual person. National authorities must report to, and **cooperate** with, ESMA and other relevant national authorities, including with public bodies responsible for the 'oversight, administration and regulation of the physical agricultural markets under the Common Agricultural Policy' (Art. 79.7). National authorities may conclude agreements to exchange information with third-country competent authorities and even with third-country authorities having the oversight of agricultural commodity derivatives markets, so as to have a consolidated overview of the financial and spot markets (Art. 88.1).

ESMA is required to publish a **centralised report** on commodity derivatives trading, based on the weekly aggregate reports from the venues, at a specific time in the week. The draft format of this weekly ESMA publication is to be submitted by ESMA to the EC by 3 January 2016 after which the EC is to adopt it with or without amendments.

2.2.2 MiFIR – the regulation that complements MiFID2

Official name

Regulation (EU) No 600/2014 on 'markets in financial instruments'³³, is abbreviated as **MiFIR**.

Dates of implementation

MiFIR has entered into force on 2 July 2014. The Regulation is to fully apply 30 months later, by 3 January 2017 (except for access to licencing benchmarks). ESMA has started consultations on MiFIR's technical standards on 22 May 2014.³⁴

³³ OJ L 173, 12.6.2014, p. 84–148: the full official name is 'Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012'.

³⁴ See for the consultation documents and consultation hearing: <http://www.esma.europa.eu/page/Markets-Financial-Instruments-Directive-MiFID-II> (viewed 2 July 2014).

Regulatory aspects as regards agricultural commodity derivatives markets

In addition to the general definition of commodity derivatives in MiFID2 (Annex I–C) and MiFIR (Art. 2.1.(30)), MiFIR (Art. 2.1.(44)) has a definition of ‘*agricultural commodity derivatives*’ that refers to 20 categories of agricultural products, and one category ‘*other products*’, as listed in Annex I of Regulation (EU) No 1308/2013 establishing the CAP. All MiFIR rules on commodity derivatives apply to agricultural commodity derivatives.

Trading obligation: MiFIR (Art. 28) introduces the obligation that OTC derivatives contracts, which are obliged to be **cleared** according to EMIR, have to be traded **on trading venues** (exchanges/regulated markets, MTFs or OTFs) in the EU or in third countries (when the latter meet particular conditions). Which cleared OTC contracts have to be traded is based on criteria set out in MiFIR (Art. 32) and regulatory technical standards drafted by ESMA, and mainly determined by two factors: whether there is sufficient buying and selling (liquidity) of that particular derivative and whether a derivative is admitted to a trading venue. The trading obligation applies to financial counterparties and non-financial counterparties that are subject to the clearing obligation according to EMIR (see below Section 2.2.3.), and third country entities whose contracts have substantial effect in the EU or evade EU rules; exempt are intra-group trading and, for 3 years, pension schemes. ESMA is to publish on its website which derivatives are subject to the trading obligation, on which venue and from what date onwards (Art. 34).

Regulating trading venues in addition to MiFID2: All transactions of (commodity) derivatives traded on exchanges and other regulated markets need to be cleared (Art. 29); only a few exemptions apply. Trading venues must provide non-discriminatory access to CCPs to clear any derivatives contract, with temporary exemptions for some venues (Art. 36). MiFIR imposes some requirements to CCPs in addition to EMIR, and stipulates that they should clear, in a non-discriminatory way, derivatives traded on any trading venue (Art. 35).

During trading hours, trading venues must provide continuous **pre-trade transparency** by publishing bid and offer prices, and trading interests, including on commodity derivatives and shares of commodity (index) ETFs. However, such transparency does not apply to non-financial counterparties engaging in bona-fide hedging or treasury financing activity (Art. 8.1.), and can be waived for very large orders (Art. 9). **Post-trade information** (prices, volume, time of transactions) is to be published by trading venues, as close to real time as technically possible, on commodity derivatives and commodity (index) ETF shares amongst others, but information about large volume trades can be deferred (Art. 10,11). In similar ways, investment firms and systematic internalisers have to provide pre- and post-trade transparency, about derivatives trades on their own account or for their clients, to supervisors as well as to the public through approved publishing service providers (Art. 21).

Powers to supervisors and regulators

MiFIR ensures that competent authorities have explicit powers and mechanisms to protect (agricultural) commodity financial and spot markets. They should prohibit and restrict the marketing, distribution and sale of any financial instrument or activity that threatens the orderly functioning and integrity of financial markets as well as commodity spot markets, the stability of the financial system and investor interests. National authorities are therefore granted intervention powers (in addition to MiFID2), **including when a derivative has a detrimental effect on the price formation mechanism in the underlying spot market** (Art. 42.2.(a)(ii)). In cases where the physical agricultural markets are seriously affected (Art. 42.2.(f)), national competent financial authorities have to properly consult with public bodies competent for the physical agricultural markets

(under CAP Regulation No 1234/2007 [sic]). National authorities have to inform one month before a measure is taken, get approval from ESMA, and publish the measure when they do not agree with ESMA's negative advice.

In case national authorities have taken no or inadequate action, or in other situations stipulated by MiFIR, **ESMA** is empowered (Art. 40) to intervene temporarily to prevent, prohibit or restrict in the EU the sale of financial instruments or financial activities. ESMA may act when there is a threat to the orderly functioning and integrity of agricultural commodity markets, after it has consulted with public bodies competent for the oversight, administration and regulation of physical agricultural markets (as mentioned in CAP Regulation (EC) No 1234/2007). ESMA also has conditional powers regarding position limits and their management, ranging from requesting information to prohibiting a person to enter into a commodity derivatives contract. These powers apply amongst others when delivery arrangements for physical agricultural commodities are threatened, after ESMA has first consulted with physical agricultural markets authorities and notified the competent national financial authorities.

ESMA has to coordinate measures taken by national authorities, and notify them on how to make consistent and justified measures. Nevertheless, national authorities decide on their actions. However, ESMA intervention powers, and resulting actions, prevail over national decisions. ESMA has a particular task to actively monitor regulatory arbitrage and risky derivatives not subject to clearing (Art. 28.2).

ESMA is to register **third country** providers (without a branch) of investment services in the EU to professional clients, after the EC has adopted an act of 'equivalent' effect about the third country supervisory and other requirements.

2.2.3 EMIR - the first EU legislation dealing with OTC derivatives

Official name

The Regulation (EU) 648/2012 on OTC derivatives, central counterparties and trade repositories³⁵ is also called '*European Market Infrastructure Regulation*', and abbreviated '**EMIR**'.

Dates of implementation

EMIR came into force on 16 August 2012. Most technical standards entered into force on 15 March 2013.³⁶ The technical standards on clearing are not to be adopted before 18 September 2014.³⁷

Regulatory aspects, specifically as regards agricultural commodity derivatives markets³⁸

EMIR mainly regulates OTC commodity derivatives —which equally apply to OTC agricultural derivatives—, central counterparties (CCPs) and trade repositories.

³⁵ OJ L 201, 27.7.2012, p.1-59: the full official name is '*Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories*'.

³⁶ Most technical standards were adopted and published in OJ L 52, 23.2.2013; for more and updated details see: http://www.esma.europa.eu/system/files/list_of_documents_for_emir_webpage.pdf.

³⁷ ESMA, EMIR timeline, <http://www.esma.europa.eu/page/post-trading> (viewed 2 July 2014).

³⁸ How EMIR rules apply to non-financial entities (such as farmers) when they conclude OTC contracts and what their obligations are, is shortly explained by ESMA: <http://www.esma.europa.eu/page/Non-Financial-Counterparties-0> (viewed July 2014).

Clearing obligation of OTC commodity derivatives: Clearing means that a clearing house or '*central counterparty*' (**CCP**) stands in between the two counterparties of a (commodity) derivatives contract. Counterparties have to pay collateral ('*margin*') to the CCP who daily defines the amount of margin because the CCP needs to pay when a counterparty defaults. Commodity OTC contracts need to be cleared based on criteria established in Art. 4-5, which are further developed by ESMA and the EC, and after the CCPs have been authorized to clear such OTC contracts. All in all, the clearing obligation is not expected to be fully implemented before mid-March 2015. It will apply when **financial counterparties** conclude OTC commodity derivatives contracts subject to the clearing obligation, including third country entities trading an OTC contract that could have a substantial effect in the EU. **Non-financial counterparties**, such as farmers, are not obliged to clear bona-fide hedging OTC derivatives that in an '*objectively measurable*' way reduce the risks of potential change in the value of commodities that are directly part of the non-financial counterparty's whole business, or OTC derivatives that are treasury financing activities.³⁹ However, non-financial counter-parties have nevertheless to clear all OTC derivatives (within 4 months) after one class of derivatives that is not for bona-fide hedging has a value that is higher than the clearing threshold of that class (Art. 10).⁴⁰ The threshold for clearing the class of speculative OTC commodity derivatives is EUR 3 billion gross notional value.⁴¹ ESMA and national competent authorities have to be notified by non-financial entities when they exceed the clearing threshold. Some intra-group transactions may be exempted from the clearing obligations (which can apply to intra group total return swaps), as well as particular hedging by pension funds (exemption for 3 years). ESMA has to periodically review the clearing thresholds for non-financial entities, and propose amendments if need be.

The non-cleared OTC derivatives are subject to particular strict risk-mitigation management techniques⁴², such as daily valuation of outstanding contracts, confirming contracts and reporting trades, risk mitigation and dispute resolution arrangements.⁴³

Regulating central counterparties (CCPs): CCPs are subject to strict requirements regarding their governance, risk management, margins' and default management, default procedures, interoperability arrangements and transparency, etc. CCPs are to be authorised and supervised, according to strict rules, by national authorities in cooperation with ESMA and other authorities.

Reporting obligation: All counterparties and CCPs are obliged to report the details of all their OTC derivative contracts to a trade data services firm, a '**trade repository**' no later than the following working day (or if not possible, to ESMA) (Art. 9). Non-financial entities have to specify whether a commodity derivative is for bona-fide hedging, subject to the clearing obligation, and to which commodity class it belongs. The '*agricultural*' derivatives (AG) need to specify whether they are grain oilseeds (GO), '*softs*' (SO), dairy (DA), livestock (LI), or forestry (FO), and what delivery type they belong (cash, physical, or

³⁹ OJ L 52, 23.2.2013, p. 20: Commission Delegated Regulation (EU) No 149/2013, Art. 10.

⁴⁰ FCA, *Presentation slides: Introduction to EMIR for Non-Financial counterparties*, 24 May 2014, p. 10-11.

⁴¹ OJ L 52, 23.2.2013, p. 20: Commission Delegated Regulation (EU) No 149/2013, Art. 11.

⁴² Consultation for draft ESMA regulatory standards on risk mitigation techniques closed on 14 July 2014: http://www.eba.europa.eu/news-press/calendar;jsessionid=2C0CE51819CDB809BBF904A958109F64?p_p_id=8&_8_struts_action=%2Fcalendar%2Fview_event&_8_eventId=655146 (viewed 2 July 2014).

⁴³ OJ L 52, 23.2.2013, p. 20-22: Commission Delegated Regulation (EU) No 149/2013, Art. 12-20, specifications of EMIR Art. 11.1.-12.

optional).⁴⁴ In practice, the reporting obligation started on 12 February 2014⁴⁵ while many technical problems⁴⁶ emerged.

Regulating trade repositories: Trade repositories have to record information about all OTC commodity derivatives being concluded and reported to it. They are subject to requirements for operational and risk management, correct recording and confidentiality of data. Different supervisory and competent authorities have to have direct and immediate access to the details of derivatives contracts reported to the trade repositories, including supervisors of trading venues and other relevant Union market authorities (Art. 81.3.(h)⁴⁷, for discussion see Section 3.2.1).

A trade repository has to at least weekly publish about the derivatives contracts reported it, on a website which is easily accessible by the public. The reports should contain the aggregate figures (open interest, volume, value) per class of derivatives. 'Commodities' is one class.⁴⁸ There is no legally fixed date when the repositories' public reporting should start.

ESMA has the **authorisation, supervisory and enforcement powers** over trade repositories in the EU and for recognising those in third countries.

2.2.4 MAR-CSMAD – legislating against derivatives and spot market abuse

Official names

The Regulation (EU) No 596/2014 on 'market abuse' is in short called market abuse regulation ('**MAR**').⁴⁹

The Directive 2014/57/EU on 'criminal sanctions for market abuse', is abbreviated '**CSMAD**'.⁵⁰

Implementation date

MAR and CSMAD entered into force on 2 July 2014, 20 days after their texts were officially published on 12 June 2014. The full application of MAR and CSMAD, including almost all delegated acts, implementing acts, regulatory technical standards, implementing technical standards and guidelines, is to take place by 3 July 2016 (except regarding OTFs).

Regulatory aspects as regards agricultural commodity derivatives markets

MAR and CSMAD result from a review of the 2003 *Market Abuse Directive* (**MAD**) and its related acts.⁵¹ They aim to ensure that authorities deal in all EU financial markets in the

⁴⁴ OJ L 352, 21.12.2012: Commission Implementing Regulation (EU) No 1247/2012, Art. 1- 4, and Annex; see also EMIR Art. 11.1.-12.

⁴⁵ See: <http://www.esma.europa.eu/page/Registered-Trade-Repositories> (viewed 2 July 2014).

⁴⁶ Dean, C., 'European companies struggle with derivatives reporting deadline', Euromoney, 22 February 2014, <http://www.euromoney.com/Article/3300314/Category/9544/ChannelPage/8959/European-companies-struggle-with-derivatives-reporting-deadline.html> (viewed 22 February 2014).

⁴⁷ It is not clear whether the latter could refer to EU agricultural market authorities while the Agency for Cooperation of Energy Regulators (ACER) is explicitly mentioned (Art. 81.3.(j)); MiFIR Art. 53.3. changed this EMIR Art. 81 specifying what the details are to be reported. The omission of mentioning national agricultural authorities is explicit in detailed rules: OJ L 52 23.2.2013, p. 33-36: Commission Delegated Regulation (EU) No 151/2013, Recitals and Art 2.

⁴⁸ OJ L 52, 23.2.2013, p. 33-36: Commission Delegated Regulation (EU) No 151/2013, Art. 1.

⁴⁹ OJ L 173, 12.6.2014, p. 1-61: officially called in full 'Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC'.

⁵⁰ OJ L 173, 12.6.2014, p. 179-189: called officially in full 'Directive 2014/57/EU of the European Parliament and of the Council of 16 April 2014 on criminal sanctions for market abuse (market abuse directive)'.

same way with market abuse — including all agricultural commodity derivatives markets—, and new technologies and practices such as high frequency trading.

Market abuse is defined as insider dealing, unlawful disclosure of inside information, and market manipulation. However, non-financial entities trading in commodity derivatives are in practice having **inside information** —information before executing orders, which would have a significant price effect. MAR (Art. 7.1.(b)) defines that inside information about commodity derivatives is considered abusive if it is precise information that has not been made public contrary to what would reasonably be expected or required according to legal or regulatory provisions, market rules, contracts, practices or customs relating to that commodity derivative or market, and would have a significant price effect on related derivatives or spot markets.

The **market manipulation** (Art. 12) that is prohibited in agricultural commodity derivatives and spot markets is giving false signals about the supply and demand or the price of the derivatives or related spot commodity contracts, or securing abnormal prices of the derivatives or related spot commodity contracts, or securing a dominant position over the demand or supply of a commodity derivative or related spot commodity contract (resulting in unfair trading conditions). MAR Annex I lists indicators of manipulative behaviour, e.g. trade orders that are a significant part of the daily volume of a derivative and related spot market contract and lead to a significant change in prices. In other words, MAR and CSMAD cover behaviour in spot agricultural commodity markets when having a likely effect on any agricultural commodity derivative market, and vice versa!

HFT and algorithm traders are also prohibited from abusive practices through cancelling of orders, disrupting the functioning of the trading system, or applying specific abusive strategies.

Manipulation of **benchmarks** (e.g. an agricultural commodity index) is explicitly prohibited.

MAR regulates the minimum administrative measures and **sanctions** — pecuniary sanctions up to of €5 million for natural persons—, to be enacted by national competent authorities. CSMAD establishes the minimum criminal sanctions — up to 4 years of imprisonment for natural persons — which national competent authorities have to impose for serious cases. Judges, prosecutors, police and those competent authorities' staff involved in criminal proceedings and investigations have to receive appropriate training to deal with complex market abuse cases. The competent authorities need to have extensive (on site) investigatory, supervisory and sanctioning powers, including requesting information from related spot market participants, having direct access to traders' systems, and powers to suspend a commodity derivative trading or practice.

National competent authorities have to **cooperate** with each other and with ESMA (Art. 25). This obligation to cooperate also applies to the EC regarding exchange of information about agricultural products (listed in TFEU Annex 1: see Section 3.2.2.). Competent authorities also have to cooperate with third country spot market authorities when they suspect market abuse, and in order to have a consolidated overview of the agricultural commodity derivatives and spot markets, and to detect and sanction cross-market and cross-border market abuses. They should thereto conclude cooperation agreements with third country supervisors where necessary.

⁵¹ OJ L 96, 12.4.2003, p. 16-25: Directive 2003/6/EC of the European Parliament and of the Council of 28 January 2003 on insider dealing and market manipulation (market abuse).

ESMA has diverse coordinating functions in MAR, and must regularly find out about new abusive HFT strategies. ESMA has to publish an annual **report** with aggregate information about administrative and criminal investigations, measures, sanctions and fines by national authorities.

2.2.5 AIFMD – a first EU law covering hedge funds

Official name

The Directive 2011/61/EU on ‘*Alternative Investment Fund Managers*’ is abbreviated **AIFMD**.⁵²

Implementation dates

The AIFMD came into force on 22 July 2011 and was transposed in national law by 22 July 2013. Although ‘*Alternative Investment Fund Managers*’ (AIFMs) were obliged to start complying on 22 July 2013, AIFMs already in operation before that date could apply until 22 July 2014 for the authorisation by their regulator. Most of the delegated acts, regulatory and implementing technical standards and guidelines were already been adopted by 1st July 2014⁵³. Some rules will not be applicable to all EU member states until after 22 July 2015 (Art. 67).

Regulatory aspects as regards agricultural commodity derivatives markets

The AIFMD lays down the rules for the authorisation of, and the operation, behaviour, marketing and transparency by managers (AIFMs) who manage and/or market ‘alternative’ investment funds (AIFs) in the Union. AIFs include hedge funds —some of which are specialised in trading commodity derivatives—, and private equity funds. The AIFMD applies to the managers of collective investment funds that are not covered by the UCITS Directive (see below 2.2.7) and may in principle only market their funds to, and raise money from, professional investors. The managers of AIFs are those persons or entities who perform at least investment management functions being both portfolio management and risk management. This directive covers EU and third country managers of EU based or foreign AIFs —many (commodity) hedge funds are managed/operated from the US and/or based in tax havens—, authorised or not to operate throughout the EU according to the AIFMD.

Powers to supervisors and regulators

The AIFs themselves continue to be regulated and supervised at national level. Also the supervision of AIFMs remains primarily the responsibility of national competent authorities. The AIFMD provides the latter with powers to investigate, impose dissuasive penalties and prohibit activities, in order to ensure the orderly functioning of markets. Home and host supervisors of AIFMs and AIFS in and outside the EU, need to cooperate and coordinate, which results in a complex web of coordination of supervision for which ESMA can have a facilitating role. ESMA keeps a public register of each AIFM authorised under AIFMD.

AIFMs need to regularly report to the competent supervisors (Art. 24) and, on request, provide them with an annual **report** for each of the AIFs they market in the Union. Some of

⁵² OJ L 174, 1.7.2011, p. 1-73: officially called in full ‘*Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010*’.

⁵³ OJ L 83, 22.3.2013, p. 20; see also: ESMA, Guidelines on key concepts of the AIFMD, Ref. 2013/611, 13 Augustus 2013, <http://www.irun.org/turismo/down/AIAKO-HARRIAK-Recorrido-1.pdf> (viewed 2 July 2014).

the details⁵⁴ to be provided to home member state authorities, which are important as regards agricultural commodity derivatives, are:

- the markets in which the AIFM actively trades;
- which investment strategies are used, such as 'managed futures/Commodity Trade Advisor (CTA)', 'other strategies' such as 'commodity fund';
- the exposure to commodity derivatives in which the AIF is investing and trading in, including 'livestock' and 'agricultural products' as underlying commodities;
- investments in physical assets, including 'physical: commodities', timber and 'other';
- investments in collective investment undertakings, including ETFs;
- the value of the turnover in each asset class, including 'commodity derivatives', and commodities as physical assets;
- the risk profile of the derivatives that are traded on exchange and/or OTC.

Detailed information is also to be provided to investors. If required by other laws, the AIF needs to make public a prospectus with information including its investment strategies and operational procedures, the latest net asset value of the AIF, and the annual report (as stipulated in AIFMD, Art 23.1-2).

2.2.6 CRR-CRD IV – how banks are regulated as regards agricultural commodity derivatives and agricultural commodities

Official name

The Regulation (EU) No 575/2013 on '*prudential requirements for credit institutions and investment firms*', is hereafter abbreviated as **CRR**.⁵⁵

The Directive 2013/36/EU on '*access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms*', is hereafter abbreviated **CRD IV**.⁵⁶

Implementation dates

CRR and CRD IV were applied from 1 January 2014 onwards, including at national member state level. The CRR technical standards, delegated acts or implementing acts are to apply from 31 December 2014 onwards (with a few exceptions). The new bank rules, however, have very long transition periods for many provisions, especially in CRR, and most provisions should be in force by 1 January 2019.

Regulatory aspects as regards agricultural commodity derivatives markets

Overall, CRR and CRD IV form together the legal framework that governs the authorisation of, the supervisory framework and the prudential rules for, credit institutions and investment firms. This also applies to investment firms and relates to MiFID2 which coordinates the rules governing the authorisation and operational requirements for providers of investment services.

⁵⁴ OJ L 83, 22.3.2013: Commission Delegated Regulation (EU) No 231/2012, Art. 104-108, 110, Annex IV.

⁵⁵ OJ L 176, 27.6.2013, p. 1-337: officially called in full '*Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012*'.

⁵⁶ OJ L 176, 27.6.2013, p. 338-436: '*Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC*'.

The activities covered by CRR and CRD IV as regards (agricultural) commodity derivatives and physical commodities, included in the trading book, are:

- physical commodities' purchasing, selling, and stocking;
- commodity lending or borrowing transactions;
- commodity derivatives (futures, swaps, options, forwards), as defined in MiFID2;
- commodity OTC derivatives such as swaps and OTC options;
- securities financing activities, e.g. lending in relation to trade in commodity derivatives and margin lending transactions;
- 'repurchase agreement' and 'reverse repurchase agreement' whereby the title to commodity securities or commodities are transferred (Art. 4.1.82);
- long settlement commodity transactions (with a settlement or delivery date later than the market standards).

For those activities, CRR establishes uniform EU rules for very detailed prudential requirements to set aside capital buffers (also called capital requirements) and risk management requirements, as regards credit risk, counterparty credit risk, market risk, operational risk and settlement risk, credit valuation adjustment risk, and at a later stage, liquidity risk. For instance, the counterparty credit risk provisions in CRR define the agricultural commodity derivatives mostly with the highest risks compared to other commodities (Art. 274.2). CRR Art. 356 sets the conditions by which institutions with ancillary agricultural commodities business may determine the capital requirements for their physical commodity stock.

Powers to supervisors and regulators

CRD IV defines the tasks, powers and principles for national authorities to authorise, supervise and impose sanctions on which institutions, and how to impose different kind of capital buffers.

CRDI IV also stipulates how home and host country supervisors should cooperate among themselves in the EU and with third countries. There is no specific mentioning of cooperation with commodity market authorities. The CRD IV has minimal requirements for public disclosure by competent authorities themselves about their supervisory tasks (CRD IV Art. 143-144).

2.2.7 UCITS IV – EU legislation covering the commodity index funds

Official name

Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to '*undertakings for collective investment in transferable securities*' is abbreviated hereafter as **UCITS IV**.⁵⁷

A review of a few elements of previous UCITS Directives is referred to as **UCITS V**⁵⁸, covering amongst others the protection of the assets of a UCITS, remuneration policies and sanction regimes.

Note that a consultation to review UCITS legislation did not yet result in **UCITS VI**.⁵⁹

⁵⁷ OJ L 302, 17.11.2009, p. 32-96.

⁵⁸ Not yet officially published by 2 July 2014: see footnote 60 for reference.

⁵⁹ EC, *Consultation document - Undertakings for Collective Investment in Transferable Securities (UCITS): Product Rules, Liquidity Management, Depositary, Money Market Funds, Long-term Investment*, 26 July 2012,

Implementation dates

The **UCITS IV** Directive entered into force on 7 December 2009 and applied (with exceptions) in EU member states since 1 July 2011. Different ESMA guidelines and opinions explaining how to apply the Directive have been issued since.

UCITS V was adopted by the EP on 15 April 2014 and not yet officially adopted by the Council nor officially published by 2 July 2014.⁶⁰

Regulatory aspects as regards agricultural commodity derivatives markets in UCITS IV

An UCITS, an '*undertaking for collective investment in transferable securities*', is in practice mostly an investment fund, especially an exchange traded fund (ETF) that raises capital from investors who buy shares of the ETF on an exchange. Some UCITS funds are commodity (index) funds (see next paragraph). However, UCITS IV (Art. 50 (1)) stipulates that with the capital from the investors in a fund no commodity derivatives can be bought! Although UCITS IV (Art. 50 (2)) has an exemption that allows a fund to invest up to 10% of its assets in securities that do not belong to the list of assets it is allowed to buy, this does not apply to derivatives instruments. In other words, direct investment in commodity derivatives is not allowed.⁶¹

Commodity index tracking funds: A UCITS fund is allowed to track a commodity index if that commodity index is composed of different commodities⁶² and is transparent (i.e. rather standard and can be easily calculated by the investors). A commodity index fund should provide its investors with the return of the index price, but the fund's assets (paid in by the fund's investors) have to be invested in a —compulsory diverse— range of non-commodity assets, including government bonds (Art. 52). If the index is being adapted by the fund manager, the frequency of this 'rebalancing' is limited (rebalancing on intra-daily and daily basis is not allowed). Moreover, rebalancing strategies and its effects on the costs within the strategy should be disclosed in its prospectus.

In practice, a commodity index UCITS fund often has an OTC total return swap, i.e. an OTC derivative, with a counterparty who guarantees to pay the price of the commodity index. According to UCITS IV (Art. 51 (1)), the investment strategy of the total return swap counterparty does not have to be published although it could include direct buying up of agricultural commodity futures that are included in the tracked commodity index.

UCITS management companies —can be asset management companies, banks and hedge funds— have to be able, according to UCITS IV, to fulfil risk-management requirements, to monitor and measure at any time the risk of the positions, including accurate and independent assessment of the value of OTC derivatives.

Powers to supervisors and regulators

National competent authorities have to carry out the duties provided for in the **UCITS IV** and be granted the necessary supervisory and investigatory powers. They have to

http://ec.europa.eu/internal_market/consultations/docs/2012/ucits/ucits_consultation_en.pdf (viewed 2 July 2014).

⁶⁰ European Parliament legislative resolution of 15 April 2014 on the proposal for a directive of the European Parliament and of the Council amending Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) as regards depository functions, remuneration policies and sanctions (COM(2012)0350 – C7-0178/2012 – 2012/0168(COD)) (Ordinary legislative procedure: first reading)
<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2014-0355&language=EN> (viewed 2 July 2014).

⁶¹ ESMA, *Opinion Article 50(2)(a) of Directive 2009/65/EC*, Ref. 2012/721, 20 November 2012.

⁶² ESMA, *Guidelines on ETFs and other UCITS issues*, Ref. 2012/832, 18 December 2012.

cooperate with each other whenever necessary, and notify other competent authorities when they observe acts in breach of the Directive being carried out by entities not subject to their own supervision.

UCITS V strengthens the administrative and criminal sanctions regimes in member states, and cooperation between competent authorities.

2.2.8 KID for PRIIPS – how to inform individual investors

Official name

The Regulation on 'Key information documents for investment products', also referred to as the regulation on Packaged Retail Investment Products, is abbreviated **PRIIPS regulation**. The key information document is abbreviated **KID**.

Date of implementation

The Regulation was not officially adopted by the Council nor officially published by 2 July 2014. It was adopted by the European Parliament on 15 April 2014.⁶³

Regulations regarding agricultural commodities derivatives

Packaged Retail Investment Products are complex investment products that are sold to non-professional individual investors and can contain a diversity of financial products (bonds, commodity derivatives, etc.) based on a diversity of strategies (e.g. commodity index tracking). The PRIIPS regulation does not regulate the investment strategy of the manufacturers of PRIIPS nor the sales rules, which are addressed in MIFID2. The PRIIPS regulation mainly defines the information that must be given to the individual investors, through the Key Investment Document (KID). The format and content of the KID is required to be written in clear and simple language (no jargon), and to inform for instance about the product's risks and what possibilities of losing money.

2.3 Comparing EU regulation: main elements of importance to agricultural commodity derivatives

In order to assess in Section 3 of this study the strengths and weaknesses of the above described EU laws and rules, this sub-section 2.3. compares important parts of the EU regulatory framework with the legislation and regulation in two very different countries, the US and India, both having large agricultural commodity exchanges and an important, but different, farmers' community.

2.3.1 Comparing the US legislation with the new EU regulatory framework on commodity derivatives

A detailed table in the Annex of this study (p. 101) provides a clear and technical comparison between EU and US regulations and standards covering the agricultural commodity derivatives markets. Based on that overview, the following conclusion can be made about the similarities and differences between the new EU legislative regime and the

⁶³ 'European Parliament legislative resolution of 15 April 2014 on the proposal for a regulation of the European Parliament and of the Council on key information documents for investment products (COM(2012)0352 – C7-0179/2012 – 2012/0169(COD)) (Ordinary legislative procedure: first reading)', <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P7-TA-2014-0357> (viewed 2 July 2014).

new US legislation, the **Dodd-Frank Consumer Wall Street Reform and Protection Act** (DFA, 2010), and regulatory standards as far as they have been decided by 2 July 2014.

The main similarities between the EU and US legislations are:

- The EU and the US have both legislation in place for the protection of the pricing and hedging functions of the (agricultural) commodity derivatives trading venues and their links with the spot markets.
- Both the EU and the US have legislated the reporting, clearing and trading obligations of OTC (commodity) derivatives.
- In both the EU and the US, the clearing obligation of OTC agricultural commodity derivatives applies only after the competent authorities have authorised which derivatives are subject to the clearing obligation.
- Both legislative frameworks impose operational and other requirements on CCPs.
- Both EU and US allow for trading venues that are less regulated than exchanges (US: *swap execution facilities (SEFs)*; EU: *organised trading facilities (OTFs)*). The key features of SEFs on which swaps are to be traded via an electronic central order book, are essentially the same as OTFs in the EU, but it is not yet clear if all the specific details are the same.
- Both impose limits on net positions of commodity derivatives traded on exchange and off exchange.
- The EU and the US have high requirements e.g. for risk mitigation, imposed on financial and (to a lesser extent) non-financial counterparties engaging in OTC derivatives, especially when not cleared, although in different terms.
- The EU public reporting system of exchange traded commodity derivatives, as set up under MiFID2, resembles that of the US where Commodity Futures Trading Commission (**CFTC**) weekly publishes Commitment of Traders report for each futures and options contract in agriculture commodities (except that the EU⁶⁴ might have a category covering investment funds and a category investment firms (plus a category emission operators), while the US reports have a 'managed money' category, a swap dealers' category (which includes ETFs and index funds), and a category 'non reportable positions').

While there are many general similarities, there are quite sometimes technical **differences between EU and US rules that affect agricultural commodity markets, such as:**

- The list of 'core' **agricultural commodity derivatives contracts** that are subject to position limits is clear in the US, while the new EU laws refer to different lists of agricultural products.
- The EU **position limit** regime does not have the aim, as in the US, to diminish, eliminate or prevent excessive speculation, nor does it have a definition of excessive speculation (US definition: sudden or unreasonable fluctuations or unwarranted changes in the price of a commodity).
- The US authorities have drafted new **position limits standards** (November 2013) while the EU draft proposals for the EU methodology based on which the position limits need to be calculated will be presented by 3 July 2015⁶⁵.

⁶⁴ See: ESMA, *Discussion Paper – MiFID II/MiFIR*, 22 May 2014, p. 436-437.

⁶⁵ First proposals have presented by: ESMA, *Discussion Paper – MiFID II/MiFIR*, 22 May 2014, p. 416-426.

- **National** authorities set the position limits in the EU's single market of financial services, following the EU methodology of calculation, while in the US a central financial authority, the CFTC, sets the position limits.
- **Public reporting** on OTC derivatives trade is different between the US and the EU: the US requires (almost) real time publication of swap transaction information, no aggregate information, with less details than the EU. The EU requires only a weekly publication of aggregate information of OTC derivatives trade reported to trade repositories.
- **Reporting trade** in OTC derivatives to trade repositories require different data: in the EU, the **non-financial entities** have end responsibility for reporting their part of the trade, while in the US they can ask their counterparty to report to swap data repositories as only one of the two counterparties need to report. In the EU, all counterparties need to report more details than in the US, which makes it more burdensome for EU non-financial entities but more transparent for supervisors.
- EU non-financial entities need to report on their **risk management**, i.e. it needs to be in place. There are less risk management requirements in the US.
- Non-financial counterparties in the EU have to monitor and report when they exceed the **clearing threshold** in a non-hedging OTC derivatives class and if so, clear all OTC derivatives. In the US, all non-hedging OTC/swap trade needs to be cleared.
- The **clearing requirements** in the EU and the US are subject to different legal criteria on which decisions need to be made by the regulators. As a result, ESMA and CFTC can potentially take divergent views as to which derivatives need and can be cleared and traded on a trading venue.
- There are many technical differences in the EU and US requirements (operational, risk management, collateral management etc.) to which **CCPs** have to abide (Atlantic Council, 2013: 38).
- **Algorithmic high frequency trading** strategies in the EU are being much more restricted, and submitted to different kind of requirements than in the US, where the regulation process is starting.
- **Hedge funds** (often active on commodity derivatives markets) are clearly, but not strictly, regulated in the EU through the AIFMD. In contrast, they are hardly regulated in the US (but supervised by the CFTC).
- US non-financial counterparties have to **register as a swap dealer** in the US if they deal in more than \$8 billion notional amount outstanding of swaps in a single year (this is the threshold until 2018, after that the threshold of \$3 billion notional amount outstanding per year). In the EU, in contrast, there are exemptions from MiFID2 requirements (not from position limits) for entities that are not investment service providers but provide investment services in commodity derivatives to the customers and suppliers of their main business, provided this is on an ancillary basis (meeting particular criteria) or as a market maker.

Difficult EU-US cooperation to solve differences

The EU and the US authorities realise that the majority of the global derivatives business is conducted within or between the EU and the US. Since they are under pressure by the financial industry not to disrupt or undermine profitability of cross-border commodity derivatives transactions, they are trying to limit their divergences in rules, standards and

timing of implementation, through a cooperation agreement called a '*Path Forward*'⁶⁶, although the process does not go smoothly (see Section 3.2.5). This cooperation deals with differences regarding, for instance, mandatory clearing obligations, regulation of intra-group swaps/derivatives trades, margin requirements on uncleared swaps/OTC derivatives, reporting to trade repositories, and CCP initial margin coverage.

2.3.2 Agricultural commodity derivatives markets in India⁶⁷

To explore whether other countries' regulation of agricultural commodity derivatives could provide useful lessons (incorporated in Section 3) for the EU, this section explains the regulatory regime and resulting practices in India, a country with many small farmers and important commodity exchanges. The total value of commodity futures traded on five exchanges was Rs. 170,468 billion (ca. EUR 2,031.44bn) notional amount outstanding in the financial year 2012-13, 12.6% of which were agricultural commodity futures.

The **main differences** between the EU's new agricultural commodity derivatives regime and India's two main legislations (the Forward Contracts (Regulation) Act of 1952— little changed since then —, and the Banking Regulation Act of 1949) is that these two acts:

- prohibit option trading and OTC derivatives in commodities;
- prohibit banks and non-banking financial players from trading in physical and financial agricultural commodities (but allow other speculators to do so).

The *Forward Markets Commission (FMC)* is India's competent regulator and supervisor. It has the **power to**:

- impose and revise position limits on futures;
- impose different types of margins, e.g. based on price volatility;
- limit (daily/weekly) price fluctuations and set price limits;
- ban certain futures contracts or their trading;
- approve all futures contracts before being signed, changing the conditions attached to them if appropriate (e.g. the period in which an agricultural commodities contract is valid);
- oblige exchanges to declare their warehouse stocks.

During the food price crisis in 2007-2010, the FMC **delisted** wheat and other derivatives contracts. A previous ban on algorithmic trading in mini contracts (intended for small farmers) was reversed in January 2014 after new regulatory guidelines were introduced along with the obligation that commodity exchanges submit a monthly report on algorithmic trading.

in practice, 99.99% of the derivatives trade is carried out for **speculative purposes**, with no actual deliveries of commodities. The absence of farmers is largely the result of expensive fees for membership of exchanges, burdensome payment of margins, the poor infrastructure for the delivery and warehousing of commodities, and the absence of appropriate infrastructure for trading on electronic exchanges. Moreover, the minimum lot size in futures contracts is much larger than the marketable produce of most farmers in

⁶⁶ CFTC, *The European Commission and the CFTC reach a Common Path Forward on Derivatives*, Press release, 11 July 2013, <http://www.cftc.gov/PressRoom/PressReleases/pr6640-13> (viewed 23 March 2014).

⁶⁷ Except otherwise mentioned, all information is based on Mahajan et al. (forthcoming).

India. Futures markets were found to fail to provide an efficient hedge against volatile prices (Salvadi Easwarana et al., 2008).

Due to the FMC's lack of capacity and powers, a significant number of **abuses** took place such as not collecting margins and hoarding on the physical markets. This has already harmed thousands of guar producing farmers who, based on manipulated favourable prices, bought seeds and farm inputs at very high cost but lost out after prices fell below their expectations in 2013. In contrast, speculators made profits of Rs.12910 million (ca. EUR 154.6 million) over the same period.

3 ASSESSMENT OF EU COMMODITY DERIVATIVES REGULATION AND ACCOMPANYING RECOMMENDATIONS

KEY FINDINGS

- The EU is significantly **behind schedule** in implementing the G20's key measures to protect the functioning of the agricultural commodity derivatives markets. Although the EU is implementing the G20 objectives and instruments in general, some important details of the G20 agreements are omitted.
- The different EU laws on financial markets, regulating various aspects of agricultural derivatives markets, include **very few measures that specifically deal with the agricultural commodity derivatives markets** or the needs of the farming community.
- The new EU regulatory and supervisory framework for commodity derivatives markets introduces **many instruments**, with strengths and weaknesses, designed to protect the integrity of the price discovery and hedging functions of agricultural derivatives markets. The enactment through different laws and numerous important technical standards that still need to be decided result in **a complex framework** which cannot yet be fully assessed. It raises questions about the supervisory and enforcement capacities of the relevant authorities.
- A few EU financial laws make the **link between the derivatives markets and spot markets in agricultural commodities**, which is crucial for the prevention of cross-market abusive practices. The EU's agricultural policy has not integrated the linkages between the spot and derivatives markets, so that the spot market instruments and supervisory capacity are missing in case farmers want to increase their use of agricultural commodity derivatives markets.
- A substantial amount of key technical standards and details still needs to be decided in the period after July 2014. These decisions will maintain or increase the strengths and weaknesses of the current EU laws. The **Committee on Agriculture and Rural Development (COMAGRI) should request to be involved in considering to accept or reject the technical standards that are submitted to the European Parliament for approval before being adopted.**
- Agricultural policymakers and authorities at the EU and the national level should initiate their own capacity building, monitoring and supervisory mechanisms of the derivatives and spot markets, in order to identify the needs, problems and deficiencies for EU farmers and the EU agricultural sector in the implementation of the new EU financial laws, based on which they can take initiatives.

This Section 3 assesses the EU regulatory framework, explained in Section 2, in terms of its effectiveness in preserving the two key functions of EU agricultural commodity derivatives markets: namely price discovery and the hedging of price risks for farmers and the EU's agricultural sector. EU regulation can be said to be effective in this regard when prices in EU agricultural commodity derivatives markets are: 1) considered to be reliable for the orderly settlement of derivatives contracts and converging with spot market prices; 2) not

excessively volatile on a daily, weekly or monthly basis; 3) not subject to market manipulation and other abuse; and 4) subject to effective supervision of law enforcement.

Based on the assessments reached, this section will provide recommendations for improving the integrity of the agricultural commodity derivatives markets and for adjusting the EU regulatory framework in the future. The recommendations will focus on what can be done by the Committee on Agriculture and Rural Development of the European Parliament, henceforth abbreviated as **COMAGRI**. To facilitate reading, each of the assessments will be followed immediately by the recommendations. The recommendations will take into account the reality, constraints and the political economy of the relevant EU institutions. Where useful, the assessment and recommendations will be based on a comparison with US regulation and risks of regulatory arbitrage, and lessons learned from the Indian practice.

The following table provides an overview of how the different participants in agricultural commodity derivatives markets are covered by the different laws mentioned in Section 2.

Table 3: Participants of derivatives markets regulated by EU laws

EU LAW	HOW THE DIFFERENT PARTICIPANTS IN AGRICULTURAL COMMODITY DERIVATIVES MARKETS ARE COVERED BY EU LAWS
MiFID2 MiFIR MAR CSMAD	<ul style="list-style-type: none"> Cover most participants who trade on agricultural commodity trading venues (exchanges, MTFs, OTFs) — i.e. 'commercials', banks, hedge funds, US managers of commodity index funds (including ETFs), portfolio managers of other funds and pre-packaged retail products (PRIIPs) who cover agricultural commodities, as well as others providing investment services that are related to agricultural commodity derivatives (such as broker-dealers, advisors).
MiFID2	<ul style="list-style-type: none"> Regulates agricultural commodity trading and trading on these venues (exchanges/regulated markets, MTFs, OTFs).
MiFIR	<ul style="list-style-type: none"> Requires OTC commodity derivatives approved for clearing to trade on trading venues.
EMIR	<ul style="list-style-type: none"> Covers most participants when trading in OTC agricultural commodity derivatives. Regulates trade repositories who register and report derivatives trades.
EMIR MiFID2 MiFIR	<ul style="list-style-type: none"> Regulate operators of central counterparties (CCPs).
MAR CSMAD	<ul style="list-style-type: none"> Cover all participants in agricultural commodity exchanges, OTC agricultural commodity derivatives markets and agricultural commodity spot markets when they engage – or attempt to engage – in abusive activities.
CRR CRD IV	<ul style="list-style-type: none"> Regulate how much capital banks and investment firms must hold and which risk management systems must be used when trading in agricultural commodity derivatives and when exposed to a CCP.
UCITS IV	<ul style="list-style-type: none"> Allows that investors in commodity index funds are exposed to prices of a mixed (i.e. not a single) commodity index. Prohibits that managers of commodity index funds (including ETFs), which guarantee that they follow UCITS rules, directly hold (agricultural) commodity derivatives, but allows UCITS fund managers to engage in total return swaps. The managers of total return swaps can hold exchange-traded or OTC (agricultural) commodity derivatives.

PRIPs Regulation	<ul style="list-style-type: none"> Specifies the specific information that should be provided to the retail investors in a KID when packaged retail investment products are sold.
AIFMD	<ul style="list-style-type: none"> Regulates the minimum requirements on the transparency, authorisation and behaviour of managers of hedge funds and other alternative non-UCITS funds.

3.1 Assessment of the current state of EU legislation: objectives and principles

In order to make a more general assessment, this section considers whether the objectives of the G20 regarding commodity derivatives markets and the objectives of the current EU legislation are being fulfilled. In addition, the EU objectives will be assessed on their adequacy in regulating the specific issues of importance for the agricultural commodity derivatives markets and their participants.

3.1.1 Objectives regarding agricultural commodity derivatives to which the EU agreed in international fora (G20, FSB, IOSCO principles): general assessment

The international community experienced a rude awakening in 2007-2008 when food prices increased sharply — based in turn on prices on agricultural commodity exchanges that function as international price benchmarks — triggering food riots in developing countries that import much of their food. The dramatic rise in the volatility of agricultural commodity prices during this period not only led to a deterioration in food security around the world, it also threatened farmers' livelihood as the hedging of price risks through derivatives contracts stopped functioning. Farmers faced a sharp increase in their hedging costs and suffered significant losses on those derivatives contracts they entered into on exchanges. In the US, farmers had difficulty obtaining bank loans, as banks considered the volatile prices to be unreliable guarantees for income at harvest time (see Section 1).

In 2010, the G20 asked the FAO, IFAD, the IMF, the OECD, UNCTAD, the WFP, the World Bank and the WTO to provide policy responses to deal with price volatility in the financial food and agricultural markets. One of the recommendations was to **improve information and transparency in futures and OTC commodity derivatives markets**, and to **ensure appropriate rules to enhance the economic functions** (i.e. hedging and price discovery) of these markets, in the context of the regulatory overhaul of the financial markets.⁶⁸ This was recognition of the inadequacy of existing regulation with regard to agricultural commodity derivatives markets, which had led to undue price volatility and price hikes.

Even if the academic literature at that time was not conclusive on whether the price volatility was caused by the increasing dominance of financial participants on commodity exchanges (i.e. the increasing dominance of financial participants with no motives related to producing, trading or selling physical agricultural commodities), the international community felt the need to prevent speculative participants from having negative effects on the hedging and pricing functions of commodity derivatives markets. First, the G20 Agriculture Ministers adopted an **Action Plan on Food Price Volatility and Agriculture** in June 2011. Second, at the G20 summit in November 2011, the leaders endorsed the

⁶⁸ FAO, IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO, IFPRI, UN-HLTF, *Price volatility in the financial in food and agricultural markets: Policy responses*, 3 May 2011: Recommendation 3.

nineteen **Principles on the Regulation and Supervision of Commodity Derivatives Markets** proposed by **IOSCO** (*International Organisation of Securities Commissions*). Third, they also agreed on the objective 'that market regulators should be granted effective intervention powers to prevent market abuses. In particular, market regulators should have and use formal position management powers, among other powers of intervention, including the power to set ex-ante position limits, as appropriate'.⁶⁹ The use of 'ex-ante' position limits would prevent position limits from being set only after problems have occurred and would moreover not be only dependent on decisions by regulators or exchanges, as is the case with 'position management'.

Some agricultural commodity derivatives are traded over-the-counter (OTC), as explained in Section 1. Although precise data are not available, OTC agricultural commodity derivatives are estimated to be a small percentage of all agricultural commodity derivatives worldwide. Since all OTC derivatives markets were only lightly regulated before the financial crisis of 2008, and since they were considered to have contributed to systemic risk during the crisis, the G20 leaders agreed in 2009 on some international objectives for their regulation and have since re-committed themselves to these objectives. The main **objectives** were to **improve the transparency** of these markets, to **mitigate systemic risk**, and to **prevent market abuse**. To achieve these objectives, G20 members committed themselves to accomplishing the following by the end of 2012:⁷⁰

- have all OTC derivatives contracts be reported to trade repositories;
- have all standardised OTC contracts cleared through central counterparties (CCPs);
- have all standardised OTC contracts traded on exchanges or electronic trading platforms and subject to central clearing;
- have non-centrally cleared OTC contracts subject to higher capital requirements (and minimum margining requirements).

In 2010, the *Financial Stability Board (FSB)* produced twenty-one **recommendations for the reform of OTC derivatives markets**. The FSB has been put in charge of monitoring the implementation of these recommendations via regular progress reports.⁷¹

A **general assessment** of these G20 objectives as regards agricultural commodity derivatives is as follows:

- In general, the G20 measures focuses on providing more transparency and limiting the risks to the stability of the financial system. Too little attention is paid to the capacity to supervise and enforce the measures in a complex market with many cross-border interconnections.
- The G20 has no enforcement mechanisms to ensure that the G20 members are implementing the objectives and agreements. The non-binding peer pressure, and the FSB and IOSCO's monitoring reports are insufficient to surmount the lack of political will or capacity to implement the agreed reforms, which some G20 members might consider to be against the interests of their financial sector.
- The regulation of the agricultural commodity derivatives markets was left to the financial regulators and those making decisions on financial reforms at the

⁶⁹ G20, *Leaders Summit of Cannes, Communiqué*, 3-4 November 2011, paragraph 18, http://g20civil.com/documents/Cannes_Leaders_Communiq_%204_November_2011.pdf (viewed 16 March 2014).

⁷⁰ FSB, *OTC Derivatives Market Reforms - 6th progress report*, 2 September 2013, https://www.financialstabilityboard.org/publications/r_130902b.pdf (viewed 26 March 2014).

⁷¹ Ibidem. By 2 July 2014, the latest progress report was published on 8 April 2014: http://www.financialstabilityboard.org/publications/r_140408.pdf (viewed 2 July 2014).

international and EU level. After November 2011, Agricultural Ministers were no longer involved in regulatory issues related to the agricultural commodity markets.

- The G20 objectives, instruments or regulations to be put in place for commodity derivatives markets are **not all specifically focused on agriculture**. In practice, the G20 has shown that it is especially concerned about energy (derivatives) markets. Nevertheless, the nineteen *IOSCO Principles on the Regulation and Supervision of Commodity Derivatives Markets* are useful in assessing how far the G20 members, including the EU, have come in improving the regulation of their agricultural commodity derivatives markets and exchanges. This study (3.1.2., 3.1.3.) indicates the main deficiencies in the EU's implementation of the nineteen principles according to the current state of the EU's regulation and supervision.
- The rules for OTC derivatives markets agreed by the G20 fail to address the specifics of OTC agricultural commodity derivatives markets. The Financial Stability Board only monitors the progress in implementing the twenty-one recommendations for OTC derivatives market reform in general terms and does not look specifically at OTC agricultural commodity derivatives markets.

RECOMMENDATION: The COMAGRI, by means of an initiative report, could advise the EU to request the FSB and IOSCO to pay particular attention to the agricultural commodity derivatives markets when reviewing the implementation of the G20-agreed rules and principles, such as *IOSCO's Principles on the Regulation and Supervision of Commodity Derivatives Markets*.

3.1.2 The G20, EU legislation of commodity derivatives, and their objectives

This sub-section assesses in general how the EU's various laws, explained one by one in Section 2, are fulfilling the objectives set out by the G20 with regard to regulation of the commodity derivatives market. In addition, the objectives in the EU laws themselves will be assessed for their effectiveness in regulating agricultural commodity derivatives markets.

The G20 objectives and agreements have been important elements of EU's new regulatory framework. For the first time, the recent EU laws cover agricultural commodity exchanges, OTC agricultural commodity derivatives markets, and even agricultural spot markets as regards their protection of integrity against market abuse. Many of the preambles (called 'Recitals' within the EU institutions) of the EU financial laws covered in this study refer to the G20 objectives and agreements, and IOSCO's Principles on the Regulation and Supervision of Commodity Derivatives Markets, although no explicit formal pledge to them is made in the law. It is now quite clear that the EU is significantly behind schedule in implementing the agreed G20 timetable, for instance regarding the implementation of the clearing and trading obligation for OTC derivatives which was due by end of 2012. By 1 July 2014, the EU still needed to decide and implement many technical standards and details through 'level 2' decision making (as explained in Section 2.1.) to meet all G20 objectives.

RECOMMENDATION: The EP as well as the COMAGRI should ensure that no further delays are incurred at 'level 2' (decision-making process on technical standards) on the details of implementing the MiFID2, MiFIR, EMIR, MAR and CS-MAD. It should be emphasised that a speedier implementation is desirable in particular to avoid regulatory arbitrage.

The different EU laws do not always explicitly stipulate their objectives, but the main political aims that can be distinguished are quite similar:

- Increase transparency;
- Protect investors (and increase investors' confidence);
- Safeguard the efficiency, orderly functioning, and integrity of the overall (financial) markets, and the stability of the EU's financial system;
- Create an integrated financial market;
- Establish common EU regulation relating to investment firms, investment services and/or (the sale of) financial instruments;
- Provide the competent authorities with common supervisory rules, the necessary powers, and coordination arrangements to implement and enforce the above common rules.

Overall, these objectives do little to orient the financial markets towards servicing the needs of the broader economy and society, let alone the long and short-term needs of small and large European farmers and others in the agricultural supply chain. It was only with its presentation of the overall EU financial reform package in 2010,⁷² and in the context given in 2011 for the MiFID review, that the EC explained that the aim was to establish '*a safer, sounder, more transparent and more responsible financial system working for the economy and society as a whole in the aftermath of the financial crisis*'.⁷³ Nevertheless, the banking reform regulation (CRR) is the only legislation that mentions (Recital 32) the overall objective of encouraging economically useful banking that serves the general interest, and discouraging unsustainable financial speculation without real value. In contrast, there is no mention of 'speculation' in MiFID2, MiFIR and EMIR. However, in January 2014, the EC proposed to restructure too big-to-fail banks whereby they would be 'prohibited from buying and selling financial instruments and commodities for their own account, as this activity has limited or no added value for the public good and is inherently risky' (Recital 15).⁷⁴

RECOMMENDATION: Before any legislative proposal is made, the EC, the EP and the Council should clearly identify whether a directive or regulation affects the farming and agricultural sectors. Clear objectives should be established for the agricultural sector's specific needs and its sustainability. For instance, the upcoming reform of banking structures, as proposed by the EC on 29 January 2014, should ensure the prohibition of trading in physical agricultural commodities and proprietary trading in agricultural commodity derivatives, as well as ensure the prevention of any harmful bank activities related to agricultural commodity derivatives, namely when banks engage in hedging for farmers, market-making on agricultural commodity trading venues, lending to farmers and hedge funds related to their trading in agricultural commodity derivatives, selling financial products such as commodity ETFs based on an index that includes agricultural commodity derivatives, providing clearing services for agricultural commodity derivatives, providing structured commodity (trade) finance, designing commodity indexes, etc.

⁷² See: EC, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the European Central Bank: Regulating financial services for sustainable growth, (COM (2010) 301 final), 2 June 2010, http://ec.europa.eu/internal_market/finances/docs/general/com2010_en.pdf (viewed 2 July 2014).

⁷³ EC, Proposal for a Directive on markets in financial instruments repealing Directive 2004/39/EC, Document COM(2011) 656 final 2011/0298 (COD), 20 October 2011, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0656:FIN:EN:PDF> (viewed 14 March 2014): p. 2.

⁷⁴ Proposal for a Regulation of the European Parliament and of the Council on structural measures improving the resilience of EU credit institutions, COM(2014) 43 final, 29 January 2014, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014PC0043&from=EN> (viewed 2 July 2014).

The EU objective of creating an integrated financial market and establishing common EU regulation, integrated into the new EU legislation, has **not** been accompanied by an objective to create a single, **integrated supervisory mechanism of commodity derivatives markets and their infrastructure**. Rather, supervision is based on EU rules but dominated by national authorities, with different levels of supervision, coordination and intervention powers for ESMA (and other European supervisory authorities for systemic risk issues) depending on the specific EU legislation.

RECOMMENDATION: The EU should establish a specific monitoring and reporting mechanism whether competent authorities for financial and agricultural commodity markets have sufficient capacity to oversee (cross-border) transactions in agricultural commodity derivatives and (cross-border) spot agricultural trade, and their interlinkages. If a deficiency is found in the supervision of agricultural commodity derivatives and spot markets, at the national and EU level (EC, ESMA), the EC should then propose appropriate means of improvement, not excluding the possibility of more supervision and enforcement at the EU level.

The G20 objectives integrated in the EU legislation

Even if the EU objectives are not explicitly the same as those of the G20, except for increasing transparency, the following G20 objectives have been integrated into the EU legislation itself (to varying degrees, as discussed in more detail in the next sub-sections):

MiFID and **MiFIR** are the main EU instruments to implement the G20 objectives of setting ex-ante position limits on trade in commodity derivatives exchanges and other trading venues, and to grant market regulators formal position management powers and intervention powers.

The objective of preventing market abuse in commodity derivatives markets is expressed in the EU legislation of **MiFID** (Art. 57), **MAR** and **CSMAD**, and is being integrated in the prohibition of market manipulation and insider dealing (MAR, CSMAD) and measures such as position limits and the regulation of algorithmic HFT strategies (MiFID2, MiFIR).

EMIR is the main EU law that assimilates, but is not totally conform to, the G20 objectives to:

- have all OTC derivatives contracts reported to *trade repositories (TRs)*;
- have all standardised OTC contracts cleared through *central counterparties (CCPs)*;
- have non-centrally cleared contracts subject to higher capital requirements (and minimum margining requirements).

MiFIR is the EU law that is close to the G20 objective that all OTC standardised contracts should be traded on exchanges or electronic trading platforms and subject to central clearing.

Only **MiFIR** makes explicit reference to the integrity of the commodities' spot markets, while **MAR** and **CSMAD** make intervention possible in the agricultural spot markets if linked to market manipulation in the commodity derivatives market, and vice versa.

None of the EU objectives in the various legislation that cover agriculture commodity derivatives explicitly aims at supporting the price formation, price benchmarking, or price risk management for the agricultural sector and for farmers in particular. Even the objectives of the position limits were aimed at all commodity derivatives, and are regulated to cover all commodities in a way that is the result of lobbying by those interested in other commodities than agricultural commodities.

RECOMMENDATIONS:

- Given that numerous technical standards and other details of the different current EU laws still need to be decided in the coming period, the COMAGRI should strengthen its capacity to monitor and assess whether the agricultural spot markets and the interests of farmers and the agricultural sector are sufficiently protected during the implementation of these EU laws in the period after July 2014.
- The EP and the COMAGRI in particular should provide a budget to ensure that farmers' organisations all over the EU are able to monitor the decision-making of the technical standards and details of the new laws. Farmers should assess how new standards affect their needs for stable reliable prices and price risk management. This budget should also support farmers' representatives to participate in ESMA consultations related to ESMA's drafting of the detailed technical standards. The budget could also be used to support academic and public interest reports on this issue.

3.1.3 Assessing the objectives and instruments in the CAP as regards hedging by farmers through agricultural commodity derivatives

The ongoing reform of the Common Agricultural Policy (CAP) — designed to liberalise the European agricultural market — is expected to result in **more volatile and less predictable agricultural prices**. As explained in Section 1, the EC Communication on *Common Agricultural Policy (CAP) towards 2020* identified the well-functioning transmission of market signals as one of the key goals to be pursued. The reformed CAP and forthcoming CAP reforms are therefore likely to indirectly encourage an increase in transparency, hedging instruments based on market prices, and an improved functioning of agricultural commodity derivatives markets as price indicators to the market.

In 2010, the commissioner responsible for agriculture, Dacian Cioloş, did clearly stress the importance of futures markets and the need for a review of the Markets in Financial Instruments Directive (MiFID) proposed by Commissioner Barnier responsible for financial market regulation.⁷⁵ Cioloş expressed his concern about the impact of excessive speculation on derivatives markets on large parts of European agriculture, and he called for measures to be taken against the extreme volatility of agricultural prices. He also called for greater transparency of the financial markets — a call supported by many stakeholders — more supervision of derivatives markets, and progress in imposing position limits. He regarded the role of agricultural futures markets to be one of providing tools to anticipate prices, manage price volatility and facilitate the matching of supply and demand. This would help to dispel the growing distrust of commodity exchanges on the part of the different actors in the agricultural chain — a distrust that was created by surges in volatility or prices disassociated from spot markets.

Notwithstanding all the statements and discussions about speculation on food prices or the political will to combat excessive volatility in food and commodity prices, which was expressed at the G20 and by the Commissioner responsible for agriculture, **none of the EU financial laws refer explicitly to preventing excessive food price volatility** or excessive speculation that is unrelated to supply and demand in food. This contrasts with

⁷⁵ Cioloş, D, 'Il faut mettre à fin l'hyperspéculation sur les produits agricoles', speech by the EC Commissioner responsible for agricultural and rural development, 20 September 2010, http://europa.eu/rapid/press-release_SPEECH-10-462_fr.htm?locale=en (viewed on 24 March 2014, heard on 20 September 2010).

US legislation on commodity derivatives, which includes the objective of diminishing, eliminating or preventing 'excessive speculation', defined as sudden or unreasonable fluctuations or unwarranted changes in the price of a commodity or derivative thereof. The covered EU laws do not refer to the **precautionary principle**, which in this case would require policymakers to prohibit excessive speculation that could cause volatile and rising food prices in the EU and worldwide, even if clear proof of causation cannot be provided from existing research (see Section 1.4). Only **UCITS IV** (2009) prohibits fund managers from directly buying and selling — in essence, speculating in — (agricultural) commodity derivatives. Overall, EU legislation attempts to prevent, limit and stop the risk of a disorderly functioning of the market or of market abuse in the commodity spot and derivatives markets, especially by non-financial actors.

RECOMMENDATION: The different EU laws stipulate dates by which reviews of the functioning of these laws must be undertaken, generally a few years after each law is being fully implemented. These reviews should thoroughly assess the balance between hedging and speculative trading in derivatives markets, and the impact of non-hedging activities on the integrity of agricultural commodity exchanges' price formation, price indication and hedging functions. The improved transparency should provide more relevant information in this regard.

The 2013 CAP reform dealing with rural development supports '*risk prevention and management*'.⁷⁶ As explained in Section 1.2, the CAP instruments for **risk management** are financial contributions for: (a) insurance against economic losses to farmers caused by adverse climatic events and animal or plant diseases for instance; (b) mutual funds that pay financial compensation for economic losses; and (c) an income stabilisation tool that contributes to mutual funds and compensation of heavy losses. None of the support for cooperation among farmers is aimed specifically at collective risk management. The new CAP instruments have omitted any reference to the use of agricultural exchanges and OTC agricultural commodity derivatives as a potential tool for risk management of volatile prices and for '*improving the economic performance of all farms*' (one of the CAP priorities⁷⁷). Consequently, the price information channels and the structure of the agricultural markets have not been adapted to incorporate the particular requirements needed to allow the price discovery and risk-mitigating functions of the market to work well for those engaged in productive and commercial activities are currently lacking.

⁷⁶ OJ L 347, 20.12.2013, p. 488-548: Regulation (EU) No 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), Art. 5.(2)(a), (3)(a)-(b).

⁷⁷ OJ L 347, 20.12.2013, p. 488-548: Regulation (EU) No 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), Art. 5.(2)(a), (3)(a)-(b).

RECOMMENDATIONS: Before developing a price risk management system for farmers based on agricultural commodity derivatives, it first needs to be assessed **whether** this would **be useful, effective and not overly costly** for European farmers' bona fide hedging/ price risk management.

The following aspects should be taken into account in the **assessment**:

- Given the unfinished nature of the derivatives reforms so far, the EU agricultural futures exchanges cannot yet guarantee that they are sufficiently protected against market abuse, market distortions and undue speculative activities.
- Agricultural commodity derivatives are not pure insurance instruments but have a speculative element to them in that prices are mostly fixed for the (unknown) future. There are situations in which farmers can incur losses if prices or the harvest develop very differently to the prices or harvest estimated at the time of contract signing.
- Participating in agricultural commodity exchanges and holding agricultural derivatives contracts require reliable and timely channels of price information, and a considerable amount of financial and technical know-how on the part of farmers. These requirements should be compared with the pro and cons of alternative price risk mitigating instruments such as other (price/income/crop) insurance mechanisms and contracts with agribusinesses and supermarkets.
- Investigations should be carried out to explore whether the EU farming community prefers to have more regional exchanges, delivery points and futures contracts that are better tailored to suit European local conditions, based on the experiences in South Africa and India.

If farmers and agricultural policymakers come to the conclusion that price risk management through commodity derivatives (futures, options, OTC) is appropriate, **many gaps** in specific structures and instruments in the EU agricultural spot and financial markets need to be dealt with, such as: easy public access to timely and reliable price information on all commodity derivatives contracts, terms of the derivatives contracts that are adapted to regional specificities, sufficient physical delivery points and warehousing available in different EU member states where needed, and transparency in, and supervision of, agricultural spot prices.

None of the covered EU legislation regulates the **terms of the agricultural commodity derivatives contracts**, e.g. the quality requirements of the delivered agriculture products incorporated in futures contracts. This contrasts with **five** of *IOSCO's Principles on the Regulation and Supervision of Commodity Derivatives Markets (2011)* dealing with contract design, including the principle of meeting the risk management needs of its potential users.⁷⁸ This study revealed in Section 1.2. that the terms of agricultural futures contracts are not adapted to the small sizes of European farmers unless they operate within cooperatives.

RECOMMENDATION: The specifics of derivatives contracts' design on EU agricultural exchanges should be reviewed in order to ensure that they are **adapted to the risk management needs of EU farmers**, who tend to operate on a smaller scale and produce different product quality in different member states, and the needs of agricultural cooperatives. **Contract standards** need to avoid disorderly settlement and delivery. EU regulation should be more in line with the five IOSCO principles as regards the design of agricultural derivatives contracts, the decisions on contract design taken by exchanges, and supervision by national authorities.

In order to be able to guarantee the delivery of the physical commodity at the end of a futures contract traded on an exchange, particular warehouses (*silos*) should be registered with the futures exchange as delivery points. Current EU and national legislation does not guarantee sufficient delivery points for warehousing farm produce. For instance, as explained in Section 1.2., the milling wheat futures traded on the Paris exchange (part of Euronext, the main milling wheat futures exchange in the EU) has so far only Rouen as the delivery point, which is causing problems.⁷⁹ For rapeseed, delivery is limited to barge loading facilities, excluding trucks or other forms of transport. **Delivery points** must be close enough to farm production to be useful for farmers, which is the case in South Africa but currently not in the EU. The 2013 CAP market management mechanisms⁸⁰ provide private storage aid, but no reference is made for it to be used to improve and extend delivery points for exchanges.

RECOMMENDATION: Based on an analysis of farmers' needs for warehousing linked to their use of physically settled derivatives contracts, **delivery points should be expanded** all over the EU and their management by exchanges regulated. Such measures should also include improvement of the warehousing not linked to derivatives instruments, since storage is an important determinant of producer price realisation. To this end, the policy instruments and funding of the **CAP market management mechanisms** could be used (see Section 1.2).

Transparency of the agricultural spot market and the OTC agricultural derivatives prices is crucial for agricultural derivatives markets to function well and for farmers to make informed choices when engaging in (OTC) derivatives contracts. Improving **transparency** has been an important element of the G20 objectives and the EU legislation, and is assessed in the next subsection.

3.2 Assessing the effectiveness of key instruments in current EU legislation

This sub-section assesses the specific instruments included in the different EU laws that were designed to incorporate the **objectives laid out in the G20 agreements**: to increase transparency, to impose position limits, to require the clearing and trading of OTC (agricultural) derivatives, to grant the relevant authorities sufficient supervisory and intervention powers, and to protect commodity derivatives markets against market abuse. The legislation of these instruments (the details of which are described in Section 2) is being assessed for their usefulness to farmers and the agricultural sector. An underlying issue for all the laws evaluated in this study is the importance of clear definitions. The recommendations made in this section aim to strengthen the effectiveness and coherence of the current laws in order to **protect the integrity of the price discovery and hedging functions of the agricultural commodity derivatives markets**. Where useful in pointing out potential improvements, comparisons will be made with non-EU legislation

⁷⁹ Euronext plans to add another port as delivery point by September 2015: <https://derivatives.euronext.com/en/products/commodities-futures/EBM-DPAR/notice> (viewed 2 July 2015); See also: *CME plans European wheat futures to rival Euronext-sources*, The Western Producer, 21 March 2014, <http://www.producer.com/daily/cme-plans-european-wheat-futures-to-rival-euronext-sources> (viewed 25 March 2014): Euronext plans to add another port as delivery point by September 2015.

⁸⁰ OJ L 347, 20.12.2013, p. 671-854: Regulation (EU) No 1308/2013 establishing a common organisation of the markets in agricultural products, <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0671:0854:EN:PDF> (viewed 25 March).

and with *IOSCO's Principles on the Regulation and Supervision of Commodity Derivatives Markets*.

3.2.1 The many aspects involved in improving transparency

One overall objective of the international and EU financial reforms covering commodity markets is to increase transparency. However, transparency in itself will not solve existing and/or potential problems. It should rather be seen as a tool. From the perspective of agricultural commodity derivatives, the following **transparency improvements** will be assessed:

- Aggregate information available to the public, especially to farmers not (yet) active in agricultural derivatives markets;
- Information available to market participants, including farmers using derivatives and investors in commodity index funds;
- Information on physical/spot markets available, as this is crucial information for pricing on exchanges;
- Information available to supervisory authorities;
- Information about the activities of supervisory authorities.

Publicly available information on market participants and trends

Information on who is trading how much in agricultural commodity derivatives markets should be publicly available, easy to read, and available in aggregate format. This is not only important for EU farmers who need to know the situation at agricultural derivatives trading venues and OTC markets before engaging in price hedging, it is also useful for parliamentarians, policymakers, researchers and citizens inside and outside the EU who are monitoring and analysing trends in agricultural prices and commodity derivatives markets and. Indeed, Section 1.2. revealed that due to a **lack of information**, especially on EU agricultural commodity markets, no conclusive analysis could be made to guide policymaking with regard to reforming commodity derivatives markets.

Under **MiFID2** (see Section 2), ESMA is required to **publish a centralised report** with aggregate trade information from all the EU commodity derivatives trading venues (exchanges, MTFs, OTFs) on a **weekly** basis. This ESMA report will be based on weekly public reports from trading venues about the different commodity derivatives trade volumes. These public reports must be compliant with detailed standards (MiFID2 Art. 58.1.(a), 4.) specifying, for instance, the different categories of traders and whether or not their positions are bona-fide hedging. However, these reports will only contain information on those transactions where both the number of traders and their open positions exceed minimum thresholds. As a result, the data published will not be comprehensive. Also, the category of banks ('credit institutions') might not provide all the information about their different roles as brokers or proprietary traders, for example. Overall, the requirements for the EU public reporting system as set up by MiFID2 resemble that of the US' weekly Commitment of Traders report for futures and options in agricultural commodity contracts, published by the CFTC. The main difference is that the US reports on a swap dealers' category (which includes ETFs and commodity index funds), while EU reports will have a category covering investment funds and hedge funds. The CFTC also published other detailed reports e.g. about trade in commodity derivatives by US and non-US banks.⁸¹

⁸¹ See: <http://www.cftc.gov/MarketReports/BankParticipationReports/index.htm>.

The EU's new requirements for public central reporting represent a much-needed improvement in the transparency of EU agricultural commodity exchanges. The starting date for such reporting has not been set by MiFID2 not expected before mid-2016.⁸² The reporting thresholds and all the technical standards for the weekly trade venues' reports must first be decided. Central reports can only be made after ESMA has reached agreement with each of the national regulators to whom trade venues must report.

RECOMMENDATIONS:

- Efforts must be made to start making **weekly aggregate commodity derivatives reports on market participants on trading venues** (regulated markets, MTFs, OTFs) publicly available as soon as possible. This requires sufficient capacity at ESMA, national and other authorities to define standards and resolve the technical issues involved in reporting.
- Decisions on reporting thresholds and the numerous **technical standards** for the weekly trade venues' reports need to take into account the interests of farmers, policy makers, academics and the public for much more transparency.

On OTC commodity derivatives trade, **EMIR does not require centralised aggregate reporting** at EU level by ESMA. Since 12 February 2014, each trade repository in the EU must publicly report aggregate figures per type and class of OTC (commodity) derivatives on a weekly basis reported to it (EMIR Art. 81). The public reporting standard considers 'commodities' as one class⁸³ and does not require trade repositories to distinguish between agricultural and non-agricultural derivatives or to report on their prices. This means that farmers do not have detailed information to make informed choices when engaging in (OTC) derivatives contracts, which can result in contracting based on fragmented or informal information and speculative assumptions. Also, the 'public' will still not have an overview of the amount of agricultural commodity OTC derivatives used by farmers and traded by other categories of traders. It will also be difficult to publicly monitor how much of the OTC agricultural derivatives trade will be moved to the more transparent trading venues as a result of the trading obligation (see below 3.2.5). Under MiFID2 (Art. 58.2), the competent authorities are not required to report on the OTC derivatives trade reported to them by investment firms.

RECOMMENDATION: Technical standards will need to be reviewed and go beyond what is currently decided to ensure that all aggregate public reporting obligations systematically cover each of the different agricultural commodity derivatives. This recommendation especially means that: (1) the **trade repositories' weekly aggregate reports** should specifically report on *each* of the *OTC agricultural commodity* derivatives (and not only commodity derivatives in general), and (2) based on these reports, ESMA should **publish a centralised weekly report of OTC agricultural commodity derivatives trade**. **New legislation** may have to be drafted for this requirement.

Pre-trade and post-trade transparency of prices

Detailed price information on the on-going trade in agricultural commodity derivatives and on the shares of commodity (index) ETFs listed on EU trading venues is to be made publicly

⁸² Jordan M., ESMA database questions, letter to SOMO by ESMA staff member, 28 March 2014.

⁸³ OJ L 52, 23.2.2013: Commission Delegated Regulation (EU) No 151/2013, Art. 1; see for instance on the CME trade repository website: <http://www.cmegroup.com/trading/global-repository-services/data-etr.html?assetClass=Commodities> (viewed 2 July 2014).

available by each of these trading venues. ESMA has a **public register** of all EU trading venues.⁸⁴ The **MiFIR** rules on **pre-trade transparency** (bid and offer prices) for trading in derivatives and ETF shares require continuous public price reporting during trading hours. However, this pre-trade transparency requirement does not apply to non-financial counterparties engaged in bona-fide hedging. Trading venues must also publish **post-trade information** (including prices and volume) on all derivatives and ETF shares as close to real time as possible. Large trades, however, are not required to report in real time, leaving a significant gap in post-trade information. It seems likely that high-frequency trading, which occurs within a matter of micro-seconds, will slip through the cracks of this reporting requirement.

Some information will have to be published by the traders themselves. Investment firms will be required to provide pre- and post-trade transparency trades on trading venues made on their own account when executing client orders, or for which they are systematic internalisers. It is not yet clear (see MiFID2 Art. 2.1.(d),(i)-(j)) how this transparency requirement also will apply to high-frequency traders, investment managers offering commodity index ETFs, and hedge funds that are covered by AIFMD rules which in general do not require public reports about their on-going trades.

RECOMMENDATIONS:

- Farmers directly or indirectly trading futures or options should have **easy access to pre- and post-trade information on a real-time**, daily and monthly basis. The EU should therefore create a specific policy on transparency. This would rectify the current situation in the EU, in which information is scattered over different websites with little overview and OTC pre-contract information is informal.
- The EU must address the **lack of pre- and post-trade information from particular speculative traders**, such as hedge funds, high-frequency traders and large block traders.

Spot market information

In order for the price discovery function of agricultural exchanges to function properly, it must be based on fundamentals — i.e., the supply and demand for physical agricultural commodities. Currently farmers are lacking reliable spot market price information. Much more information is needed on agricultural spot prices and trading volumes as well as the production, deliverable supply and storage of agricultural commodities. The availability of such **data on spot markets and deliverable supply has not been legislated by the EU**. If farmers could have better access to this information, this might help to prevent disruptive trading based on speculative assumptions, which results in losses for farmers involved in hedging. The mechanisms that currently exist, such as the *Agricultural Market Information System (AMIS)*⁸⁵ and the *FAO food price index*⁸⁶, are **insufficient**.

⁸⁴ ESMA, Regulated Markets, http://mifiddatabase.esma.europa.eu/Index.aspx?sectionlinks_id=23&language=0&pageName=REGULATED_MARKETS_Display (viewed 2 July 2014): 99 exchanges and 143 MTFs were registered; Jordan M., ESMA database questions, letter to SOMO by ESMA staff member, 28 March 2014: a register of OTFs will be made available on ESMA's website in the future.

⁸⁵ <http://www.amis-outlook.org>.

⁸⁶ <http://www.fao.org/worldfoodsituation/foodpricesindex/en>.

RECOMMENDATION: An overview should be made of the **need for more transparency of physical agricultural commodities** whose derivatives are traded on EU trading venues. One option would be to ask AMIS to conduct such an analysis as it has done for different countries (which is expected to be published in 2014). The overall objective should be that all agricultural stakeholders, public interest bodies and analysts (including academia) have sufficient information on agricultural spot market prices and other aspects to meet their needs. **Regulation on spot market information can be initiated by agricultural authorities and policymakers.**

Information for investors

Ensuring that investors are offered access to improved and easy-to-read information on investment products is one way regulators try to protect investors against misinformation or abusive practices. The content and quality of information that investment service providers are required to provide to investors, including retail investors, have been improved by the several EU laws, especially **UCITS IV**, **MiFID2**, the 'key information document' (KID) in the new **PRIPs** regulation, and the upcoming regulation on benchmarks and indices. However, some details on how investment service providers buy and sell agricultural commodity derivatives might not be made available. Synthetic commodity index ETFs (compliant with UCITS directives) might indirectly invest in agricultural commodity futures through a total return swap, but EU law does not require the ETF provider to inform owners of the ETF shares about the investment strategies of the total return swap manager.

RECOMMENDATION: Standards that still need to be set pertaining to information for investors (**MiFID2**, **PRIPs**) and the upcoming **UCITS VI** must ensure that investors receive information on: 1) the (direct and indirect) buying and selling of agricultural commodity derivatives by the investment service provider; and 2) the potential impact of their investment in commodity-related products (e.g. commodity ETFs) on the price discovery and hedging functions of agricultural commodity trading venues.

Information available to supervisory authorities and regulators (see also Section 3.2.5.)

Improved transparency is considered especially important by national and international policymakers as a way of enabling supervisors to monitor and enforce regulation, to stop market abuse, to identify risks, and to prevent the disorderly functioning of agricultural commodity markets. Different EU laws and related standards stipulate which detailed information market participants need to give, or make accessible, to national supervisors and, to a lesser extent, ESMA. Regarding trade in agricultural commodity derivatives, important shortcomings remain in the amount and quality of information made available to supervisory authorities.

Trading venues in the EU must provide the competent authorities with a complete breakdown of all positions 'at least on a daily basis' (**MiFID2** Art. 58). Market participants must do the same in their reporting to the trading venues. Because of this, authorities have no automatic reports about intra-day trade and no automatic information on trades conducted by high-frequency algorithm traders, who tend to close all their trades by the end of the day. Financial supervisory authorities only have access to detailed information about OTC commodity derivatives on request.

It is not clear whether agricultural market authorities at the EU or the national level will have access to detailed OTC information at trade repositories: **EMIR** and subsequent standards only mention that 'Union market authorities'⁸⁷ must have access, with no explicit reference to *agricultural* market authorities (in contrast to the explicit reference to the EU's Agency for Cooperation of Energy Regulators) or national authorities.

The EU is more than a year behind in its implementation of the G20 commitment to have all OTC derivatives contracts reported to trade repositories. The EU's OTC reporting requirement started on 12 February 2014 and delays occurred due to problems experienced when reporting in the required format. OTC trade information is only to be available at the trade repository the following working day at the latest (EMIR Art. 9). As a result, supervisors have very little information on intra-day OTC trades. By contrast, in the US all OTC trades (*swaps*) must be reported to a swap data repository (SDR) (or if lacking: to the regulator) within at least one hour of the trade (except for block trades). While the EU requirements on reporting to trade repositories (or if lacking, to ESMA) are more detailed than in the US, they are not comprehensive because the categories of OTC agricultural commodity derivatives that must be reported are not specific enough. The reports have to indicate whether the 'agricultural' commodities (AG) are '*softs*' (SO), '*grain oilseeds*' (GO), '*dairy*' (DA), '*livestock*' (LI) and '*forestry*' (FO), without clear definitions. Moreover, unlike in the case of energy commodities, their delivery points do not need to be reported.

Much still needs to be done before authorities can **aggregate OTC trades reported to trade repositories** in different jurisdictions and at the international level.⁸⁸ Such aggregation is needed to: 1) ensure that position limits are set at the right level (see Section 3.2.3); 2) monitor global trends; 3) prevent regulatory arbitrage; 4) identify any disorderly functioning and risks in the global commodity derivatives markets; and 5) publish EU and global aggregate OTC figures.

RECOMMENDATIONS:

- All reporting to supervisory authorities on the trading of agricultural commodity derivatives on exchanges or over the counter should be on each of the **specific agricultural commodity categories** rather than the general categories that combine different commodities (such as '*grain oilseeds*' or '*softs*' without a definition).
- **National and EU agricultural authorities** must have **adequate access** to information on agricultural commodity derivatives that is available to trading venues and trade repositories. This should enable them to co-supervise the link between agricultural spot and derivatives markets.
- **Supervisory authorities** must have automatic access to intra-day trading information in order to pay specific attention to preventing abusive trading, such as by algorithmic high-frequency traders.
- **Agricultural policymakers** should conduct yearly reviews of whether the information available to national supervisory authorities and ESMA about each agricultural commodity (*derivatives*) market is adequate and whether their capacity to analyse such information to prevent problems is sufficient. Such reviews should be discussed with the national competent authorities responsible for financial markets and spot markets.

⁸⁷ EMIR Art. 81.3.(h) and related Commission Delegated Regulation (EU) No (EU) 151/2013, Art. 2.

⁸⁸ FSB, *Consultation Paper: Feasibility study on approaches to aggregate OTC derivatives data*, 4 February 2014, http://www.financialstabilityboard.org/publications/r_140204.htm (viewed 26 March): the consultation closed on 28 March 2014 and the FSB published the responses on 17 April 2014: http://www.financialstabilityboard.org/publications/c_140416.htm (viewed 2 July 2014).

Information on supervisory authorities' activities

The various EU laws pertaining to commodity derivatives markets require the national competent authorities and ESMA⁸⁹ to inform the public about their activities, including the authorisation of trading venues, the commodity derivatives they have obliged to be cleared and traded, the implementation of EU rules, and enforcement actions. For instance, the competent authorities must make it publicly known when they impose sanctions (MAR).

One important lacuna is that information on the **position limits** imposed by national competent authorities will **only be available in aggregate form** on ESMA's website (MiFID2 Art. 57.10.). National authorities only need to publish information about the position limits when they impose stricter position limits than according to MiFID rules, and, importantly, when they do not follow ESMA's advice.

RECOMMENDATION: The EP and the COMAGRI in particular should conduct an annual review of the information made available by the competent supervisory authorities (ESMA, EC (DG Agriculture), national financial and agricultural authorities) on their activities and willingness to intervene. This would aid in assessing the adequacy of their supervisory, enforcement and sanctioning tasks with regard to agricultural commodity derivatives markets.

3.2.2 Definitions: underlying effective implementation of the legislation

Many new EU laws have long lists of definitions. The terms being used must be clear in order for the laws and regulations to be properly implemented and enforced. Unfortunately, some precise but crucial details of a significant amount of definitions have been delegated to 'level 2' of decision-making (technical standards regulation), handled by ESMA and the EC. At this level, not all stakeholders are well represented. For instance, at the Consultative Working Group that advised ESMA's Commodity Derivatives Task Force⁹⁰ on its particular standard setting obligations up to mid-2014, a majority of the members have been financial sector participants, with only two of the 19 members representing the farming community and two others representing agricultural processors.

Policymakers and users of agricultural commodity derivatives should pay special attention to decisions on the following definitions, amongst others, as this will affect the effectiveness of the implementation of the directives and regulations covered in this study:

- The criteria for determining whether a position qualifies as **bona-fide hedging** — i.e., being '*objectively measurable as reducing the risks directly related to the commercial activity*' of a non-financial counterparty (MiFID2, Art. 57.3) — will influence who will be subject to position limits and clearing (see below 3.2.3, 3.2.4). Moreover, in EMIR (Art. 10) and related clarification⁹¹ by the EC, the definition of bona-fide hedging also covers treasury finance activities, which could easily include a large amount of derivatives contracts or positions that are speculative and not directly related to managing the price risk of a particular commodity. Such a definition could result in the blurring of bona-fide hedging and speculative trading.

⁸⁹ <https://www.esma.europa.eu/page/Registries-and-Databases> (viewed 2 July 2014): ESMA has registers that aggregate information of national data bases of e.g. authorised trading venues, AIFMs or investment firms.

⁹⁰ <http://www.esma.europa.eu/page/Commodity-Derivatives-Task-Force> (viewed 10 June 2014); the members of the Consultative Working Group are to be renewed after 6 July 2014, see: <http://www.esma.europa.eu/news/Call-candidates-Commodity-Derivatives-Consultative-Working-Group> (viewed 10 June 2014).

⁹¹ OJ L 52, 23.2.2013, p. 20: Commission Delegated Regulation (EU) No 149/2013.

Note that '*commercial activity*' is defined nowhere, other than the guidelines for AIFMD published by ESMA on the meaning of 'general commercial or industrial purpose'.⁹²

- The detailed definition of '**ancillary activity**' based on MiFID2 will determine whether large commodity trading houses who deal on their own account in agricultural commodity derivatives or provide investment services in agricultural derivatives to suppliers or customers of their main business will be within the scope of MiFID2. If these trading houses remain outside the scope of MiFID2, this would be in contrast to legislation in the US where for instance a unit of Cargill involved in such ancillary activities registered as a swap dealer and is therefore subject to increased regulation and supervision.⁹³ It will be important to ensure that detailed definitions overcome efforts by large commodity trading houses to escape the rules.
- Determining whether an OTC commodity derivatives contract is '**economically equivalent**' to one traded on a trading venue (MiFID Art. 57.12.(c)), will have an impact on which of such OTC contracts are subject to position limits.

Most remarkable of all, there are **no clear definitions or lists of all the different agricultural commodity derivatives contracts traded in the EU**. In MiFID2, Annex I - Section C (5)-(7), agricultural commodity derivatives are covered by the general definition of financial instruments related to commodities. The MiFID2 definitions exclude physically settled commodity forwards in the spot market from the category of derivatives, thus clearly delineating between agricultural commodity contracts on spot markets and derivatives markets. MiFIR (Art. 2.1.(44)) provides a specific definition of 'agricultural commodity derivatives' as those derivatives related to the 21 categories of agricultural products included in Regulation 1308/2013 establishing the CAP. In contrast, MAR (Art. 25.1.) refers to a different list of agricultural products (TFEU, Annex 1).⁹⁴ Both lists include many commodities for which no derivatives are being traded. These varied non-specific lists in EU laws contrast with the US, which has a clear list of 28 'core referenced futures contracts' — 19 of which are agricultural contracts — for which position limits are established.⁹⁵

⁹² ESMA, *Guidelines on key concepts of the AIFMD*, Ref. 2013/611, 13 Augustus 2013, http://www.esma.europa.eu/system/files/2013-611_guidelines_on_key_concepts_of_the_aifmd_-_en.pdf (viewed 2 July 2014); paragraph II.

⁹³ The regularly updated list of provisionally registered swap dealers is available at: http://www.cftc.gov/LawRegulation/DoddFrankAct/register_swapdealer; more commodity trading housing could have to register if they reach the registration threshold or when the threshold is lowered in 2018.

⁹⁴ That list in Annex 1 of the Treaty on the Functioning of the EU (TFEU, OJ C 83, 30.3.2010) is referred to as the products about which supervisors cooperate and exchange information in order to avoid market abuse in agricultural commodity derivatives and spot markets.

⁹⁵ See: http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/pl_qa_final.pdf (viewed 2 July 2014).

RECOMMENDATIONS:

- EU agricultural policymakers (EC - DG Agriculture and the Council of Ministers) should **compile a clear list of existing agricultural commodity derivatives contracts** and their trading venues as soon as possible, which should be regularly updated. The competent national agricultural authorities, financial regulators and representatives of farmers' organisations should be involved in compiling this list.
- With the support of experts on agricultural spot markets, the COMAGRI should request to be involved in the approval of the **final definitions** decided on at the 'level 2' regulatory standard-setting process when submitted to the EP. This should help to prevent speculative positions from being defined as bona-fide hedging. It would also ensure that the definitions of ancillary activities do not result in too many exemptions from the rules.

3.2.3 Position limits: new instruments applied to those who are not hedging

MiFID2 and **MiFIR** have integrated what was decided at the G20, namely to grant formal position management power and effective intervention powers to the competent authorities overseeing commodity derivatives, including the authority to set ex-ante position limits (see Section 3.1.1.). The objectives underlying the imposition of position limits are formulated differently in the EU and the US. In the latter, the aim is to '*diminish, eliminate, or prevent excessive speculation*', to deter and prevent market manipulation, squeezes, and corners', and to '*ensure sufficient market liquidity for bona fide hedgers*'. Both the EU and the US aim at ensuring the price discovery function. In its wording, the EU aims to ensuring convergence between derivatives and spot prices in the delivery month, as well as supporting pricing and settlement conditions, and to prevent market distortions and market abuse. The EU avoids the objectives of ensuring sufficient liquidity — which is difficult to define — for bona fide hedgers and eliminating excessive speculation.

The **position limit regime is a major change in the EU**, which hitherto had been left to self-regulation by the exchanges. As a result, **little use had been made of position limits**.

Many **key decisions** and interpretations on how to establish position limits need to be worked out by ESMA and the EC, which could lead to more non-hedging speculative trading than is needed for the hedging function of a trading venue in agricultural futures or options. Some first detailed proposals were made by ESMA on 22 May 2014.⁹⁶ The key decisions include:

- the methodology of calculating the position limits: MiFID2 stipulates an extensive list of criteria on which the methodology must be based and later ESMA has to agree with the way the national authorities are setting position limits based on the adopted methodology;
- how the different limits on positions are being set in each of the spot month and other months, whether physically settled or cash settled derivatives contracts, for a particular class of (agricultural) commodity derivatives;

⁹⁶ ESMA, *Discussion Paper – MiFID II/MiFIR*, 22 May 2014; ESMA, *Consultation paper – MiFID II/MiFIR*, 22 May 2014; download via: <http://www.esma.europa.eu/news/Press-Release-ESMA-consults-MiFID-reforms> (viewed 25 June 2014); the discussion paper will be followed by a new 'consultation' paper beginning 2015.

- the calculation method for the netting of positions, since position limits will be set on a net position in each (agricultural) commodity derivative. In the US, spot month positions are set on net 'long' and net 'short' positions;
- how the aggregation of positions at the group level should be calculated;
- how trading venues should develop and implement their position management controls which should verify whether positions are genuinely hedging positions as claimed.

Given that many key details still are to be worked out after the publication of this study, no assessment can be made in this study about the effectiveness of the position limits and the extent to which they are achieving their objectives. The EU process might take up to the **end of 2016** before all position limits are fully operational.

The position limits do not apply to *bona-fide* hedging positions (see definition issues above), which are held mainly by commodity producers, traders and processors and for whom the trading venues were originally intended. Specific provisions in **MiFID2** (Art. 57) contribute to the effectiveness of limiting the amount of positions with no hedging purposes, namely because position limits apply:

- to all non-hedging positions, including 'economically equivalent' OTC commodity derivatives and non-hedging positions held by non-financial entities (specifically targeted in order to close loopholes);
- on all trading venues (exchanges, MTFs and OTFs);
- throughout the duration of a derivatives contract (spot month and all month position limits);
- on aggregate positions of a whole company group, including its entities outside the EU.

Although **MiFID2** and **MiFIR** pay special attention to ways in which to close **loopholes**, critics⁹⁷ maintain that there are still ways in which the rules can be undermined or circumvented, and speculative positions can dominate trading venues and therefore damage their orderly functioning. Potential loopholes are as follows:

- Even though the methodology of calculating the level of position limits is decided at the EU level, the actual levels are ultimately decided at the national level. Even if ESMA has (complex) enforcement powers, this could result in some national competent authorities being more lenient than others, leading to regulatory arbitrage.
- There are no 'group limits' on the number of contracts that a particular class of financial entities can hold. Such limits could help to prevent a group of very speculative financial players, e.g. hedge funds, from dominating the market.
- There is no compulsory use of price bandwidths within which the price volatility of agricultural commodity derivatives must remain within a trading day.
- There is no precise criterion for ensuring that speculative positions are dominating trade in a particular derivatives contract.

⁹⁷ See for instance: Friends of the Earth, *MiFID2: set to fail on food speculation - Why the review of the Markets in Financial Instruments Directive will not fulfil its mandate*, Policy Paper, April 2013, http://www.foeeurope.org/sites/default/files/makefinancework_mifid_loopholes_june2013.pdf (viewed 4 April 2014).

- The position limits apply to the size of a 'net' position. This means that an investor can hold, after netting, a substantial amount of agricultural derivatives and still have a zero net position so that no position limit would apply.
- Each contract in a netted position can have a different counterparty, with each counterparty posing different counterparty risks that need to be managed.
- Position limits apply only to end-of-day positions, which means that in practice, they will not apply to micro-second algorithmic high-frequency trading.
- The competent authority of the venue where the largest volume of trading in a particular commodity derivative takes place will have the lead in setting the position limits. This gives more power to the authorities of already large exchanges — e.g. NYSE Liffe in London — and undermines decision-making by national authorities where smaller new trading venues are still in the developing stages. ESMA has only a coordinating/intervention role when there are conflicts between the authorities of trading venues on which the same commodity derivative is traded.
- There is a risk that exemptions to position limits will be applied too widely, e.g. in the case of intragroup trade.
- MiFID2 includes very little instruction on how trading venues should monitor positions to detect whether the market is being distorted. How this is supervised by the national competent authorities will be important to ensure that reporting of bona-fide hedging is accurate.
- If lightly regulated (and therefore cheaper), OTFs and MTFs could attract trade in agricultural commodity derivatives away from fully regulated exchanges and the ability to enforce position limits might be weakened.

RECOMMENDATIONS: The effectiveness of the **MiFID2** objectives to set position limits for agricultural commodity trading venues can be enhanced by taking the following measures:

- Ensure that the **methodology for calculating** position limits results in the majority of market participants being bona-fide hedgers;
- **Avoid incorrect reporting** of bona fide hedging positions, for instance by ensuring that accounting standards are well developed and the position management controls are strictly implemented, so that the risks for disorderly functioning are rapidly visible.
- Ensure that **detailed standards** on netting, aggregation, exemptions (e.g. for intragroup trade) and bona fide hedging reporting do not weaken the effectiveness of position limits but rather enhance them.
- Provide **advice from the agricultural sector** how to set standards for position limits for each physically and cash settled derivative category, based on an assessment of the needs and capacity of farmers for physically and cash-settled bona-fide hedging contracts.
- Undertake an **annual review** of some of the above-mentioned potential loopholes and weaknesses in the EU's regime on position limits in order to take swift action to redress them. This applies especially to: the lack of position limit setting at the EU level (and the potential resulting divergence in the implementation of the calculation of methodology), the lack of 'group limits' (i.e. on a particular class of very speculative financial entities), the lack of limits on daily price variations on a trading venue (*price bandwidths*), and the application of position management.
- Do not wait for the report to **review the impact of applying position limits**, due by 3 March 2019 as required by MIFID2 Art. 90.1.(f), but rather re-evaluate as soon as possible whether the position limits prevent distorting positions and excessive speculation, and whether they result in orderly pricing and settlement conditions and not in excessive liquidity as compared what is needed for bona fide hedging.

3.2.4 The clearing obligation - not yet clear

Although the EU has expressed its willingness to live up to the G20 commitment for all standardised **OTC contracts** to be cleared through central counterparties (CCPs) by the end of 2012, the EU's clearing obligation is **not expected to be fully operational before March 2015**. **EMIR** enacts the clearing obligation (see Section 2.2.3) but does not mention that it applies to all '*standardised contracts*'. Only after the CCPs were authorised to clear OTC derivatives (as of 15 March 2014) did national authorities and ESMA have to start the process by which OTC derivatives need to be cleared based on particular criteria. In the worst case, if no CCP is available to clear an OTC contract, the clearing obligation for a particular class of OTC derivatives does not apply (EMIR Art. 5). This means that there is as yet (as of 1st July 2014) no protection against defaults of OTC derivatives in general and of OTC agricultural commodity derivatives in particular.

Non-financial entities such as farmers and agribusinesses holding OTC derivatives for bona-fide hedging and treasury financing are exempt from the clearing obligation. However, non-financial entities must clear their OTC contracts within four months after one or more of their OTC speculative positions exceed a threshold, which is EURO 3 billion gross notional

value for speculative OTC commodity derivatives.⁹⁸ Although the **exemption from clearing** is intended to make OTC agricultural commodity derivatives cheaper for farmers, it fails to protect them against default by the counterparty. Farmers engaging in non-cleared derivatives need to have operational and risk-mitigating techniques and therefore face higher margins. As a result, it might be less costly for them to clear their transactions, despite being exempt from the obligation. There are important exemptions for the clearing obligation of intragroup transactions, and pension funds (for 3 years).

The clearing obligation also applies to **all derivatives traded on trading venues** according to MiFID2.

A key issue associated with clearing is to what extent CCPs can **withstand defaults** of payments by those who clear, especially in times of crisis. How safe is it for farmers to use CCPs, since even the IMF (Singh, 2011) and the ESRB (Hermans et al., 2013) have warned about their prudential and systemic risks? One risk is that, if only one CCP is clearing a specific eligible contract by a large entity, the CCP's risk management systems might not be sufficient for that large entity while the large entity has no option to clear at another CCP. On the other hand, the risks from banks active in commodity derivatives markets might be diminished, as they have to keep better capital reserves when exposed to CCPs. Also, the Capital Requirement Regulation (CRR) stipulates that banks' counterparty risk for agricultural commodities derivatives must be valued at the highest level compared to other commodities, requiring high, risk-weighted capital buffers. This makes it less attractive to speculate in agricultural commodity derivatives. Whether hedge funds trading in agricultural commodity derivatives will be able to hold sufficient capital reserves to withstand large defaults is difficult to assess, given the AIFMD rules and the remaining lack of transparency. Note that there is an on-going discussion at the international level on the margin requirements for non-cleared OTC derivatives.

RECOMMENDATIONS:

- CCPs clearing OTC agricultural commodity derivatives must be **regularly assessed** to determine whether they are appropriate and sufficiently resilient for those within the agricultural sector engaging in clearing.
- CCPs should understand that speculators are attracted to commodities with lower margin requirements, as the experience in India indicates, which should be avoided for any agricultural commodity derivative.

3.2.5 The trading obligation of OTC commodity derivatives

The G20 objective⁹⁹ that all standardised OTC contracts⁹⁹ should be traded on exchanges or electronic trading platforms has been integrated into **MiFIR** but without any reference to 'standardised' contracts. The trading obligation is not likely to be operational before the end of 2015, which misses the G20 deadline. It applies only to **derivatives subject to the clearing obligation**. The numerous criteria (MiFIR Art. 32.2.,3.) upon which the trading obligation must be decided might restrict the amount of OTC derivatives that are subject to the trading obligation. The more agricultural commodity derivatives are traded on exchanges, the more transparent and regulated the agricultural commodity derivatives trade will be, and the less likely that liquidity will be lacking for bona-fide hedging. The flip side is that the more commodity derivatives are traded on exchanges, the more attractive exchanges become for traders with algorithmic and high-frequency strategies which might

⁹⁸ OJ L52, 23.2.2013: Commission Delegated Regulation (EU) No 149/2013, Art. 11.

⁹⁹ FSB, *OTC Derivatives Market Reforms - 6th progress report*, 2 September 2013 (viewed 26 March 2014).

undermine the orderly functioning of — or even lead to the distortion of — agricultural exchanges, especially if the supervisory capacity is not sufficient.

ESMA's publication of a **register of derivatives** subject to the trading obligation should hopefully provide indications about the amount of agricultural commodity derivatives that have moved from OTC trade to regulated and more transparent trading venues. There are risks that large (agricultural) commodity traders will move to trading venues in other countries or modify their OTC derivatives contracts in order to escape the clearing and trading obligations in the EU and the US.

RECOMMENDATION: Agricultural authorities and policymakers should assess whether the trading obligation is implemented in a way that fulfils the needs of the EU farming sector, increases transparency and prevents traders from moving to other venues to escape the trading obligation.

3.2.6 Supervision and intervention powers, including with third countries

Varied levels of national and EU supervision

The various new EU laws give **national competition authorities** most of the power to authorise, monitor and supervise, technically regulate, investigate, intervene and impose sanctions on the different entities engaged in agricultural commodity derivatives. These powers have been harmonised across EU member states and are often substantial. For instance, the imposition of ex-ante position limits will be buttressed by strong powers of investigation, intervention and prohibition by national authorities.

While the national competent authorities might have more capacity than ESMA to supervise and intervene, many doubt whether the cross-border nature of many commodity derivatives transactions can be sufficiently supervised and whether swift intervention is possible in times of crisis. This is particularly an issue with hedge funds, which can be important internationally operating participants in commodity derivatives markets with various risky strategies such as high leveraging (borrowing) and high-frequency trading. The AIFMD sets out a complex cooperation network of supervisory authorities (national, home, host and 'reference' supervisors), with hardly any supervisory role at the EU level. Moreover, ESMA's interventions to limit leverage in order to protect the stability of the financial system can be overruled by national authorities.

ESMA is authorised to intervene in agricultural derivatives markets when national authorities act contrary to ESMA advice or fail to act in an adequate manner. In addition, ESMA is granted position management powers, under strict conditions (i.e. when the objectives of the position limits or the arrangement for delivery of the physical commodities are under threat). ESMA has a mandate particularly when the orderly functioning of financial markets and the stability of the EU financial system are at stake. Across the different laws covered in this study, ESMA has received different levels of binding or non-binding roles for advice and coordination among national, EU and even non-EU supervisors/regulators (e.g. in MiFID2, MiFIR, MAR, CSMAD). This complex web of national and EU-level supervision and cooperation contains many challenges and risks for effective supervision and swift intervention. It is difficult to assess to what extent the EU adheres to *IOSCO's Commodity Derivatives Market Principles* for addressing disorderly markets enforcement and information sharing and enhancing price discovery, since many details on

standards, supervisory systems and cooperation still need to be worked out in the coming years.

In general terms, the EU adheres to IOSCO's *Commodity Derivatives Market Principles* (nr. 7-12) regarding surveillance except for Principle nr. 8, which requires real-time monitoring capabilities and automated systems to detect trading anomalies, as mentioned in section 3.1.1

The **substantial amount of information** already available to the national and EU competent authorities and the vast range of tasks covering different kinds of financial markets raise many questions about the ability of these authorities to guarantee the correctness of submitted information, to detect disorderly trade and market abuse, and to prevent systemic risks. Already, the IMF's 2012 Financial Sector Assessment Program report on Europe warned that the European Supervisory Authorities' '*budgetary positions and scope to manage their resources are so constrained that their ability to carry out important parts of their mandates is compromised*'.¹⁰⁰ It is clear that ESMA, and some national financial regulators or supervisors, do not have the needed expertise in analysing agricultural derivatives and spot markets. Also, there are doubts as to whether supervisors have sufficient resources, such as the necessary sophisticated technology to detect abusive trading by algorithmic high-frequency trading in agricultural commodity derivatives venues.

RECOMMENDATIONS:

- Agricultural policymakers need to initiate a special **analysis of the efficiency and actual practice of supervision and intervention** in the different (OTC) agricultural commodity derivatives markets in the EU.
- In general, the national and EU-level competent authorities should have **sufficient financial resources, expertise, technology**, etc. to use the information available to them for their various duties. Improvements in the supervisory resources are required to request and analyse real-time data and to detect disorderly trade by HFT algorithmic traders in agricultural derivatives markets. In case of any deficiencies, national and EU policymakers and parliamentarians should initiate measures for improvement. If sufficient budget cannot be made available, the prohibition of more types of risky products and behaviour should not be ruled out.

Will agricultural authorities be sufficiently involved?

The disorderly functioning and price setting at exchanges, and the manipulation of agricultural commodity derivatives markets, have a profound effect on farmers' ability to manage price risks. The involvement of agricultural authorities in the supervision of agricultural commodity derivatives markets is thus crucial. It is promising that **MiFID2** (Art. 79.7) explicitly mentions that the authorities in charge of implementing the different MiFID2 rules related to agricultural commodity derivatives must '*report to and cooperate with public bodies competent for the oversight, administration and regulation of physical agricultural markets*' as referred to in the EU's CAP legislation.

MiFIR has given financial competent authorities the power to supervise, investigate, intervene and impose sanctions when 'a derivative has a detrimental effect on the price formation mechanism in the underlying [physical] market' or when a financial product or

¹⁰⁰ IMF, *European Union: Publication of Financial Sector Assessment Program Documentation – Technical Note on Issues in Transparency and Accountability*, March 2013.

practice threatens the integrity of commodity **spot markets**. In such cases, the agricultural competent public bodies must be 'properly' consulted. MiFIR strengthens the protection against threats to the integrity of agricultural commodity derivatives markets (such threats are still to be defined precisely by the EC) by giving ESMA the mandate to intervene when national authorities fail to take action or do so inadequately. Again, ESMA must first consult with the competent agricultural authorities.

MAR requires the national competent authorities dealing with market abuse to 'cooperate' with the EC on agricultural products, the list of which does not match the list of products used in derivatives markets (see 3.2.2.). In contrast, **EMIR** makes no mention of a role for national and EU agricultural authorities in supervising OTC agricultural derivatives markets. There is also no requirement for them to have access to trade repositories' data, even though it is essential for agricultural authorities to know how much hedging and speculation is occurring through OTC agricultural commodities.

Given that the spot markets are not regulated, and given ESMA's and the EC's (DG Agriculture) lack of expertise in agricultural derivatives markets, it is very doubtful whether agricultural authorities and agricultural public bodies have the capacity to analyse and give advice on disorderly or abusive spot market behaviour linked to derivatives markets. It is also not clear how the financial competent authorities will build up sufficient specific capacity to supervise the agricultural commodity derivatives and spot markets. Overall, **the EU's system of supervising agricultural derivatives markets does not compare favourably with that of the CFTC (US)**, which has substantive knowledge and a comprehensive overview of both the agricultural financial markets and agricultural spot markets.

RECOMMENDATIONS:

- National and EU agricultural public bodies and authorities should be well informed about the possibility that they will be **consulted and requested to cooperate** with financial supervisors. They must **build up sufficient capacity** for monitoring and supervising spot markets and agribusinesses active in spot trading (who, what, where, related to whom where in the EU and world, what positions are taken by agribusinesses in commodity derivatives, etc.).
- Specific measures at the EU level (EC, EP) must ensure that there is a **coherent** overview of agricultural derivatives and spot markets in the EU, as the CFTC in the US has. One option could be to create an agricultural commodity derivatives unit at ESMA.
- There should be no **budget** cuts that would have the effect of impairing the capacity needed to enforce the current complex legislation covering agricultural commodity derivatives and spot markets (e.g. to monitor whether agricultural players are hedging or speculating).

Cooperation with third countries¹⁰¹

The (OTC) commodity derivatives markets involve numerous *cross-border transactions* with third countries on which EU rules will have an impact. Also many exchanges, CCPs, trade repositories, and trading entities operating in the EU have their home base in third countries. Cooperation between the EU and third countries is therefore incorporated into the EU laws for supervising and enforcing rules on position limits, the use of CCPs, the

¹⁰¹ Report of the OTC Derivatives Regulators Group on Cross-Border Implementation Issues, 31 March 2014, <http://www.cftc.gov/PressRoom/PressReleases/pr6901-14> (viewed 16 April 2014).

clearing and trading obligation etc. However, the provisions in the different EU laws for cooperation and assessing third country's regulations equivalent to those of the EU, for each of the various operators and transactions to be supervised, result in **a non-coherent web** of cooperation agreements between third countries and the authorities at the member state and/or ESMA level. For instance, each national authority and ESMA may conclude a direct cooperation agreement to exchange information with third-country competent authorities overseeing their agricultural spot and derivatives markets (MiFID2, Art. 88.(g)). In contrast, trading venues based in third countries can only have access to EU markets if the EC has made a decision about the effective equivalence of the third country's legal and supervisory framework. US regulations also require mutual recognition or substituted compliance regime for EU-based CCPs, trade repositories, etc. Both the EU and the US even have extra-territorial provisions in their legislation to prevent negative effects in their territory resulting from commodity derivatives transactions in third countries.

In practice, the **differences between the EU and US in rules, technical standards and implementation timing** (see **ANNEX** to this study) have shown that data sharing, equivalence and cooperation agreements on derivatives are complex. In addition to the Financial Markets Regulatory Dialogue, the EC and the CFTC decided to work together on resolving the differences in an agreement called 'the Path Forward'. However, progress has been hampered by political frictions. Nevertheless, the CFTC has decided to temporarily not apply certain rules¹⁰² that would negatively affect EU and US derivatives markets. The EU also decided that, for three years, **third-country investment services for professionals are exempt** from EU rules.¹⁰³ This outcome prevents the, significant, EU-US commodity derivatives markets to be currently protected against risks building up. The US will continue to put substituted compliance in place, while the EU works out its **equivalence decisions**, both based on their internal requirements and procedures to recognize each other's operators and entities active in the large cross-border commodity derivatives markets. The EU wants to make EU-US financial regulatory cooperation legally binding into the forthcoming *Transatlantic Trade and Investment Agreement (TTIP)*; see Section 4.3).

RECOMMENDATIONS:

- Cooperation with third-country authorities responsible for agricultural derivatives and spot markets must be **well organised and coordinated** by EU and national authorities to ensure effective information-sharing, cross-border supervision and coherent (even if diverse) regulation. Cooperation should not result in foregoing EU or domestic regulations.
- Where appropriate, the EU should follow the **recommendations of the Report on Cross-Border Implementation Issues** by the OTC Derivatives Regulators Group.

¹⁰² *Statement by the CFTC and the European commission on progress relating to the implementation of the 2013 Path Forward Statement*, 12 February 2014, <http://www.cftc.gov/PressRoom/PressReleases/pr6857-14> (viewed 11 March 2014).

¹⁰³ *EC, More transparent and safer financial markets: European Commission welcomes European Parliament vote on updated rules for Markets in Financial Instruments (MiFID II)*, press release, 15 April 2014, http://europa.eu/rapid/press-release_STATEMENT-14-129_en.htm (viewed 15 April 2014).

3.2.7 Protection against market abuse

Supervisors face important challenges in detecting and combating market abuse, which is defined in **MAR** and **CSMAD** as insider dealing, the improper disclosure of inside information, and market manipulation.

Regarding agricultural commodity derivatives, it is significant that MAR and CSMAD rules apply both **when abusive behaviour in an agricultural derivatives market affects (or is likely to affect) a spot market**, and vice versa. Also, MAR gives supervisors the right to have access to information from all market participants (Art. 23). This could prevent commodity houses, hedge funds and banks trading in both commodity derivatives and spot markets from engaging in abusive practices to make profits.

Given that commodity houses trade in derivatives for hedging based on information they have from their business, MAR has provisions on what kind of 'inside information' they do not need to disclose (e.g. according to market rules or 'customs'). ESMA's guidelines providing further specification will be important to avoid abuses of this **exemption regarding inside information**. MAR's list of potential indicators of manipulative behaviour, which also holds for the spot markets, should also help to prevent loopholes (MAR Annex A).

By forbidding market manipulation through the cancelling of contracts and other abusive strategies, MAR (Art. 12) has the potential to protect agricultural commodity markets from too much disruption from traders using **HFT** and algorithmic strategies. Note that the US has not yet regulated HFT trading, although initiatives are underway.

Even though it might require huge resources to detect market abuse, once discovered, the potential **sanctions** may serve as more of a deterrent than in the past. MAR not only introduces general standards across the EU for administrative sanctions for natural persons (up to EUR 5 million) and legal entities (15% of annual turnover), CSMAD also does so for criminal sanctions (natural persons can get up to 4 years of imprisonment). In addition, CSMAD requires training for officers involved in criminal proceedings. The experience in India demonstrates that if manipulation remains undetected or is not acted upon for a long time, a sudden intervention by authorities can put enormous pressure on a CCP, which could then default.

By July 2014, legislation against abusive determination of the value of (commodity) indices is greatly **missing** in the EU legislative framework since a mixed commodity index is often the basis of many commodity index (exchange traded) investment funds. A **Regulation on 'indices used as benchmarks in financial instruments and financial contracts'** was proposed by the EC on 18 September 2013, after many scandals with benchmarks were discovered, but not agreed upon by the EP and the Council before the EP elections in May 2014.¹⁰⁴

¹⁰⁴ For an update on the progress of the legislative decision-making, see: <http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2013/0314%28COD%29&l=en>.

RECOMMENDATIONS:

- ESMA, in cooperation with DG Agriculture, should monitor and report on the **effectiveness in tackling cross-border and spot-derivative cross market manipulation**, given that national competent authorities are the main enforcement agents in MAR and CSMAD. The report should form the basis for initiating measures at EU level to tackle deficiencies. Experience from cooperation among energy regulators (REMIT, ACER) should be sought.
- The EP and the COMAGRI in particular should initiate reports from the perspective of agricultural markets and not wait for the EC to present to the EP reports **reviewing** the following, and proposing amendments:
 - the impact of CSMAD and MAR (the EC review report on MAR is due by 3 July 2019 and on CSMAD 3 by 4 July 2018);
 - the impact of legal MiFID2 requirements on high-frequency algorithmic trading and the banning of certain products or practices (the review report is required in MiFID2 (Art. 90.1) before 3 March 2019).
- The EP should verify whether or not ESMA's guidelines on what constitutes accepted practice on the disclosure of inside information in the commodity spot markets could be used as a loophole to sidestep MAR rules.

3.2.8 Concluding general remarks

The current EU legislative framework for the agricultural commodity derivatives markets is very **complex**, not only because different aspects and actors are regulated in various EU laws, but also because important details will be laid down in different **formats**: (regulatory or implementing) technical standards, EC delegated acts, or guidelines and opinions provided by ESMA. **Between mid-2014 and mid-2016** up to 2017, many important details regarding definitions, technical standards, position limits, processes, measures, cooperation agreements, equivalence acts, and practical implementation will be decided and will have an impact on the effectiveness of MiFID2, MiFIR, EMIR, MAR, CSMAR, CRR, CRD IV and PRIPs. The EC has warned that some of these decisions are rather political and in fact beyond the mandate of ESMA.

Where EU laws have stipulated that the regulatory or implementing technical standards must be drafted by ESMA (after consultations) and be approved by the EC, the EC must **submit those standards to the European Parliament (EP) and the Council** before final adoption. The EP and the Council then have three months to agree or disagree with the standard (or 1 month if the EC adopts without changes the ESMA draft standards). If either the European Parliament or the Council does not agree, the standard will not be adopted.

RECOMMENDATIONS:

- The COMAGRI should give its advice on the public **consultation** papers written by ESMA, or the EC where applicable, which are published before drafting technical standards or guidelines and recommendations.
- The COMAGRI should request to participate in the relevant EP committee (the Committee on Economic and Monetary Affairs, ECON) to which the EC submits the technical standards for **approval**. This should be done within the one or three months that the EP has to adopt or reject the standards. The EP's decision should be based on the usefulness of the technical standards in protecting the integrity of price formation and hedging functions of the agricultural commodity derivatives and spot markets for the agricultural sector in the EU and also worldwide. ESMA and the EC should remain in informal contact with the COMAGRI during the drafting period.
- The COMAGRI should give its opinion on the reviews of the financial legislations that are scheduled several years after their entry into force, and initiate own initiative reviews.

It should be noted that the current state of EU legislation on commodity derivatives has been quite heavily influenced by the **lobbying capacity of the financial sector and some (large) (energy) commodity producers/traders and users**. The financial sector was able to influence the legislative decision-making of the described laws more than other stakeholders. Farmers' representatives have so far been involved too little — and sometimes not at all — in the legislative decision-making on agricultural commodity derivatives. The resulting complexity of the EU legislation (with many exemptions) makes it more difficult for farmers' interests to be protected properly.

RECOMMENDATIONS:

- The EC's impact assessments of its legislative proposals should start with a clear identification of the different interests and stakeholders related to the new legislation, including a clear identification of the public interest. The EP should introduce a code of conduct/modus operandi that ensures that all stakeholders' interests are identified and have a balanced input in EP decision-making. The ECON committee of the EP and the EC should improve their assessment whether EU decision-making and resulting legislation is in line with international discussions, objectives and agreements.

From the three perspectives that resulted from the literature overview in Section 1.4., the new legislative framework can be in general assessed as follows.

Overall, the **increasing available (aggregate) information** —even though it will take some years to be published— about trade on EU agricultural derivatives exchanges will improve the information available for researchers and analysts, which was currently missing. Differently than for the US, UCITS compliant commodity index ETFs are not allowed to hold commodity derivatives contracts, although their total return swap counterparties might, so that EU based commodity index ETFs (the majority is UCITS compliant) might be less an issue for analysis by the researchers than was the case with their impact on US exchanges.

From the **first perspective in the literature overview**, which concluded that there is effortless arbitrage between the derivatives and spot market, the strengthening of the legal requirements for pre-trade and post-trade transparency as well as the supervisory and intervention powers to prevent market manipulation, and the restrictions on HFT algorithm trading should guarantee that these arbitrage can continue without abusive practices. The trading obligation for some OTC commodity derivatives will result in more trade transactions for engaging in arbitration while it is not yet clear whether the new position limits and new legislation on hedge funds will in fact reduce the non-hedging transactions on the commodity derivatives markets.

From the **second perspective in the literature**, which concludes that futures market developments can have short lived effects on the spot prices, the fact that currently the spot market structures of delivery points and the agricultural derivatives contract formats are not well suited to the needs of farmers who want to use exchange traded agricultural derivatives for bona fide hedging reasons, might have affect whether physically settled agricultural commodity contracts are settled in an orderly way and on how short lived the effects are. However, the new EU legislation has put in place instruments to avoid and stop disorderly settlement and disorderly functioning of agricultural commodity derivatives and related spot markets.

From the **third literature perspective**, the negative effects from financial entities trading on agricultural commodity derivatives exchanges, which might be linked to their OTC derivatives trade in the same underlying agricultural products, can be reduced by the position limits in case their standards will set strictly. However, the many potential loopholes, such as allowing the 'netting' before position limits are imposed, are likely to result in still more than 30% of the commodity derivatives trade to be undertaken for speculative and non-hedging transactions, while 30% is estimated to be sufficient for the well-functioning of agricultural exchanges. So far it cannot be assessed whether the different strengthened mechanisms, that still have to be put in place, will sufficiently reduce excessive price volatility resulting from speculative trading and ensure the orderly hedging and pricing function of the agricultural commodity derivatives trading venues.

4 MISSING INSTRUMENTS AND NEW CHALLENGES

KEY FINDINGS

- Devising a **comprehensive agricultural price risk policy** requires that different problems in the agricultural spot market be reviewed, such as the lack of regulation of agricultural spot trade, storage in and delivery from warehouses, transparency of hedging services by agribusinesses, and strategic food reserves, as well as the increasing speculation by commodity houses on derivatives markets.
- Price changes in (agricultural) commodity prices lead to **changes in the strategies of financial actors and commodity fund managers**. ESMA and the competent authorities should have sufficient capacity to intervene when excessively risky financial strategies based on agricultural commodities are being developed.
- **New legislation on bank structures** should ensure that bank activities in physical commodity trading, proprietary commodity derivatives trading and lending to hedge funds will not be bailed out with tax money nor harm spot commodity markets and their participants.
- Negotiations on the liberalisation of financial services **in trade and investment agreements can contradict several reforms on derivatives** currently being implemented. Any agreements reached should not restrict the legislation, regulation and supervision of the financial sector intended to benefit the public interest, and the agricultural sector.

The legislation directly regulating agricultural commodity derivatives markets and their participants will be insufficient to deal with all the challenges of price volatility and integrity of agricultural commodity derivatives markets, changes in the financial industry or the agricultural sector, and modifications in the international regulatory framework. In this section, we briefly mention some measures and elements that should be taken into consideration for a coherent and comprehensive policy on agricultural commodity derivatives.

4.1 Missing instruments

4.1.1 Regulation concerning the spot markets and warehousing

Neither existing EU legislation concerning financial markets nor the latest CAP reform regulate trade in agricultural **spot markets**. **MAR** and **CSMAD** do not prevent manipulation of the spot market by spot market participants. Even with the introduction of position limits, a market participant could hoard physical agricultural products or corner the spot market, for instance by having the underlying products delivered of all the physically settled contracts allowed within the position limit and creating shortages in the spot market by holding on to these products such as cocoa.

The **lack of regulation on the management** by the exchanges **of warehouses serving as delivery points** also creates problems in the spot markets. For instance, in 2013 there have been long delays in coffee and cocoa beans being loaded out of NYSE Liffe warehouses. Warehouses make more profits from longer stocking periods. This resulted in extra costs for traders and end users, who called for tighter regulation because there were no rules for minimum volumes of stocked commodities that need to be moved out daily by the warehouse and because self-regulation was inadequate.¹⁰⁵ NYSE Liffe reacted with new guidelines for warehouse keepers' maximum rent and charges for moving out cocoa and robusta coffee during January – June 2014.¹⁰⁶

RECOMMENDATIONS:

- The main problems resulting from the **lack of regulation of agricultural spot markets** should be identified and discussed at national, EU and international level to find the most appropriate solutions.
- Policy makers should initiate **regulation of warehouses** linked to agricultural exchanges and agricultural derivatives contracts, e.g. regarding minimum daily delivery volumes from warehouses.

4.1.2 Strategic food reserves

Creating strategic food reserves could help to prevent prices from becoming volatile or spiking in times of shortages (or fears thereof). The difficult discussions at the WTO illustrate the controversy surrounding food reserves. The fear is that the stocking of food reserves would distort international trade in food products. Nonetheless, the agreement reached at the December 2013 WTO Ministerial Conference in Bali (WTO, 2013) gives regulators some time to find solutions on how to introduce strategic food reserves.

RECOMMENDATION: Explore the possibility of setting up accessible strategic agricultural commodity reserves (public, private or public-private; national, regional and/or global) as an instrument to prevent excessive high prices and speculation and to intervene in times of bad harvests and (perceived) shortages on the market.

4.1.3 Alternative, sustainable mechanisms for mitigating price risk

One of the ways in which farmers manage their price risk is through **hedging services** offered by agribusinesses. These firms create and sell risk management instruments (taking the margin requirements into account) to agricultural producers. They subsequently buy the physical products from the farmers with the aim of enhancing their own revenue stream and overall objectives. This setup is prone to conflicts between the agribusinesses' own interest and that of the farmer to whom the business is offering its services.

¹⁰⁵ Terazono, E., *NYSE Liffe tackles coffee and cocoa queues*, Financial Times, 31 October 2013.

¹⁰⁶ NYSE Euronext, *Nominated Warehouse Keepers' Maximum Rent And Movement Out Charges For Cocoa & Robusta Coffee*, https://derivatives.euronext.com/sites/derivatives.euronext.com/files/maximum_rent_and_movement_out_charges_01_jan_2014_to_30_june_2014_0.xls (viewed 24 April 2014).

RECOMMENDATIONS:

- The EU should address the problems arising from issuers of hedging services for agricultural commodity derivatives, who have an economic interest in the underlying commodity.
- As agricultural commodity futures are a relatively expensive way of managing price risk, resulting in losses in some situations, other, more sustainable risk-mitigation mechanisms should be explored. Farmers unable or unwilling to engage in hedging through agricultural commodity derivatives should be offered an alternative.

Another way of guaranteeing farmers' income has been to organise themselves in **cooperatives**. New CAP rules are promoting producer organisations and associations, and interbranch organisations.¹⁰⁷

RECOMMENDATION: The support that the CAP provides to cooperatives or other producer organisations could be used to strengthen collective price-risk mechanisms (through derivatives or other means), improve their storage facilities (e.g. adopting portable silo bag storage which would cut trucking expenses) and introduce flexible selling mechanisms.

4.2 New challenges

Legislation should be capable of dealing with new and unforeseen **challenges emerging from financial markets**. If not, new measures/legislation need to be introduced to deal with those issues that are not yet covered by the legislation. For instance, MAR and CSMAD have already incorporated new rules in the wake of the **scandals** surrounding the benchmark rigging of Libor, foreign exchange, gold prices, etc. These new rules should be able to sanction rigging of agricultural commodity indices in the future although additional legislation on the management of benchmarks as proposed by the EC in September 2013 should further prevent malpractices.¹⁰⁸

EU regulators face new challenges arising from the '*financialisation*' of agricultural commodities and the related risky and speculative strategies used by financial players who offer commodity investment products. An important trend seen from the second half of 2012 to the beginning of 2014 was the **decline in commodity prices**, which has led to different responses by financial players. Due to huge losses, some have withdrawn in order to invest in the more lucrative stock markets. However, once commodity prices increase again and/or become more volatile or other financial markets become less lucrative, investors can be expected to return en masse to the commodity derivatives markets. This **wall of money would be unrelated to the fundamentals of the commodity markets**, and could have a negative impact on the integrity of commodity derivatives trading. Note that investing in commodities through different financial products and strategies was originally promoted to investors as a way to protect them against the risks of inflation.

¹⁰⁷ OJ L 341, 20.12.2013, p. 737: Regulation (EU) No 1308/2013 establishing a common organisation of the markets in agricultural products, Chapter III.

¹⁰⁸ EC, *Proposal for a Regulation of the European Parliament and of the Council on indices used as benchmarks in financial instruments and financial contracts*, http://ec.europa.eu/internal_market/securities/benchmarks/index_en.htm#maincontentSec1 (viewed 2 July 2014).

4.2.1 Shift in banks' strategies on commodities

Some large **US and EU banks are moving out of physical and derivatives commodity trading** due to US legislation, prohibiting proprietary trading and imposing stricter rules on derivatives, and EU legislation, making the commodity business less profitable. Pending US rulings might also prohibit banks' ownership of physical commodity firms (e.g. warehouses). The trend is that banks are selling their physical commodity business to existing large commodity houses. This will result in more **concentration in a non-regulated commodity spot market**. With the exit of banks from the scene, commodity trading houses and conglomerates are likely to become even more active in financial non-hedging activities on commodity derivatives markets. Who is monitoring the consequences?

RECOMMENDATION: The EU should consider introducing a **swap dealer rule** by which, as in the US (DFA §731), any entity dealing in more than \$3 billion notional amount outstanding per year worth of swaps/OTC contracts are designated as swap dealers. This would make them subject to increased oversight, including requirements for risk management, recordkeeping and disclosure of business conduct.

The current legislation (**CRR**) allows banks based in the EU to trade in agricultural commodity derivatives and physical commodities, but it is not clear whether and how much European banks trade in physical agricultural commodities. The discussions in the US regarding the ownership of physical commodity businesses have revealed abuses and the undesirability of banking ownership of physical commodity businesses.

In January 2014, the EC presented its **proposals for restructuring banks**¹⁰⁹ to prevent them from becoming too big to fail. The proposal included rules requiring physical commodity trading activities, lending to hedge funds, and proprietary trading in commodity derivatives to be set up within the part of the bank that is considered risky and will not be bailed out by public money.

RECOMMENDATION: The EP should ensure that **upcoming legislation on reforming bank structures** does not allow banks' physical commodity trading activities, lending to hedge funds, and proprietary trading in commodity derivatives to be included in the part of the bank that will be bailed out by public money. Even better for the integrity and safety of banks and commodity derivatives markets would be if banks were not allowed to own physical commodity businesses or to deal in physical commodities (as part of structured finance). Such a prohibition of physical commodity trading by banks is being discussed in the US (2013-2014).

EU banks are still able to speculate in commodity derivatives markets on their own account and with their own capital (*'proprietary trading'*). Little attention is being paid by supervisors to the **agricultural, economic and societal consequences** of such behaviour.

¹⁰⁹ EC, *Proposal on banking structural reform*, 29 January 2014, http://ec.europa.eu/internal_market/bank/structural-reform/index_en.htm#maincontentSec1 (viewed 2 July 2014).

RECOMMENDATION: The financial risks, but also risks for the rest of society, of non-hedging activities by banks could be brought to the attention of the supervisors within the single supervisory system of the Banking Union and the Basel Committee on Banking Supervision in order to broaden their perspective when reviewing the risk management systems of banks. The EU should **consider prohibiting proprietary commodity activities by banks** (which was partly achieved by the Volcker Rule in the US).

4.2.2 Reducing risks posed by commodity index ETFs

When commodity prices began to decline in 2012 after having peaked and becoming very volatile, the managers of commodity index ETFs attempted to keep the funds profitable by introducing **new tailor-made commodity indices**, actively managing the indices on a daily basis (*frequent rebalancing*), and introducing other new and risky strategies that could directly and indirectly impact commodity derivatives markets (Vander Stichele, 2012). ESMA dealt with these new ETF strategies by writing **guidelines** that such new indexes were not allowed according to the **UCITS IV** rules. Moreover, such ETFs can be considered instruments to attract investors into speculative financial products rather than financing productive and sustainable projects in the agricultural sector.

RECOMMENDATION:

ESMA needs to have the capacity to successfully monitor and properly deal at the EU level with risky developments in financial products that affect — or can affect — the agricultural commodity markets.

Due to losses for investors following declining commodity prices since 2012, the increasing attractiveness of stock markets for investors, and increasing costs for issuers of commodity index ETFs and other commodity products, quite a few providers of ETFs have abandoned the business, which was losing its profitability.

RECOMMENDATION:

- New regulation on ETFs, as suggested in the EC's consultation for **UCITS VI** (see Section 2.2.7), should not allow managers of ETFs and commodity index funds to invest directly in commodity derivatives. The current prohibition should continue and be extended to the total return swap providers of the ETFs and other commodity investment funds. **PRIPs** should be further regulated so that managers of these retail products are also prohibited from holding any (agricultural) commodity derivative or physical commodity.
- Since commodity funds compliant with UCITS IV are not allowed to hold commodity derivatives, they are instead investing in bonds and other eligible securities. This results in a **risky interconnectedness** between commodity funds and the rest of the financial markets, with subsequent risks for financial stability. The EP should explore how this interconnectedness can be reduced and properly managed.
- Banks operating commodity ETFs should be forbidden from applying a strategy of buying and selling commodity derivatives **against the interest of their clients**.

4.3 Challenges arising from the international regulatory landscape

The continuing international discussions and decisions on financial regulation at the G20, IOSCO, FSB, BCBS and other fora are likely to impact future regulation of (agricultural) commodity derivatives markets.

There is **little understanding of the impact** that continuing trade and investment treaty negotiations might have on agricultural commodity markets. **Liberalisation of financial services** has been very much a part of the trade in services agreements in GATS (WTO) as well as in bilateral or regional free trade agreements (FTAs) negotiated by the EU such as the EPA with the Caribbean region, with Colombia (Vander Stichele, 2012b) and with Singapore. For instance, the **liberalisation of services related to, and trade in, OTC derivatives has been part of most of these agreements** – without guarantees of sufficient regulation and supervision.

The EU is currently engaged in negotiating a Trade in Services Agreement (**TiSA**) with a select group of WTO members. The EU negotiations for a new trade and investment agreement with Canada (**CETA**) had not yet been finalised by at the time of writing (2nd July 2014), but financial services were a controversial issue. Canada wanted to safeguard its right to introduce financial regulation and refused to have such regulation be subject to an *international dispute settlement system* (**ISDS**) by which an EU financial investor would be able to sue the Canadian government for measures and regulations that a financial investor considers unfair treatment.

In 2013, the EU initiated negotiations with the US for a Transatlantic Trade and Investment Partnership (**TTIP**), again including financial services and ISDS. The EU proposed the inclusion of a new element: regulatory cooperation on specific economic sectors, including the financial sector. The latter would involve EU–US consultations between administrations and stakeholders even before a new financial legislation is proposed to the European Parliament or before a regulation is adopted at the national or EU level (Haar and Vander Stichele, 2014).

All the trade agreements have similar basic rules in their services section. The agreements liberalise almost all activities, investments and services related to (agricultural) commodity derivatives markets. Free trade agreements liberalise services not only by listing which services sectors will be opened up to foreign service providers. They also include rules that restrict and prohibit the introduction of specific domestic regulations and measures, which can be contrary to financial reforms. For instance, a market access rule prohibits the imposition of a limitation on the volume of transactions, which goes against the imposition of position limits. The agreements provide for exemptions for taking prudential measures, subject to conditions. However, these exemptions do not guarantee full freedom of regulation, certainly not as regards safeguarding against excessive volatility in agricultural prices (Vander Stichele, 2010).

RECOMMENDATION:

- Free trade agreements should not liberalise risky and poorly regulated or supervised financial services, such as trade in OTC commodity derivatives.
- No rule in a free trade agreement should prohibit the restriction of the value or the volume of transactions undertaken by a financial service provider.
- Prudential regulation should not be restricted, for instance as proposed in TTIP, whereby financial regulation 'should not be more burdensome than necessary' for financial stability and the protection of clients in the financial sector. Implementing financial regulation for societal reasons, such as protecting orderly food pricing and hedging mechanisms, should be explicitly allowed.
- Free trade agreements should not liberalise financial services, such as trade in OTC commodity derivatives.
- No rule in a free trade agreement should prohibit the restriction of the value or the volume of transactions undertaken by a financial service provider.
- A free trade agreement should not include a 'carve out' clause that restricts prudential regulation, for instance as proposed in TTIP, whereby financial regulation 'should not be more burdensome than necessary' for financial stability and the protection of clients in the financial sector. There should be specific reference to the possibility of implementing financial regulation for societal reasons, such as protecting orderly food pricing and hedging mechanisms.
- In general, in order to prevent commodity derivatives markets regulations from being restricted and in order to limit the spread of cross-border risky commodity derivatives activities as a result of trade liberalisation, new rules on trade in financial services should be introduced.

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ANNEX¹¹⁰: TECHNICAL OVERVIEW COMPARING EU AND US LEGISLATION ON COMMODITY DERIVATIVES¹¹¹

Reform Area	US/Dodd-Frank Act, and proposed technical regulation	EU legislation
Past laws	Commodity Exchange Act (1936) established the CFTC precursor to oversee futures exchanges. The Commodity Futures Modernization Act (2000): gave legal recognition to OTC derivatives (previously ambiguous) and exempted them from CFTC oversight.	No EU legislation but national legislation or regulations on commodity exchanges.
New legislation	Dodd Frank Wall Street Reform and Consumer Protection Act (DFA): Title VII covers regulation of swaps and other derivatives (not only commodities).	MiFID2 (trading venues, cleared OTC contracts, market participants behaviour), MiFIR, EMIR (OTC derivatives, CCPs, trade repositories), CSMAD, MAR, CRR, AIFMD
Definitions	Swaps End users Bona fide hedging or mitigating commercial risk by end users	OTC derivatives Non-financial counterparties Objectively measurable as reducing risks directly related to a commercial activity (and treasury activity (EMIR)) of a non-financial counterparty
Scope regarding agricultural derivatives	Swaps, options on commodities. Not covering physically settled commodity – and security forwards.	Futures, options, swaps and other commodity derivatives, traded on exchanges, MTFs and OTFs; OTC derivatives whether cleared or not; not covering physically agricultural forwards not traded on trading venues.
Transparency of physical agricultural trade	USDA and farm services collect daily and report spot prices, which is deferred for all farming regions, available via internet.	Monthly post trade price figures on EC (DG Agriculture) website. ¹¹² Real time reporting and recent prices on website of diverse platforms.

¹¹⁰ This Annex is the basis of the short overview comparing EU and US commodity derivatives regulatory framework in Section 2.3.1.

¹¹¹ Comparison composed by the author in cooperation with David Frenk who provided crucial input regarding the US legislation. See also: Atlantic Council, 2013.

¹¹² http://ec.europa.eu/agriculture/markets-and-prices/price-monitoring/index_en.htm (viewed 13 February 2014).

<p>Regulation of OTC Commodity derivatives trade</p>	<p>Clearing obligation Standardised swaps must be cleared through CCPs after the CFTC has issued a clearing determination.</p> <p>Applies to end users engaging in speculative swap trading. Applies to all, including all US and non-US counterparties concluding a swap with a US person, except if exempted.</p> <p>Exemptions for:</p> <ul style="list-style-type: none"> • end-users hedging commercial risks, • affiliated entities under common ownership transacting directly with one another (§723) • intra-group transactions subject to conditions <p>Uncleared swaps - Margin rules All un-cleared swaps with at least one Swap Dealer (or Major Swap Participant) are subject to margin requirements (§731); end users using swaps to mitigate commercial risk are exempted from requirement to post margin.</p> <p>Trading obligation: Swaps subject to the clearing obligation are also required to trade on trading venues (DCMs) or swap execution facilities (SEFs), provided that a SEF will make them 'available to trade' i.e. there is a market</p>	<p>Clearing obligation (EMIR) The kind of OTC contracts that must be cleared is to be decided through an extensive procedure by ESMA and EC, is not expected to be finalised before mid-March 2015.</p> <p>Applies to :</p> <ul style="list-style-type: none"> • OTC contracts among financial parties, • non-financial parties once non-hedging OTC contracts have met the clearing threshold of one class of derivatives, • third country parties for OTC contracts with a major effect in the EU. <p>Exemptions for:</p> <ul style="list-style-type: none"> • all bona fide hedging and treasury financing by non-financial counter-parties, • all non-hedging contracts by non-financial parties not meeting the clearing threshold, • intra-group transaction meeting requirements, • (for 3 years) pension funds. <p>Uncleared swaps - Margin rules (EMIR) The non-cleared OTC derivatives are subject to particular strict requirements for risk mitigation, collateral, margin valuation, confirming and reporting trades (Art.11).</p> <p>Trading obligation (MiFIR): OTC contracts with a clearing obligation under EMIR have to be traded on trading venues (exchanges, MTFs or OTFs) in the EU or in third countries meeting particular conditions (e.g. an equivalence agreement</p>
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	<p>for them. (§733)</p> <p>Capital Requirements Prudential regulators (Fed, FDIC, Treasury) determine capital requirements for banks; SEC and CFTC do so for systemically important non-banks.</p>	<p>has been signed), following a decision by the EC (not yet in place).</p> <p>Capital Requirements (CRR) Capital reserves for OTC trades, as required by CRR for banks and investment firms, with some exemptions for specialist energy commodity firms.</p>
Swap dealers	<p>Entities <i>dealing</i> (not merely trading, but actively dealing) more than \$3 billion per year (\$8 billion per year until 2018) of swaps are designated as Swap Dealers and are subject to increased regulation and oversight, including risk management, recordkeeping and disclosure/business conduct requirements (§731). Major Swap Participants also have to fulfil a set of regulatory requirements</p>	<p>No equivalent to swap dealer rule but financial counterparties in OTC derivatives are to be authorised as investment firms under MiFID2, (unless exemptions apply, e.g. for:</p> <ul style="list-style-type: none"> • pension funds, • non-investment service providers, dealing on own account in commodity derivatives as an ancillary activity, • non-investment service providers, providing investment services in commodity derivatives to the customers and suppliers of their main business, provided this is on an ancillary basis.) <p>Ancillary activity to be further defined (MiFID2, Art. 2.4) although already some definition in ANNEX I Section B.</p>
Proprietary trading	<p>Banks are prohibited (with exemptions for hedging, etc.) from most proprietary trading in (commodity) derivatives, and controlling or lending to hedge funds / commodity pools (Volcker rule).</p> <p>Bank units need to register their swap activities as swap dealers in separate affiliates that cannot receive governmental support ('push out' rule, applies since 16 July 201).</p> <p>Trading in physical commodities is allowed by US banks but is under review.</p>	<p>The EC proposal for reforming bank structures (29 January 2014) aims to restrict proprietary commodity derivatives trading by banks to a limited extent (see also below: internalisers).</p> <p>The EU regime has no equivalent to the US 'push out' rule. CRR regulates the risk management and capital requirements of banks trading in physical and financial commodity trading.</p> <p>The EC proposal for bank structures reform (2014) aims to prohibit physical commodity activities by banks.</p>

<p>Transparency of OTC commodity trades</p>	<p>Reporting of OTC trade Any (cleared or un-cleared) swap must be reported to a swap data repository (SDR) (or if lacking: to regulator) at least within one hour (except for block trade) (§727). Fully applied by 10 April 2013. Non-block trades executed on SEFs or by Swap Dealers have to be reported as soon as technologically practicable.</p> <p>Publication: post-trade transparency An SDR must publicly disseminate the transaction related swap data as soon as technologically practicable (some exemptions e.g. for block trades or trades between end-users) (§727).</p> <p>The CFTC publishes weekly swaps trade reports (commodities & other is one class, all classified as cleared or non-cleared). SDRs provide lagged public feeds and historical data. SEFs provide daily trade logs (counterparties not revealed).</p>	<p>Reporting of OTC trade All OTC trades have to be reported in detail to a trade repositories (or if lacking, to ESMA) no later than the following working day (EMIR Art. 9). Started on 12 February 2014.</p> <p>Publication: post-trade transparency Each trade repository has to weekly publicly report aggregate figures per type and class of (OTC) derivatives (commodities is one class) that is reported to it (EMIR Art. 81.)</p>
<p>Trading venues & CCPs</p>	<p>Exchanges for futures and options: Known as 'Designated Contract Markets' (DCMs). Regulated by CFTC under the CEA.</p> <p>SEF/Swap execution facility: New entity created by DFA. An exchange-like trading system or platform in which multiple participants execute or trade (cleared and uncleared) swaps by accepting bids and offers, using a central electronic order matching system. Voice brokerage allowed on top of but not instead of electronic central order book. Similar to an OTF.</p>	<p>(MiFID2 and MiFIR) Exchanges for futures and options or 'Regulated Markets': have to fulfil many operational and other requirements.</p> <p>MTF/multilateral trading facility: multilateral systems operated by an investment firm or market operator, bringing together multiple third-party buying and selling in financial instruments, which results in a contract.</p> <p>OTF/organised trading facility: New entity created by MiFID2. Any system or facility, similar to a US swap</p>

	<p>'Systematic internalisers' and other 'Single Dealer Platforms' (SDPs) are not permitted under DFA Title VII. However, the exemption for foreign exchange from Title VII regulation plus a series of 'no-action letters' has led to their continuation.</p> <p>CCPs: to be recognised based on requirements (the CCP initial margin coverage is the only key material difference with the EU).</p>	<p>execution facility, which is not an exchange or MTF, operated by an investment firm or a market operator, bringing together multiple third-party buying and selling interests.</p> <p>Systematic internaliser: banks/investment firms that trade on their own account (proprietary trading) and bring together buyers and sellers for a fee, with lax disclosure requirements, and without performing exchange-like functions.</p> <p>CCPs (EMIR): to be authorised and recognised based on requirements.</p>
<p>Transparency of trading venues: pre-trade and post-trade publication of information</p>	<p>Trade on exchanges CFTC weekly Commitment of Traders and CIT supplemental report for futures and options in agricultural commodities.</p> <p>DFA introduced pre-trade transparency by requiring OTC derivatives to trade on DCMs (exchanges) or SEFs (exchange-like venues) with public bids and offers (§733).</p> <p>Post-trade transparency: swap data repositories must publish all derivatives trades as soon as possible (with some delays allowed for large block trades or trades between end-users) (§727).</p>	<p>Trade on exchanges ESMA has to publish a centralised report based on the weekly reports from the trading venues, at a specific time in the week and according to a defined format.</p> <p>MiFIR requires pre-trade public transparency about derivatives trade (incl. current bid and offer prices) by all trading venues continuously during trading hours related derivatives, except for hedging transactions by non-financial entities.</p> <p>The post-trade requirement for derivatives stipulates that trading venues, and investment firms, have to disclose (detailed) information publicly as close to real-time as technically possible, except for large orders.</p> <p>OTFs: ESMA still has to define technical standards for OTFs that could make them more or less transparent than SEFs.</p>

<p>Price stabilisation instruments</p>	<p>All major US exchanges have circuit breakers to prevent market disruption, and improving them is an ongoing project.</p> <p>Commodity exchanges also have maximum price changes that are allowed in a single day before trading is halted.</p>	<p>(MiFID2): Venues must have in place circuit breakers, appropriate systems and controls, etc.</p> <p>The venues must have minimal tick sizes (trade based on price changes below that threshold are not allowed).</p>
<p>Ban on certain trading strategies and actors</p>	<p>HFT: Not explicitly named in the Dodd-Frank Act. The CFTC has a working subcommittee on HFT and algorithmic trading, and put out a concept release for public comment in late 2013 which sought input on appropriate HFT regulation.</p> <p>Several HFT strategies including 'spoofing', are outlawed under the general heading of 'disruptive trading practices' (§747).</p>	<p>Algorithmic (high frequency) trading strategies:</p> <ul style="list-style-type: none"> • using such strategies is being conditioned by several requirements (MiFID2, Art. 17) and supervisory powers; • it is forbidden to use strategies including 'spoofing' which manipulate markets (MAR). <p>In general, MAR and CSMAD prohibit insider dealing, market manipulation and improperly disclosing of inside information.</p>
<p>Extra-territorial issues/ application</p>	<p>DFA requires CFTC (and to a lesser extent SEC) to apply US regulation to overseas derivatives transactions with a significant impact on the US. (§722, §752)</p> <p>Non-US persons must register as swap dealers (SDs), and adhere to SD requirements if they deal over \$3bn per year of swaps to US persons who are not themselves SDs. If the dealing is done through a subsidiary, only the subsidiary must register.</p> <p>If comparable regulation exists in the relevant foreign jurisdiction, foreign-domiciled SDs may substitute their local regulation for US regulation (§722).</p>	<p>Examples:</p> <ul style="list-style-type: none"> • obligation in EMIR to clear (once all the technical details have been accepted) OTC derivatives contracts concluded 'between two entities established in one or more third countries that would be subject to the clearing obligation if they were established in the Union, provided that the contract has a direct, substantial and foreseeable effect within the Union, or where such an obligation is necessary or appropriate to prevent the evasion of any provisions of this Regulation'. • Non-EU CCPs and trade repositories to be recognized by ESMA.

	<p>Non-US CCPs are permitted to trade US-linked contracts (e.g. swaps that settle against US commodities) only if they register with CFTC or seek permission to follow comparable regulation in the home country (§722). Up till now, the CFTC has issued no-action letters to postpone any such requirement.</p>	
<p>Supervisory and intervening authorities</p>	<p>The CFTC has the regulatory, supervisory, enforcing and intervening powers, combining oversight of financial and spot commodity markets.</p> <p>The FERC and the Federal Trade Commission (FTC) have jurisdiction over spot commodity markets, though the CFTC can press charges in cases where manipulation of physical commodities involves trading of derivatives; the FERC was recently ruled not to have an equivalent ability.¹¹³</p>	<p>The different EU laws provide powers to national competent authorities, to authorise, regulate, supervise, intervene and enforce the EU legislation. ESMA's intervening powers are less and mostly in case national authorities fail, as it has more a coordinating role. Cooperation with agricultural spot market authorities is in some ways envisaged but insufficient (MiFIR, MAR). Many ('level 2') regulatory technical measures and issues are the responsibility of ESMA and the EC. MAR foresees intervention to act against market abuse that affects the spot market.</p>
<p>Strengthening regulatory and supervisory cooperation</p>	<p>CFTC and SEC are required to seek data sharing agreements and agreements of substituted compliance with third country regulators (§722). Initiatives are underway in this regard, though no flagship agreement is yet in place.</p>	<p>Different equivalence acts and cooperation agreements with third countries related to many country services providers (CCPs, trade repositories, etc.) are needed. MiFID2 (Art. 88) allows for ESMA and national competent authorities to conclude cooperation agreements, e.g. with third country authorities responsible for oversight of agricultural commodity derivatives markets, ensuring a consolidated overview of financial and spot markets.</p>

¹¹³ McDermott, W. & E. and Watkiss, J., *Energy regulators FERC, CFTC finally reach proactive understanding on jurisdiction and information sharing*, Lexology, 9 January 2014, <http://www.lexology.com/library/detail.aspx?q=fb316423-6945-4d19-acf6-6ad04c726120> (viewed 13 February 2014).

Comparison of US-EU legislation about position limits

	US	EU
<u>Position limits</u>	Dodd Frank Consumer Protection Act: Title VII, Part II, Section 737: position limits	MiFID2 (mainly Art. 57-58, Annex 1 Section C), MiFIR
History	Ex-ante position limits have been in place for agricultural commodity futures since 1936 (CEA). In the 1990s, these were repeatedly widened and in some cases replaced by softer 'position accountability' regimes.	No EU regulation of position limits before MiFID2/MiFIR. National authorities were responsible for home country exchanges. Most exchanges were responsible for orderly trading through self-regulation, including position management and sometimes ex post position limits.
Agricultural Products covered	Position limits apply 28 commodities derivatives, of which 19 are agricultural.	Agricultural commodity derivatives are being defined (MiFIR 2.1.(44)) as derivatives defined in Annex I-C of MiFID2 related to agricultural products which are listed in Regulation 1308/2013 establishing the CAP and which include 21 categories of agricultural products.
Objectives	DFA §737 (3) (i) to diminish, eliminate, or prevent excessive speculation; (ii) to deter and prevent market manipulation, squeezes, and corners; (iii) to ensure sufficient market liquidity for bona fide hedgers; and (iv) to ensure that the price discovery function of the underlying market is not disrupted.	<ul style="list-style-type: none"> • 'prevent market abuse' (MiFID2, Art. 57), including cornering (Rec. 127) • 'support orderly pricing and settlement conditions, including preventing market distorting positions, and ensuring convergence between prices of derivatives in the delivery month and spot prices for the underlying commodity, without prejudice to price discovery in the market for the underlying commodity.'(MiFID2, Art. 57).
Exemptions	The bona fide hedge exemption only applies to trades that are hedging commercial risk.	Exemptions for non-financial entities' bona fide hedging positions, i.e. for position that are objectively measurable as reducing risks directly related to the commercial activity of a non-financial entity.

<p>Setting of position limits</p>	<p>DFA: The CFTC is required to re-establish ex-ante position limits for the same 28 commodity derivatives, including non-hedging swaps and swaps with a significant price discovery function (§737). The CFTC is required to set position limits (which was challenged in court by ISDA/SIFMA, but the CFTC made a new proposal on 5 November 2013).</p>	<p>MiFID2 (Art. 57) introduced position limits, to be set by national authorities (or by the competent authority of the venue where the largest volume of trading takes place when the same commodity derivative is traded in significant volumes on trading venues in more than one jurisdiction) based on the methodology for calculation developed by ESMA and adopted by EC for which MiFID2 stipulated specific criteria, and ESMA has to draft the regulatory standards.</p>
<p>Application</p>	<p>The CFTC position limits must be applied by exchanges and swap execution facilities on all commodity derivatives trade (futures, options, swaps), and some position limits apply to uncleared swaps.</p> <p>Exemptions for bona fide hedging positions in physical commodities based on the DFA requirements.</p>	<p>The position limits must be applied by exchanges, MTFs and OTFs on all derivatives trade, including OTC derivatives held by financial entities and non-financial entities who are not hedging.</p> <p>Exemptions for non-financial entities' bona fide hedging positions (defined as objectively measurable as reducing the risks directly related to the commercial activity of that non-financial entity).</p>
<p>Position limits (above which it is prohibited to trade)</p>	<p>The CFTC proposed 3 kind of position limits:</p> <p>1) Spot-month position limits (applicable in the period immediately before settlement) set on net long and net short positions, aggregated across all types of contracts (futures, swaps, options):</p> <p>1.a.) set at 25% of deliverable supply (of the commodity) separately for physically settled derivatives and cash settled derivatives in the same commodity;</p> <p>1.b.) set at 125% of deliverable supply when holding only cash settled contracts.</p> <p>2) <i>Non-spot-month position limits</i> (applied to (i)</p>	<p>(MiFID2 Art. 57)</p> <p>The position limits set by national authorities based on the methodology for calculation need to be clear quantitative thresholds:</p> <ul style="list-style-type: none"> • applied to the size of the net aggregate positions which a person can hold, at all times, in one particular class of commodity derivative; • applied on the net aggregate position in a commodity derivative both held on commodity derivatives trading venues as well as in economically equivalent OTC contracts; • different for positions held in the spot month and in the other months of the duration of the commodity derivatives contracts which are

	<p>net position in all contract months combined, and (ii) net position in each individual non-spot month); set as a percentage of all outstanding open interest (theoretically including all uncleared swaps as well as all cleared swaps): set using the 10%/2.5% formula: 10% of the first 25,000 contracts of open interest, plus 2.5% of open interest above that level.¹¹⁴</p> <p>Subsequent levels of position limits will be adjusted at least every two years.</p>	<p>physically settled or cash settled;</p> <ul style="list-style-type: none"> • set on the basis of all positions held by a person and those held on its behalf at an aggregate group level. <p>Competent authorities shall review position limits whenever there is a significant change in deliverable supply or open interest or any other significant change in the market.</p>
<p>Position management controls</p>	<p>Trading venues (DCMS) and swap execution facilities are subject to requirements and application of acceptable practices.</p>	<p>(MiFID2. Art. 57.8.) operators of a trading venue which trades commodity derivatives are obliged to apply position management controls and have the powers to:</p> <ul style="list-style-type: none"> (a) monitor the open interest positions of persons, (b) access all necessary information and documentation, (c) require a person to terminate or reduce a position, (d) require a person to provide liquidity back into the market.

¹¹⁴ For instance, if a market has 100,000 contracts (average) open interest, the position limit is 2,500 contracts (10% of 25 000) + 1,875 contracts (2.5% of 75 000) = 4,375 contracts.