

The logo for SWORA LEGAL, featuring the word "SWORA" in a large, white, serif font above the word "LEGAL" in a smaller, white, sans-serif font. A blue horizontal bar is positioned below "LEGAL". The logo is centered within a white square.

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MARKET MANIPULATION ON ENERGY MARKETS: LAYERING&SPOOFING

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Layering & spoofing

- ▶ issuing multiple non-genuine orders at different price levels (layering) or single large/multiple non-genuine orders at the same price level (spoofing) on one side of the order book, in order to enter into one or multiple transactions on the other side of the order book
 - two common elements: (i) the issuing of non-genuine orders on one side of the order book in order to (ii) enter into transactions on the other side
 - market participant issues non-genuine orders to influence other market participants' behaviour, e.g. by creating the impression that there is a stronger selling or buying interest at decreasing/increasing price levels than there actually is (non-genuine orders are issued in order to enter into transactions at better conditions regarding price or volume on the other side of the order book)
 - transaction(s) on the other side of the book should occur within a period that allows the non-genuine orders to influence the behaviour of other market participants
 - non-genuine orders are usually cancelled shortly after the entering into one or multiple transactions on the other side of the order book

Layering & spoofing

- negative impact:
 - change of expectations of other market participants regarding the supply, demand, price of wholesale energy product; effect: better trading conditions regarding volume/price (artificially created)
 - on organised market places (energy exchanges and other electronic trading venues), layering or spoofing are facilitated by the anonymity of market participants (sellers and buyers): issuing one or multiple non-genuine orders by a single market participant can alter the order book that is visible to other participants
 - undermining confidence in market signals (and compliance and integrity regimes of the organized platforms): withdrawing from the market, affected competition

- different configurations
 - ✓ colluding market participants (colluding traders acting on behalf of the same market participant)
 - ✓ combination with other manipulative practices (wash trades)
 - ✓ may be used to manipulate reference prices (e.g. practice of marking the close)
 - ✓ algorithms facilitate the implementation of new layering and spoofing behaviours (because of the unprecedented trading speed)
 - ✓ behaviours that are similar to layering or spoofing, eg. momentum ignition: entering into transactions that are likely to start or exacerbate a trend in order to create an opportunity to close or open a position at a more favourable price (though there are no non-genuine orders)

Layering – example

Layering the sell side in order to buy electricity at lower prices

Situation: **MP A** wants to buy 300 MW on the electricity intraday market **at an advantageous price**, i.e. at a **price lower than 28 euro/MWh**, which is the best ask when it enters the market, as well as the price of the last transaction. Below is the timeline of events from T1 (before MP A enters the market) until T7 (when MP A exits the market).

T1: Before MP A enters the market, the best and only ask is 400 MW at 28 euro/MWh by MP B, while the best and only bid is 100 MW at 21 euro/MWh by MP C. At this point in time, if MP A wants to buy 300 MW, the best price available is 28 euro/MWh.

T2: MP A issues two ask orders: 200 MW at 27 euro/MWh and another of 100 MW at 26 euro/MWh, with the latter becoming the best ask. The bid-ask spread is narrowed by 2 euro/MWh compared to T1.

T3: MP B reacts to the changes in the order book in T2 and updates the price of its ask order to 25 euro/MWh.

T4: MP A issues two additional ask orders: 50 MW at 24 euro/MWh and another of 20 MW at 23 euro/MWh, with the latter becoming the best ask. The bid-ask spread is further narrowed by 2 euro/MWh.

T5: MP B reacts by updating the price of his 400 MW ask order to 22 euro/MWh.

T6: MP A issues a bid order of 300 MW at 22 euro/MWh. It matches with the ask order of MP B, resulting in a transaction of 300 MW at 22 euro/MWh.

T7: Shortly after the execution, MP A cancels all four of its previously issued ask orders.

Layering – Example

Layering the sell side in order to buy electricity at lower prices

Figure 1 – Chronological representation of the order book

PRICE euro/MWh	ORDER QUANTITY in MW in TIME SEQUENCE T1 to T7						
	T1	T2	T3	T4	T5	T6	T7
28	400	400					
27		200!	200!	200!	200!	200!	
26		100!	100!	100!	100!	100!	
25			400	400			
24				50!	50!	50!	
23				20!	20!	20!	
22					400	<u>300!</u> 400	100
21	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Legend: Bid orders in green and underlined; Ask orders in red; Orders from MP A represented with a "!".

Spooing – example

Spooing leading to false or misleading signals as to the demand for natural gas

Situation: **MP A has a selling interest**, so it creates a **false impression of a strong demand** that drives the **price upwards** on a day-ahead continuous gas market.

T1: The last transaction in the market was at 23 euro/MWh. Other MPs in the market have **50 MWh/h bid and ask orders** for the gas day-ahead product. The best **bid order is priced at 23 euro/MWh** and the **best ask order at 26 euro/MWh** (the spread is 3 euro/MWh). For some time, there is no further activity in the order book.

T2: MP A issues a bid order of 200 MW at 22 euro/MWh. This becomes the second-best bid.

T3: MP A issues a 50 MW ask order at 25 euro/MWh. This becomes the best ask.

T4: MP B lifts MP A's ask order at 25 euro/MWh as a reaction to the appearance of the large bid in T2. **The orders are matched, and the transaction is executed.**

T5: 10 seconds later, MP A cancels the 200 MWh/h bid order from the order book (this order was on the screen for mere seconds, while MP A's other orders in this market were visible for 10 minutes).

The same pattern observed from T1 to T5 is repeated several times.

MARKET MANIPULATION IN ENERGY MARKETS

Spooing – example

Spooing leading to false or misleading signals as to the demand for natural gas

Figure 2 – Chronological representation of the order book

PRICE euro/MWh	ORDER QUANTITY in MWh/h in TIME SEQUENCE T1 to T5				
	T1	T2	T3	T4	T5
27	50	50	50	50	50
26	50	50	50	50	50
25			!50	!50 50	
24					
23	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>
22		<u>!200</u>	<u>!200</u>	<u>!200</u>	
21	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>

Legend: Bid orders in green and underlined; Ask orders in red; Orders from MP A represented with a "!".

Layering & spoofing

- CRE (FR) decision of 5 October 2018 regarding Vitol SA
- Ofgem (UK) decision of 5 September 2019 regarding Engie Global Markets
- CRE (FR) decision of 19 December 2019 regarding BP Gas Marketing Ltd
- CNMC (ES) decision of 25 February 2021 regarding Rock Trading World S.A.
 - ✓ Rock Trading World had a buying interest, so his intention was to artificially lower the prices
 - ✓ his traders placed multiple phantom orders on the selling side of the order book with reduced volumes and prices lower than currently lowest (best) ask orders (with market liquidity being on low level)
 - ✓ other traders regarded this as a new trend on the market: growing supply and lowering the prices; they respectively reacted by updating their orders to the newly perceived market trend (that was artificially created by Rock Trading World)
 - ✓ Rock Trading World benefited from this trend, placing a large bid order (with volume significantly larger than his ask orders) which matched the updated ask orders of other market participants

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A photograph of a high-voltage power line tower, painted in a bright orange-red color, stands against a clear, deep blue sky. The tower is a lattice structure with multiple cross-arms extending horizontally. Numerous black power lines are visible, stretching across the frame from the tower towards the edges of the image. The perspective is from a low angle, looking up at the tower.

THANK YOU FOR YOUR ATTENTION!

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