



‘Lifecycle of a trade’

Arben Kllokoqi

Electricity Expert, Energy Community Secretariat

Regulatory School, EFET-EnC, 10 March 2022

Electricity contracts

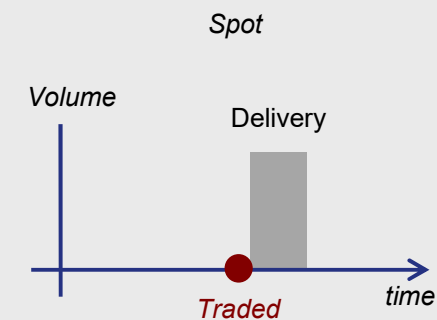
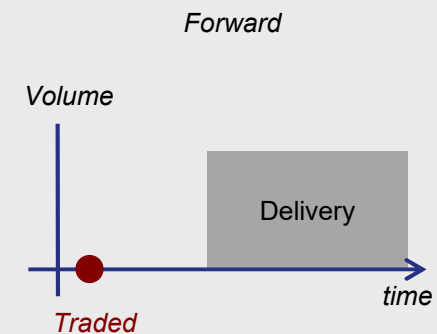
Uniform products, but ...

Product specification is linked to:

- Place of delivery
- Time/period of delivery (tenor)
- Optionality

Primary source of energy implies the product – technology

- Nuclear / coal / gas = base
- Gas / oil / hydro = flexibility (peak / hourly)
- Wind / PV / must-run river = intermittent



Market places & ways of trading

Bilaterally

Structural/bespoke contracts

Bilateral trading

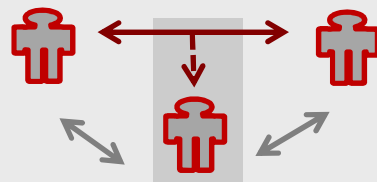
(bilateral credit arrangements)



OTC

Brokers via screen or phone

Standard contracts



Exchange

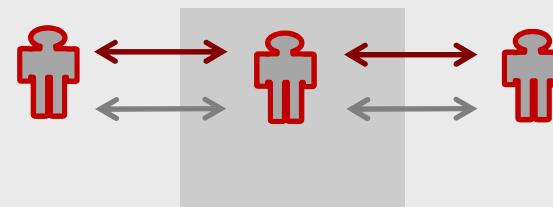
(centrally cleared contracts)

Continuous trading

Standard contracts

Auctions

Hourly day-ahead products
Intraday too, in some cases



Risks ...



Political, legal and regulatory risks – instability and uncertainty around the legal and regulatory framework (changes on the design, requirements, climate actions...)

Risk from market abuse – market is evolving with new ways and means of trading, increasing the potential for abusive behaviour

Market/price risk – volatility of the price on forward basis (1,2, 5, 10 years ahead)

Credit/counterparty risk – potential default of counterparty, risk of non-delivery, change of credit rating, etc.

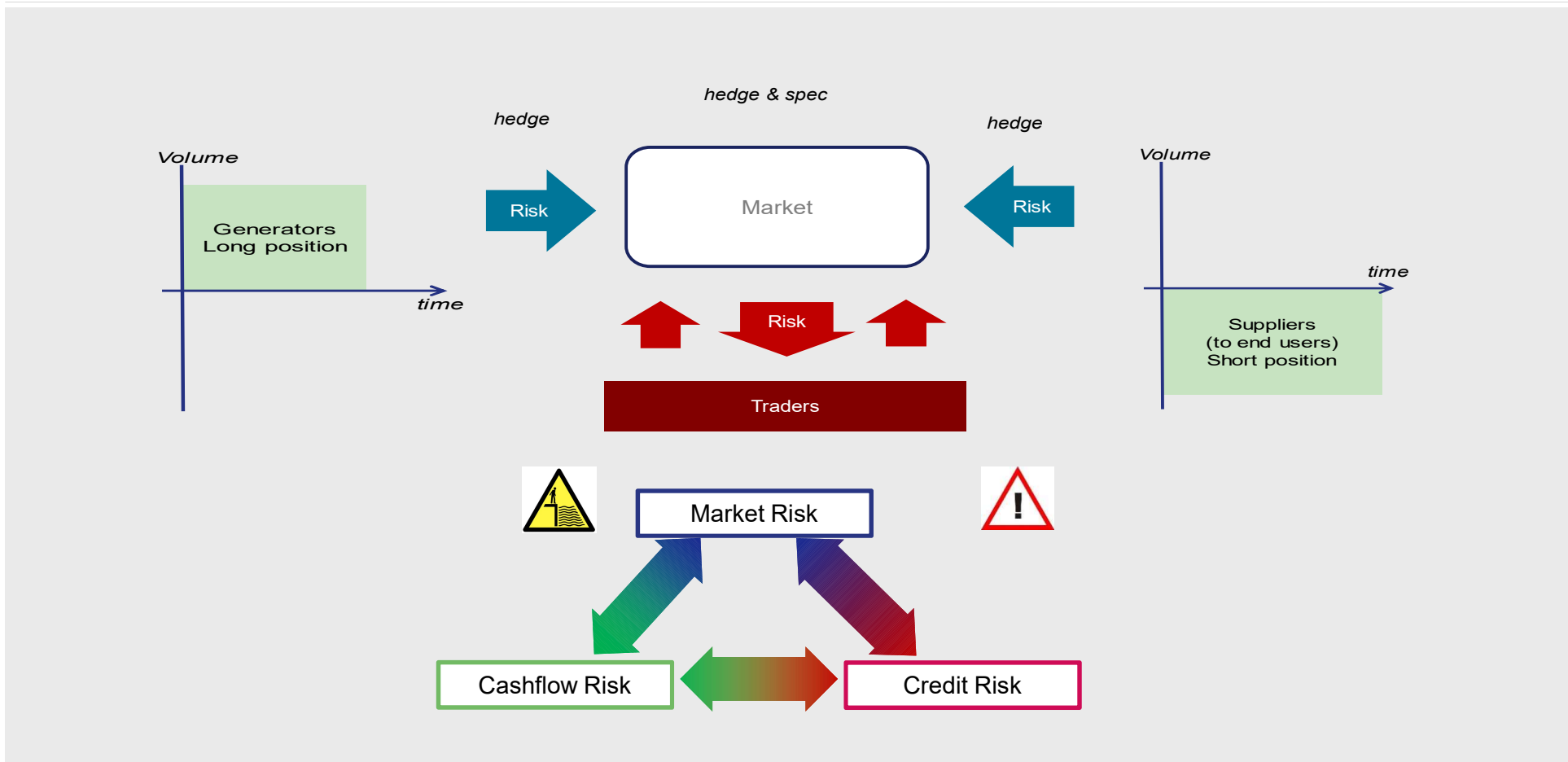
Cash-flow risk – margining to cover long-term exposure consume a lot of financial guarantee

Operational risk – an increases level of no of trades, new system, transition into 'smart' increases represents an exposure (maybe also Cyber-threats!)

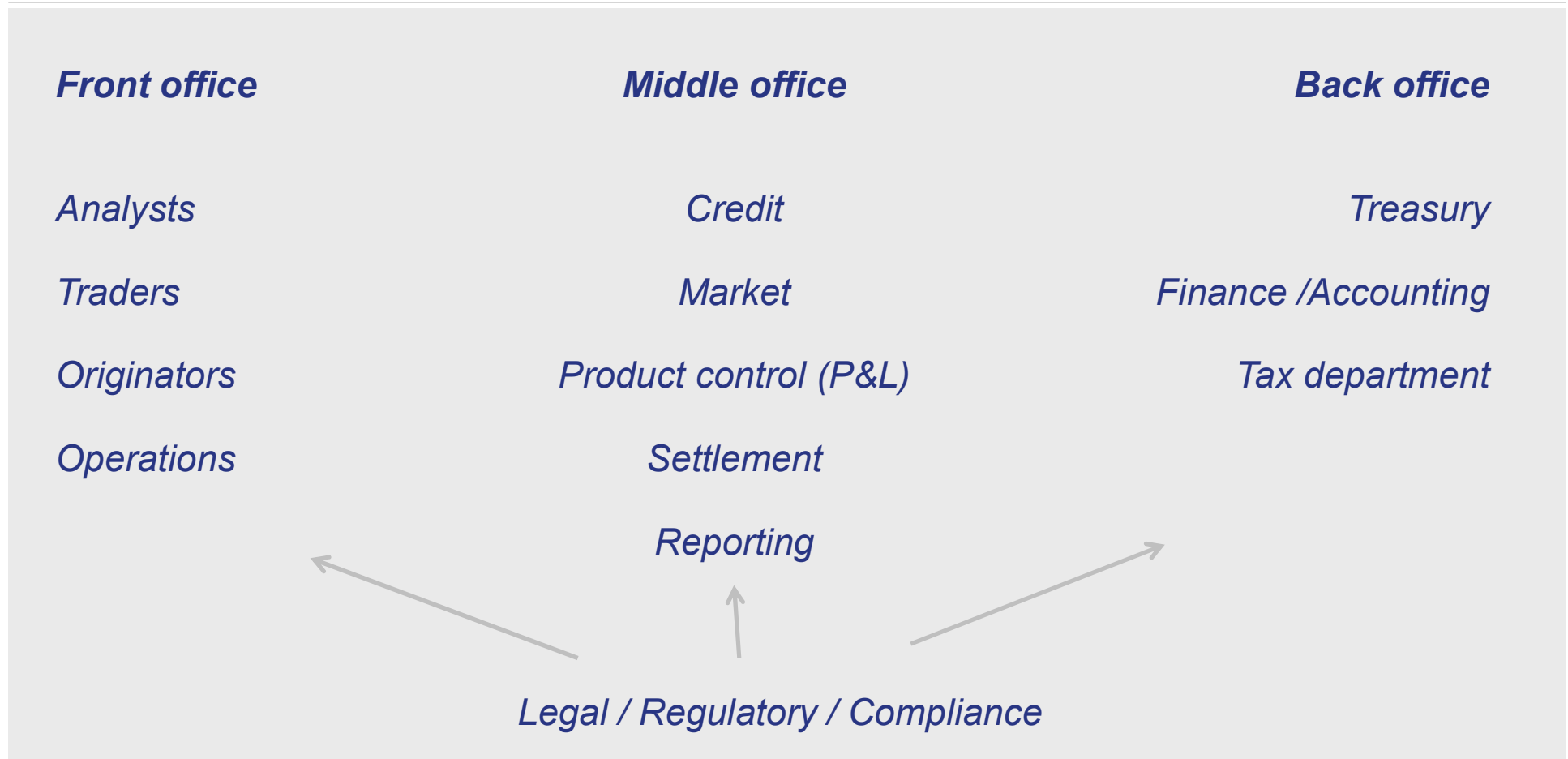
Weather exposure – with more intermittent production, the exposure is spilled out to all participants

... **other risks** – any view?

Managing risks



Trading from inside the trading firms



Trade lifecycle – getting ready

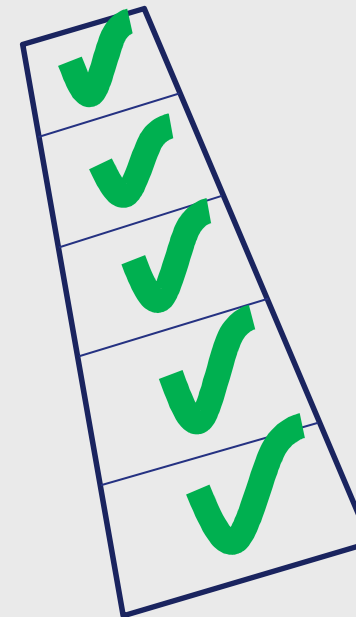
Entering new market

(internal)

1. Business case
2. Market assessment
3. Legal and Regulatory assessment

(external)

4. License with the Regulator- if needed
5. Balance Responsible Party with the TSO to be able to use transmission network
6. PX/Clearing House registration
7. Bilateral arrangements

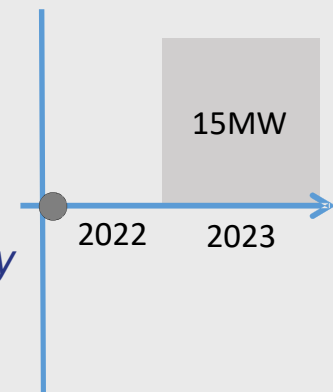


Trade lifecycle – trade in embryo

- *Each desk / trader is given a risk mandate – exposure allowed to take ... say for a year ahead products*
- *Analysts look at supply and demand conditions, network capabilities, constrains, weather forecasts, hydrological forecast (based on previous years)*
 - Also any information on new investments, or other information that might affect fundamentals for the coming year
- *Credit team sets up credit arrangements (margining; bilateral or centrally)*
- *Trader makes price assessment – forward curves (expectation where the price is expected to trade, expected/target P&L)*

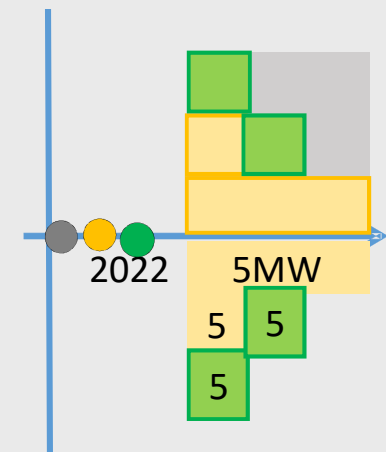
Trade lifecycle – trade execution

- *Considering potential limitations and assessments made, the trader chooses the product and venue (including volume, price & direction)*
 - Check the screen to buy 15 MW of Cal23 Base, delivery @ MAVIR :
 - If a price is offered on screen (by an initiator) – the traders clicks and executes the purchase (he is the aggressor), or
 - He puts a bid at a the price x and waits for an aggressor
- *Once the trade is executed it is booked in the system (deal capture)*
- *Settlement/confirmation team confirms the trade with the broker and the counterparty (via electronic platform, email or fax ...)*
- *Executed trade is reported (REMIT/EMIR)*
- *P&L team calculates the P&L at the end of the day*
- *Market risk may update the risk mandate on daily basis if high price volatility*
 - Potential margin updates



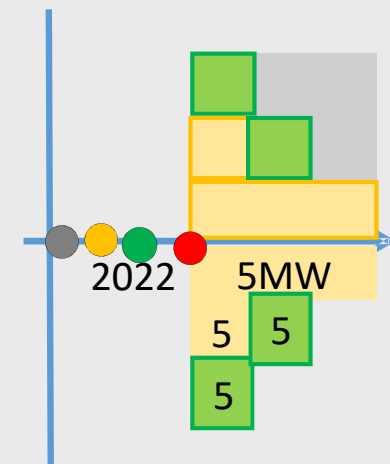
Trade lifecycle – portfolio management

- *Trader has a long position of 15MW of Cal23 Base, delivery @ MAVIR*
- *Based on price assessments, fundamental analyses and any limitations, it may:*
 - Sell part or all 15MW as Cal23 Base product
 - Wait until close to delivery and sell Month-ahead, Quarter-ahead, Day-ahead or Intraday ...
- *It chooses to sell 5MW as Cal23 Base, delivery @ MAVIR and 5MW as Q1 2023*
- *Later it sells another 5MW as Q1 2023 Base and 5MW Q2 2023*



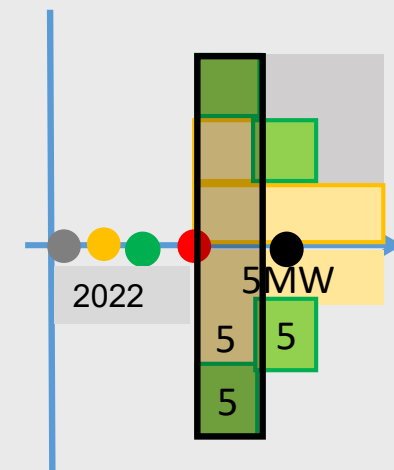
Trade lifecycle – delivery

- *Q1 2023 is flat but needs to be delivered*
- *Delivery involves nomination with the TSOs – this case with MAVIR*
 - Take delivery of 15MW from CPs X and Y
 - Deliver to CPs A and B
 - Nomination is done usually on D-1 before 2pm (x-border nomination is different) – by the Operation team
- *The remaining opening position is traded quarter/month/week ahead and/or day-ahead and intraday*

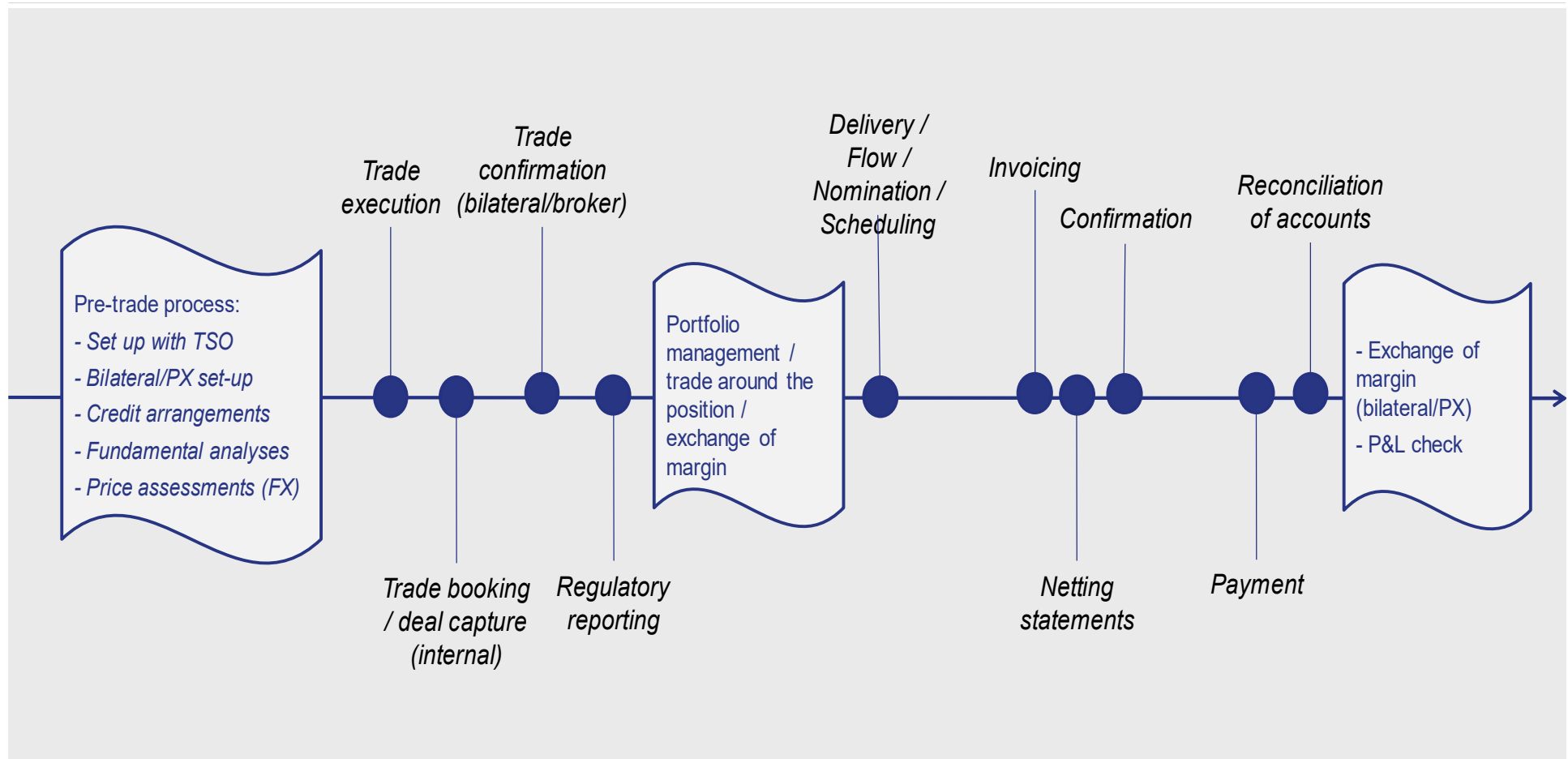


Trade lifecycle – financial settlement

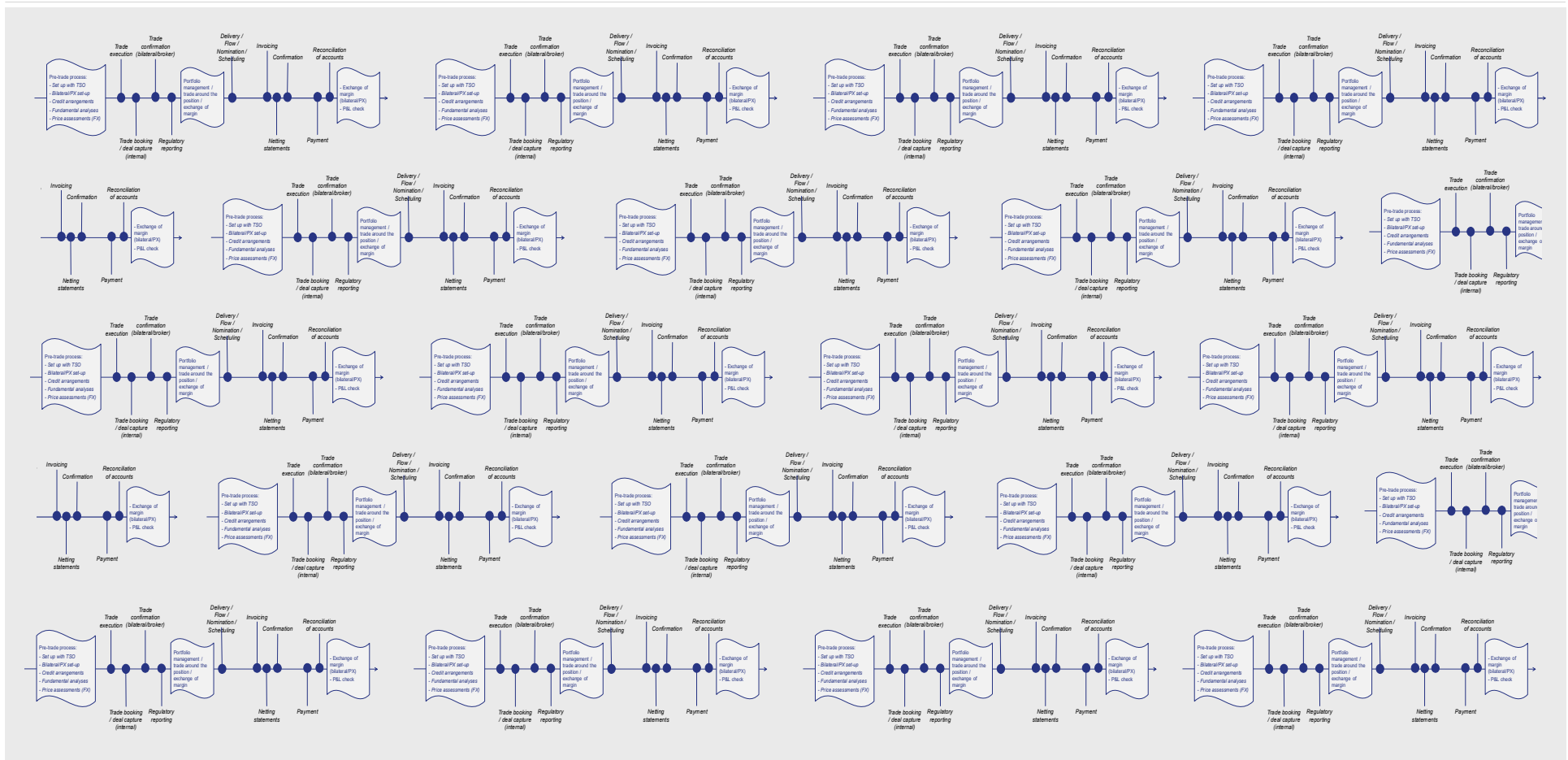
- *Few days after the delivery month, the invoices are issued by counterparties (or PXs)*
- *Trading firms apply netting of payments so netting statements are exchanged and final payment/direction is confirmed by middle office*
- *Treasury team ensures the payment is made (cash transfer)*
- *Accounting confirm the records – daily reconciliation of accounts*
- *After the payment credit exposure changes – credit updates the exposure*



Recap of the trade lifecycle



Multiply this by X times



Just after delivery - balancing with the TSO

Each MP has an account with at least: Sales and/or Purchases

Example of nomination process:

- MP A sold (nominated) on 500 MWh/h in total (100 each) to parties B, C, D, E and F
- (1) MP A purchased (nominated) 500 MWh/h from party X, or
- (2) MP A is a producer and provided physical nomination for producing 500 MWh/h

(To have confirmed nominations, counterparty has to nominate the same)

(1) MP A as a trader, is fully balanced; no imbalances

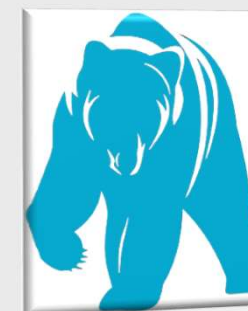
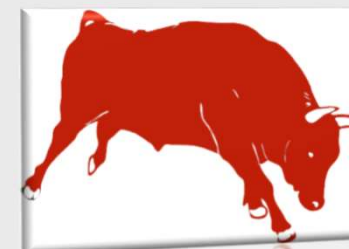
- ***(2a) MP as a producer, produces 490 MWh/h (though his parties paid for 500 at price 'y')***
 - TSO has activated an upwards balancing offer for 10 MWh/h at a price 'x'
 - TSO charges 10 MWh/h for imbalances at price 'x+'

(For mechanism to make sense/right incentive, $x > y$)

- ***(2b) MP as a producer, produces 510 MWh/h (though his parties paid for 500 at price 'y')***
 - TSO has activated a downwards balancing offer for 10 MWh/h at a price 'x or -x'
 - TSO pays/charges 10 MWh/h for imbalances at price 'x or -x'

Result is ...

- *Building up position:*
 - Long, bought electricity for future delivery so you need to sell it before the delivery comes
 - You are effectively a 'generator'
 - You expected that price will go up in shorter term market
 - You were bullish
 - Short, sold electricity for future delivery so you need to buy it before the delivery comes
 - You are effectively a 'supplier' to end users
 - You expected that price will go down in shorter term market
 - You were bearish
- *Have an offset position*





Thank you!

www.energy-community.org

Arben.Klllokoqi@energy-community.org