

Seminario sobre la Evolución y Perspectivas del Mercado de Electricidad



Gestión de riesgos en mercados a plazo *OMIClear*

Pablo Villaplana, Director de Operación, OMIClear

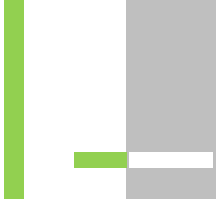
27 de Octubre de 2022

Agenda

- ⦿ Volatilidad de los precios a plazo de electricidad y gas natural.
- ⦿ Modelo general de riesgo. Efecto de la volatilidad de precios sobre los márgenes requeridos por las Cámaras y las liquidaciones (Mark to Market).
- ⦿ Colateral aceptado por Cámaras de Contrapartida Central: novedades regulatorias.

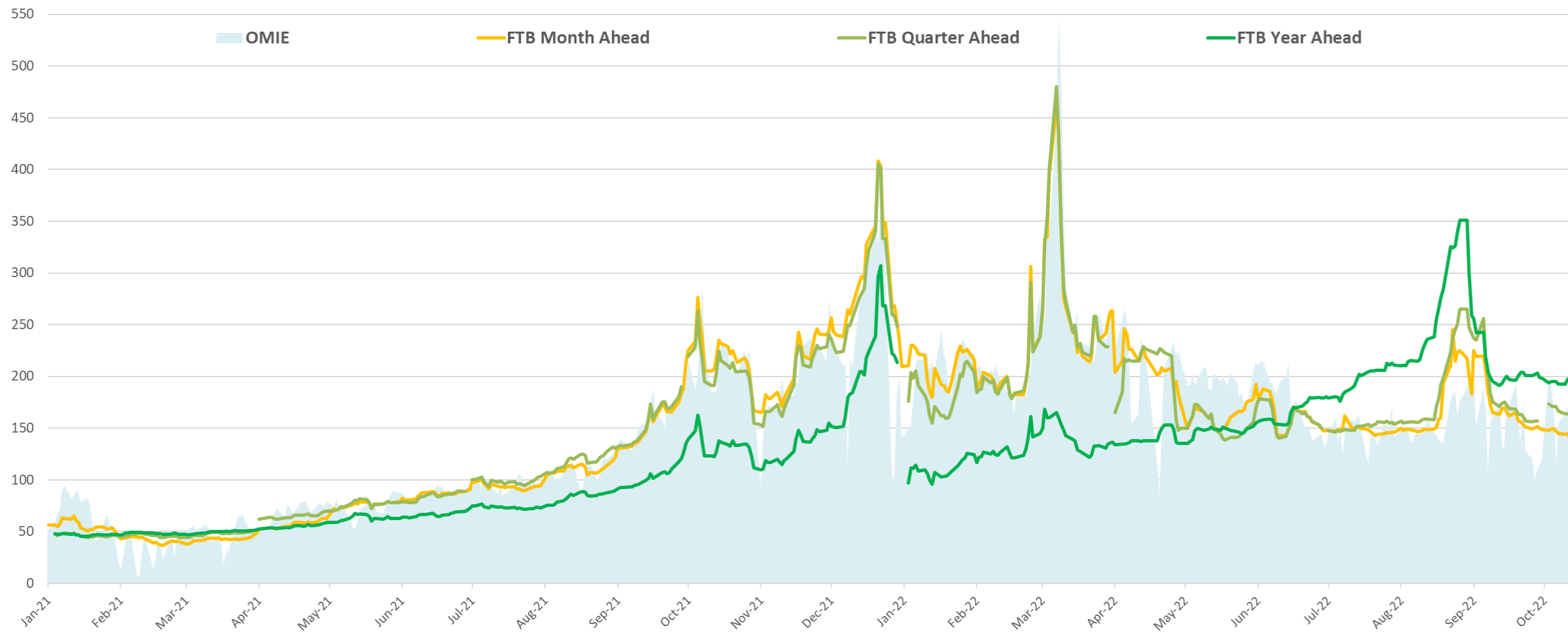


1. Evolución precios y volatilidad

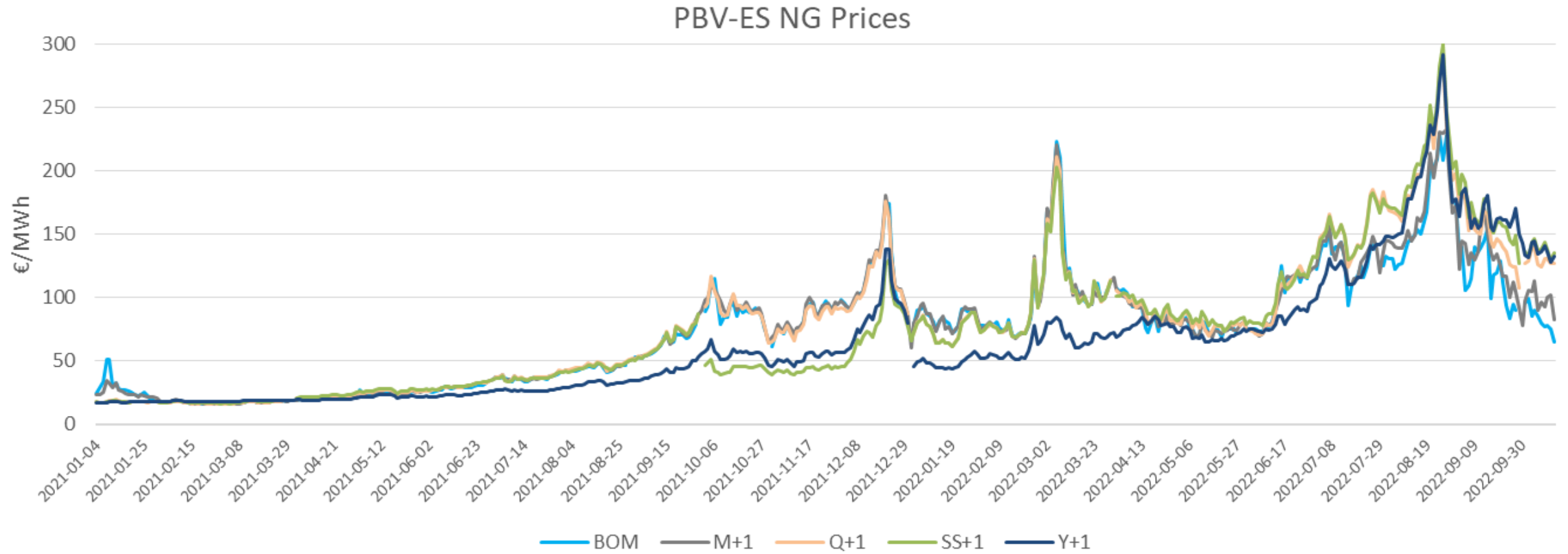


1.1. Evolución precios

Evolución precios electricidad: Spot y Futuros

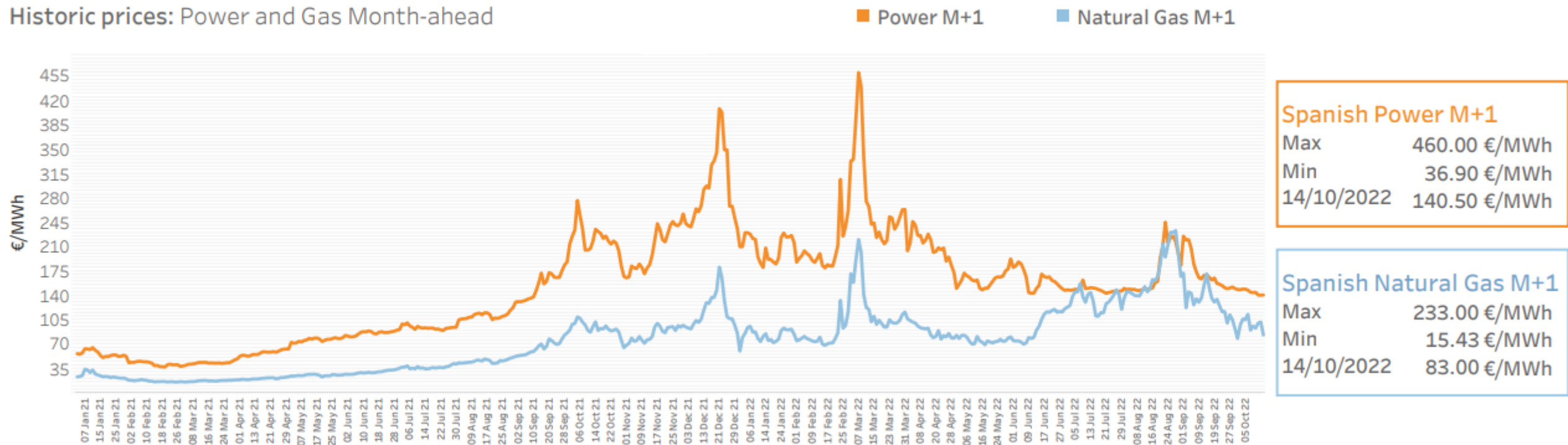


Evolución precios gas natural: Spot y Futuros

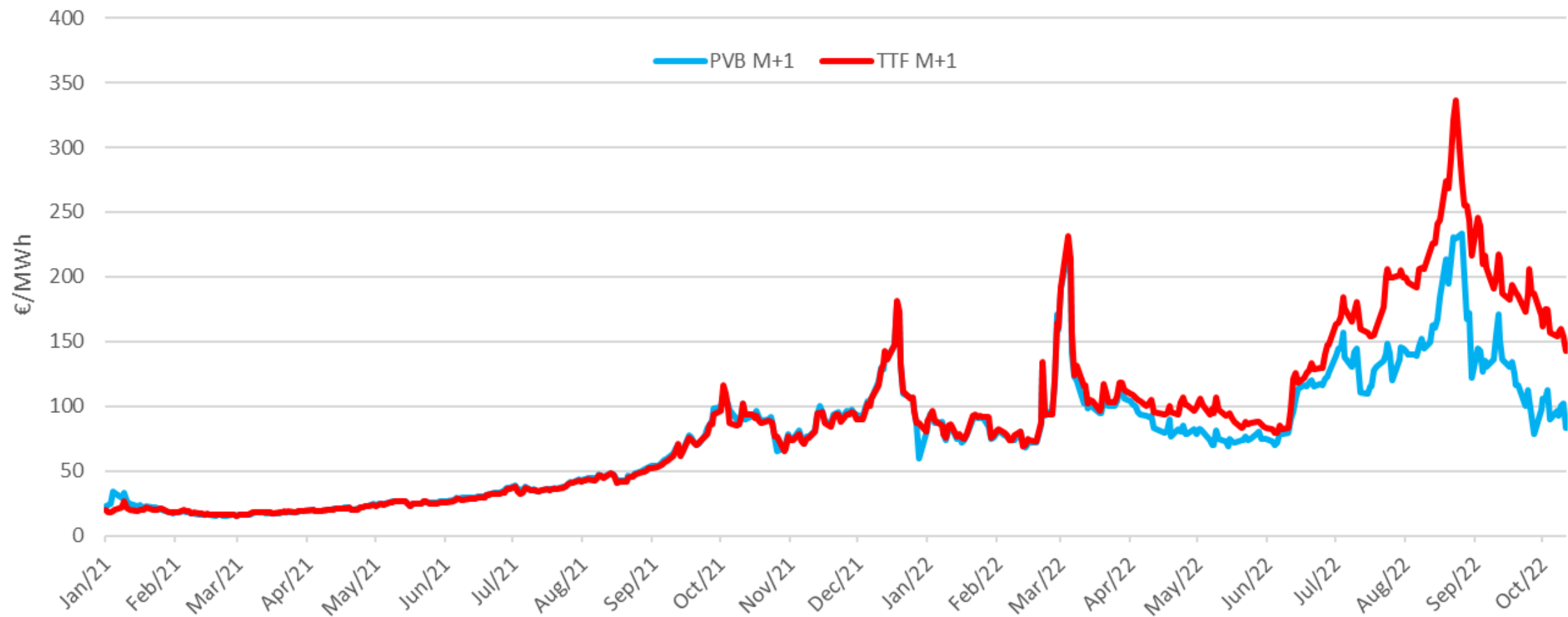


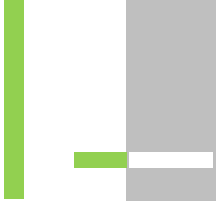
Evolución precios electricidad y gas natural: M+1

Historic prices: Power and Gas Month-ahead

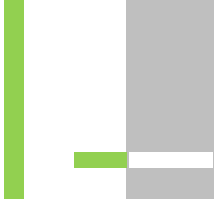


Evolución precios gas natural M+1: PVB y TTF





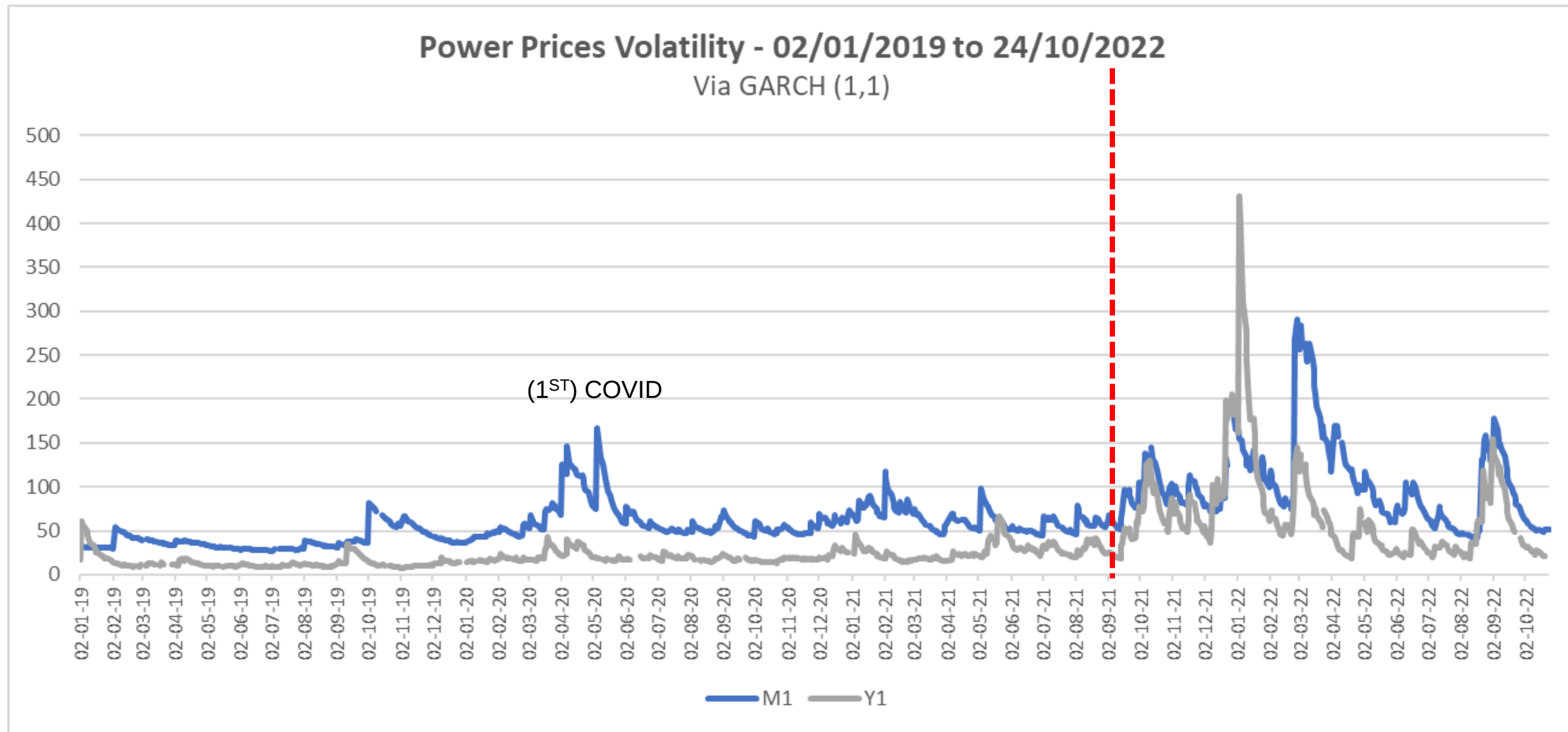
1.2. Volatilidad de precios



Estimación modelos GARCH

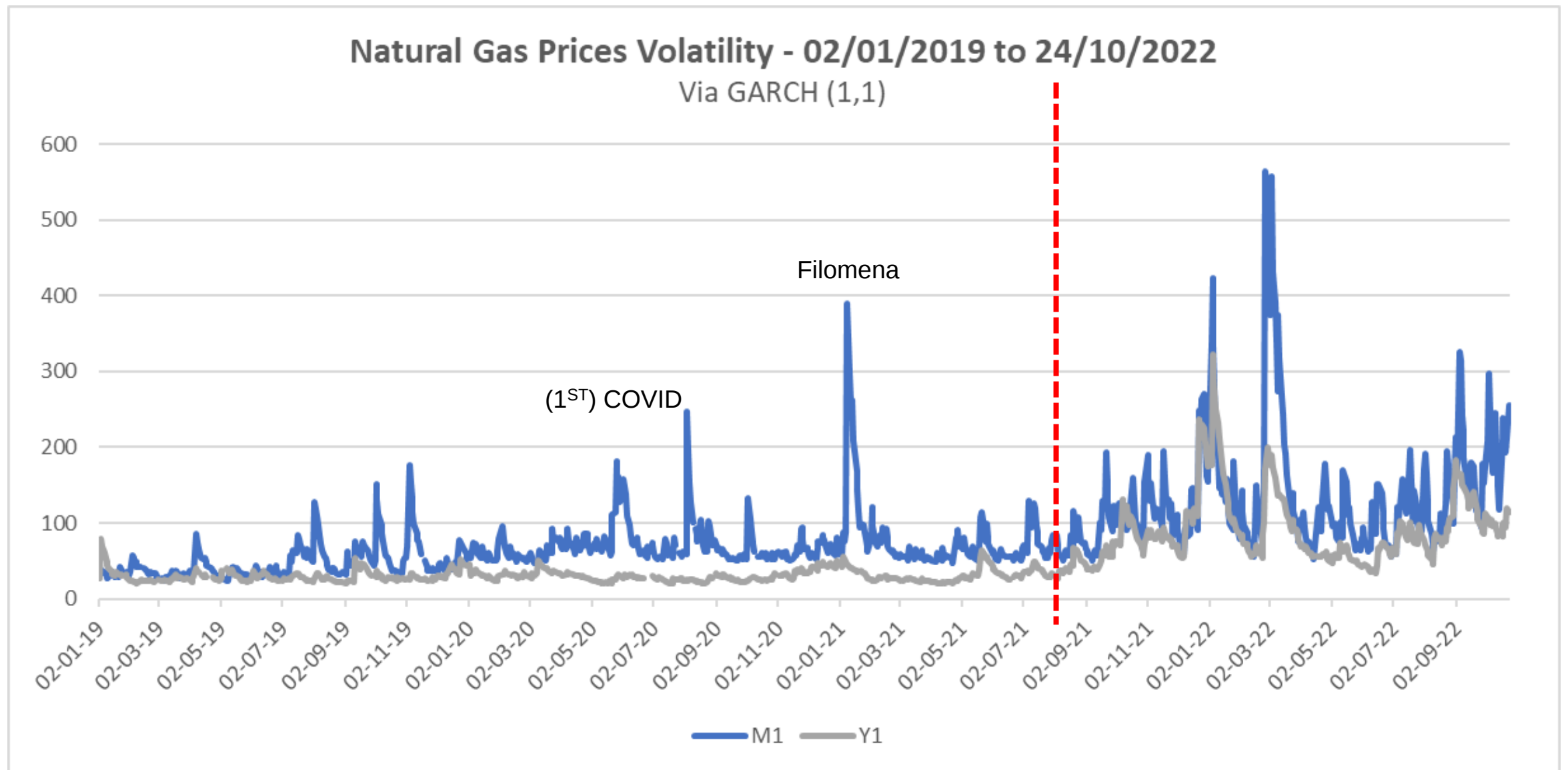
Volatilidad – Modelo GARCH(1,1)

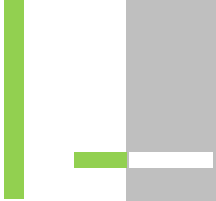
Contratos M+1, Y+1. Electricidad. España (€/MWh)



Volatilidad – Modelo GARCH(1,1)

Contratos M+1, Y+1. Gas Natural. España (€/MWh)

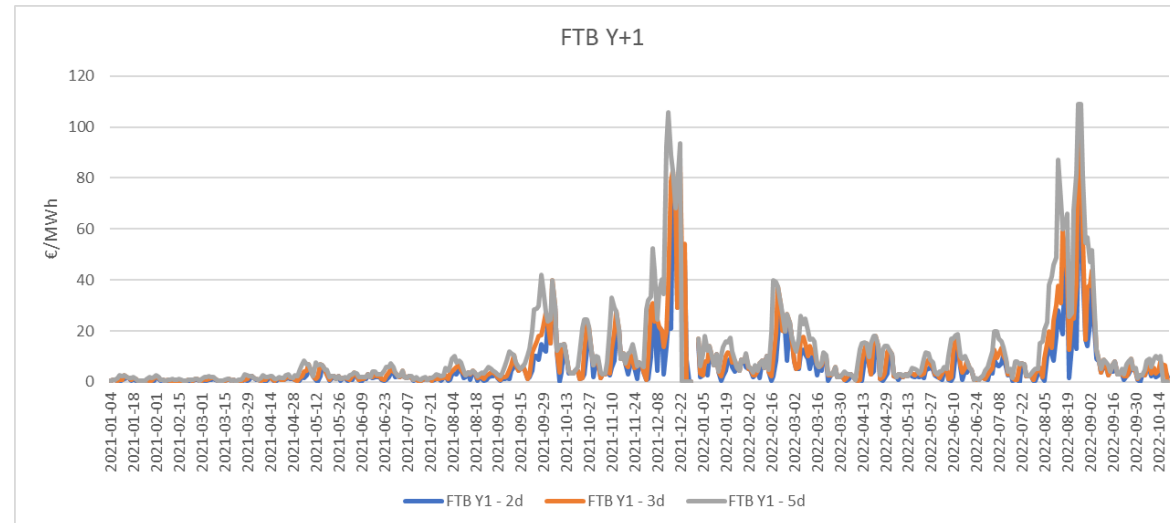
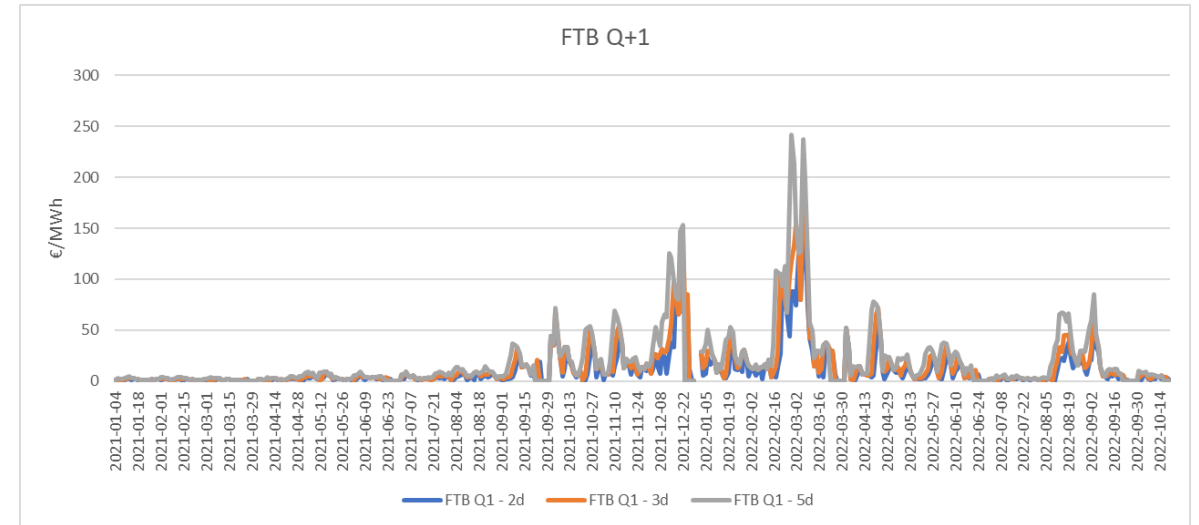
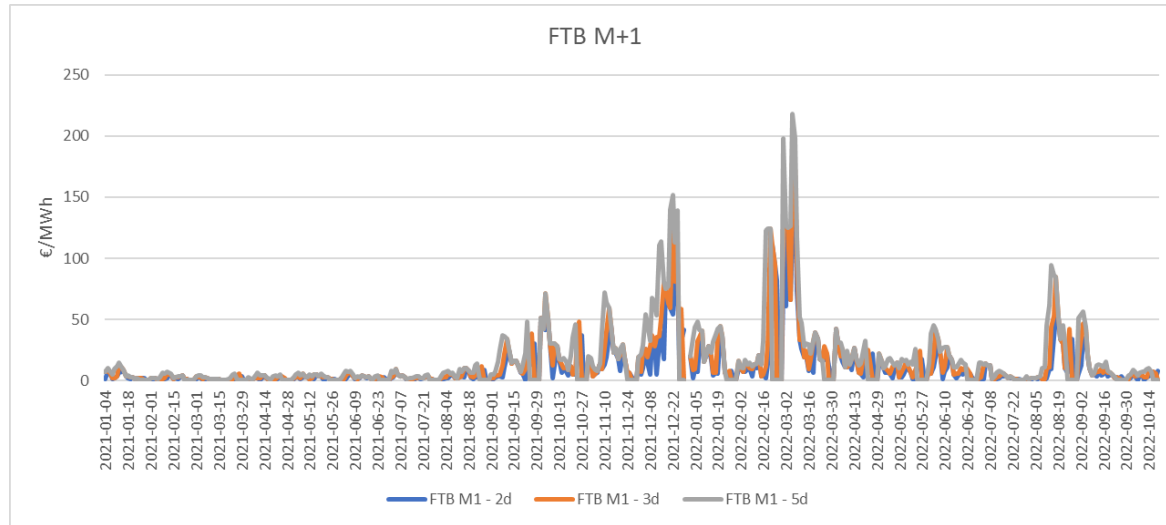




Variaciones de precios a n días

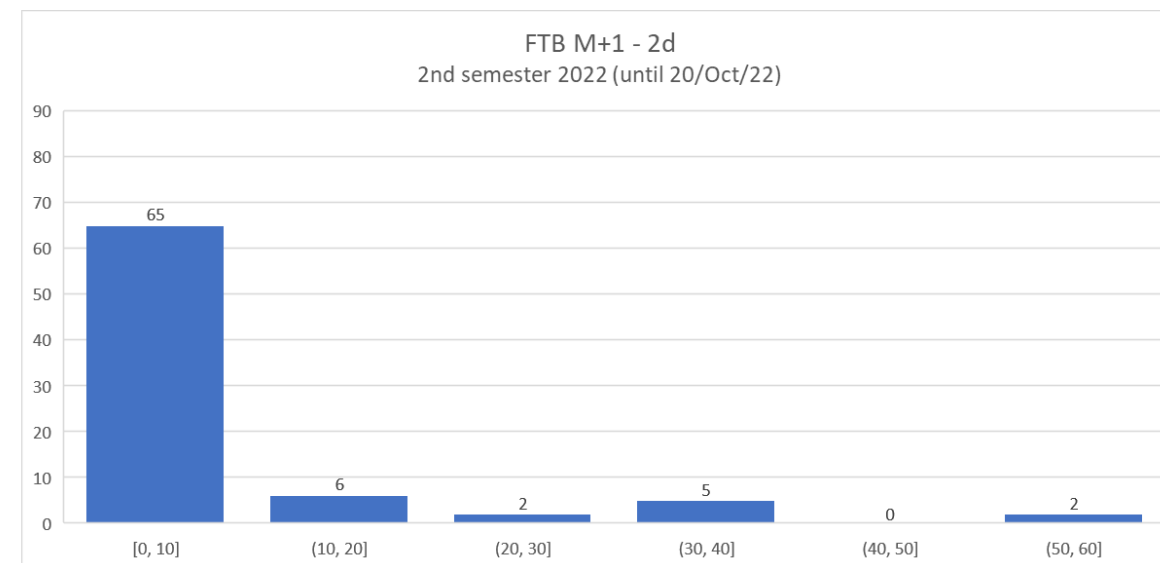
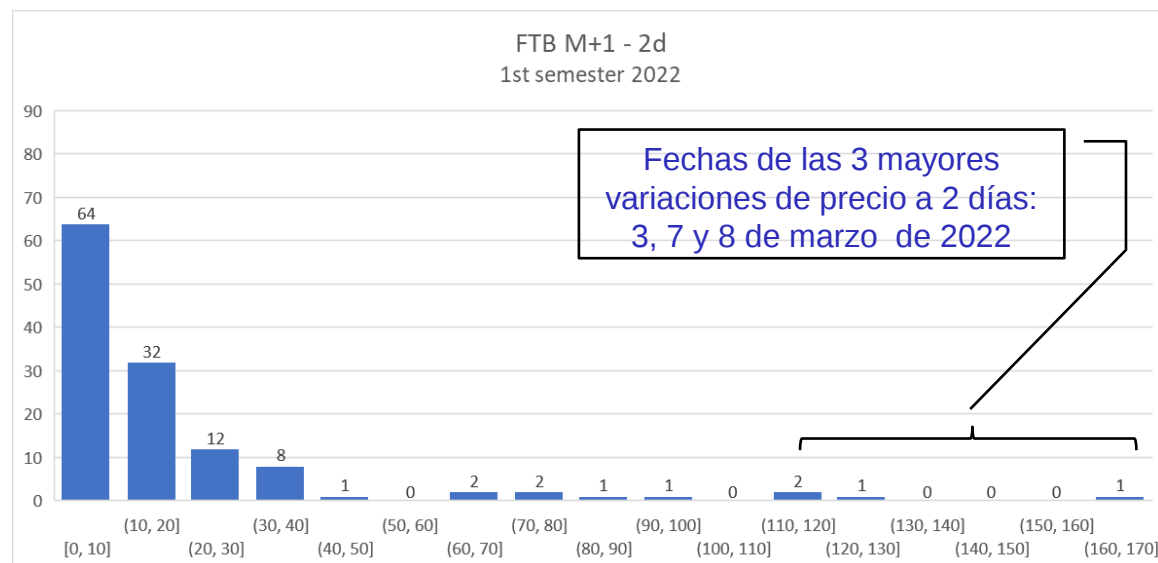
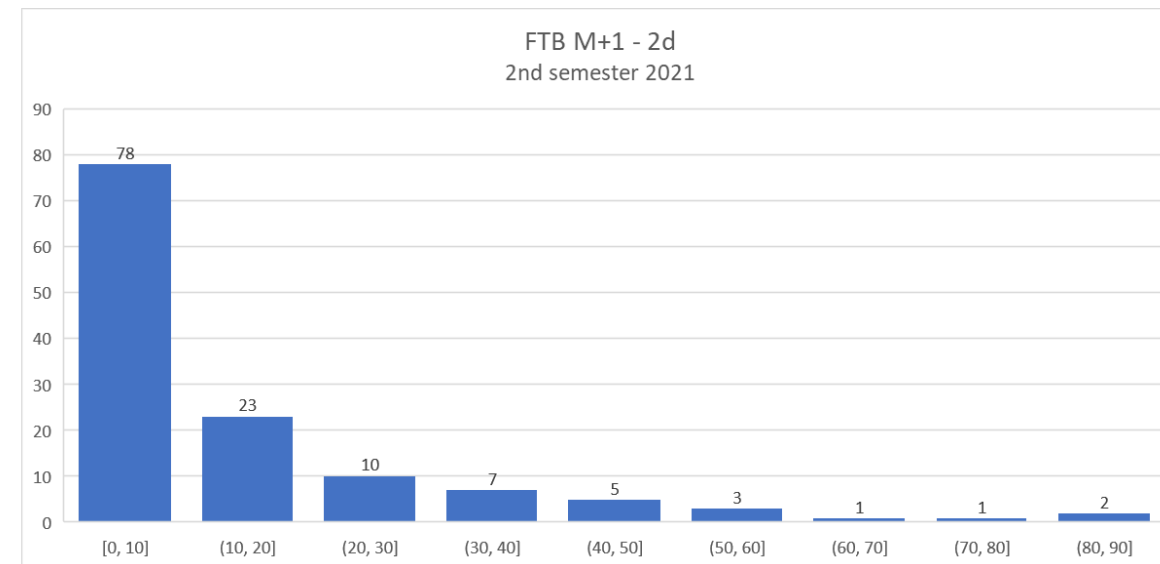
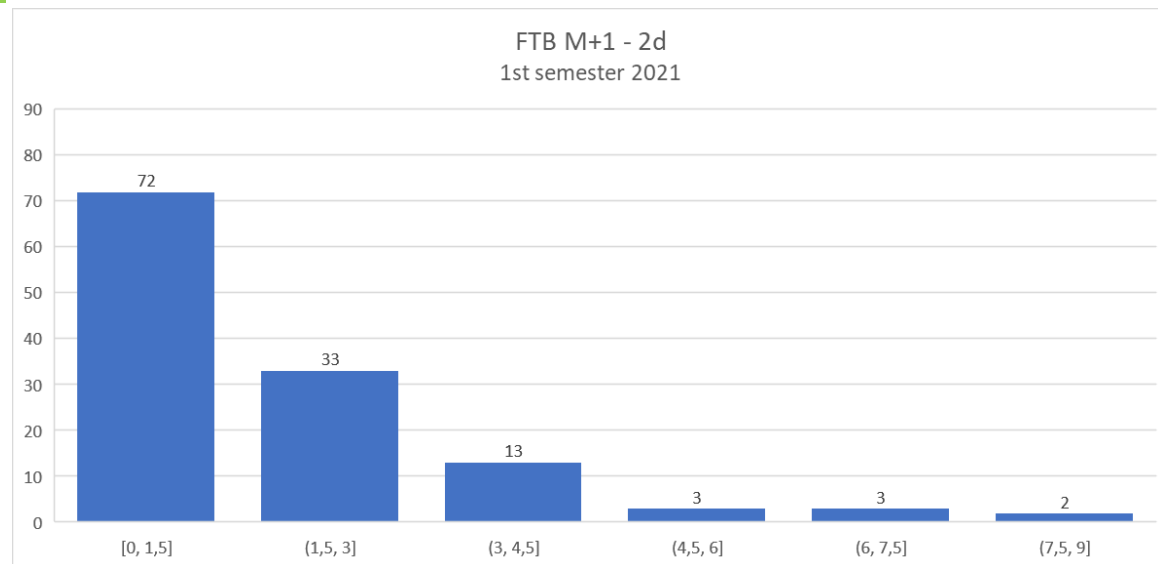
Variaciones a 2,3 y 5 días: Cotizaciones a plazo Electricidad.

Contratos mensuales, trimestrales y anuales siguientes: España (€/MWh)



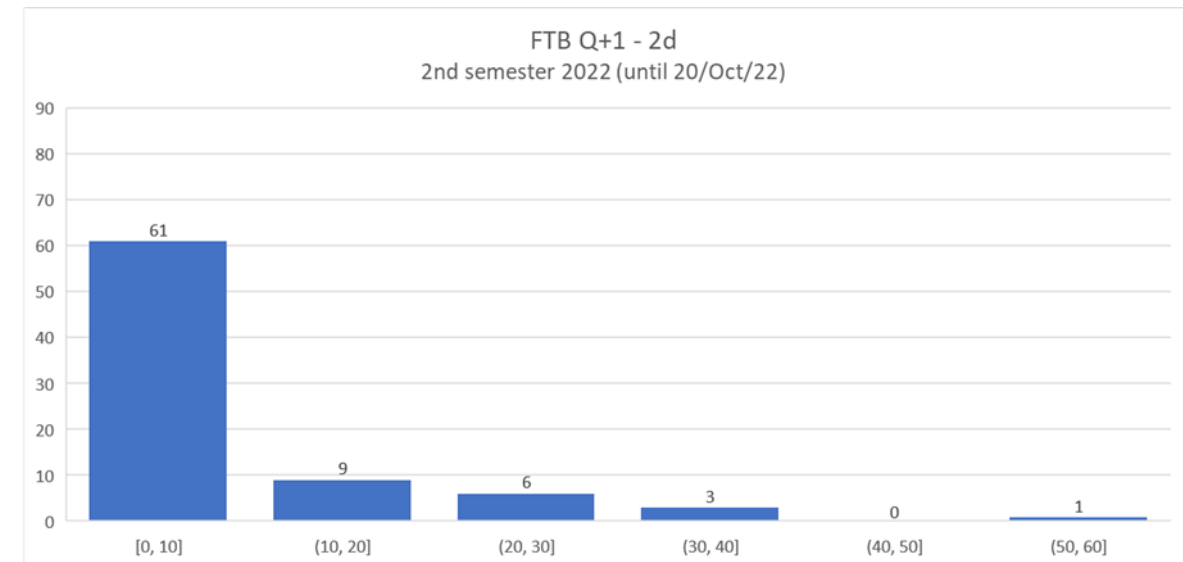
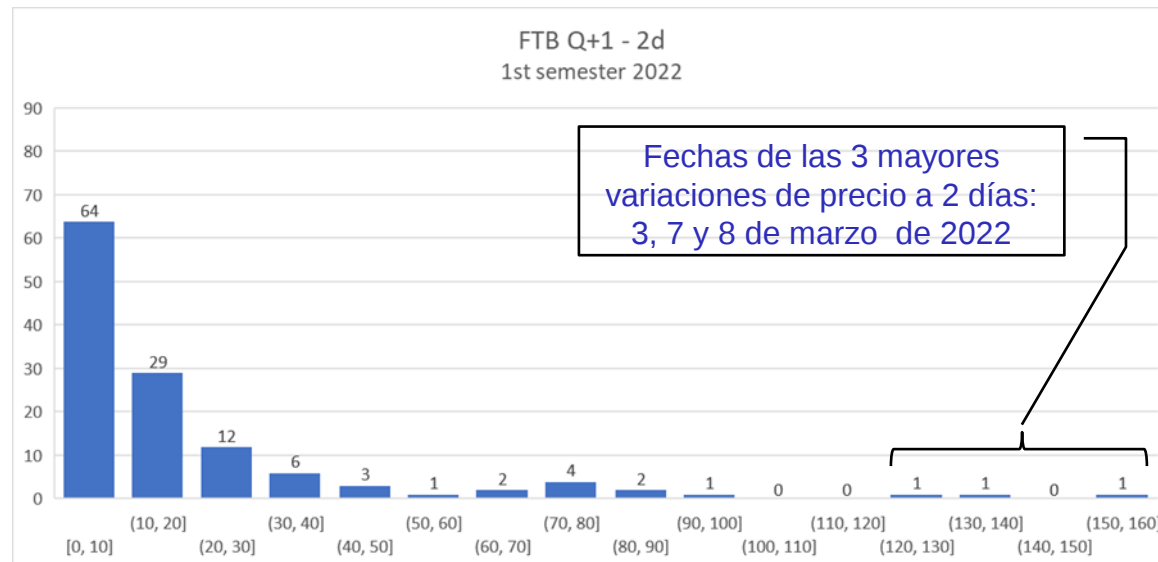
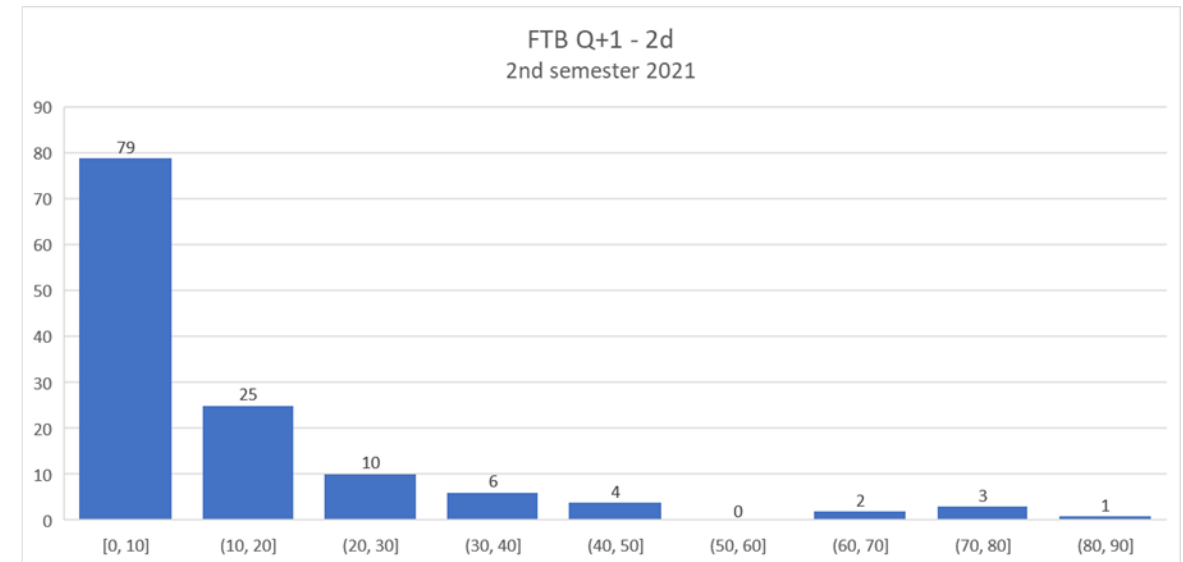
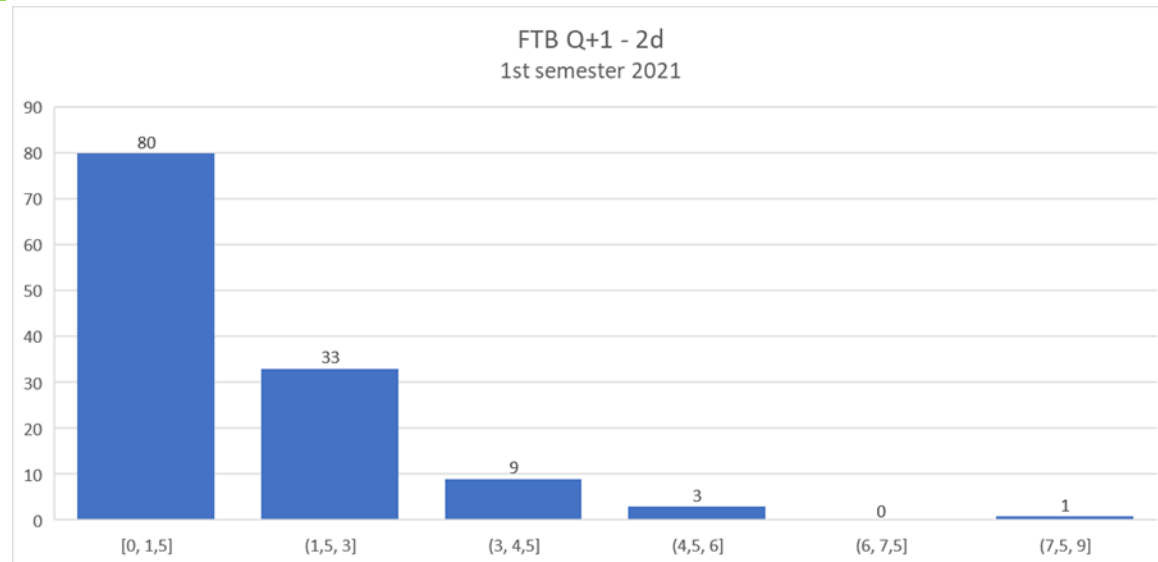
Variaciones de precios a 2 días. Electricidad

Contrato Mes siguiente (M+1) España (€/MWh)



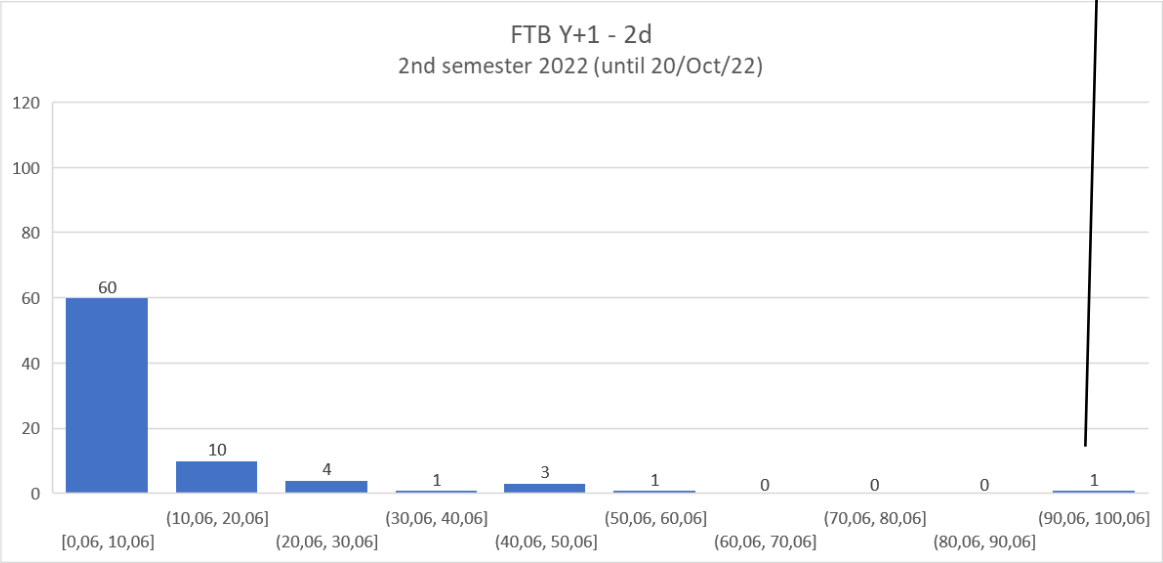
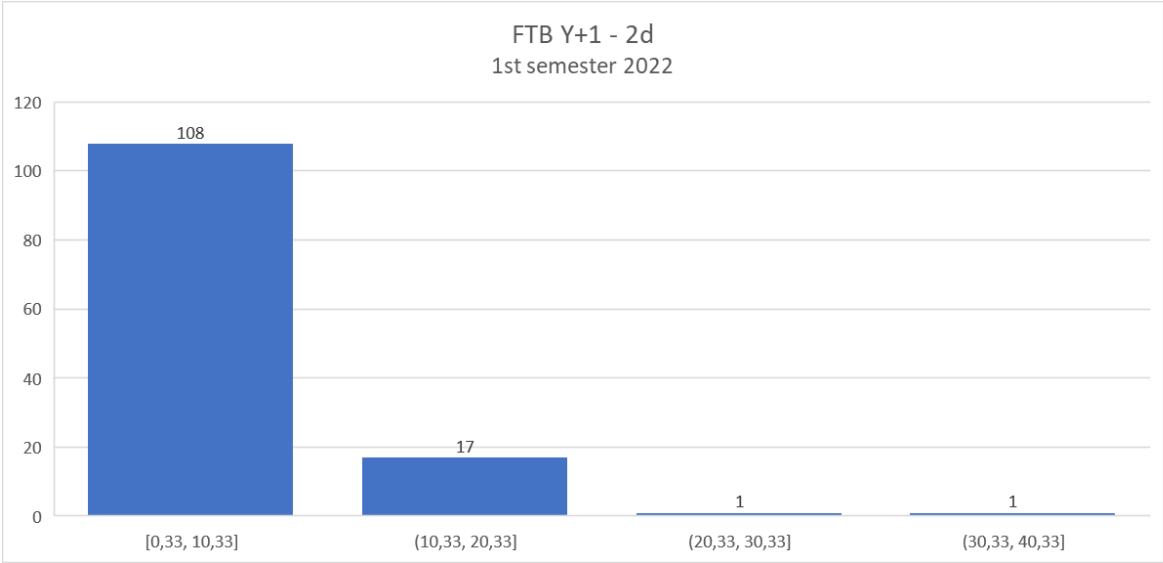
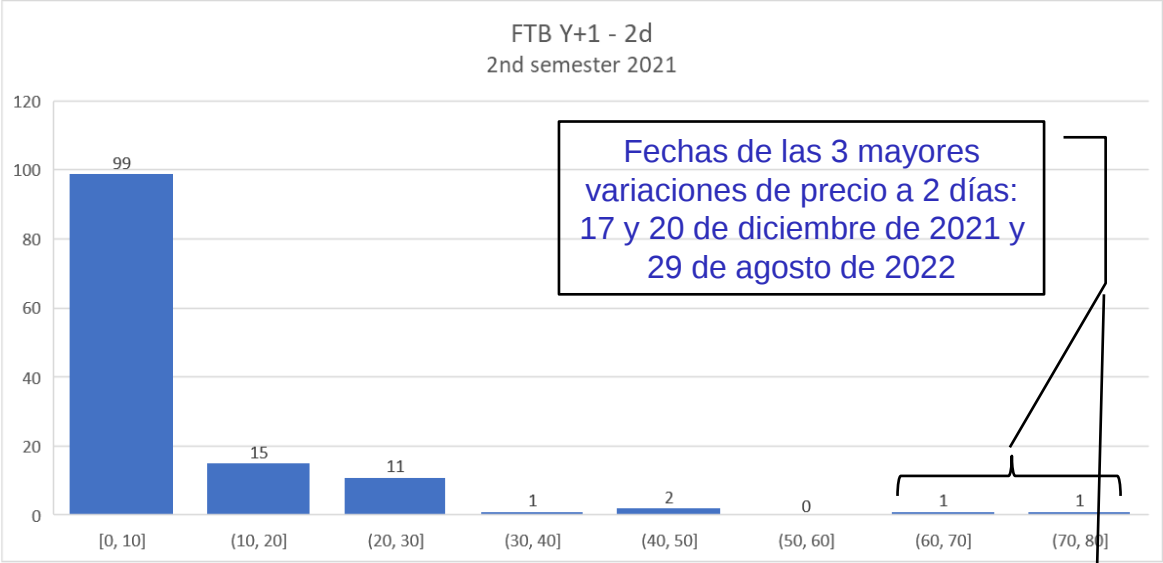
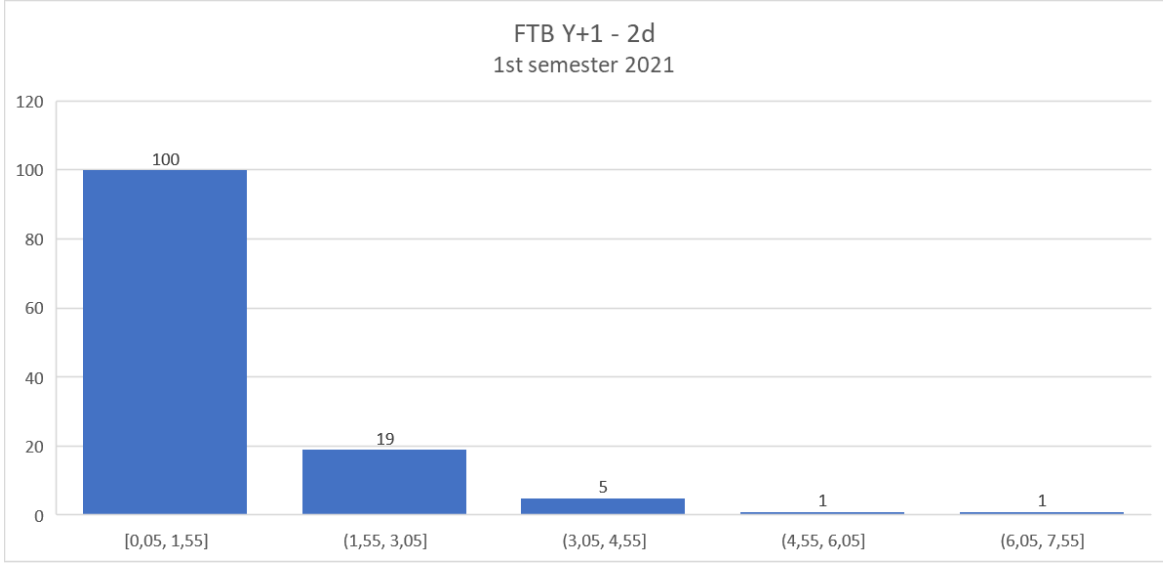
Variaciones de precios a 2 días. Electricidad

Contrato Trimestre siguiente (Q+1) España (€/MWh)



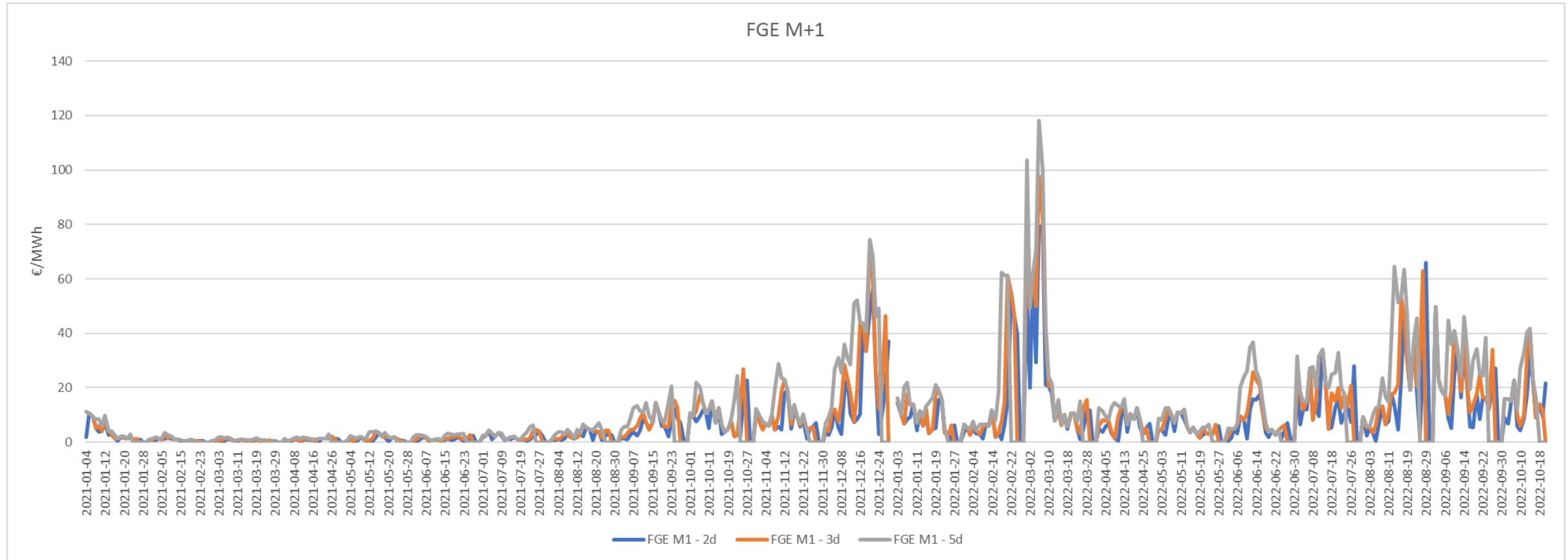
Variaciones de precios a 2 días. Electricidad

Contrato Año siguiente (Y+1) España (€/MWh)



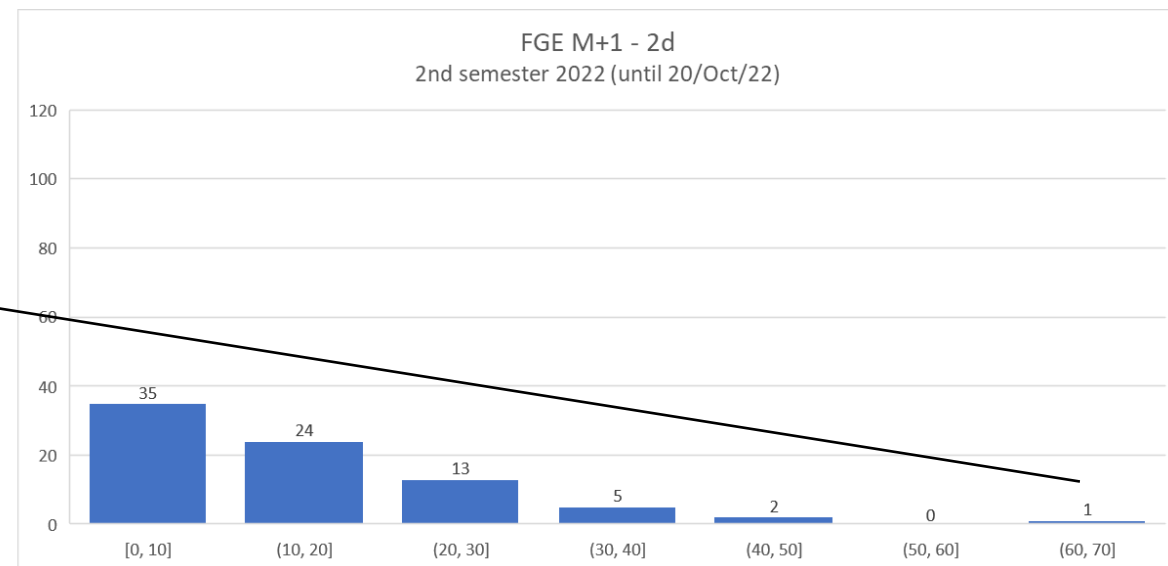
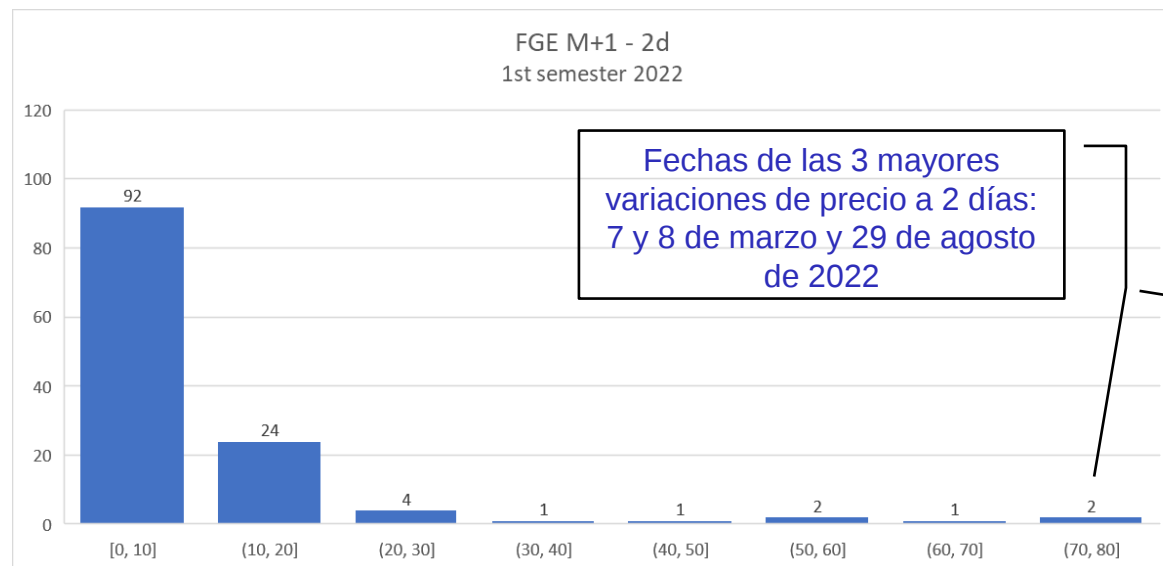
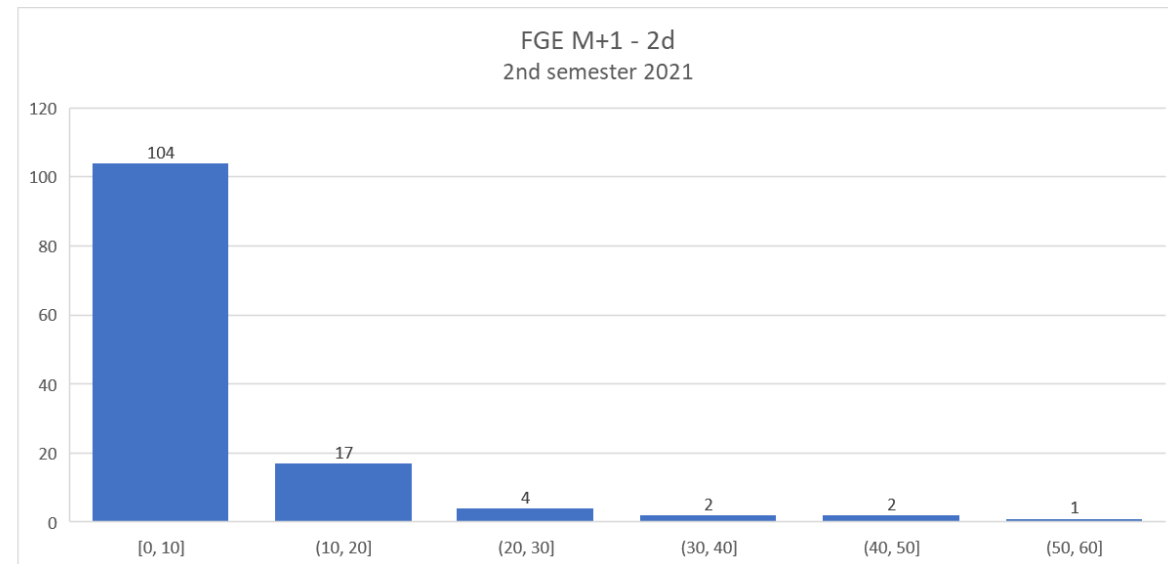
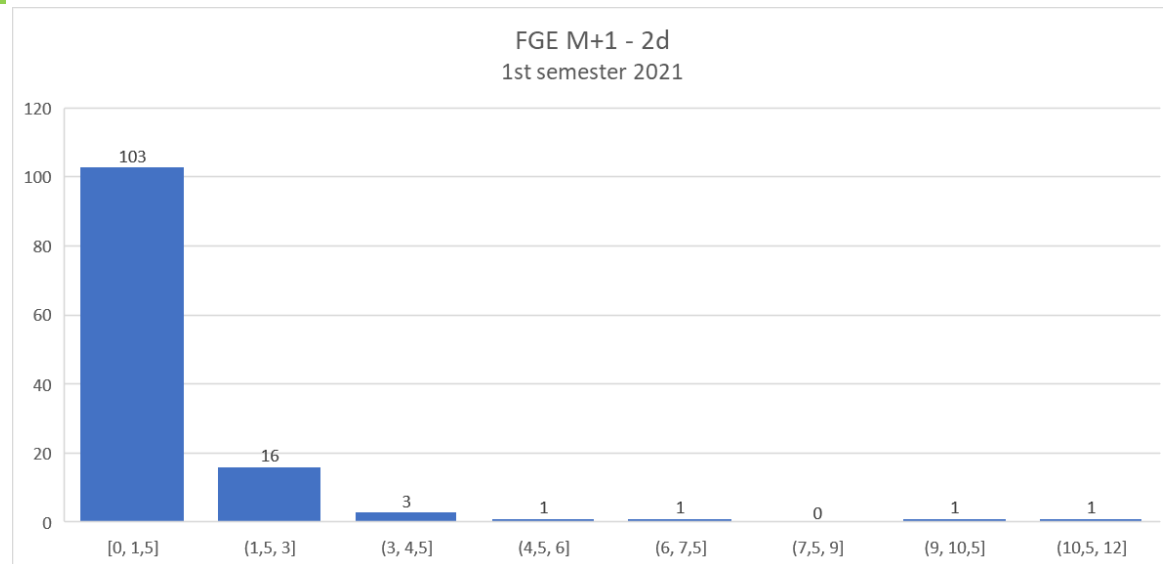
Variaciones a 2 días: Cotizaciones a plazo Gas Natural

Contrato mes siguiente: España [PVB] (€/MWh)



Variaciones de precios a 2 días. Gas Natural

Contrato mes siguiente (M+1): España [PVB] (€/MWh)



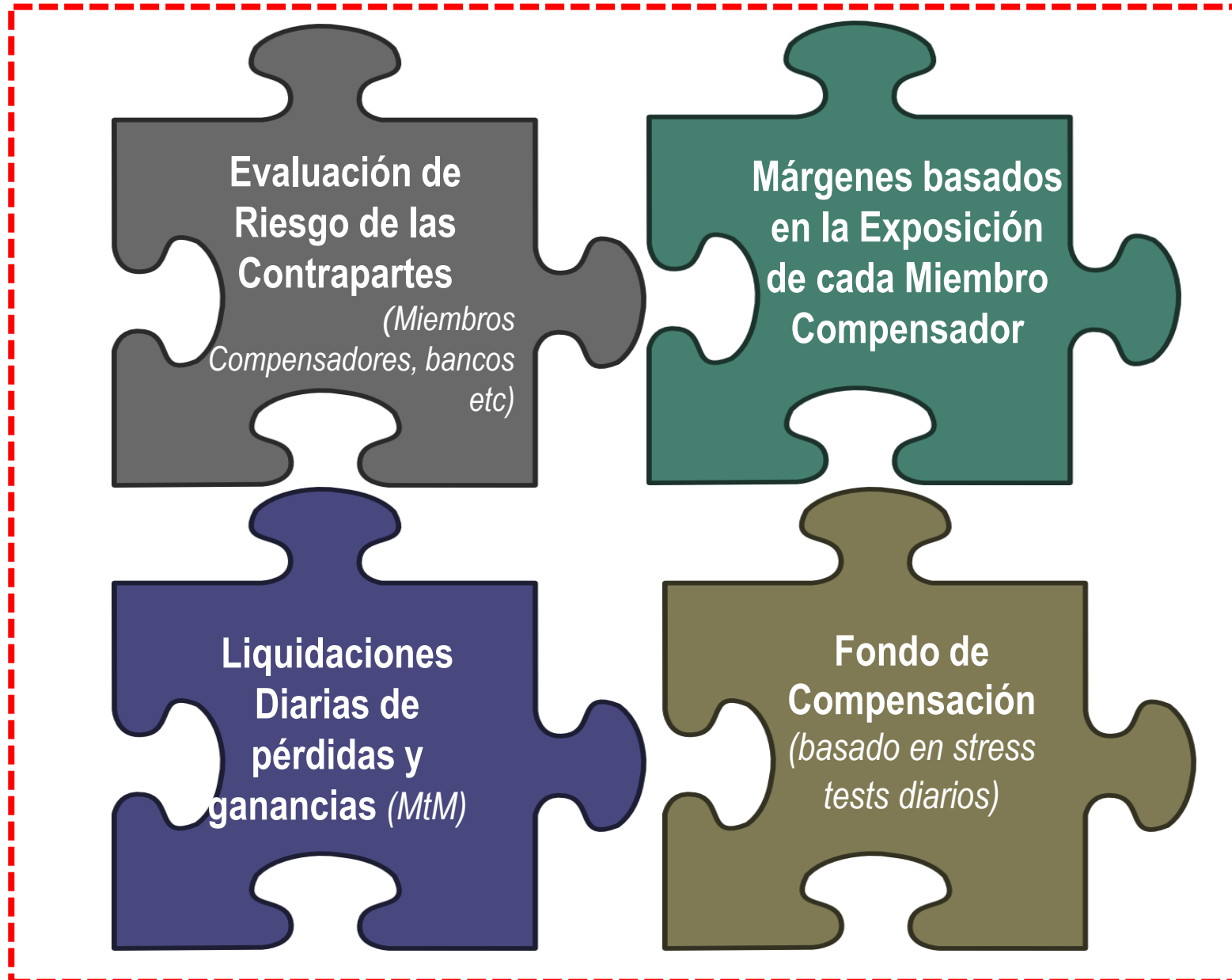


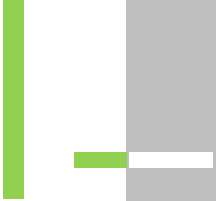
2. Modelo general de riesgo. Efecto de la volatilidad sobre los márgenes y liquidaciones

Modelo general de riesgo

Una solución multi-capa

**Normativa europea:
EMIR y RTS**

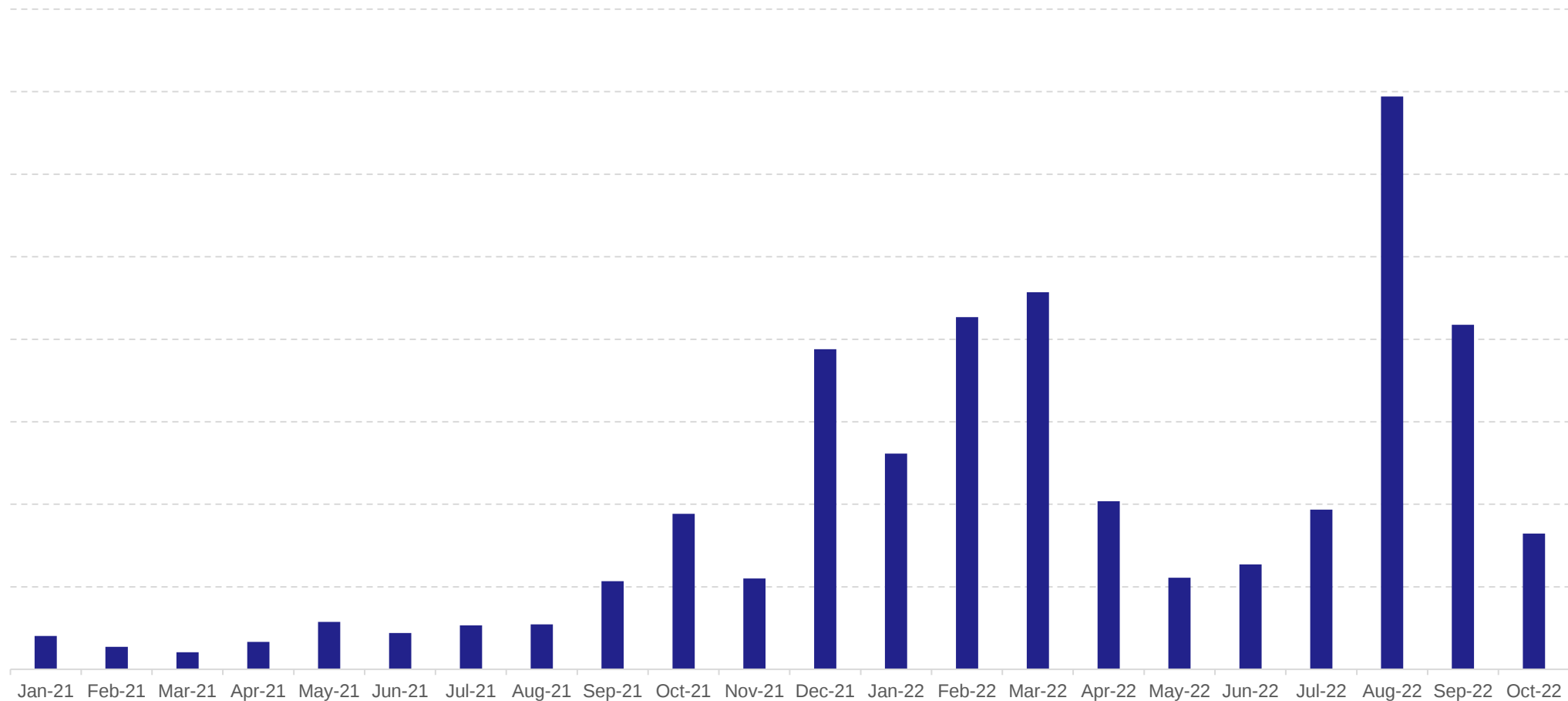




2.1. Liquidaciones diarias

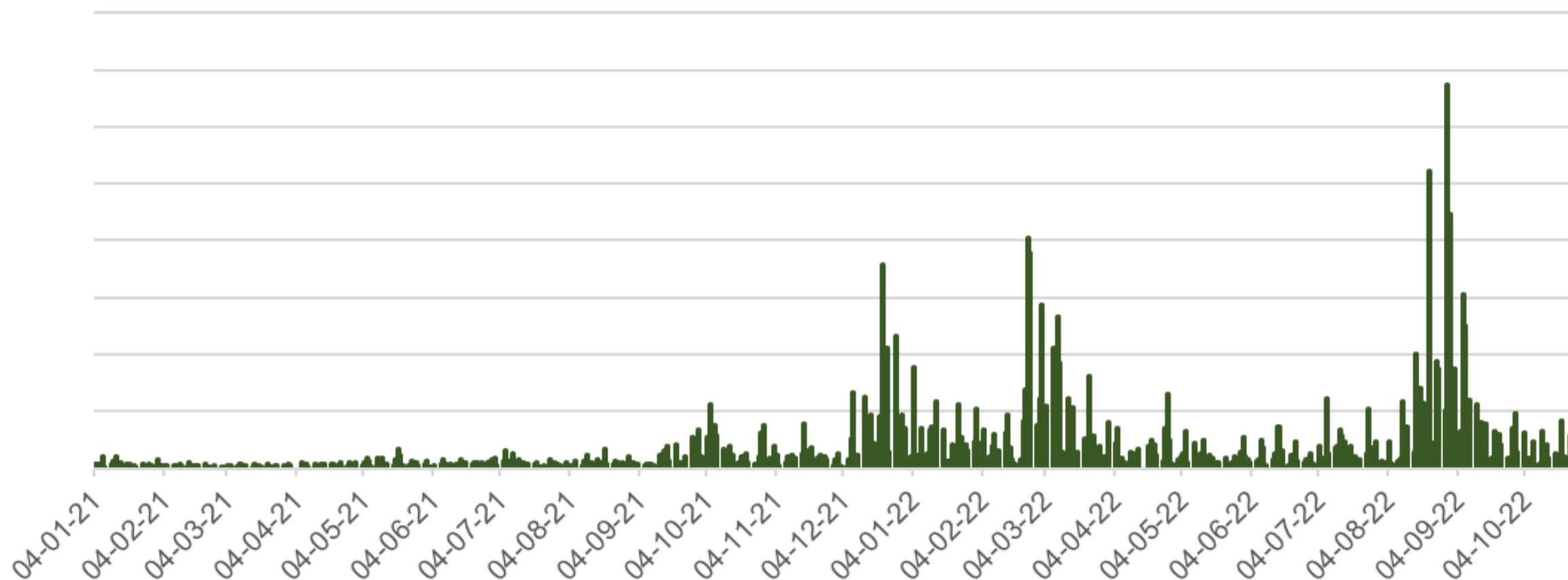
Liquidaciones Diarias - I

Media mensual de los valores liquidados diariamente por los Miembros Compensadores de OMIClear en el sistema de pagos Target (Euros)

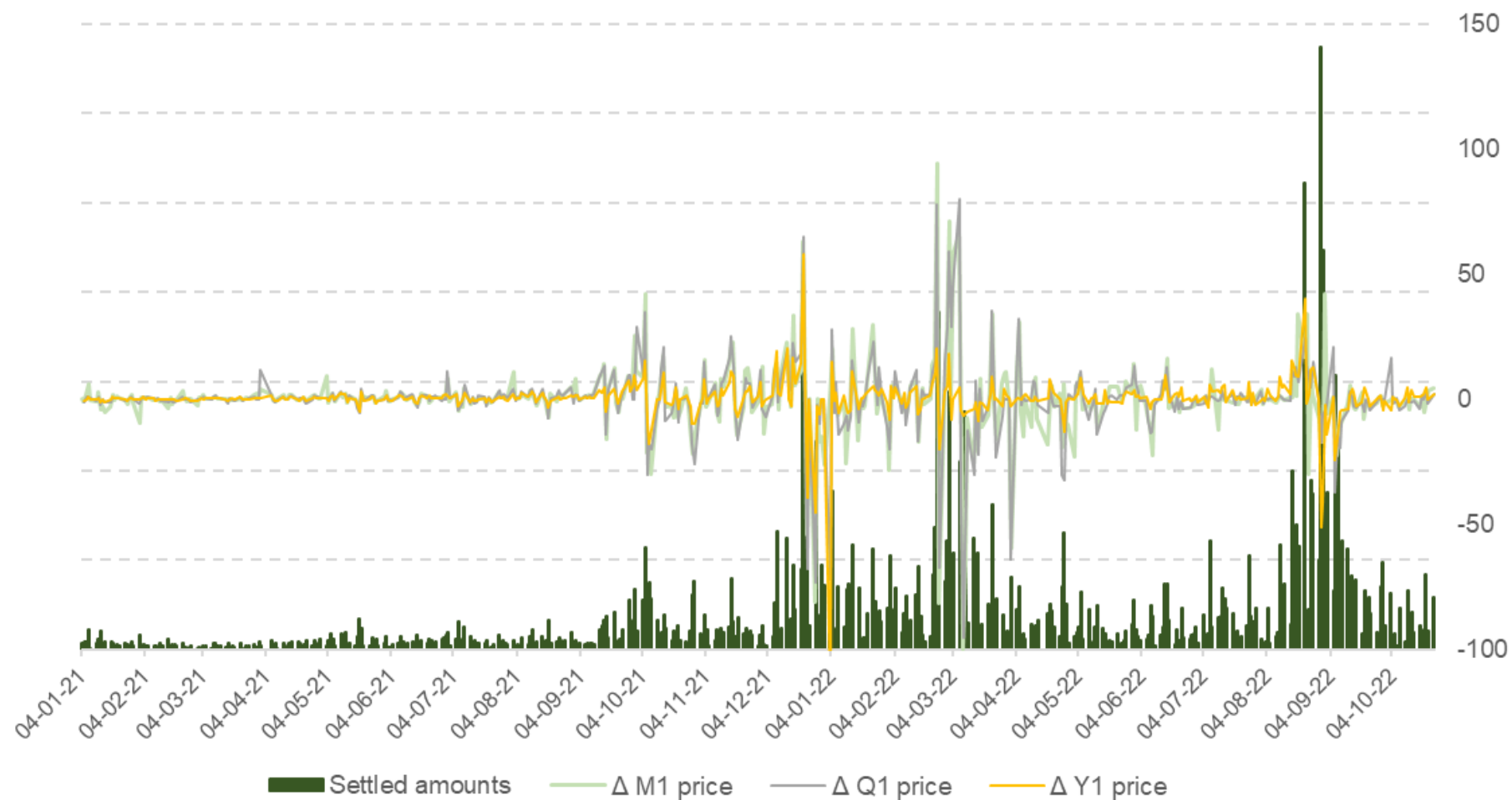


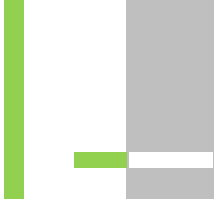
Liquidaciones Diarias. Enero 2021 – Octubre 2022

Daily settled amounts between January 2021 - October 2022



Liquidaciones diarias de cada miembro compensador (Euros) y Variaciones diarias de los precios de referencia de los contratos de futuros de electricidad más líquidos: mes (M), trimestre (Q) y año (Y) siguientes



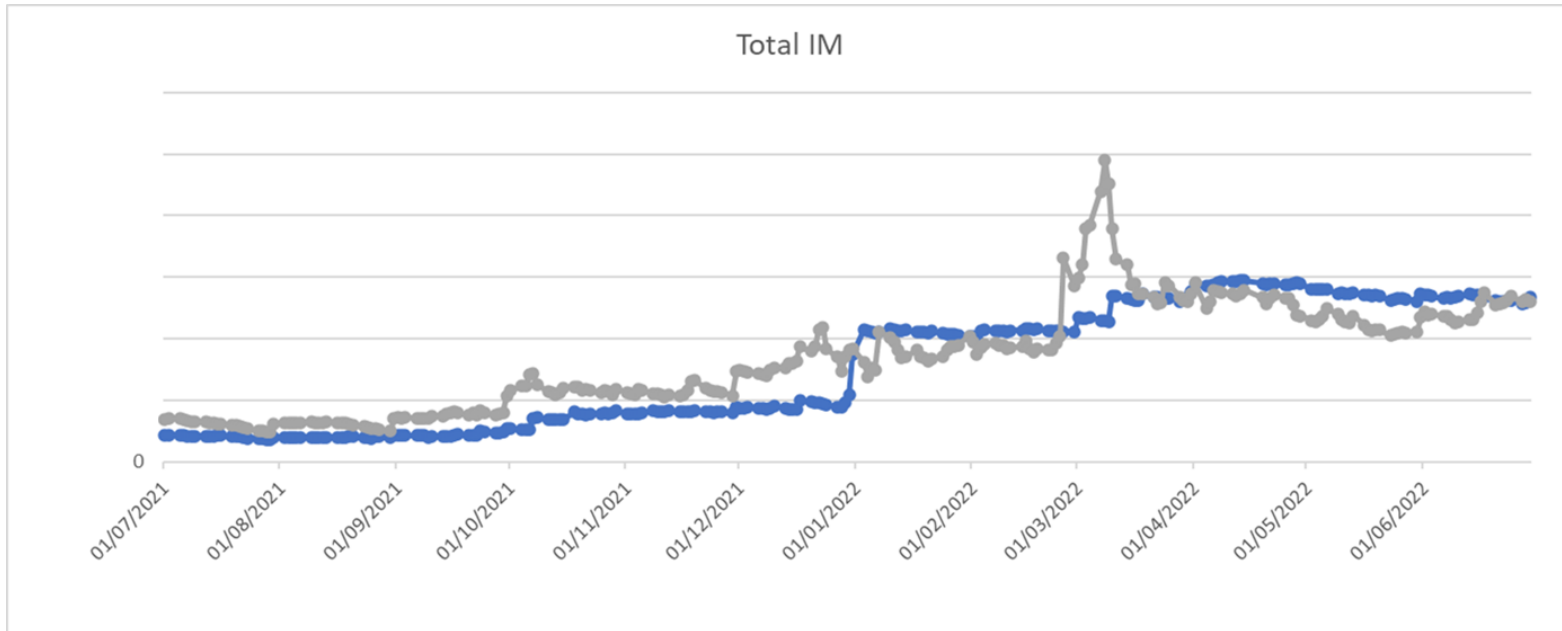


2.2. Márgenes

Modelos de Márgenes (Margen Inicial) – Arte o ciencia? Con una pizca (puñado?) de condimento regulatorio

EMIR- Artículo 41	▪ A CCP shall impose, call and collect margins to limit its credit exposures from its clearing members ▪ Such margins shall be sufficient to cover potential exposures that the CCP estimates will occur until the liquidation of the relevant positions. They shall also be sufficient to cover losses that result from at least 99 % of the exposures movements over an appropriate time horizon and they shall ensure that a CCP fully collateralises its exposures with all its clearing members
RTS 153/2013	▪ Artículos: Art. 24 (Percentage), Art. 25 (Time horizon for the calculation of historical volatility), Art. 26 (Time horizons for the calculation of historical volatility), Art. 27 (time horizons for the liquidation period), Art. 27 (Portfolio margining), Art. 28 (Procyclicality)
Art. 24 Percentage	• For the calculation of initial margins the CCP shall at least respect the following confidence intervals (a) for OTC derivatives, 99,5 %; (b) for financial instruments other than OTC derivatives, 99 %.
Art. 25 - Look back Period	• (...) exposures resulting from historical volatility calculated based on data covering at least the latest 12 months. A CCP shall ensure that the data used for calculating historical volatility capture a full range of market conditions, including periods of stress
Art. 26 Liquidation period	▪ a CCP shall determine the appropriate time horizons for the liquidation period taking into account the characteristics of the financial instrument cleared (2 – 5 business days)
Art. 27 Portfolio Margining	▪ A CCP may allow offsets or reductions in the required margin across the financial instruments that it clears if the price risk of one financial instrument or a set of financial instruments is significantly and reliably correlated
Art. 28 Procyclicality	▪ A CCP shall ensure that its policy for selecting and revising the confidence interval, the liquidation period and the lookback period deliver forward looking, stable and prudent margin requirements; (...) avoiding when possible disruptive or big step changes in margin requirements

Arte o ciencia? Con una pizca (puñado?) de condimento regulatorio (ii)



*Simulaciones de 2 metodologías de márgenes diferentes
calculadas sobre las mismas series de precios (portfolio teórico)*

- El marco normativo permite diferentes tipos de metodologías (basada en simulación histórica, modelos paramétricos,...)
- Un aspecto relevante es la mayor o menor sensibilidad de márgenes al nivel de precios ...
- ... lo que puede suponer también una mayor volatilidad en los propios márgenes requeridos...
- ... generando eventualmente mayores necesidades de liquidez en un contexto de elevada volatilidad de precios - liquidaciones de MtM por variaciones de precios y aumento de Margen Inicial por la propia variación del precio

Evolución de Margen Inicial y Fondo de Compensación

	OMIClear + BME Clearing + ECC (All Commodity derivatives)			
M€	06/2021	12/2021	03/2022	06/2022
Clearing Fund	652,3	2.410,1	3.562,5	3.677,3
		269%	48%	3%
Initial Margin	8.466,1	40.886,5	43.484,1	48.412,6
		383%	6%	11%

•Fuente: Public quantitative disclosure standards for central counterparties

De forma trimestral, las Cámaras de Contrapartida Central publican un conjunto de información cuantitativa establecida por el Committee on Payments and Market Infrastructures (CPMI) de IOSCO.

- El incremento de la volatilidad en las cotizaciones de contratos de futuros ha supuesto un aumento notable de los requisitos de márgenes exigidos por las Cámaras de Contrapartida Central
- Los requisitos de márgenes se cubren esencialmente mediante efectivo – lista de “colateral eligible” está limitado en la normativa europea (principalmente desde Marzo 2016)



3. Colateral aceptado por Cámaras de Contrapartida

Colateral aceptado por las Cámaras de Contrapartida Central – novedades regulatorias

- ⌚ Desde Marzo de 2016, las Cámaras de Contrapartida Central autorizadas bajo EMIR no pueden aceptar garantías bancarias (“uncollateralized bank guarantees”).
 - OMIClear antes de Marzo 2016 aceptaba garantías bancarias.
- ⌚ El aumento de la volatilidad de precios ha generado un incremento notable en las necesidades de liquidez de los participantes en el mercado.
- ⌚ La Comisión Europea (14.septiembre: State of the union address – President von der Leyen) reconoce la necesidad de modificar la normativa para ampliar la lista de colateral elegible por las CCPs, realizando un mandato a ESMA.
- ⌚ ESMA en su respuesta de 22 de septiembre muestra ciertas reticencias sobre la ampliación del colateral elegible de forma que las CCPs puedan aceptar “uncollateralized commercial bank guarantees” – *“concerns about the impact”, “strict conditions”, “limited in time”, “concentration limits”*.
- ⌚ ESMA el 14 de octubre publica un borrador de RTS modificando el RTS 153/2013 permitiendo garantías bancarias con limitaciones – únicamente durante 12 meses a partir de la publicación de la norma, con límites a decidir por la autoridad competente y solo para los Miembros Compensadores no financieros.
- ⌚ La Comisión Europea el 21 de octubre “adopta” la modificación normativa - ***Adoption of Commission delegated Regulation amending the regulatory technical standards in Delegated Regulation 153/2013 as regards temporary measures on collateral requirements***
- ⌚ En este momento la decisión final (y publicación en el Diario Oficial de la Union Europea) está pendiente de la no objeción del Parlamento Europeo y del Consejo de Europa

ESMA draft RTS 14.octubre

❑ ESMA 14.octubre – Draft RTS

- *Modifica el RTS 153/2013 para permitir garantías bancarias (uncollateralised bank guarantees) con limitaciones: 12 meses, con límites a decidir por la autoridad competente, solo para non-financial clearing members (i.e. Miembros Compensadores Directos)*

37. Finally, other safeguards in relation to the risk management of the CCP already in Delegated Regulation 153/2013 continue applying. As the provision of credit to NFCs is typically concentrated in a few commercial banks, such provision would be subject to the concentration limits in the Delegated Regulation to help diversify risks of the issuer defaulting or being downgraded and ensure that it can be promptly liquidated without significant market risk affecting its value. Article 42(4) specifies that commercial bank guarantees accepted by a CCP from a single credit institution cannot exceed 25 % of its collateral, in cases where commercial bank guarantees represent more than 50 % of the total collateral (otherwise 10% per single institution). Similarly, **CCPs should set limits for these uncollateralised commercial bank guarantees to only represent a limited share of the total amount of the initial margin requirement of the non-financial clearing member in view of the intrinsic risk profile**. These should be done with the agreement of the NCA as outlined in Section 2 of Annex I.

- *Modifica el RTS 153/2013 para permitir garantías públicas*

For the purposes of point (b), the CCP shall employ, in performing the assessment referred to in that point, defined and objective methodology that shall not fully rely on external opinions.'

SECTION 2

Bank guarantees

1. A commercial bank guarantee, **subject to limits agreed with the competent authority**, shall meet the following conditions to be accepted as collateral under Article 46(1) of Regulation (EU) No 648/2012:

Comisión Europea – 21 de octubre

- ❑ *Comisión Europea 18 de octubre y 21 de octubre – Adoption of Commission delegated Regulation amending the regulatory technical standards in Delegated Regulation 153/2013 as regards temporary measures on collateral requirements (not in force until it is published in the Official Journal)*
- ❑ https://finance.ec.europa.eu/regulation-and-supervision/implementing-and-delegated-acts/otc-derivatives-central-counterparties-and-trade-repositories_en

The ESMA report that followed up on ESMA's initial response provides draft amendments to the regulatory technical standards laid down in Delegated Regulation (EU) No 153/2013 developed by ESMA under Article 46(3) of EMIR, to temporarily expand the pool of eligible collateral to uncollateralised bank guarantees for NFCs acting as clearing members and to public guarantees for all types of counterparties. The Commission recalls that public guarantees have to be granted in compliance with the Union State aid framework.

These modifications are temporary and will expire 12 months after the entry into application of this Commission Delegated Regulation. However, depending on the evolution of the situation on energy derivative markets, the Commission stands ready to ask ESMA to consider an extension of those temporary measures.

- ❑ *Questions and Answers on proposals to fight high energy prices and ensure security of supply*

Comisión Europea – 21 de octubre (Q&A)

European Commisison

Questions and Answers on proposals to fight high energy prices and ensure security of supply

• Why are you changing rules regarding collateral?

Most of the trading in energy derivatives is conducted on regulated (futures) markets and is cleared centrally via central clearing counterparties (CCPs). In such markets, the current regulatory framework provides the necessary safeguards to ensure financial stability, such as margin requirements for clearing between buyers and sellers: if one party defaults, the other market participants are protected from this risk.

However, amid the sharp rise in gas and electricity prices over the past year, energy companies have been required to post correspondingly higher amounts of cash collateral to CCPs as margin calls have risen in line with prices. This has resulted in problems of liquidity for energy companies

To provide some urgent relief to those non-financial counterparties, in particular energy firms, it is important to expand the list of eligible collateral at EU CCPs as quickly as possible.

To alleviate this stress, the Commission has today adopted a Delegated Act, which allows the use of uncollateralised bank guarantees and public guarantees, under specific conditions, as eligible collateral for meeting margin calls. This measure is in line with ESMA's proposal of 14 October 2022.

This measure is temporary and will expire 12 months after entry into application. Depending on the evolution of the situation on energy derivative markets, the Commission stands ready to ask ESMA to consider an extension of those temporary measures. In addition, ESMA has issued guidance clarifying the eligibility of other assets, such as commercial paper or EU bonds, for use as collateral in meeting margin calls.

OMIClear – próximos pasos

- ➡ Una vez publicada la normativa, OMIClear estará en disposición de solicitar formalmente al regulador la modificación de las reglas (y los procesos operativos) para poder incluir (de nuevo) garantías bancarias dentro del colateral eligible.
- ➡ El proceso de aprobación regulatoria no es 100% claro, en tanto en cuanto va a requerir interacción entre el regulador financiero de OMIClear (CMVM), ESMA y eventualmente el Colegio EMIR de OMIClear (en el que está incluido entre otras la CNMV)
- ➡ OMIClear en coordinación con otras CCPs europeas va a solicitar a ESMA la mayor coordinación posible con los reguladores nacionales (publicación de Guidelines o Q&As), dar mayor claridad sobre los criterios de detalle (por ejemplo, existencia o no de límites al uso de garantías bancarias por parte de Miembros Compensadores no financieros) e implementar un proceso de aprobación urgente.

MUCHAS GRACIAS

MUITO OBRIGADO