



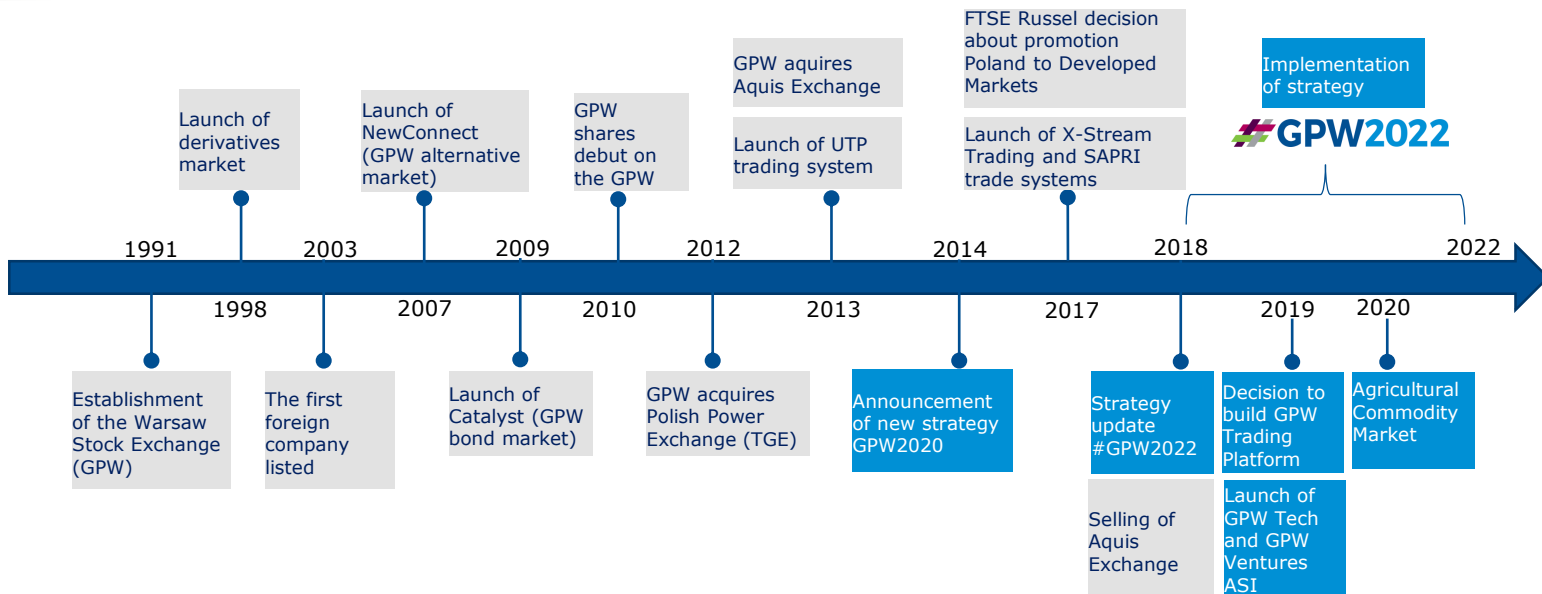
# **Warsaw Stock Exchange Group**

## **Investor Presentation**

September 2020

I. About the GPW Group	3
II. Business activity in Q2 2020	8
III. Market highlights and opportunities	13
IV. GPW Group financial results in Q2 2020	38
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# Key milestones



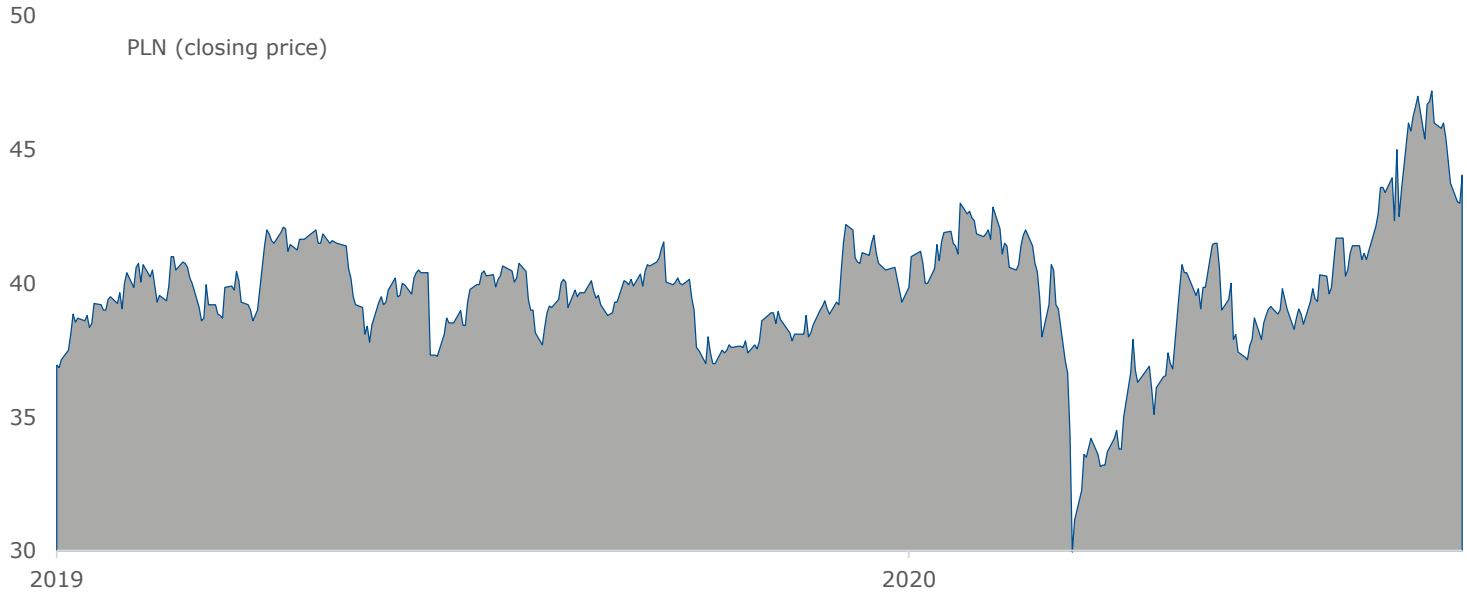
## GPW2022

The updated development strategy of the GPW Group is based on building shareholder value through the development of existing business lines and new segments at sustained profitability levels combined with risk management discipline. The strategy update focuses on four areas of development of the GPW Group:

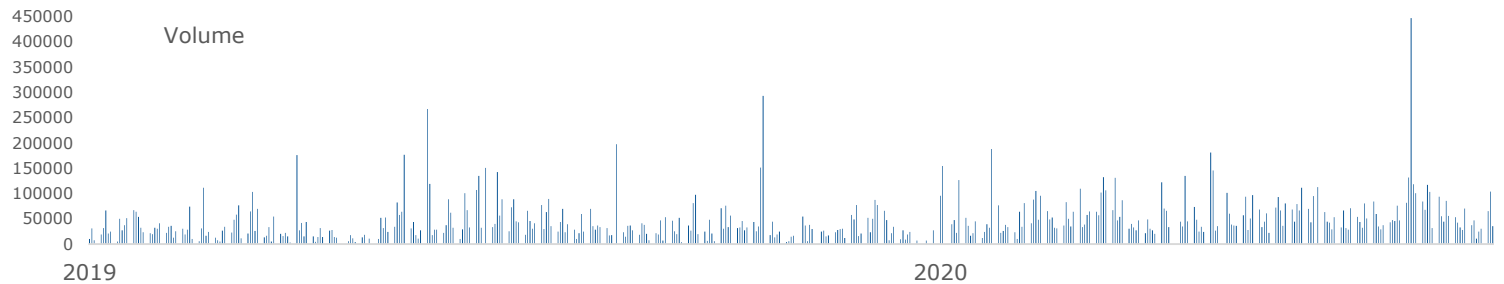
- core business development
- development through diversification and new business areas
- development of new technological solutions
- sustained attractive dividend policy

# GPW share price

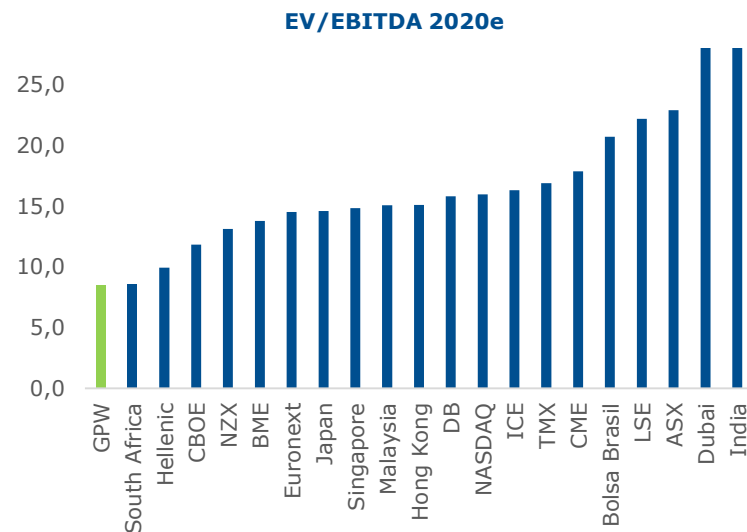
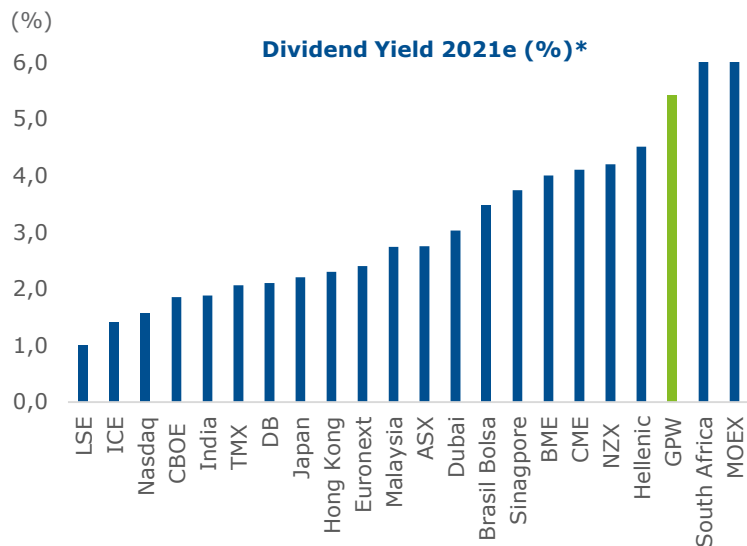
PLN (closing price)



Volume



# Global Peers



\*Dividend Yield in 2021e from 2020 net profit

	P/E 2020	P/E 2021	EV/EBITDA 2020	EV/EBITDA 2021	Dividend Yield 2021*	Market Cap (USD mn)
Median (24 global peers)	23.2	23.0	15.1	14.9	2.7%	-
GPW	15.8	16.1	8.5	9.1	5.4%	450
Discount (%)	-31.9%	-30.0%	-43.7%	-38.9%	+2.7 p.p.	-

Source: Bloomberg

# Social Responsibility during COVID-19

- ◆ In March, GPW's Management Board decided to grant a donation of **PLN 1 million** for the acquisition of **SARS-CoV-2 testing equipment** by the Sanitary Stations in Siedlce and Radom.
- ◆ In early May, **the labs opened coronavirus diagnostic operations**. Tests rely on state-of-the-art equipment purchased with GPW's support.
- ◆ On the initiative of GPW Employees, fresh fruit boxes have been regularly delivered since March to **36 emergency stations in Warsaw** on the front of the fight with the pandemic.
- ◆ As the operator of capital market infrastructure in Poland, GPW is exposed to moderate operational and financial risk posed by the pandemic. GPW's Management Board has taken a number of measures **mitigating the risk**.
- ◆ **95% of GPW employees work remotely** and GPW has maintained full operational capacity.



**PLN 80 million**

Amount of grants from companies with a stake held by the State Treasury to help fight the coronavirus pandemic

# Leading ESG adoption and engagement

## Developing ESG competences in the GPW Group...

- ◆ **Supporting issuers and investors** to ensure strong communication and understanding of the role and importance of ESG.
- ◆ **Developing the product offer of GPW** (benchmarks, financial instruments, information services, including WIG-ESG futures, WIG-ESG options, WIG-ESG ETF).



## ...and working with external partners

- ◆ **Partnership with the European Bank for Restructuring and Development (EBRD)** which supports partner countries in transition to climate-resilient low-carbon economy.
- ◆ **Global Compact** is a UN agency supporting compliance with human rights, labour rules and environmental standards. **GPW has joined Global Compact** to gain expertise and build local ESG standards on the basis of Global Compact guidelines.
- ◆ **ESG partnership in CEE** to support relations and consolidate GPW's position as the leader.
- ◆ The GPW has been a member of the **Sustainable Stock Exchange Initiative** since 2013. Participates in quarterly conferences aimed at sharing knowledge between members. The initiative also supports stock exchanges in ESG activities.



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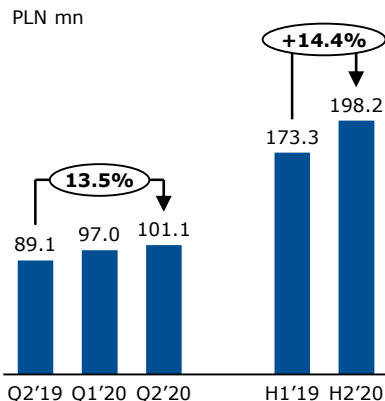




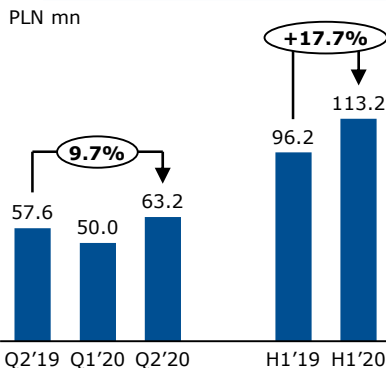
# GPW Group's excellent financial results in Q2'20



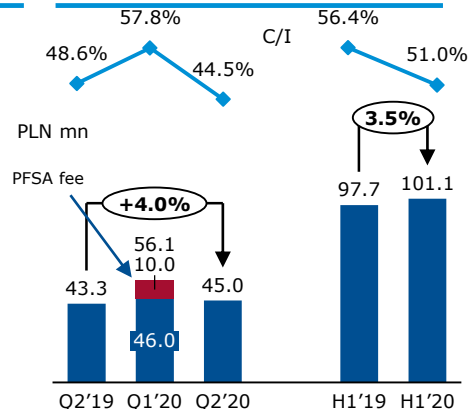
## Sales revenue



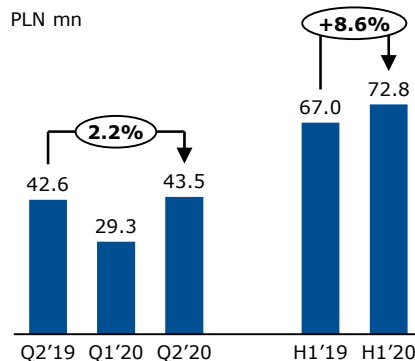
## EBITDA



## Operating expenses



## Net profit



### ◆ Sales revenue

Increase of sales revenue in Q2'20 by 13.5% YoY and 4.2% QoQ driven by higher revenue on the financial market.

### ◆ Operating expenses

Increase of operating expenses in Q2'20 by 4.0% YoY driven by an increase of external service charges, salaries and other employee costs. KNF cost provisions set up in Q1'20 stood at PLN 10.0 mn vs. PLN 12.9 mn in Q1'19 vs. 9.0 mn in Q1'18.

### ◆ EBITDA

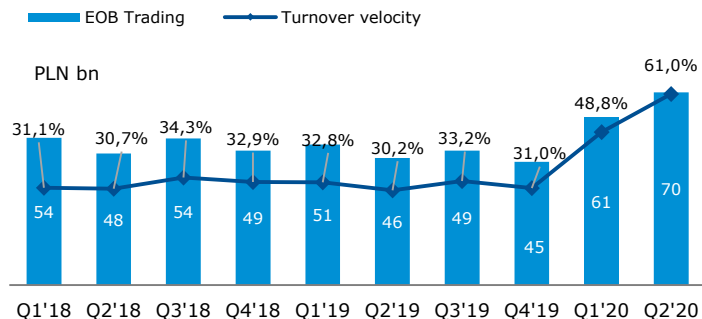
Increase of EBITDA in Q2'20 by 9.7% YoY and 26.2% QoQ to PLN 63.2 mn.

### ◆ Net profit

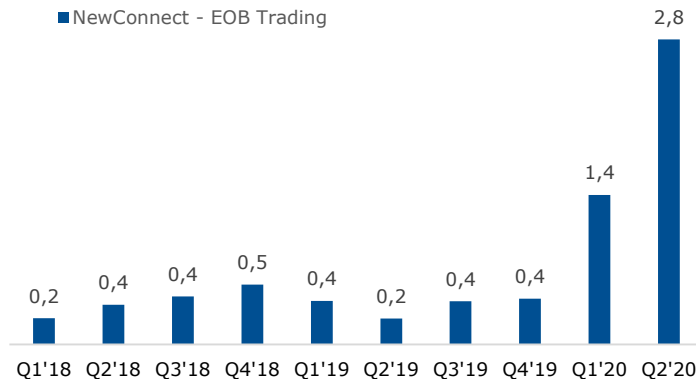
Increase of net profit in Q2'20 by 2.2% YoY and 48.6% to PLN 43.5 mn.

# Investor activity on the financial market

## Main Market EOB turnover value



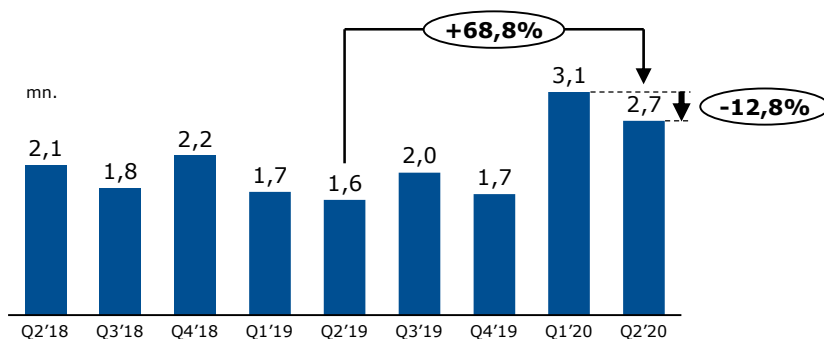
## NewConnect turnover value



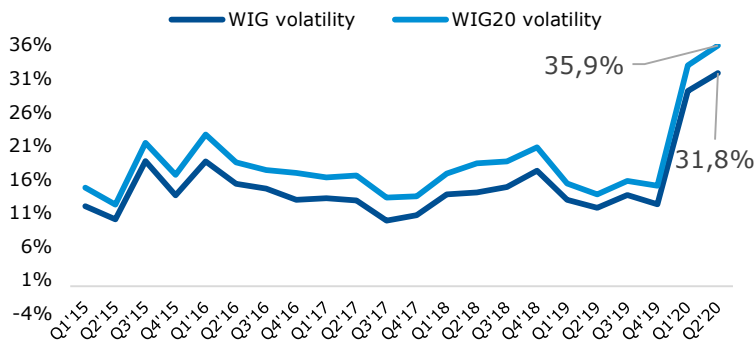
- ◆ Increase of the Main Market EOB turnover value to PLN 70 bn in Q2'20 (+51.9% YoY, +15.3% QoQ)
- ◆ Index performance: WIG20 +16.26%, mWIG40 +21.7%, sWIG80 +30.7%
- ◆ Increase of New Connect turnover value to PLN 2.8 bn (+1067.7% YoY, 104.0% QoQ)
- ◆ Structured products turnover value: PLN 720 mn (+155.9% YoY, -8.8% QoQ)
- ◆ ETF turnover value: PLN 251.1 mn (+618.9 % YoY, +15.7% QoQ)
- ◆ Main Market: record-high share of individual investors in turnover: 22% in H1'20 vs. 13% in H1'19
- ◆ GPW Innovation Day – 13 companies, more than 1300 participants (23-24.06.2020)
- ◆ Liquidity support programmes:
  - ✓ New cash market participant joined the HVP (High Volume Provider) programme;
  - ✓ Existing HVP programme participant added cash market operations
- ◆ Share of HVP participants in equity turnover: 8.7% in Q2'20 vs. 10.2% in Q2'19. Nominal turnover: PLN 6,2 bn vs. PLN 4.7 bn.

# YoY increase in derivatives turnover

## Derivatives turnover volume



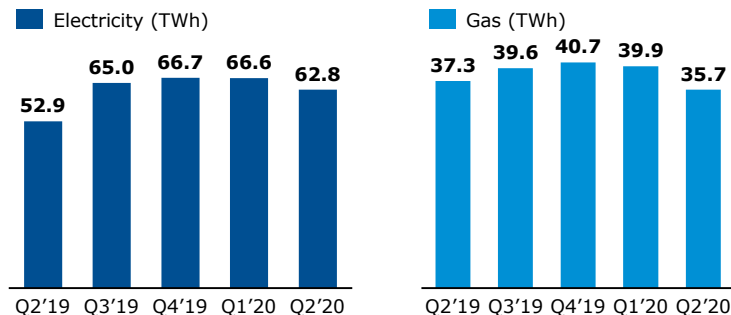
## WIG and WIG20 quarterly volatility



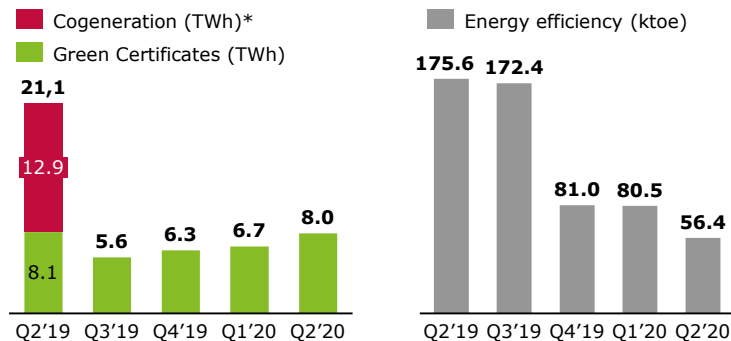
- ◆ Increase of the derivatives turnover volume in Q2'20 to 2.7 mn.: +68.8% YoY.
- ◆ Increase of the WIG20 futures turnover volume in Q2'20 to 1.49 mn.: +66.6% YoY.
- ◆ Increase of the single-stock futures turnover volume in Q2'20 to 0.67 mn.: +98.4% YoY.
- ◆ WIG20 index volatility in Q2'20 was 35.9%, WIG volatility was 31.8%.
- ◆ New derivatives market maker, already active on the cash market.
- ◆ The share of proprietary futures traders participating in HVP Programmes was 14.1% in Q2'20 vs. 9.9% in Q2'19.

# Commodity market turnover in Q2'20

## Electricity and gas spot and forward turnover volume



## Property rights turnover volume



- ◆ **Electricity market:** Total electricity turnover volume in Q2'20 was 62.8 TWh (+18.8% YoY). The spot turnover volume was 8.5 TWh (+1.6% YoY). The forward turnover volume was 54.3 TWh (+22.0% YoY).
- ◆ **Gas market:** Total gas turnover volume in Q2'20 was 35.7 TWh (-4.2% YoY). The spot turnover volume was 4.7 TWh (+2.1% YoY). The forward turnover volume was 31.0 TWh (-5.1% YoY).
- ◆ **Property rights market:**
  - ✓ Trade in property rights from cogeneration stopped as of June 2019.
  - ✓ RSE property rights turnover volume in Q2'20 was 8.0 TWh (-1.7% YoY).
  - ✓ Energy efficiency property rights turnover volume in Q2'20 was 56.4 ktoe (-67.9% YoY).
- ◆ As of May 2020 market participants may enter into transactions on the Organized Trading Facility (OTF).

\* Trading in cogeneration property rights ended at the end of June 2019.

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# Our market highlights and opportunities

- 1 Solid financial performance and attractive dividend
- 2 Diversified revenue structure
- 3 The largest CEE economy and growth leader in EU
- 4 Large and still growing client base
- 5 Potential for further growth in free float and liquidity in financial segment
- 6 Employee Capital Plans (ECP)
- 7 Dynamic commodity segment
- 8 Strategy update #GPW2022 (strategic initiatives)
- 9 Promotion to Developed Market status (FTSE Russell and STOXX)

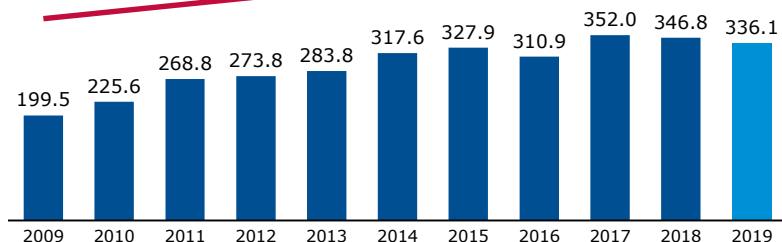
# 1 Sound financial performance

## Solid top-line growth ...

■ Total revenue, PLN mn

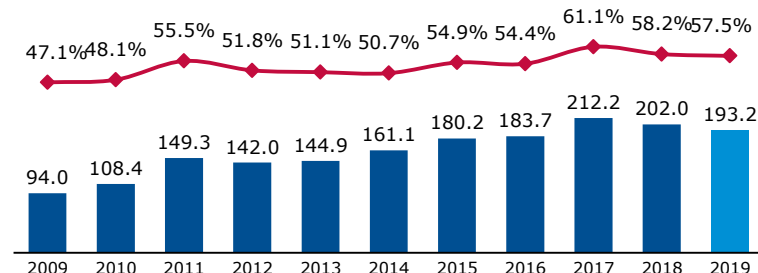
CAGR

+5.4%

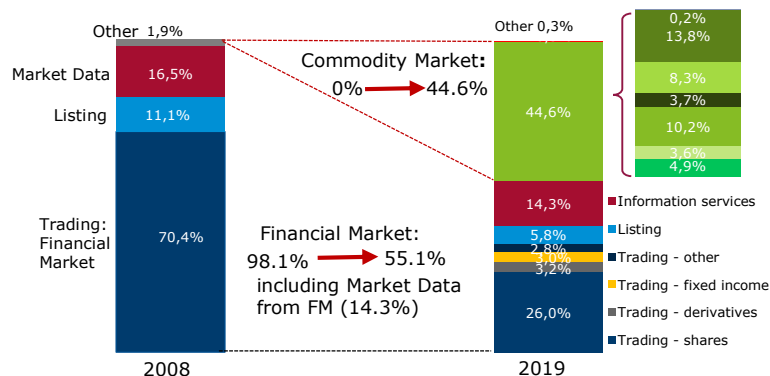


## ... and high operating leverage

■ EBITDA, PLN mn    ◆ EBITDA margin, %

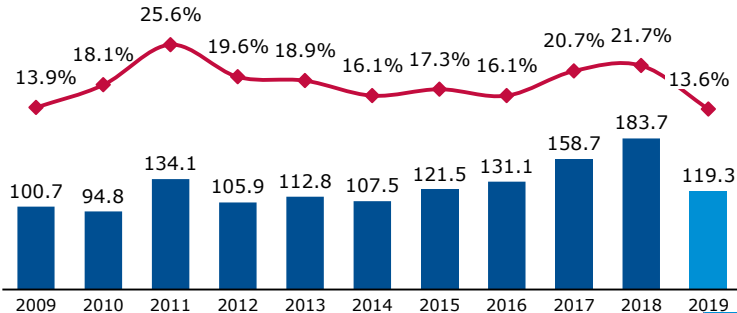


## ... underpinned by increasing diversification



## ... and consistent profitability

■ Net profit, PLN mn    ◆ ROE, %



# 1 Ambitious financial targets

## GPW Group financial targets for 2022

### Revenue

- PLN 470 mn in 2022

### EBITDA

- PLN 250 mn in 2022

### ROE

- ROE: 19% in 2022 (it may temporarily fall below 19% due to strategy implementation expenditures)

### Cost/Income

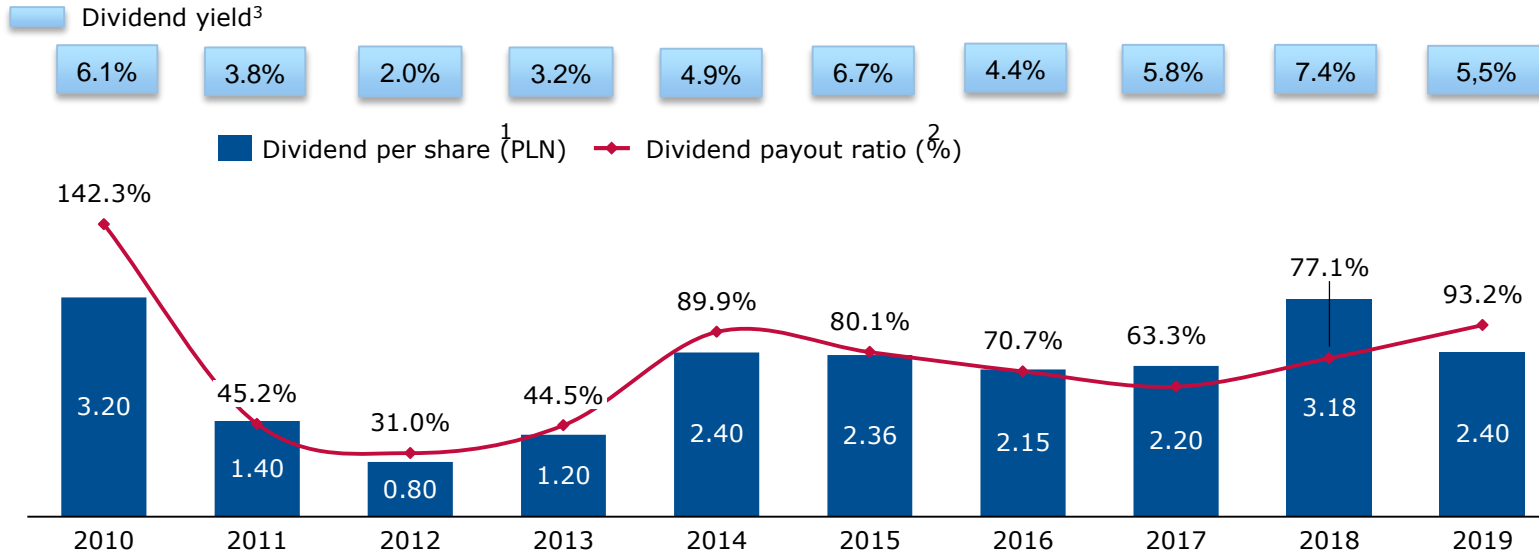
- C/I under 50% after 2022 (it may temporarily range from 63% to 55% due to strategy implementation expenditures)

### Dividend

- dividend payout rate not lower than 60% of consolidated net profit
- dividend not lower than PLN 2.4 per share from 2019 profit
- annual increase in the dividend from the 2020-2022 profits by at least PLN 0.1 per share



# 1 Attractive dividend policy



## DIVIDEND POLICY:

- ✓ dividend payout rate not lower than 60% of consolidated net profit of GPW Group for the financial year attributable to GPW shareholders, adjusted for the share of profit of associates
- ✓ dividend PLN 2.4 per share from 2019 profit (paid in 2020)
- ✓ annual increase in the dividend from the 2020-2022 profits by at least PLN 0.1 per share

<sup>1</sup> By financial year for which dividend was paid

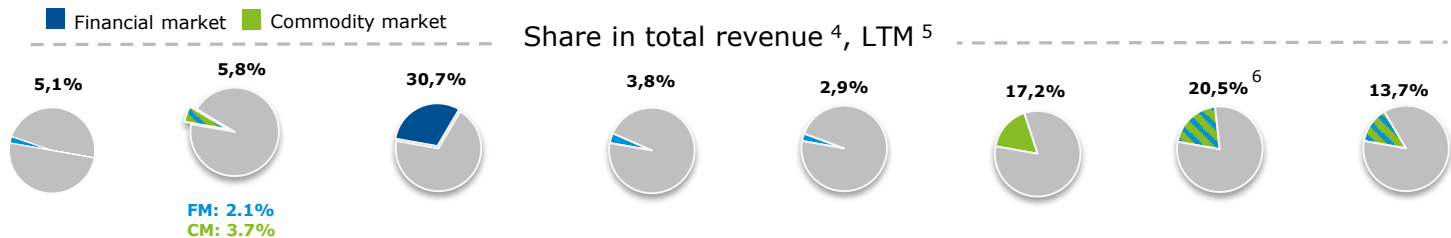
<sup>2</sup> Based on the consolidated profit attributable to the shareholders of the parent entity and adjusted for the share of profit of associates

<sup>3</sup> Based on the share price as at the dividend record date

## ② Diversified revenue structure

### GPW Group

Listing	Trading					Post-trading <i>including COR<sup>1</sup> and RGO<sup>2</sup></i>	Market data
	Membership	Equities & other	Derivatives	Bonds	Commodities		
<ul style="list-style-type: none"> <li>Equities</li> <li>Bonds</li> <li>ETFs</li> <li>Warrants</li> <li>Structured products</li> </ul>	<ul style="list-style-type: none"> <li>Access and use of GPW trading system</li> <li>Membership and participation on the commodity markets</li> </ul>	<ul style="list-style-type: none"> <li>Equities</li> <li>Structured products</li> <li>Warrants</li> <li>ETFs</li> <li>Investment certificates</li> </ul>	<ul style="list-style-type: none"> <li>Futures:               <ul style="list-style-type: none"> <li>index</li> <li>single stock</li> <li>fx</li> <li>interest rate</li> </ul> </li> <li>Options               <ul style="list-style-type: none"> <li>index</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Corporate bonds</li> <li>Municipal bonds</li> <li>Bank bonds</li> <li>T-bills</li> <li>T-bonds</li> </ul>	<ul style="list-style-type: none"> <li>Electricity spot and forward contracts</li> <li>Natural gas spot and forward contracts</li> <li>Property rights in certificates of origin</li> <li>CO<sub>2</sub> emission allowances</li> </ul>	<ul style="list-style-type: none"> <li>Settlement</li> <li>Custody</li> <li>Clearing</li> <li>COR<sup>1</sup></li> <li>RGO<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Real-time data</li> <li>Non-display data</li> <li>Delayed data</li> <li>Historical data</li> <li>Indices</li> </ul>



<sup>1</sup> Certificate of Origin Register

<sup>2</sup> Register of Guarantees of Origin

<sup>3</sup> Associate company (33.33%); KDPW Group offers post-trading services on the financial market

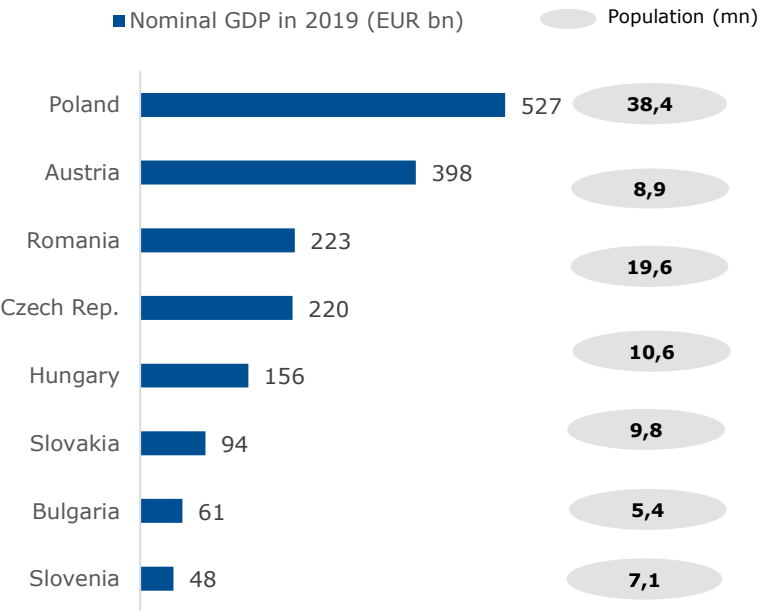
<sup>4</sup> Does not include other revenues, which constitute 0.3% of GPW Group revenues

<sup>5</sup> Last twelve months ending on 31 June 2020

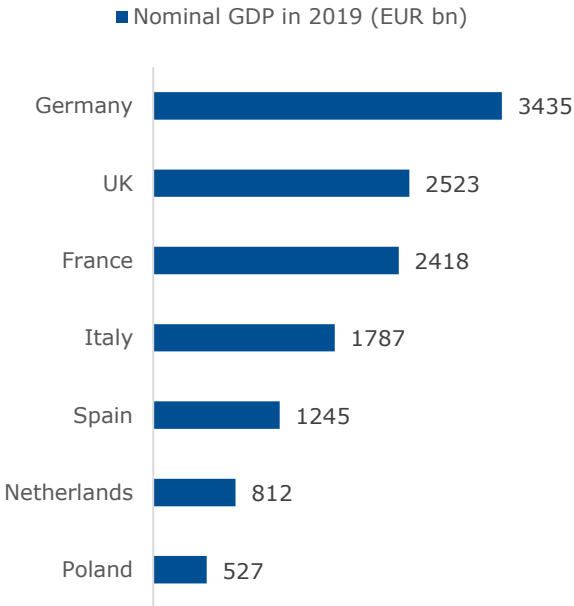
<sup>6</sup> Does not include the KDPW revenues (associate company; equity method is applied)

# 3 Largest economy in the CEE region...

## Largest economy in CEE



## And 7th largest economy in the EU (including UK)



# 3 ... a leader of economic growth in EU

## Polish economy forecast to bounceback strongly

- ◆ **Poland's GDP to drop by 5.4% in 2020 and to grow by 4.9% in 2021 and 3.7% in 2022** - according to National Bank of Poland (NBP)
- ◆ According to NBP's central inflation projection, average annual **CPI will be +3.3% in 2020** (average annual inflation was 2.3% in 2019)

## NBP's projection 2020-2022<sup>1</sup>

	2020	2021	2022
Inflation CPI r/r (%)	3.3	1.5	2.1
GPW YoY (%)	-5.4	4.9	3.7
WIBOR 3M (%)	0.66	0.22	0.22

<sup>1</sup> published on July 17th 2020

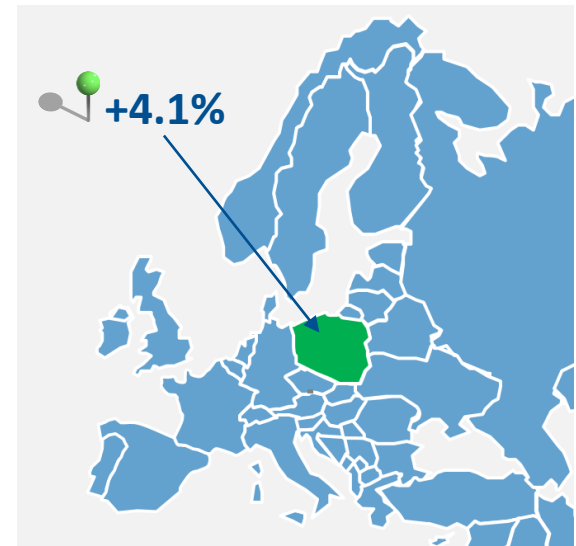
<sup>2</sup> GUS

## Poland's credit ratings



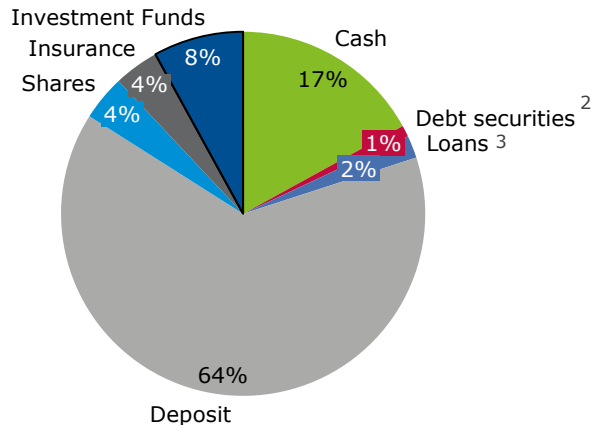
Source: Moody's, Fitch, S&P

## GDP growth in 2019<sup>2</sup>

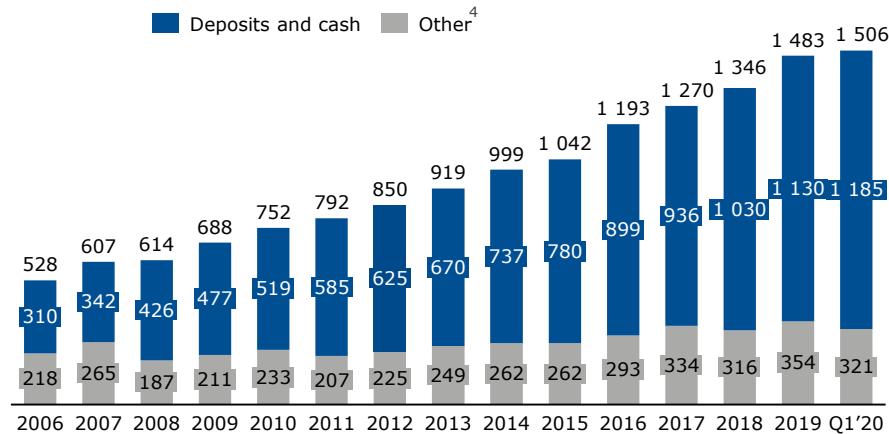


## 4 Potential for retail investment growth

### Poles' savings (%)<sup>1</sup>



### Household assets <sup>1</sup> (PLN bn)



- ♦ Most of Poles' savings are located in bank deposits: in view of record-low interest rates, a growth potential for direct and indirect investments on the GPW exists
- ♦ Stocks represent only 4.0% of Poles' savings; however, individual investors are very active on the GPW (turnover share at 22% in H1'20; individual investor portfolio turnover ratio at 40% in 2019)
- ♦ GPW initiatives: education, joint initiatives with market participants, promotion of direct and indirect investment on the Exchange, including pension savings
- ♦ New flows injected into the Polish capital market by Employee Capital Plans (PPK) → more in slides 29-32

<sup>1</sup> Net of pension entitlements (pension funds and Social Insurance Institution sub-accounts), non-listed shares, other equity interest

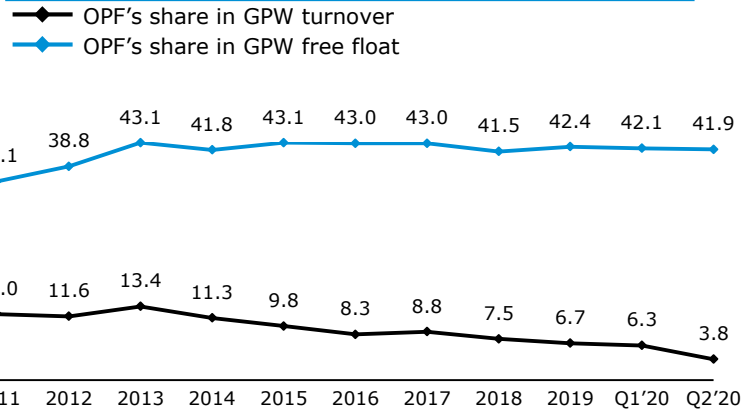
<sup>2</sup> Short and long-term debt securities, short and long-term loans

<sup>3</sup> Listed shares, insurance, investment funds, short and long-term debt securities, short and long-term loans

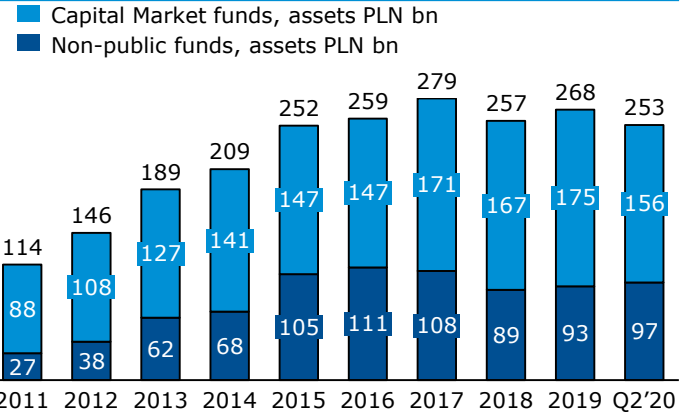
Source: National Bank of Poland (NBP); data as of the end of Q1 2020, latest data available

## 4 Strong domestic institutional investor base

### Open Pension Funds<sup>1</sup>



### Investment funds in Poland<sup>2</sup>



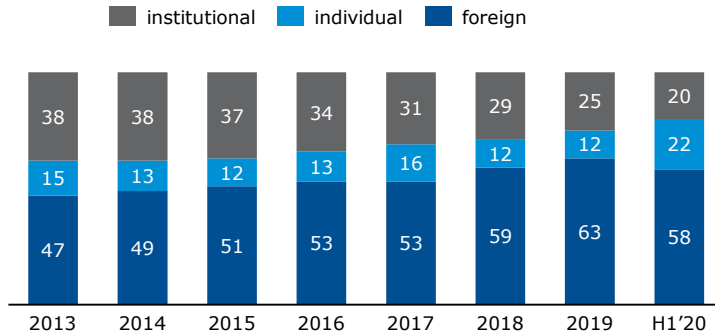
- ◆ Largest institutional investor pool in the CEE region
- ◆ Open Pension Fund (OFE) net assets value amounts to PLN 131.726 bn as of Q2 2020
- ◆ Investment funds enjoy strong confidence of retail investors who increasingly seek more sophisticated savings and investment products
- ◆ As a long-term investor, pension funds freeze a large part of the free float on GPW
- ◆ Part of the free float in pension fund portfolios could be released through securities lending -> necessary regulatory change

<sup>1</sup>PFSA, NBP, GPW

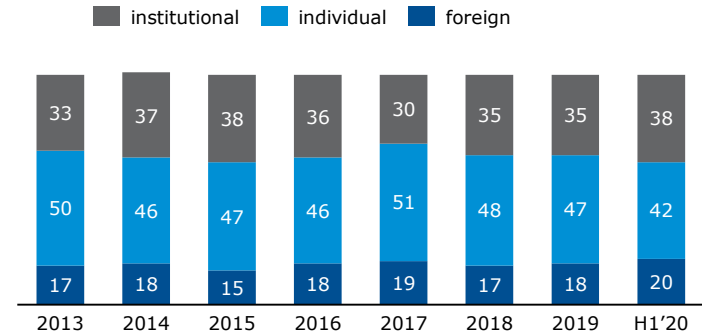
<sup>2</sup>According to the classification of funds created by IZFiA (The Chamber of Fund and Asset Management), the non-public funds sector includes those whose assets are not invested in capital markets. Non-public funds include: securitization, real estate and non-public assets.

## 4 Strong and growing foreign investor base

Share of investors in trade in shares on the Main Market (%)



Share of investors in trade on the futures market (%)



Portfolio turnover ratio of selected investors on the GPW<sup>2</sup>

Year	Domestic investors			Foreign Investors
	Pension Funds	Investment Funds	Individual Investors	
2008	28%	71%	62%	42%
2009	26%	92%	134%	50%
2010	21%	73%	89%	53%
2011	19%	80%	100%	57%
2012	13%	69%	89%	44%
2013	14%	75%	83%	48%
2014	9%	60%	62%	41%
2015	9%	59%	59%	43%
2016	7%	60%	59%	44%
2017	7%	53%	70%	50%
2018	5%	61%	50%	57%
2019	5%	45%	40%	56%

- ◆ Focused efforts, in co-operation with issuers, to spark interest in GPW-listed companies among foreign investors
- ◆ Close co-operation with investment banks
- ◆ Value of GPW listed shares held by foreign investors accounted for 39.8%<sup>1</sup> of the market capitalization of domestic shares listed on the GPW

<sup>1</sup> Data as of the end of 2019

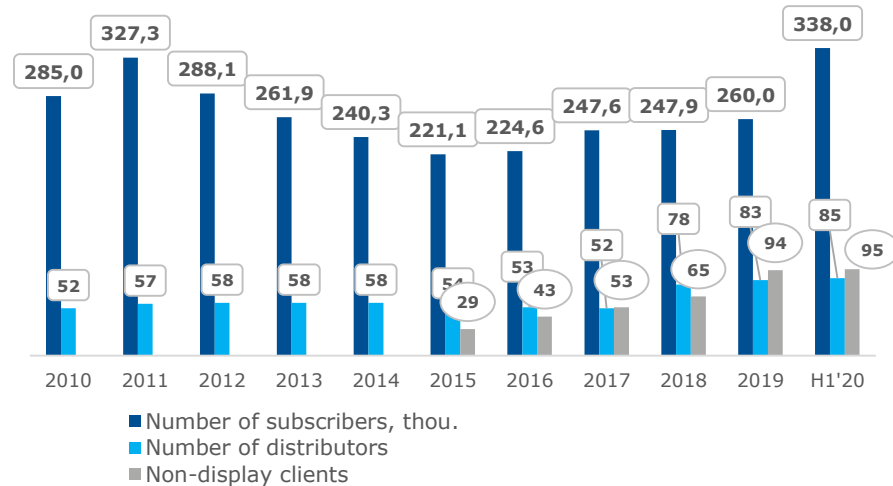
<sup>2</sup> GPW estimates; portfolio turnover ratio: value of the electronic order book (buy and sell trades)/2/average portfolio value; data as of the end of 2019

Source: PFSA, NBP, GPW

# 4 New services: commodity market and non-display data

- ◆ Offer of state-of-the-art innovative services supporting **analyses of market data** and investing as an important pillar of GPW Group's growth.
- ◆ Developing **GPW Data**:
  - ✓ The GPW Data project relies on machine learning and AI.
  - ✓ The project introduces electronic reporting standards in Inline eXtensible Business Reporting Language (iXBRL).
  - ✓ GPW Data is scheduled for roll-out in H2 2021.

## Broad reach thanks to growing numbers of clients



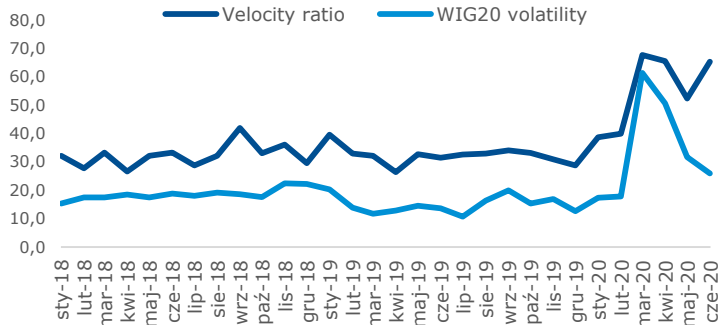
Information services allow GPW to increase its revenue by tapping the potential of the key role of the infrastructure on the capital market.



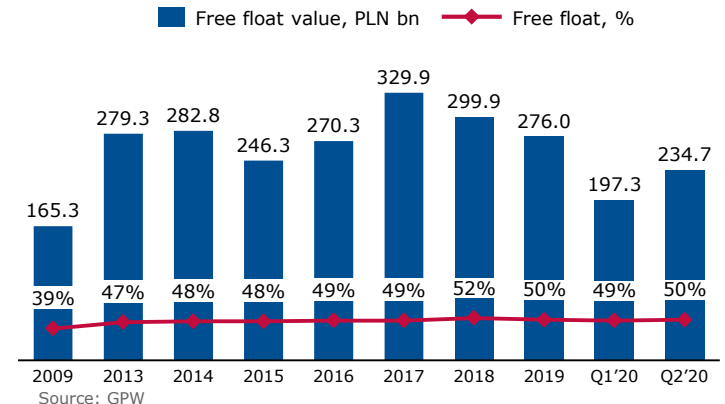
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# Equity market: potential for further free float and liquidity growth

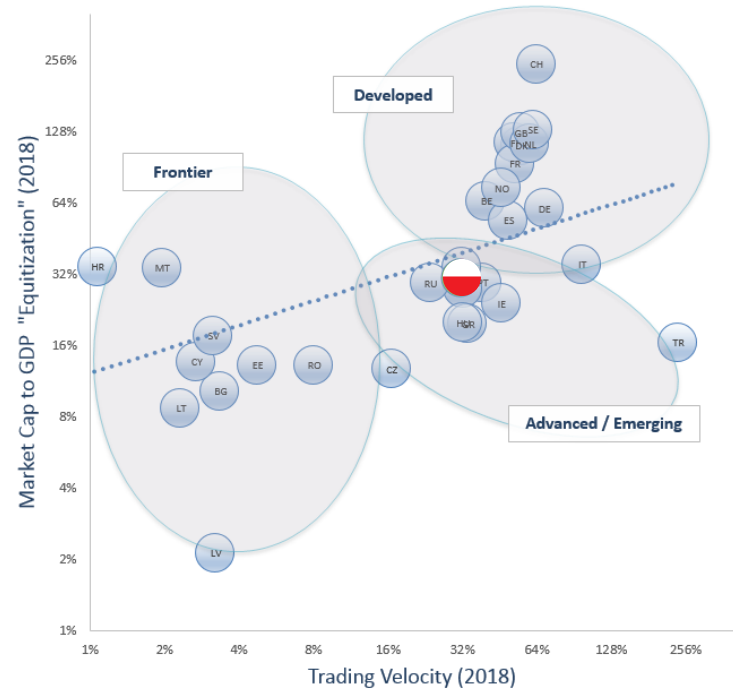
## Turnover velocity and volatility



## Material upside potential of free float



## European markets equitisation and trading velocity\*



\* Source: Turnover, Mkt Cap - Thomson Reuters, GDP - Eurostat (except of TR, UA, IL, RU - IMF).

# 5 Diversified issuers portfolio

## Issuer activity on GPW markets<sup>1</sup>

Equity market



### Main Market

392 domestic companies  
48 foreign issuers

### Market cap:

PLN 473 bn  
PLN 393 bn

Equity market for SME



### NewConnect

367 domestic companies  
5 foreign issuers

### Market cap:

PLN 16,5 bn

Debt market



### Catalyst

135 issuers (incl. State)  
478 listed non-Treasury  
Issues

### Value of non-

**Treasury issues:**  
PLN 93,3 bn

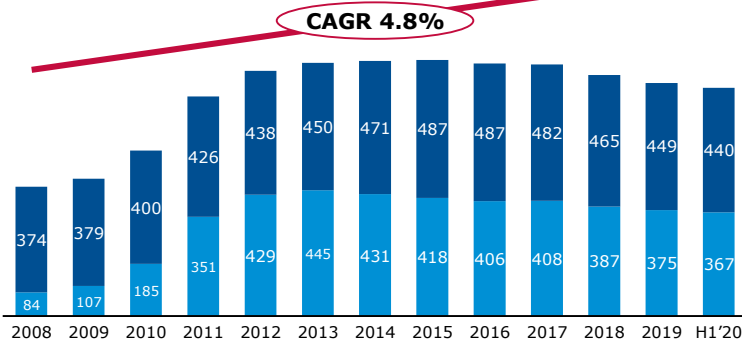
## Acquisition of issuers

- On the radar: family companies, PE funds, CEE companies, state-owned companies and their subsidiaries
- Intensive activities aimed at promoting the stock market as a place to raise capital for development
- Individual meetings with companies previously inactive on the GPW markets

## Flow of new companies to the market

Main Market

NewConnect



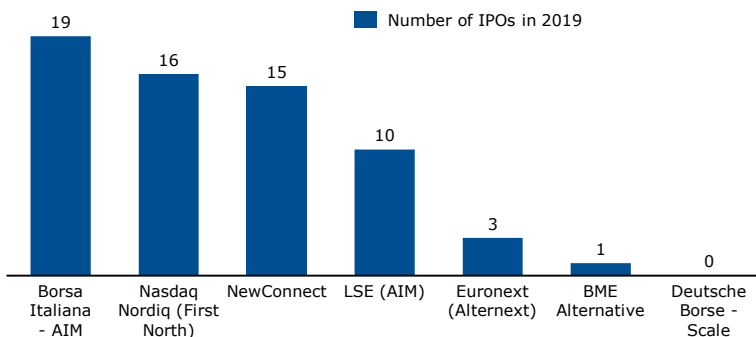
## GPW Growth

- Launch of a comprehensive educational program **GPW Growth** oriented to support the development of small and medium enterprises
- Supporting non-public companies in building their value through expansion using external sources of financing, in particular with a strong accent of development through the capital market

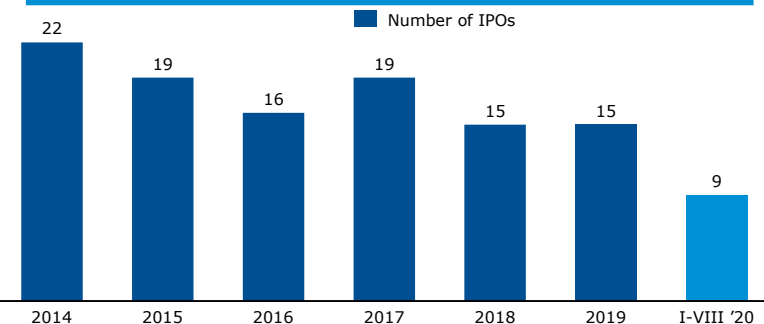
<sup>1</sup> As of the end of June 2020; Source: GPW

# 5 Strong position of NewConnect among European alternative trading venues

## #3 in Europe by number of IPOs in 2019<sup>2</sup>



## IPOs on NewConnect 2014 – 2020



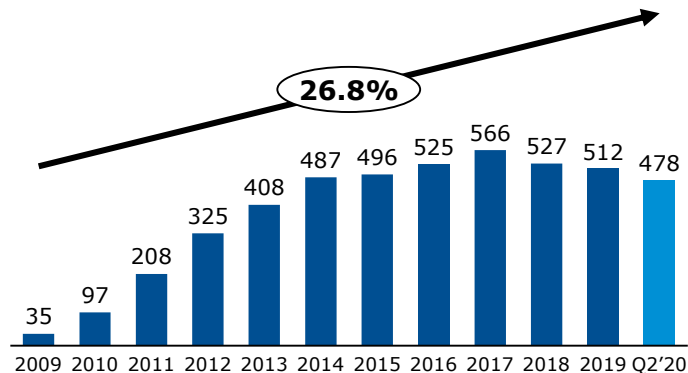
- ◆ **NewConnect is dedicated to SMEs** across many sectors, including technology companies
- ◆ NewConnect opened **in 2007** and its current capitalisation is **PLN 16,5 billion<sup>1</sup>**.
- ◆ Since the launch, over **600 companies<sup>1</sup>** have been listed on NewConnect.
- ◆ Since the launch, **69 companies** have transferred from NewConnect to GPW's main market, i.e., 15 percent of companies listed on the GPW Main Market started on NewConnect<sup>1</sup>.
- ◆ NewConnect is dominated by individual investors who generated **93% of turnover** in H1'20.
- ◆ Since the launch, IPOs and SPOs on NewConnect, have totalled **approx. PLN 5.0 billion<sup>1</sup>**.
- ◆ In July 2019, NewConnect was authorised by PFSA as an **SME Growth Market**, joining an exclusive group of trading venues including the London Stock Exchange AIM and AIM Italia.

<sup>1</sup> Source: GPW data as at Q2 2020

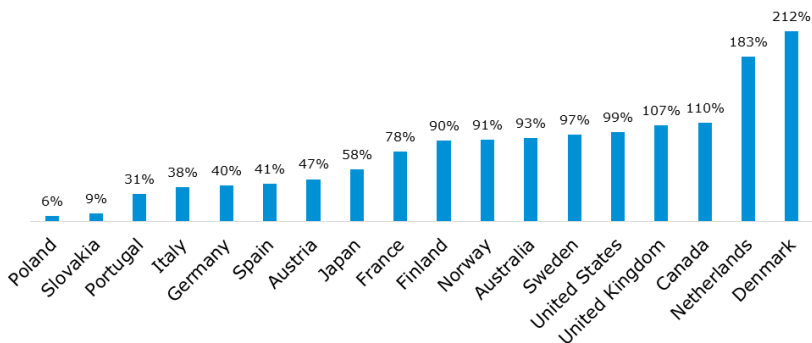
<sup>2</sup> Source: IPO Watch, PwC for 2019.

# 5 Opportunities for further debt market development

**Number of non-Treasury issues on Catalyst**



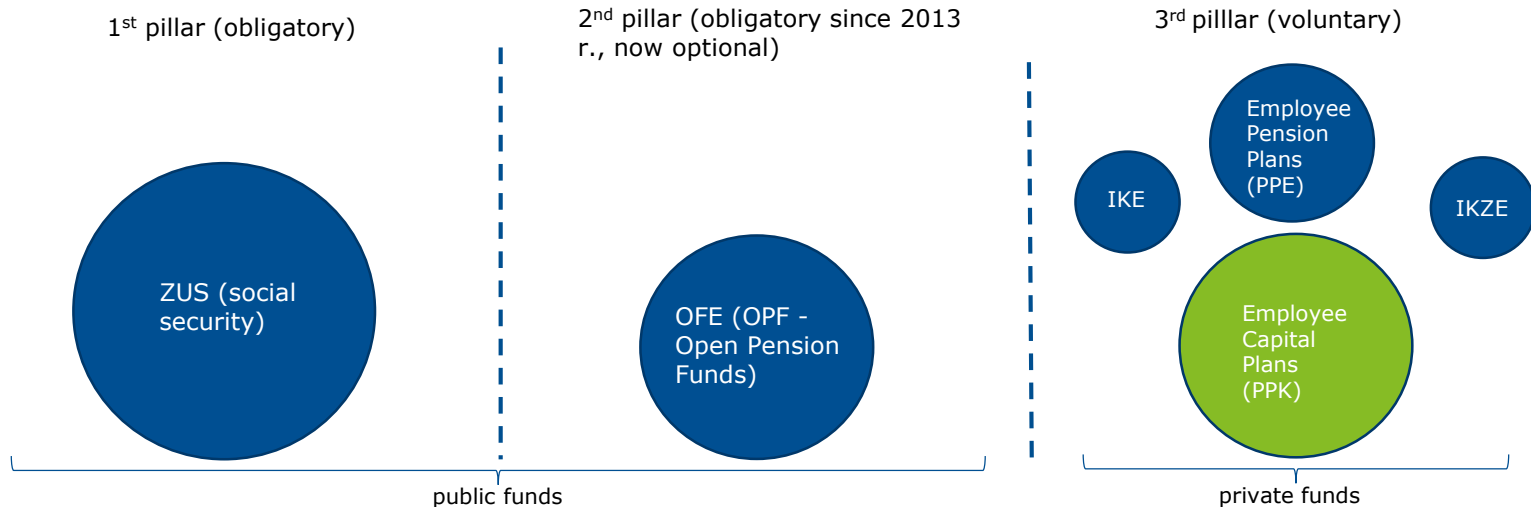
**Total debt securities by residence of issuer as % of GDP<sup>1</sup>**



- ◆ Segmentation of the corporate debt market architecture
- ◆ Active role of the Exchange in attracting new issuers
- ◆ Single banking licence: an opportunity to grow bank activity as debt market participants

<sup>1</sup> Source: BIS (non-Treasury bonds as at the end of Q4 2019, latest available data), IMF (GDP in 2019, World Economic Outlook Database)

# 6 Employee Capital Plans (ECP)



- ❑ **Employee Capital Plans (ECP)/Pracownicze Plany Kapitałowe (PPK)** are a new system of private long-term pension savings, mandatory for employers but optional for employees, based on contributions of **employees, employers and the public budget**.
- ❑ **PPK** scheme are very similar to UK Workplace Pension System
- ❑ **PPK's** impact on GPW:
  - ✓ Increase of market turnover and increase of the velocity rate
  - ✓ Attracting new issuers: growing number of IPOs
  - ✓ A stronger market in equities, corporate bonds, treasury bonds, real estate investment funds
  - ✓ Improved trust in and promotion of the capital market

# 6 Employee Capital Plans (ECP) / PPK

## ECP introduction schedule

Stage	Size of company (number of employees)	number of potential participants (mn)	Start
I	>250	3.3	01.07.2019
II	50-249	2	01.01.2020*
III	20-49	1.1	01.07.2020
IV	others	5.1	01.01.2021
<b>Total</b>		<b>11.5</b>	

\* Stage II is delayed; will be implemented simultaneously with Stage III  
Source: Ministry of Finance of Poland

## ECP assumes three (I, II, III) sources of contribution

	Basic contribution	Voluntary contribution	Max contribution
I Employee contribution	2% of gross wage	up to 2,0% gross wage	4% gross wage
II Employer contribution	1,5% of gross wage	up to 2,5% gross wage	4% gross wage
Maximum total contribution			8% gross wage
III Contribution paid by public budget:	welcome payment – PLN 250		
	annual payment – PLN 240		

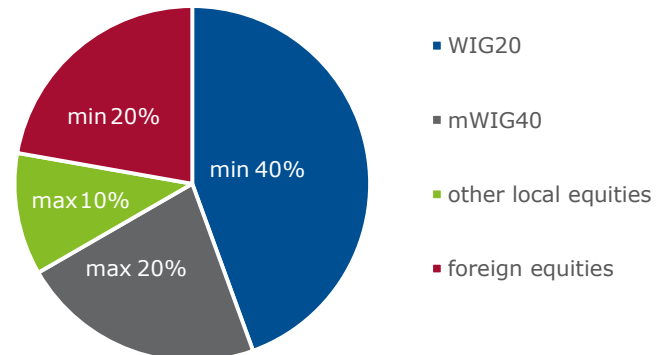
Source: Ministry of Finance of Poland

## Equities/debt share in total assets

Time left to the defined date (reaching 60 years old)	Equities	Debt
>20 years	60-80%	20-40%
11-20 years	40-70%	30-60%
6-10 years	25-50%	50-75%
1-5 years	10-30%	70-90%
After reaching the defined date (60 years)	<15%	>85%

Source: Ministry of Finance of Poland

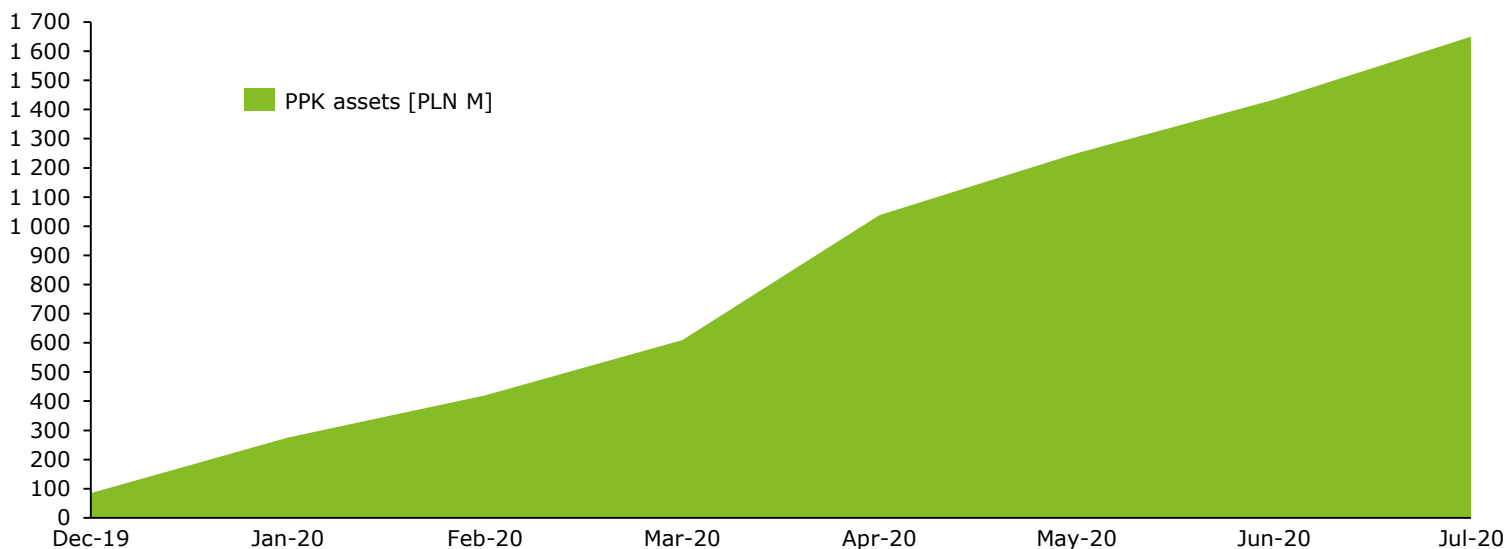
## Equity portfolio structure



Source: Ministry of Finance of Poland

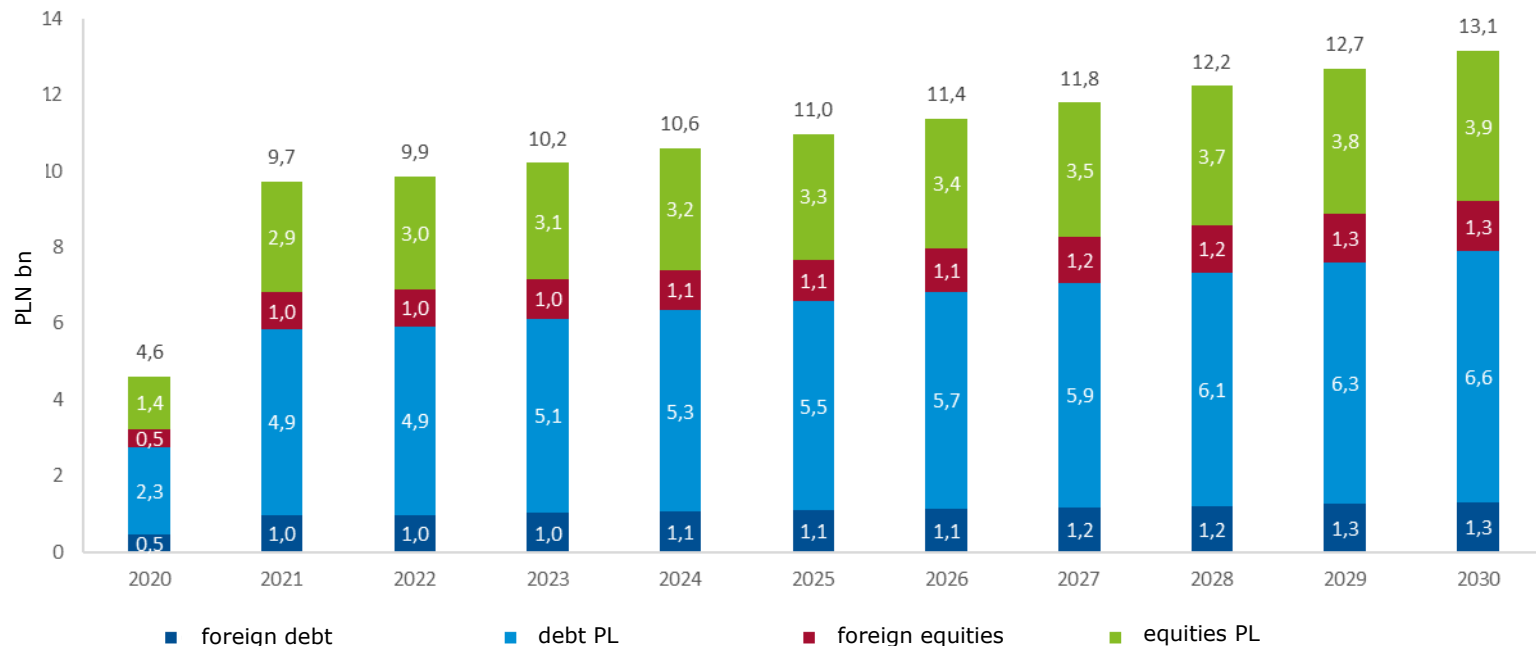
## 6 PPK assets have crossed the mark of PLN 1.65 billion

### PPK: net asset value of target-date funds



- ◆ According to PFR forecasts, PPK assets should reach **approx. PLN 4-5 billion** by the year's end.
- ◆ The PPK launch is currently in its second round including companies with at least 50 employees. The deadlines have been postponed to 27 October 2020 (PPK management contract) and 10 November 2020 (PPK operation contract).

## ⑥ Estimated yearly inflows into PPK (PLN bn)



Source: GPW estimates

### Assumptions:

1. Participation rate – 35%
2. Average contribution rate– 3.5%
3. Average wage increase (annualy) – 4%,
4. Average monthly gross salary – PLN 4 863.74
5. Annual subsidy from the Labor Fund (contriubution paid by public budget) – PLN 240.00
6. Portfolio structure: equities PL – 30%, foreign equities– 10%, debt PL – 50%, foreign debt – 10%



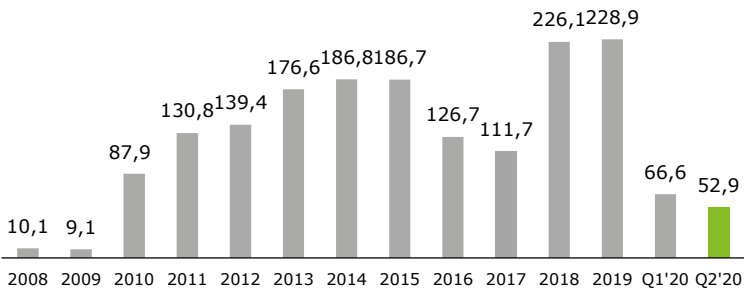
# 7 Commodity market

## Commodity market growth drivers

- ♦ **Lunch of Agricultural Market** – wheat and rye grains trading.
- ♦ **CO2 emission allowances:** On 18 July 2019, TGE reopened the Financial Instruments Market which lists CO2 emission allowances; under MiFID2, allowances are a financial instrument.
- ♦ **White certificates:** The *Act amending the Excise Tax Act and certain other Acts* of 29 June 2019 extended the support scheme for energy efficiency certificates to the end of June 2021.
- ♦ **Organised Trading Facility (OTF)** - transformation of TGE’s forward commodity market into an organised trading facility (OTF) under MiFID II
- ♦ **Energy market** – obligation to sell a proportion of Energy on the exchange – increased from 30% to 100%.

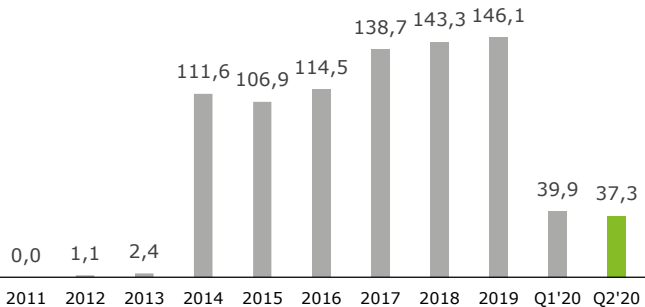
## TGE electricity trade volumes (spot+forward)

TWh



## Natural gas trading (spot+forward)

TWh



## Agricultural Market pilot till the end of August

- ♦ The Agricultural Market includes **34 authorised warehouses** and **3 authorised brokers (Noble DM, DM BOŚ, PGE DM)**
- ♦ GPW Group offers trade in standardised wheat and rye grains.
- ♦ The fee waiver expired at the end of August.



## Market structure

- ♦ The operation of the Agricultural Market relies on TGE, Commodity Clearing House (IRGiT), and Authorised Warehouses.
- ♦ TGE operates transparent trade in agricultural commodities; IRGiT provides safe clearing; and Authorised Warehouses ensure high quality of stored commodities.

## New products on the horizon

- ♦ The priority during the pilot is to attract more **market participants, authorised warehouses and brokers.**
- ♦ The range of agricultural products will later be extended to include **maize, sugar, skimmed milk powder, pork semi-carcasses, concentrated apple juice.**

More information: [www.tge.pl/en-home](http://www.tge.pl/en-home)

# Strategy update #GPW2022 (strategic initiatives)

## GPW Group



- GPW



- TGE



- BondSpot



PRA

# 9 Poland's Promotion to Developed Markets: Success of Poland's Economy and Capital Market

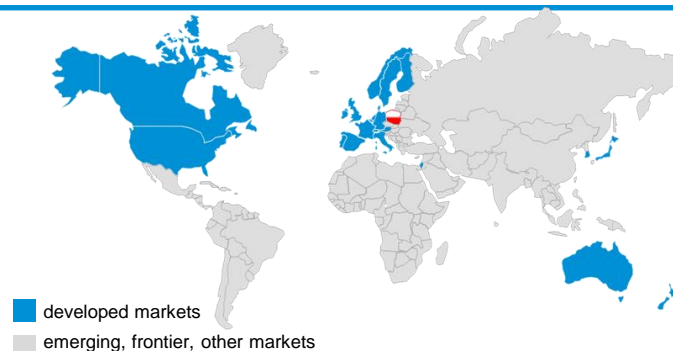
## Highly appreciated Polish capital market...

- ♦ Well-developed and stable market infrastructure
- ♦ Broad selection of listed stocks and high liquidity
- ♦ Wide and unlimited access to professional market intermediaries
- ♦ Independent supervision over the market and high standards of corporate governance
- ♦ Efficient and secure trading and post-trading services
- ♦ Little limitations on investing by foreign investors
- ♦ Extensive, legally regulated added value services including short selling and omnibus securities accounts

## Ceremony at London Stock Exchange



## Aids classification of Poland amongst the 25 Developed Markets...



## FTSE Developed Markets ranking in numbers<sup>1</sup>

**0.12%**

Poland's share in FTSE Developed All Cap Index as of September '19

**1.33%**

Poland's previous share in FTSE Emerging All Cap Index

**September 2018**

Poland's reclassification by FTSE Russel

**0,71%**

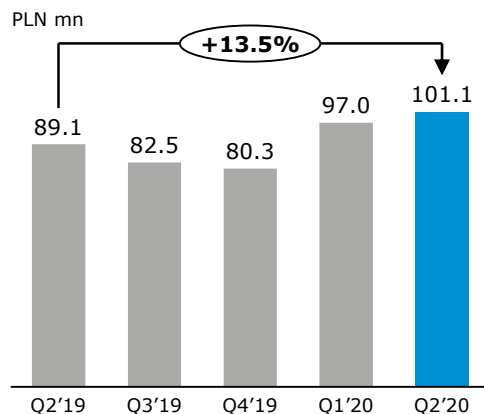
Poland's share in MSCI Emerging Markets

<sup>1</sup> Source: FTSE Russell

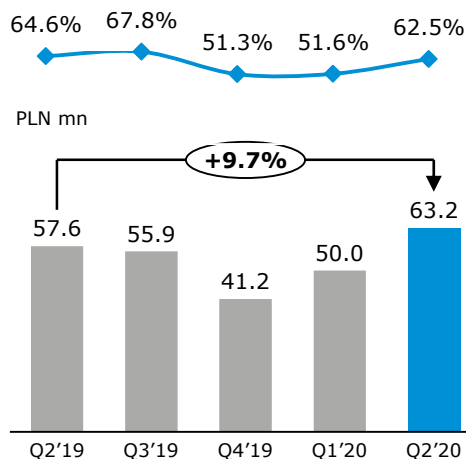
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# Stable EBITDA margin

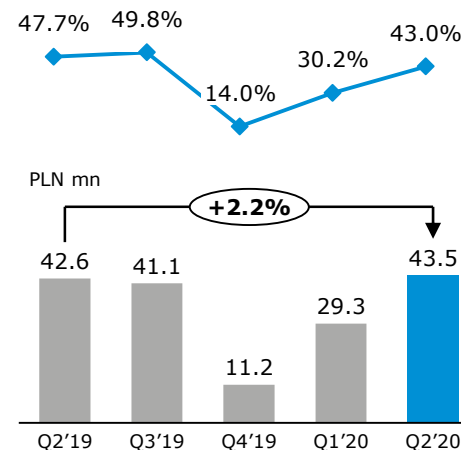
## Sales revenue



## EBITDA and EBITDA margin



## Net profit and net profit margin

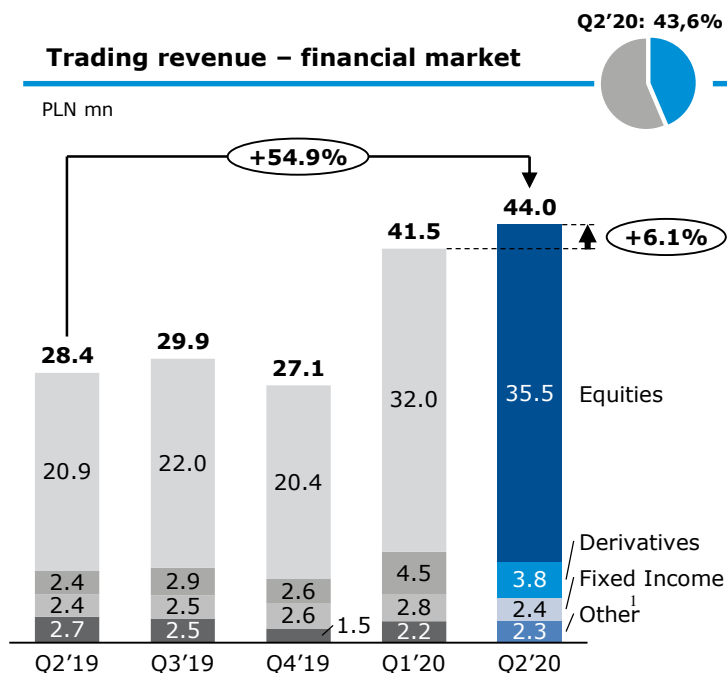


- ◆ Increase of GPW Group's revenue by 13.5% YoY to PLN 101.1 mn driven by higher revenue on the financial market (+34.9% YoY).
- ◆ EBITDA margin: 62.5% in Q2'20 vs. 64.6% in Q2'19.
- ◆ Stable net profit margin: 43.0% in Q2'20 driven by high increase of revenue combined with costs under control.

# Increase in trading revenue on the financial market

## Trading revenue – financial market

PLN mn



<sup>1</sup> Other cash market instruments, other fees paid by market participants

- Trading revenue on the financial market at PLN 44.0 mn in Q2'20 (+54.9% YoY).
- Average EOB turnover in shares per session on the Main Market in Q2'20 at PLN 1182.5 mn vs. PLN 986.4 mn in Q1'20 vs. PLN 784.3 mn in Q2'19.
- Average fee on the stock Main Market at 2.31 bps in Q2'20 (vs. 2.26 bps in Q1'20) driven by growing individual investor activity.
- Average fee historically by quarter: 2.19 bps in Q2'19/2.16 bps in Q3'19/2.20 bps in Q4'19. The annual average fee was: 2.19 bps in 2019/2.21 bps in 2018/2.18 in 2017.

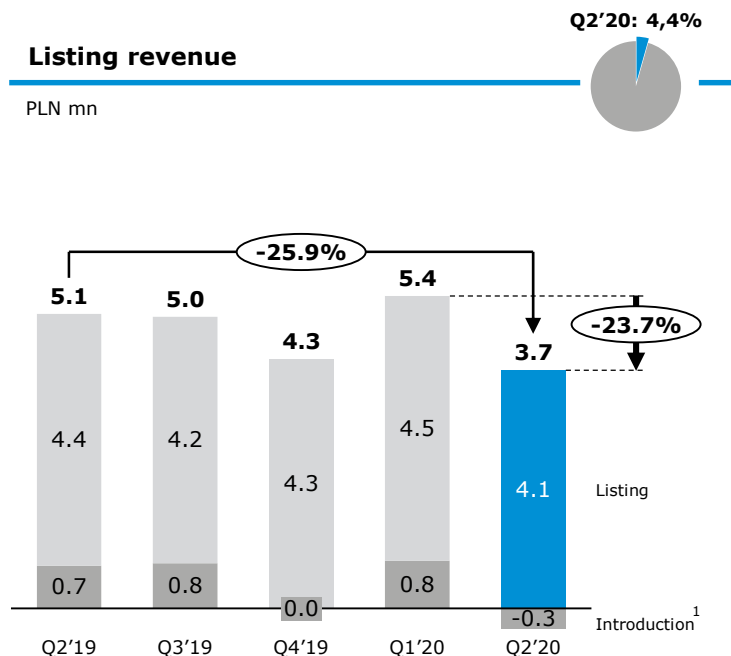
## Investor activity on GPW markets

Q2'19	Q3'19	Q4'19	Q1'20	Q2'20
Shares turnover value (EOB, PLN bn)				
46,3	49,0	44,9	61,1	70,4
				+52,1% YoY
				+15,2% QoQ
Futures and options turnover volume (mn contracts)				
1,6	2,0	1,7	3,1	2,7
				+68,8% YoY
				-12,9% QoQ
Treasury bonds – TBSP, cash transactions (PLN bn)				
17,8	21,1	10,6	18,6	5,1
				-71,5% YoY
				-72,8% QoQ
Treasury bonds – TBSP, conditional transactions (PLN bn)				
70,5	35,3	32,9	43,6	22,9
				-67,6% YoY
				-47,3% QoQ

# Listing revenue

## Listing revenue

PLN mn



- ◆ One new listing on the Main Market (Games Operators) and one new listing on NewConnect (SimFabric) in Q2'20.
- ◆ Main Market SPO value Q2'20 was PLN 604 mn vs. PLN 892 mn in Q1'20 vs. PLN 41 mn in Q2'19.
- ◆ Expected recovery in IPO activity in 2H 2020
- ◆ Revenue from listing fees in Q2'20 decreased YoY. Number of listed companies: 440 at the end of Q2'20 vs. 460 at the end of Q2'19 (Main Market).

## Issuer activity

Q2'19	Q3'19	Q4'19	Q1'20	Q2'20
Number of new listings on the Main Market				
2	2	1	0	1
				-50,0% YoY +100% QoQ
Capitalisation of domestic companies (PLN bn)				
594,4	551,1	550,2	404,2	472,9
				-20,4% YoY +17,0% QoQ
Value of IPOs (PLN mn)				
40	5	9	3	24
				-40,0% YoY

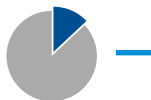
<sup>1</sup> One-off adjustment due to an amendment of the accounting policy concerning revenue from the introduction of financial instruments to trading.



# Record-high revenue from information services

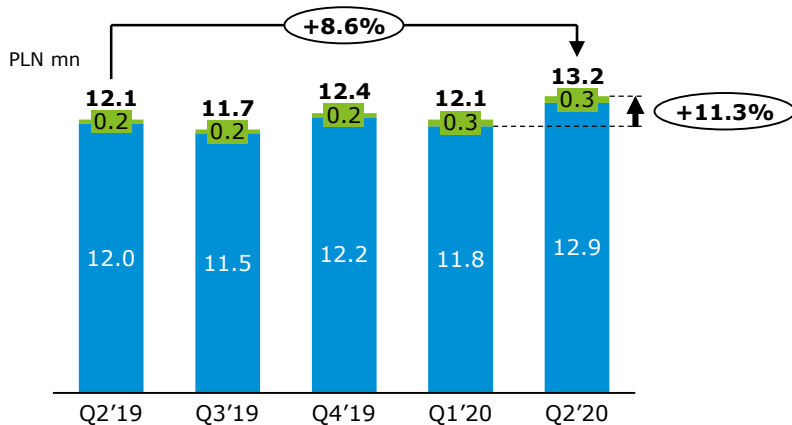
## Revenue from information services – financial market and commodity market

Q2'20: 13,0%



■ Information services (commodity market)

■ Information services (financial market)



- ◆ New GPW Group data agreements were signed in Q2'20 with users in different market segments, namely:

- GPW data:
  - ✓ 1 data vendor
  - ✓ 2 non-display data users
  - ✓ 2 processed data clients

- GPW Benchmark data:
  - ✓ 2 non-display clients

- BondSpot data:
  - ✓ 1 data vendor

- ◆ Continued dynamic increase in the number of individual subscribers.

## Data vendors, subscribers and non-display clients

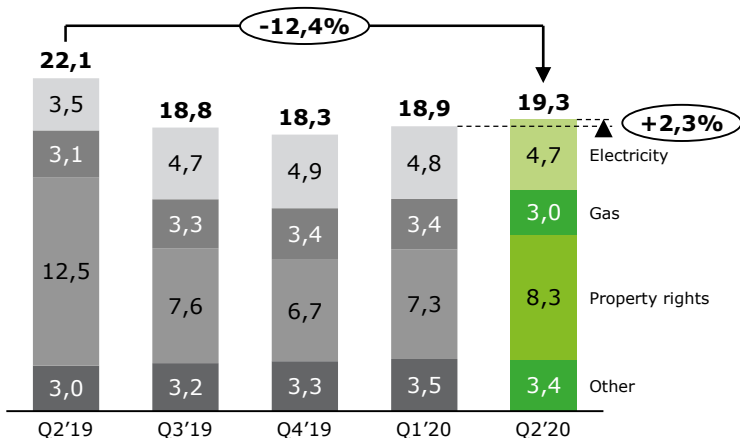
Q2'19	Q3'19	Q4'19	Q1'20	Q2'20
Number of subscribers (thou.)				
249,6	238,5	260,3	312,1	337,9
				+35,4% YoY
				+8,3% QoQ
Number of vendors				
82	83	83	85	85
				+3,7% YoY
				0% QoQ
Non-display				
86	88	94	96	95
				+10,4% YoY
				-1,0% QoQ

# Revenue from the electricity, gas, and property rights markets

## Trading revenue – commodity market

PLN mn

Q2'20: 19,0%



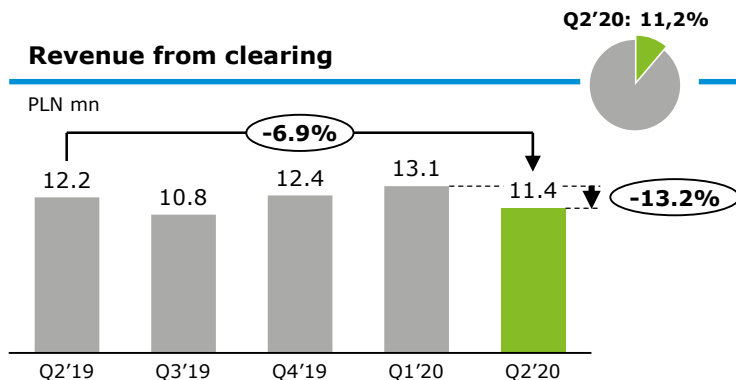
- ◆ Increase of revenue from trading in electricity in Q2'20 to PLN 4.7 mn (+34.4% YoY) driven by a dynamic increase in turnover on the forward market combined with a modest increase in turnover on the spot market.
- ◆ Revenue from trading in gas in Q2'20: PLN 3.0 mn (-4.1% YoY). Spot turnover up, forward turnover down YoY.
- ◆ Decrease of revenue from trading in property rights by PLN 8.3 mn (-33.7% YoY) due to discontinuation of trading in cogeneration certificates as of 30 June 2019 and a decrease of the energy efficiency certificates turnover.
- ◆ Increase of revenue from other fees paid by market participants to PLN 3.4 mn (+13.0% YoY) mainly driven by a temporary suspension of the reduction of annual fees on the gas market.

## Investor activity on the commodity market

Q2'19	Q3'19	Q4'19	Q1'20	Q2'20
Electricity turnover volume (TWh)				
52,9	65,0	66,7	66,6	62,8
				+18,8% YoY
				-5,6% QoQ
Gas turnover volume (TWh)				
37,3	39,6	40,7	39,9	35,7
				-4,2% YoY
				-10,5% QoQ
Property rights turnover volume (TWh)				
21,1	5,6	6,3	6,7	8,0
				-62,1% YoY
				+19,5% QoQ

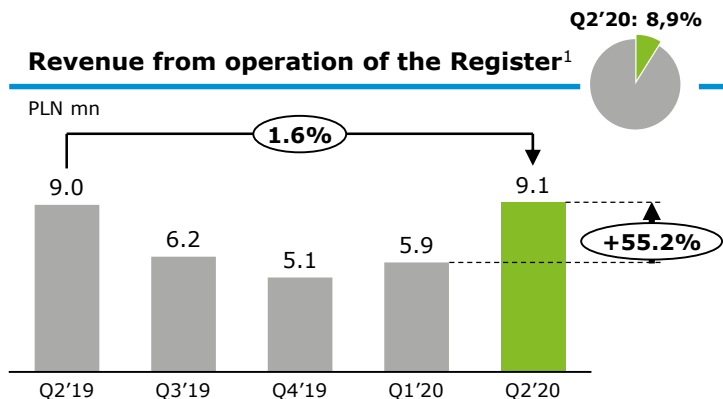
# Revenue from clearing

## Revenue from clearing



- ◆ Decrease of revenue from clearing in Q2'20 to PLN 11.4 mn (-6.9% YoY)
- ◆ Increase of the revenue from the operation of the Register of Certificates of Origin in Q2'20 to PLN 9.1 mn (+1.6% YoY) driven by an increase in the volume of issued and cancelled RES certificates.
- ◆ The volume of transactions in RES electricity in the Register of Guarantees of Origin in Q2'20 was 4,748,622 MWh, an increase of 14.6% YoY.

## Revenue from operation of the Register<sup>1</sup>



<sup>1</sup> Revenue from the Register of Certificates of Origin, including revenue from the Register of Guarantees of Origin.

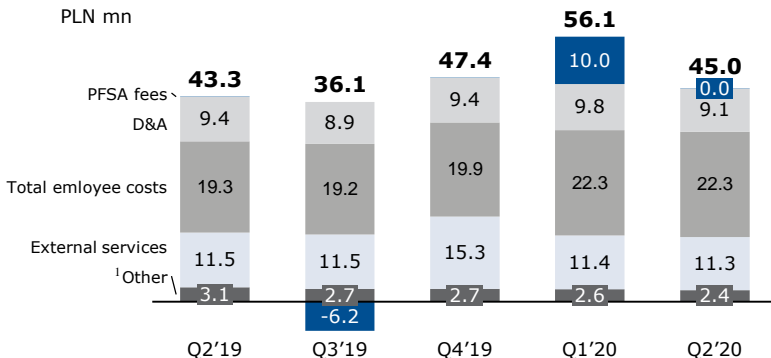
## Activity of participants of the Register of Certificates of Origin

Q2'19	Q3'19	Q4'19	Q1'20	Q2'20
Volume of issued property rights (TWh)				
8,3	4,8	4,0	6,0	8,3
				0,0% YoY
				+37,0% QoQ
Volume of cancelled certificates of origin (TWh)				
19,9	13,1	5,4	4,4	12,8
				-35,6% YoY
				+194% QoQ
Guarantees of Origin – turnover volume (TWh)				
4,1	4,1	4,9	5,0	4,7
				+15,8% YoY
				-5,6% QoQ

# Q2'20 operating expenses, financial expenses and other expenses

## Operating expenses: +4.0% YoY to PLN 45.0 mn

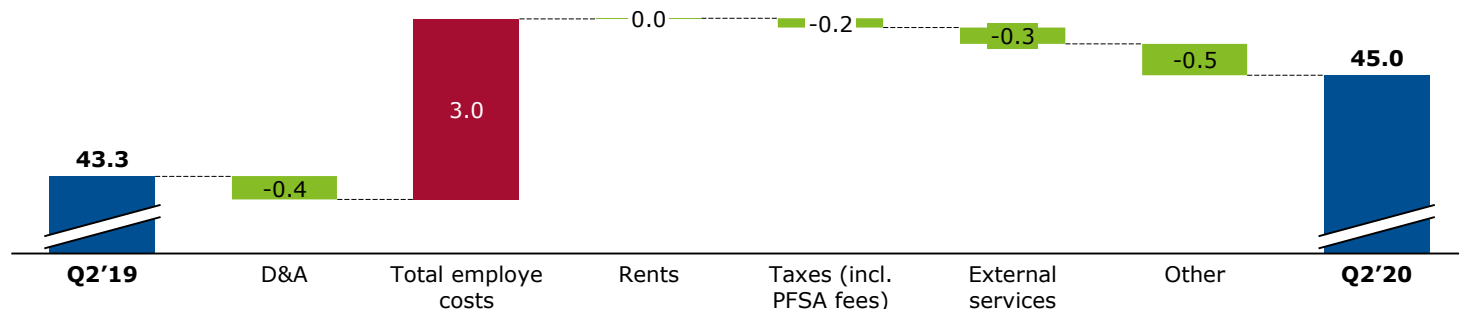
PLN mn



- ◆ Cost/income ratio (C/I)<sup>2</sup> in Q2'20 at 44.5 vs. 48.6 in Q2'19.
- ◆ Depreciation charges at PLN 9.1 mn (-3.6% YoY, -7.0% QoQ).
- ◆ Increase of salaries and other employee costs to PLN 22.3 mn (+15.5% YoY, +0.1% QoQ) driven among others by additional headcount in the implementation of the strategy #GPW2022.
- ◆ Decrease of external service charges to PLN 11.3 mn (-2.3% YoY, -1.1% QoQ).
- ◆ Provisions against potential IRGIT's tax payable at PLN 2.9 mn in Q2'20
- ◆ Other expenses in Q2'20 include a write-off of the investment in BondSpot at PLN 3.5 mn

## Change in operating expenses in Q2'20 vs. Q2'19

PLN mn

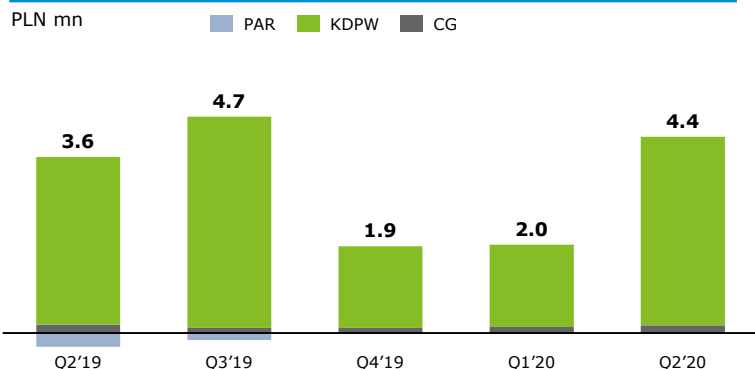


<sup>1</sup> Other includes rent, fees and charges (net of the KNF fees), and other operating expenses

<sup>2</sup> C/I based on reported data

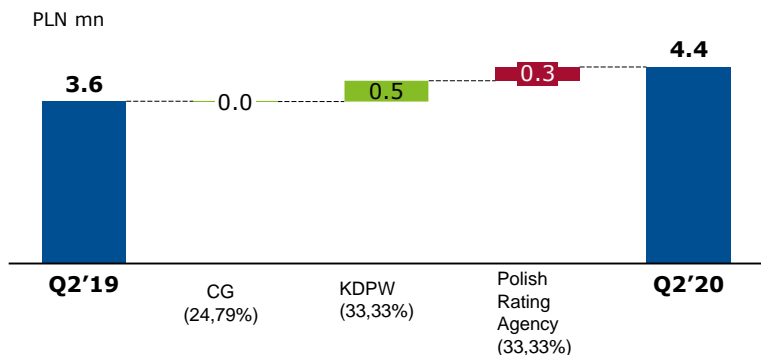
# Share of profit of entities measured by equity method

## Share of profit of entities measured by equity method



- ◆ Group's share of profit of associates and joint ventures in Q2'20 at PLN 4.4 mn (+21.0% YoY, +122.4% QoQ).
- ◆ KDPW:
  - ✓ The Group's share of net profit of KDPW in Q2'20 at PLN 4.2 mn vs. PLN 3.8 mn in Q2'19
  - ✓ Increase of KDPW's operating income
- ◆ GPW's share of profit of Centrum Giełdowe in Q2'20 at PLN 0.2 mn, similar to Q2'19.
- ◆ The Group's share of the loss of PAR was (PLN 0.31 mn) in Q2'20. The investment was impaired at 30 September 2019. Following the impairment, the value of the investment in PAR is equal to 0.

## Share of profit of entities measured by equity method



# GPW Group's consolidated statement of financial position



PLN mn	30.06.2019	30.09.2019	31.12.2019	31.03.2020	30.06.2020
<b>Non-current assets</b> , including among others	<b>586,2</b>	<b>585,6</b>	<b>590,1</b>	<b>587,8</b>	<b>577,4</b>
Property, plant and equipment	100,6	97,3	102,0	98,2	95,6
Intangible assets	246,8	247,3	246,6	246,0	241,9
Share of profit of associates	204,8	208,4	210,3	211,7	211,1
<b>Current assets</b> , including among others	<b>771,9</b>	<b>645,4</b>	<b>666,7</b>	<b>740,2</b>	<b>804,8</b>
Trade and other receivables	73,2	56,2	45,2	68,1	62,1
Financial assets measured at amortised cost	217,7	333,7	329,0	243,3	316,5
Cash and cash equivalents	478,1	253,4	281,3	422,4	418,4
<b>Total assets</b>	<b>1 358,1</b>	<b>1 231,1</b>	<b>1 256,8</b>	<b>1 328,1</b>	<b>1 382,2</b>

PLN mn	30.06.2019	30.09.2019	31.12.2019	31.03.2020	30.06.2020
Equity	821,2	859,1	873,5	901,6	845,6
<b>Non-current liabilities</b>	<b>281,2</b>	<b>282,6</b>	<b>283,5</b>	<b>276,9</b>	<b>278,0</b>
Liability under the bond issue	244,2	244,3	244,4	244,4	244,5
<b>Current liabilities</b> , including among others	<b>255,7</b>	<b>89,3</b>	<b>99,8</b>	<b>149,6</b>	<b>258,5</b>
Trade payables	31,9	13,8	11,6	21,4	22,1
Employee benefits payable	13,6	16,5	17,2	15,8	14,9
Contract liabilities	22,2	12,0	4,4	35,6	25,3
Other current liabilities	171,9	34,0	41,7	43,6	159,1
<b>Total equity and liabilities</b>	<b>1 358,1</b>	<b>1 231,1</b>	<b>1 256,8</b>	<b>1 328,0</b>	<b>1 382,2</b>

◆ The increase of assets year to date as at 30 June 2020 was mainly driven by an increase of cash and cash equivalents (by PLN 124.6 mn)\*

◆ The increase of current liabilities year to date as at 30 June 2020 was mainly driven by an increase of other current liabilities (current VAT in TGE and IRGiT, as well as GPW's dividend payable at PLN 100.7 mn).

\* Cash is understood as a combination of "Cash and cash equivalents" and "Financial assets measured at amortised cost". "Cash and cash equivalents" includes cash in bank accounts and term deposits up to 3 months. "Financial assets measured at amortised cost" includes among others cash in term deposits over 3 months.

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# GPW Group consolidated statement of comprehensive income



PLN mn	Q2'19	Q1'20	Q2'20
<b>Revenue</b>	<b>89,1</b>	<b>97,0</b>	<b>101,1</b>
Financial market	45,4	58,7	60,7
Trading	28,4	41,5	44,0
Listing	5,1	5,4	37,5
Information services	12,0	11,8	12,9
Commodity market	43,4	38,1	40,1
Trading	22,1	18,9	19,3
Register of Certificates of Origin	9,0	5,9	9,1
Clearing	12,2	13,1	11,4
Information services	0,2	0,3	0,3
Other operating income	0,3	0,2	0,4
<b>Operating expenses</b>	<b>43,3</b>	<b>56,1</b>	<b>45,0</b>
Other income	1,9	1,2	1,8
Impairment gains/(losses) on receivables	1,4	-1,1	0,8
Other expenses	0,9	0,9	4,6
<b>Operating profit</b>	<b>48,2</b>	<b>40,3</b>	<b>54,1</b>
Balance on financial income and expencies	0,1	-4,8	-3,9
Impairment loss on investments in other entities	0,0	0,0	-0,6
Share of profit/(loss) of entities measured by equity method	3,6	2,0	4,4
<b>Profit before income tax</b>	<b>51,9</b>	<b>37,4</b>	<b>54,0</b>
Income tax	9,4	8,2	10,5
<b>Net profit</b>	<b>42,6</b>	<b>29,3</b>	<b>43,5</b>
<b>EBITDA</b>	<b>57,6</b>	<b>50,0</b>	<b>63,2</b>

- ◆ The increase of sales revenue in Q2'20 was driven by an increase of revenue on the financial market by 33.5% YoY, i.e., by PLN 15.2 mn to PLN 60.7 mn
- ◆ Operating expenses increased by PLN 1.7 mn (+4.0% YoY) driven mainly by an increase of salaries and other employee costs
- ◆ The increase of financial expenses in Q2'20 by PLN 2.7 mn YoY was driven mainly by provisions against IRGiT's tax payable at PLN 2.9 mn
- ◆ The increase of other expenses in Q2'20 by PLN 3.7 mn YoY was due to the impairment of goodwill of the subsidiary BondSpot at PLN 3.5 mn recognised in other expenses



# GPW Group consolidated cash flows



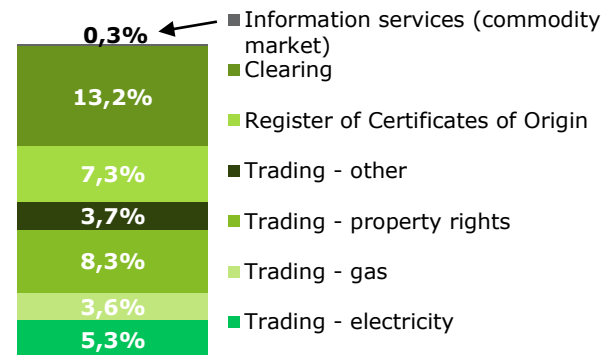
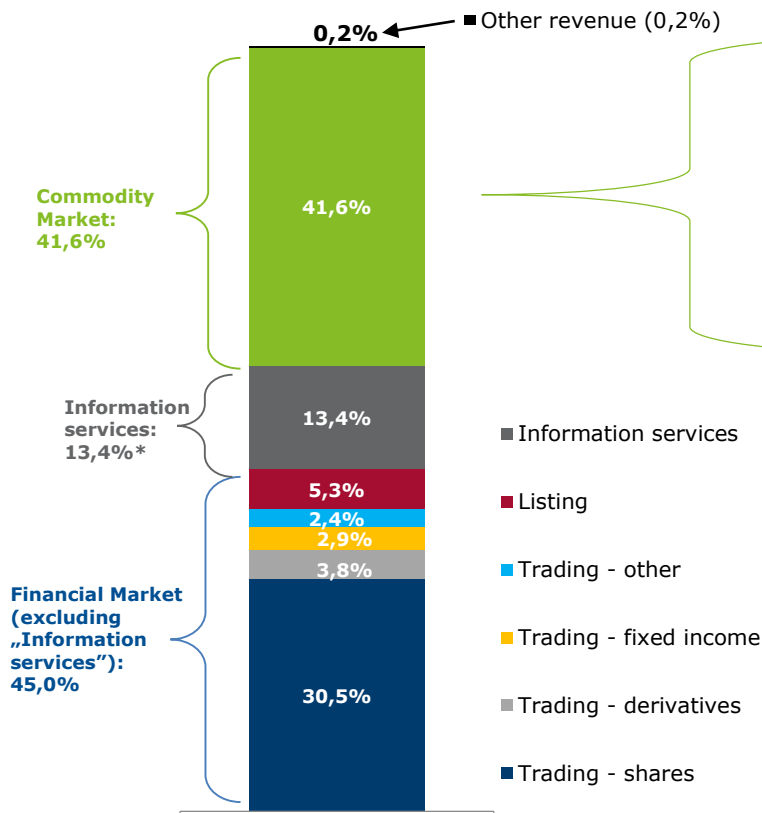
PLN mn	6 months period ended 30 June of	2020	2019
<b>Total net cash flows from operating activities</b>		<b>138,5</b>	<b>137,7</b>
Net profit of the period		72,8	67,0
Adjustments:		85,7	89,4
Income tax		18,7	15,2
Depreciation and amortisation		19,0	18,6
Share of (profit)/loss of entities measured by equity method		-6,4	-4,6
(Gains ) on assets measured by equity method		-2,0	-2,6
Interest on bonds		3,6	3,6
Other adjustments		-1,3	0,7
Change of assets and liabilities :		55,0	58,5
Trade receivables and other receivables		-12,1	3,7
Other liabilities (excl. contracted investments and dividend payable)		21,7	14,7
Provisions for liabilities and other charges		9,8	0,0
Income tax (paid)/refunded		-20,0	-18,6
<b>Total cash flows from investing activities:</b>		<b>-1,5</b>	<b>158,3</b>
In:		451,4	507,8
Sale of property, plant and equipment and intangible assets		-	1,3
Sale of financial assets measured at amortised cost		447,7	502,6
Interest on financial assets measured at amortised cost		2,9	3,3
Out:		-452,9	-349,5
Purchase of property, plant and equipment		-5,3	-1,9
Purchase of intangible assets and advances for intangible assets		-11,1	-4,0
Purchase of financial assets measured at amortised cost		-435,8	-343,6
<b>Total cash flows from financing activities:</b>		<b>-0,3</b>	<b>-6,7</b>
In:		6,4	-
Grants received		6,4	-
Out:		-6,6	-6,7
Interest paid on bonds		-3,7	-3,6
<b>Net (decrease)/increase in cash and cash equivalents</b>		<b>136,7</b>	<b>289,4</b>
Cash and cash equivalents - opening balance		281,3	188,7
Cash and cash equivalents - closing balance		418,4	478,1

- ◆ Positive cash flows from operating activities in H1'20 stood at PLN 138.1 mn vs. PLN 137.7 mn in H1'19, mainly driven by a higher net profit.
- ◆ Cash flows from investing activities in H1'20 were negative at PLN 0.4 mn vs. positive cash flows at PLN 158.3 mn in H1'19. The negative cash flows were due to outflows exceeding inflows. Outflows included the investment of financial assets measured at amortised cost as well as the purchase of property, plant and equipment and intangible assets.
- ◆ Cash flows from financing activities in H1'20 were negative at PLN 0.3 million vs. negative cash flows at PLN 6.7 mn in H1'19. The increase of cash inflows from financing activities in H1'20 was driven by grants received for the projects "New Trading System", "GPW Data" and "Agricultural Market".

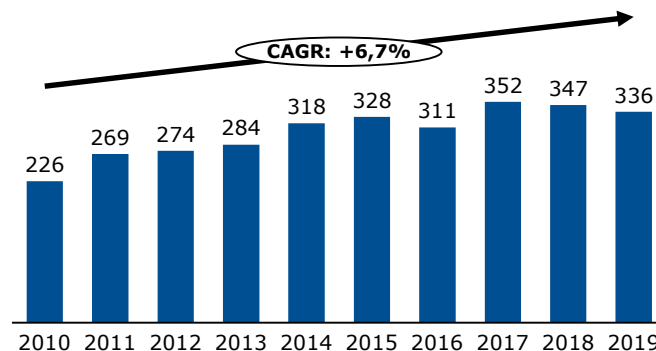
# GPW Group's revenue structure: incremental for 12 months ended 30 June 2020

GPW Group: 360,6 PLN mn

including TGE Group: 150,2 PLN mn



## GPW Group's annual revenue (PLN mn)



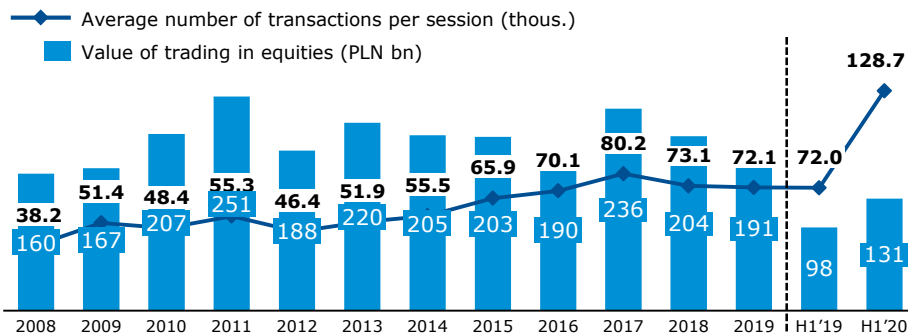
\*Since revenue from information services on the commodity market is presented in a dedicated line, the data above only include revenue on the financial market.

# Financial market: Trading in equities

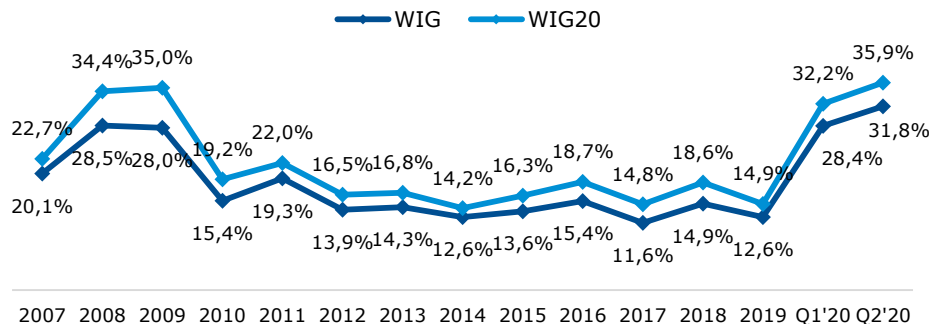


**35.1%<sup>1</sup>**

Equity turnover value and number of transactions



Volatility – WIG and WIG20



## Revenue drivers:

- ✓ Equity turnover value
- ✓ Order structure (small, large, mid-sized orders)

<sup>1</sup> Share in GPW Group's revenue in Q2'20

# Financial market: Trading in derivatives



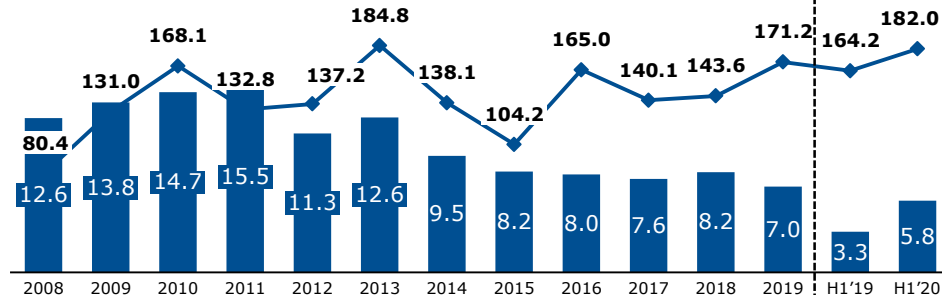
**3.7%<sup>2</sup>**

## Revenue drivers:

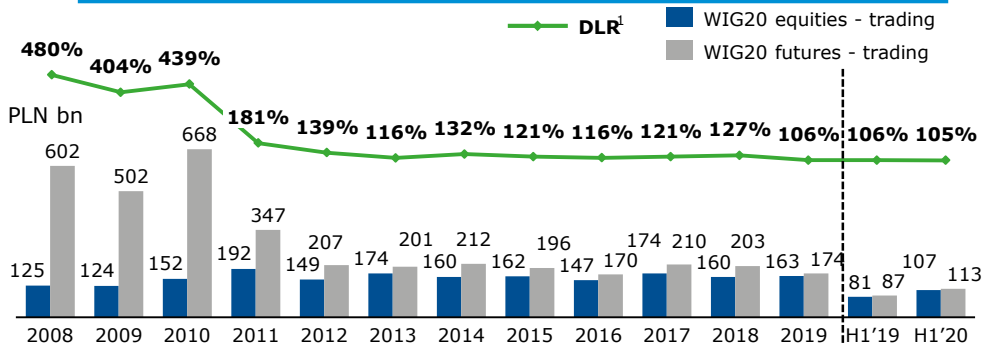
- ✓ Derivatives turnover volume
- ✓ Number of open interest
- ✓ Volatility

## Derivatives turnover volume

◆ Number of open Interes (thous.)



## Futures turnover volume vs. volatility



<sup>1</sup> Velocity ratio (value of trade in WIG20 futures to value of trade in WIG20 stocks)

<sup>2</sup> Share in GPW Group's revenue in Q2'20

# Financial market: Other instruments and fees paid by participants



**2.4%<sup>1</sup>**

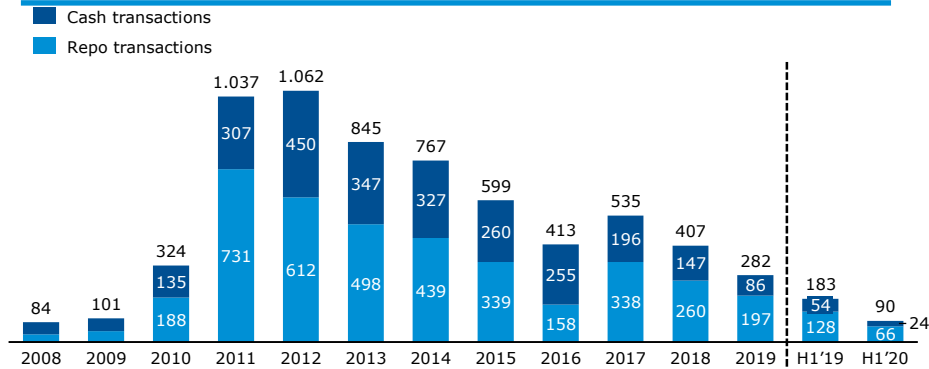


**1.9%<sup>2</sup>**

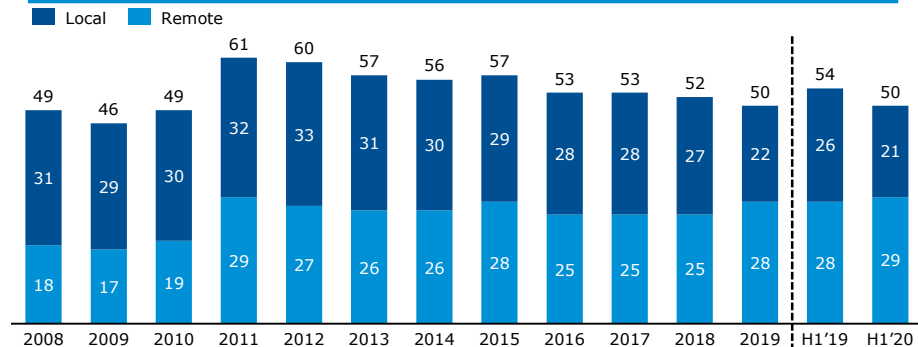
## Revenue drivers:

- ✓ Treasury bonds turnover value
- ✓ Number of exchange members

Treasury BondSpot Poland turnover value, PLN bn



Number of exchange members



<sup>1</sup> Share in GPW Group's revenue in Q2'20, debt instrument turnover

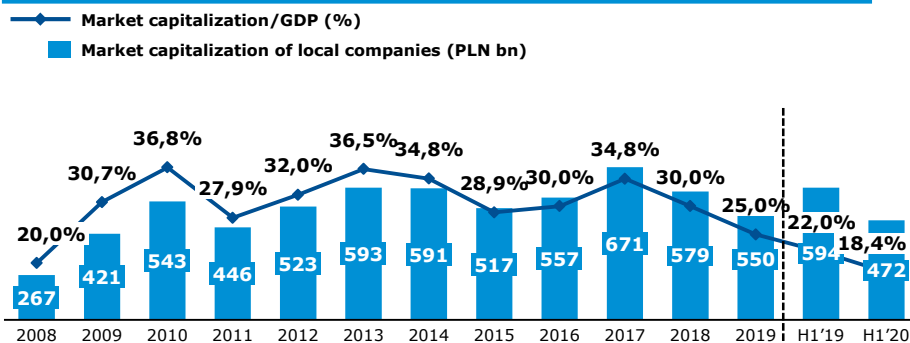
<sup>2</sup> Share in GPW Group's revenue in Q2'20, other trading fees paid by market participants

 **4.4%<sup>1</sup>**

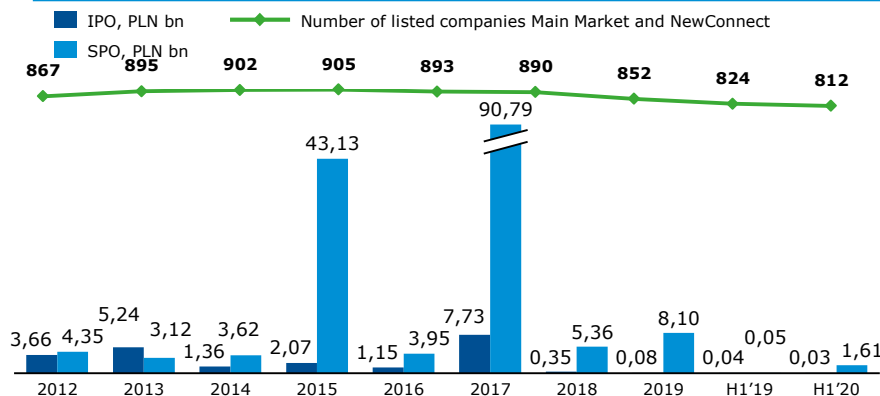
◆ Revenue drivers:

- ✓ Capitalisation at YE
- ✓ Value of new issue shares and bonds
- ✓ Number of issuers

## Capitalisation of domestic companies



## IPO/SPO value and number of companies



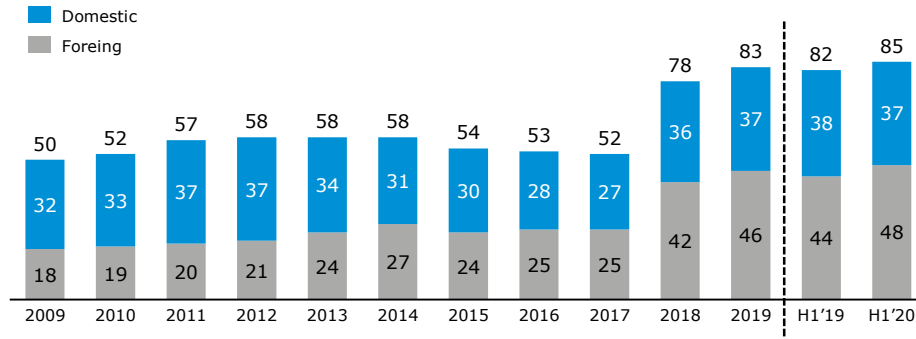
<sup>1</sup> Share in GPW Group's revenue in Q2'20



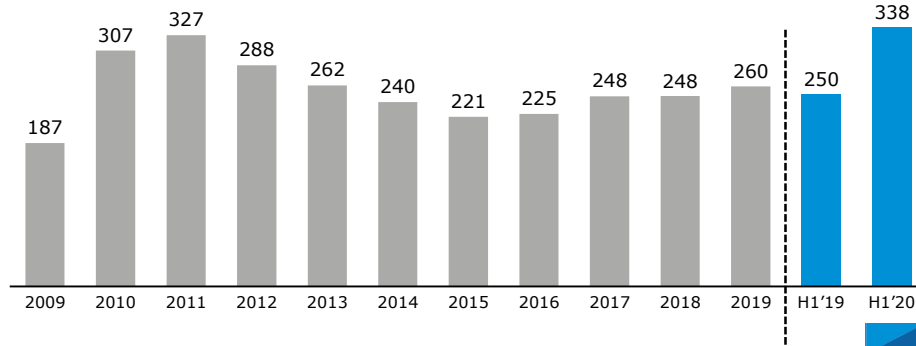
**13.0%<sup>1</sup>**

- ◆ Revenue drivers:
  - ✓ Number of data vendors
  - ✓ Number of subscribers

Number of data vendors



Number of subscribers (thou.)



<sup>1</sup> Total share of information services on the financial market and the commodity market in GPW Group's revenue in Q2'20

# Commodity market: Trading in electricity and gas

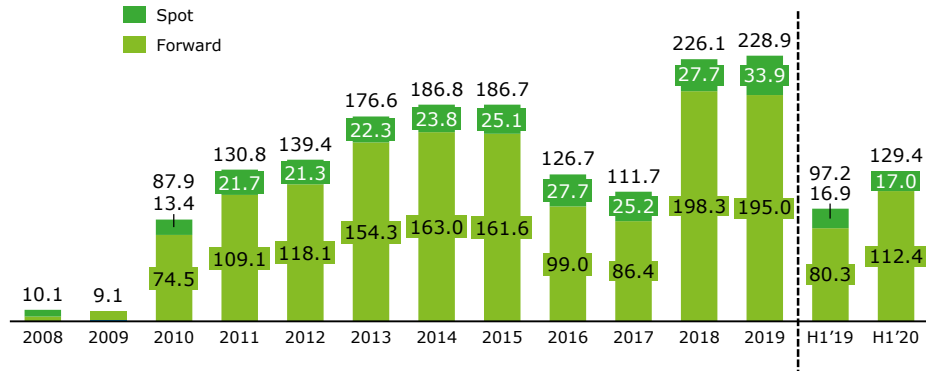


7.6%<sup>2</sup>

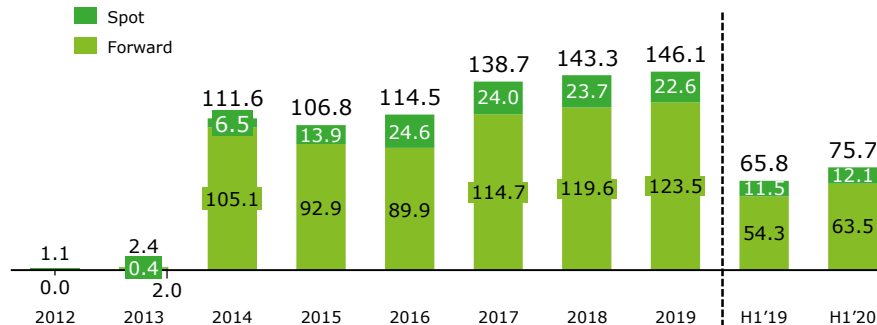
## Revenue drivers:

- ✓ Electricity turnover volume
- ✓ Gas turnover volume
- ✓ Share of spot and forward trade

Electricity turnover volume (TWh)<sup>1</sup>



Gas turnover volume (TWh)



<sup>1</sup> Data for 2006-2013 include trade on the GPW Energy Market pool

<sup>2</sup> Total share of trade in electricity and trade in gas in GPW Group's revenue in Q2'20



# Commodity market: Trading in property rights

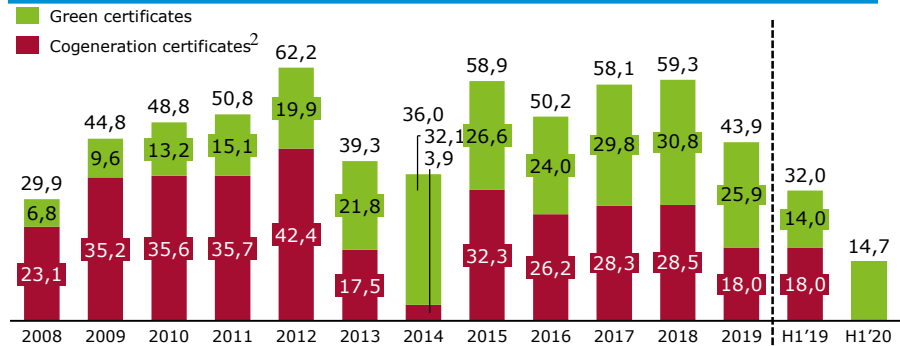


8.2%<sup>1</sup>

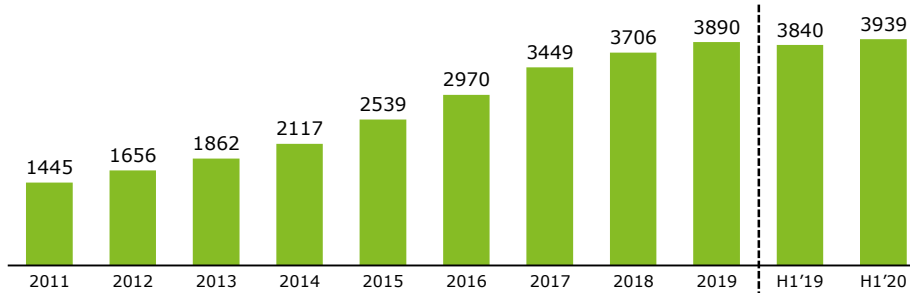
## Revenue drivers:

- ✓ Property rights turnover volume
- ✓ Share of certificate categories in trade
- ✓ Number of register participants

Property rights spot turnover (TWh)



Number of participants of the Register of Certificates of Origin



<sup>1</sup> Share in GPW Group's revenue in Q2'20

<sup>2</sup> Trade in cogeneration property rights ended at the end of June 2019.

# Commodity market: Register of Certificates of Origin

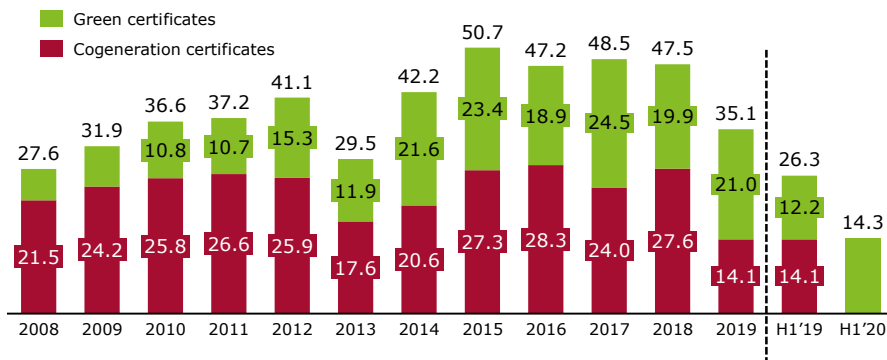


9.0%<sup>1</sup>

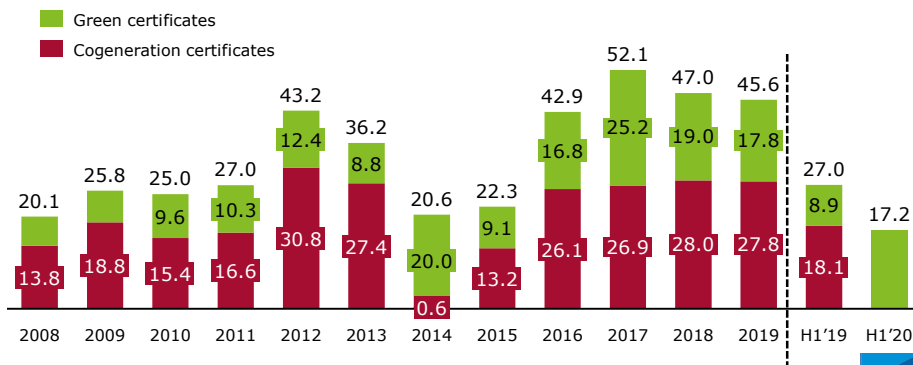
## Revenue drivers:

- ✓ Volume of issued property rights
- ✓ Volume of cancelled property rights

### Volume of issued certificates of origin (TWh)



### Volume of cancelled certificates of origin (TWh)



<sup>1</sup> Share in GPW Group's revenue in Q2'20

<b>Cogeneration</b>	technological process where electricity and heat are generated simultaneously in a combined heat and power plant; thanks to lower consumption of fuel, cogeneration provides material economic benefits and environmental advantages over separate generation of heat in a traditional heat plant and of electricity in a condensation power plant
<b>Colocation</b>	a service where the exchange provides physical space and allows clients to install hardware and software in direct proximity to the exchange's trading system
<b>COR</b>	Certificates of Origin Register, register maintained by the Polish Power Exchange responsible for registration and record-keeping of certificates of origin
<b>ECM</b>	Equity Capital Market, value of equity raised on the financial market
<b>EOB</b>	Electronic Order Book, trade excluding block trades
<b>ETF</b>	Exchange Traded Funds, track the performance of an exchange index. Similar to other investment funds, ETFs are regulated under EU Directives and national regulations. ETF can daily create and cancel ETF units. ETF units are exchange traded on the same terms as shares.
<b>ETP</b>	Exchange Traded –Products, structured products – financial instruments whose price is linked to the value of a market indicator (the underlying instrument)
<b>FESE</b>	Federation of European Stock Exchanges
<b>Free float</b>	free float shares are shares other than held by shareholders which hold more than 5% each, Treasury shares for cancellation, and registered shares; free float includes all shares held by investment funds, pension funds and asset managers and shares participating in depository receipt issue programmes
<b>Green certificates</b>	Certificate of origin is a document certifying that the Energy was produced from the renewable Energy resources
<b>HVF</b>	High Volume Funds, a promotion programme addressed to investment funds actively trading in shares on GPW

# Glossary (2)

<b>HVP</b>	High Volume Provider, a promotion programme addressed to legal entities whose core business is to invest on financial markets only on own account
<b>IPO</b>	Initial Public Offering, in this presentation, PwC IPOwatch Europe reports and FESE data, IPO means all offerings where a company first raises equity on the capital market, either in a public offering or a private placement
<b>ISV</b>	Independent Software Vendors, providers of client software for exchange members used to trade on the trading platform
<b>MCO</b>	Market Coupling operator
<b>MRC</b>	Multi-regional Coupling, European project of operational integration of spot electricity markets
<b>MTF</b>	Multilateral Trading Facility, addressed mainly to institutional investors, offers trade in stocks combined with very short lead times for the execution of orders as well as low trading fees. MTFs are usually operated by investment firms (banks, brokers) or securities exchanges. MTFs offer trade in the same stocks as those listed on other markets and do not provide listings.
<b>NEMO</b>	Nominated Electricity Market Operator is a market operator designated by the competent authority of the European Union Member State to participate in single day-ahead or single intraday coupling
<b>OTC</b>	Over the Counter, a non-regulated market outside the exchange, where trade in non-standard financial instruments is made directly between counterparties without the mediation of a securities exchange
<b>REIT</b>	Real Estate Investments Trusts are special companies and funds investing in real estate; they manage a real estate portfolio to earn a fixed income from rent, and pay out most of the earnings to shareholders as dividend
<b>RES</b>	renewable energy sources

# Glossary (3)

<b>RGO</b>	Register of Guarantees of Origin, register of instruments supporting renewable energy sources, which aim to provide disclosure for the end customer as to the amount of electricity generated in a renewable source and supplied to the power distribution or transmission network
<b>SPO</b>	Second Public Offering
<b>Post-trade services</b>	depository, clearing and settlement services
<b>UTP</b>	Universal Trading Platform, the trading system of the Warsaw Stock Exchange supplied by NYSE Technologies
<b>White certificates</b>	Certificates of origin of energy efficiency
<b>Velocity</b>	a measure of liquidity of trade in stocks equal to turnover in a period to average capitalisation at the beginning and at the end of the period

## IR events

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### ♦ 3-4 September 2020

Investor's Day: CEE Financials, PKO BP

### ♦ 20-24 September 2020

25th Annual Financials CEO Conference, Bofa

### ♦ 1-2 October 2020

European Financials Conference, mBank, Warsaw

### ♦ 5 November 2020

Publication of the consolidated interim report of GPW Group for Q3 2020

### ♦ 9 -10 November 2020

Goldman Sachs Goldman Sachs 12th Annual CEEMEA One-on-One Conference

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