



**IGU**

INTERNATIONAL GAS UNION  
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# **Wholesale Gas Price Survey**

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**2021 Key Findings  
Summary**

## 2021 WGP Key Findings Summary

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The IGU launched wholesale price surveys in 2005. These reports provide a unique global database on the evolution of gas markets, changes in gas price formation mechanisms, and wholesale gas prices. The IGU 2021 Wholesale Gas Price Survey represents data from 94 national-level gas markets, covering 98% of total world natural gas consumption. This is a summary of its key findings.

### TYPES OF PRICE FORMATION MECHANISMS

OPE	Oil Price Escalation
GOG	Gas-on-Gas Competition
BIM	Bilateral Monopoly
NET	Netback from Final Product
RCS	Regulation: Cost of Service
RSP	Regulation: Social and Political
RBC	Regulation: Below Cost
NP	No Price
NK	Not Known

**Domestic production** supplied some 72% of total gas that the world consumed in 2020 – around 2,830 bcm, and the remaining 28% came from **imports**, versus 73% and 27% respectively in the previous year. **Pipeline imports** in 2020 accounted for 17% of total world consumption – around 655 bcm, and **LNG imports** in 2020 accounted for some 12% of total consumption – around 458 bcm<sup>1</sup>. The impact of Covid-19 on the LNG market, while reducing LNG demand does not appear to have slowed the rise in **spot LNG imports**.

Global gas markets also saw a continuation of the strong **trend toward competitive gas-on-gas pricing** in 2020, as the share of gas-on-gas competition (GOG) reached 49.3% – one percentage point more than the year before. The rise in GOG was largely driven by a significant shift in LNG imports to GOG and away from oil price escalation (OPE), thanks to another sharp rise in spot LNG cargoes in 2020. The **regulated categories** – RCS<sup>2</sup>, RSP<sup>3</sup> and RBC<sup>4</sup> – account in total for some 28%, around 1,116 bcm, of total world consumption. RCS remains principally in the Former Soviet Union, Asia and Asia Pacific, RSP principally in the Middle East, Former Soviet Union, Latin America and Asia Pacific, and RBC in the Former Soviet Union, Africa, Latin America and the Middle East.

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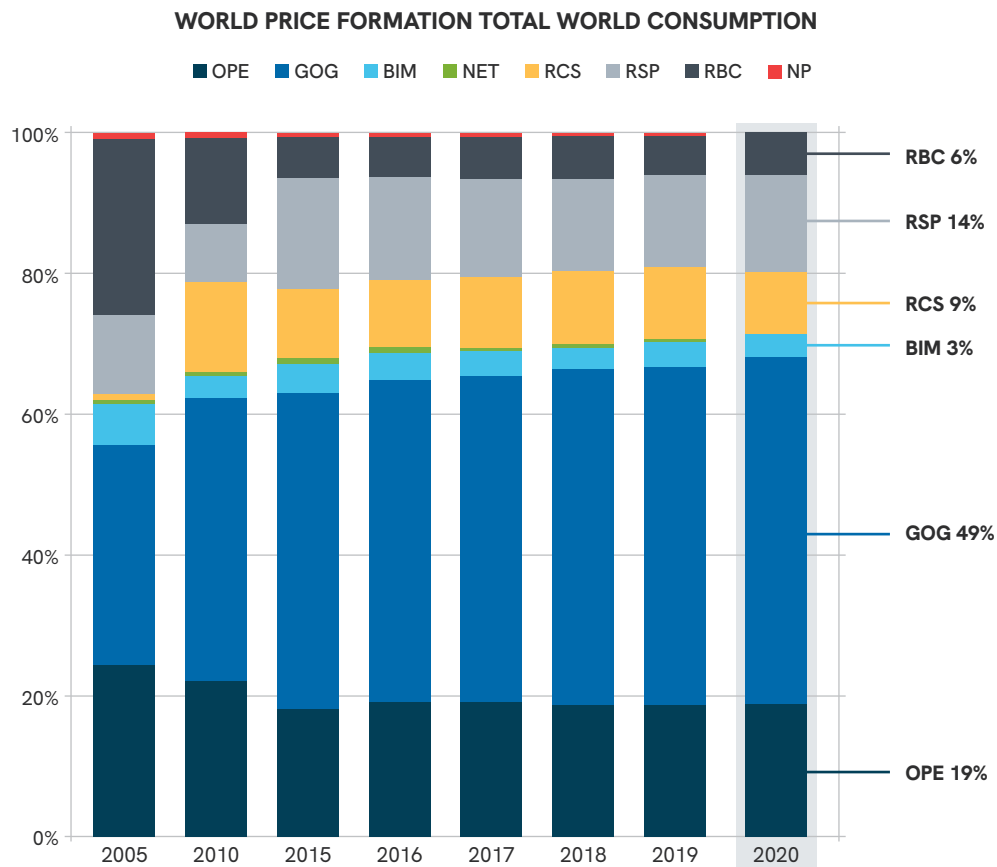
<sup>1</sup> Pipeline imports and LNG imports are net figures as some of the gross imports will be re-exported in some markets.

<sup>2</sup> Regulated Cost of Service

<sup>3</sup> Regulated Social and Political

<sup>4</sup> Regulated Below Cost

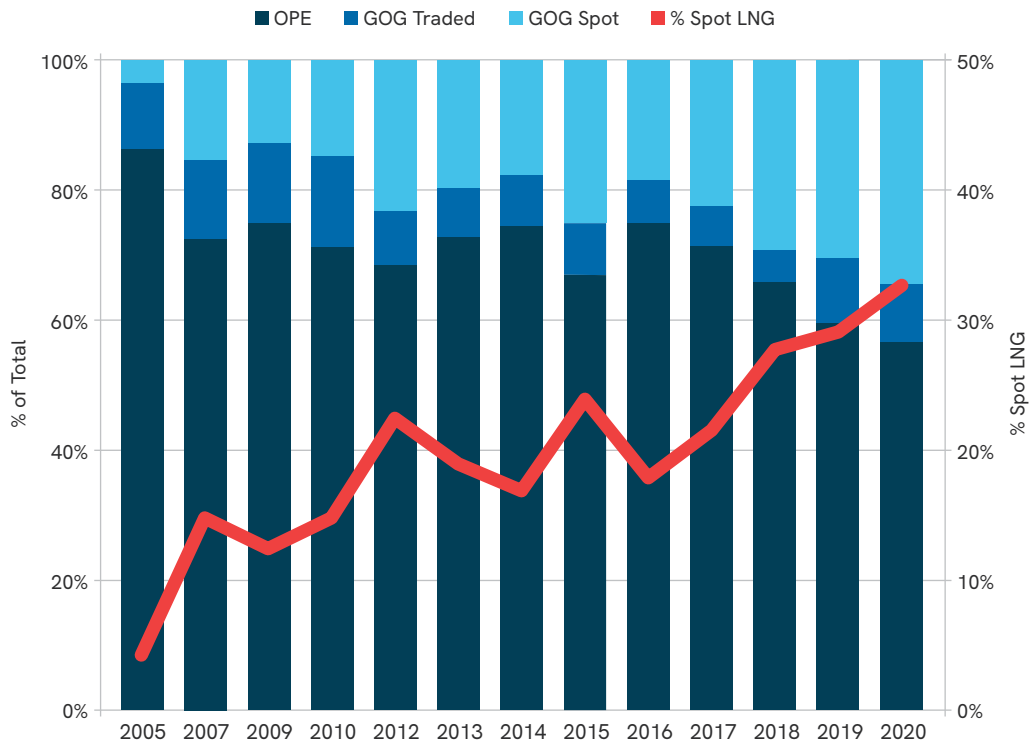
Between 2005 to 2020, the GOG share of global gas consumption rose from 31.3% to 49.3%, with the OPE share falling from 24.4% to 18.6%. At the same time, there was switching from regulated pricing to OPE in some markets, which left the overall OPE share unchanged.



**LNG trade** continued to demonstrate greater flexibility and move further in the direction of greater gas-on-gas pricing. The total GOG pricing share of LNG imports nearly doubled in the last five years, having risen from 25% in 2016, to 44% in 2020. Spot LNG<sup>5</sup> cargoes are heavily concentrated in the Asian markets. **China was the largest spot LNG market in 2020**, closely followed by Japan, with India in third place, Turkey fourth and South Korea fifth. Italy, Pakistan, Chinese Taipei and Spain also imported significant spot LNG cargoes, and these nine markets made up 75% of all spot LNG cargoes in 2020, which by then were over one-third of total LNG imports.

<sup>5</sup> The definition of Spot LNG in this survey is not the same as the GIIGNL definition of spot and short-term contracts. In this survey, spot LNG excludes the short-term contracts element i.e. contracts over one year but less than four years, of the GIIGNL reports. In this edition, we have attempted to split the LNG being imported into the trading markets of North America and Northwest Europe, between Spot and Traded volumes, to avoid the categorisation of some spot volumes as traded volumes. In addition, in some countries we have also attempted to categorise US cargoes, which are spot and those under contracts with Henry Hub linked pricing, which would be included in the "Traded" category. These changes were also carried back to the results of previous surveys.

### WORLD PRICE FORMATION 2005 TO 2020 – SPOT LNG IMPORTS



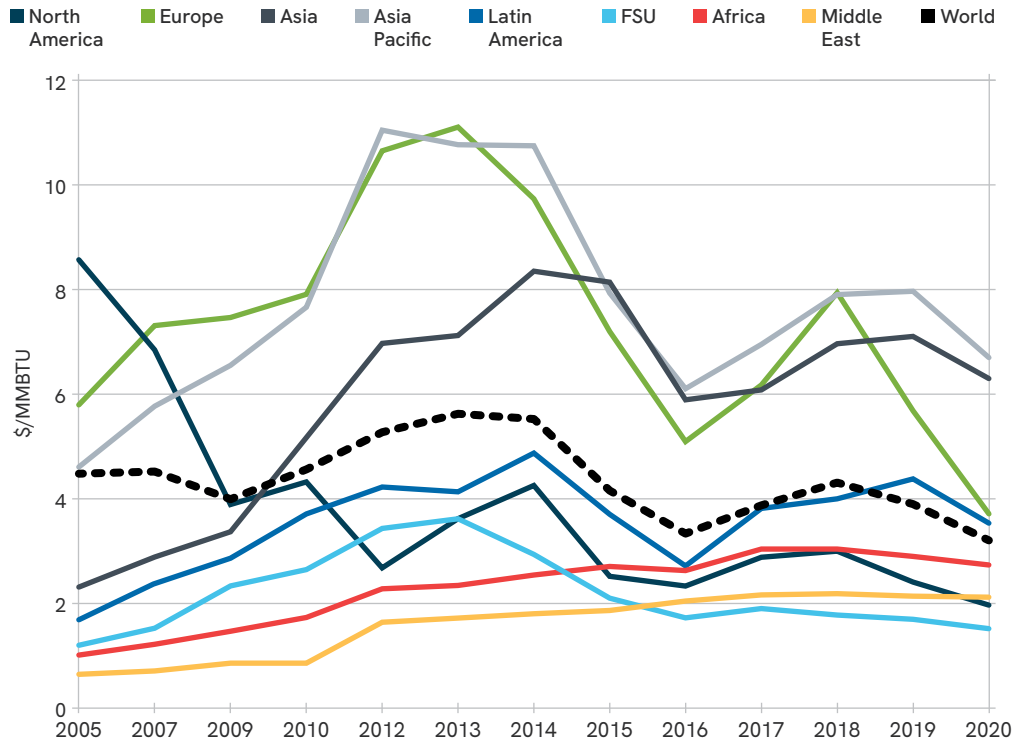
**LNG imports** were split between 56% OPE and 44% GOG in 2020. **OPE-priced LNG** (at some 258 bcm) has been mostly Asia Pacific – Japan, Korea and Chinese Taipei, followed by Asia – China, India and Pakistan – and Europe – mainly Spain, Turkey, France, Portugal and Italy.

**In pipeline imports**, GOG represents 65% of pricing, OPE is around 25% of all pipeline imports, BIM<sup>6</sup> has the balance of 10%. The latter is mainly in the Former Soviet Union and the Middle East. 81% of pipeline imports into Europe were GOG in 2020, and the remaining 19% OPE. This is in marked contrast to 2005 when it was 91% OPE and only 7% GOG.

**Global wholesale prices** declined again overall in 2020, with an already abundantly supplied market being further hit by the pandemic, leading to very sharp falls in spot prices around the world, to an average of \$3.24 per MMBTU – the lowest global average in all the surveys since 2005. GOG prices fell sharply in 2019 as spot prices collapsed to their lowest levels since 2016, followed by another – Covid-induced-fall in 2020 to \$2.80 – the lowest level ever recorded. In contrast OPE prices rose significantly from \$5.47 per MMBTU in 2005 to \$7.40 in 2019, and reached \$6.12 in 2020.

<sup>1</sup> Bilateral Monopoly

### WHOLESALE PRICE LEVELS 2005 TO 2020 BY REGION



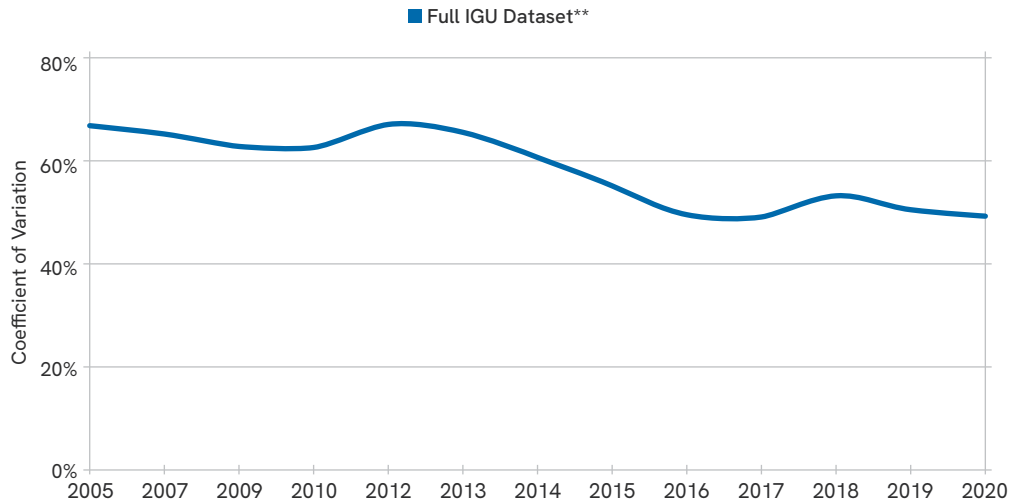
The **Asia price** divergence, from the rest of the world, was more pronounced in 2020. Since 2015, prices in Asia, Asia Pacific and Europe broadly tracked each other, but this link was broken in 2019 as spot prices collapsed, which impacted the European market much more than Asia and Asia Pacific, where prices barely changed from 2018 levels. These differences widened further in 2020 as spot prices dropped further. Asia Pacific had prices averaging \$6.71 and Asia had average prices at \$6.34. OPE is the primary pricing mechanism in both regions.

**European prices** are now much closer to the World average than they have ever been, breaking decisively from Asia and Asia Pacific prices. **Prices in North America** in 2020 were below the average for Latin America and even Africa. Prices in the Former Soviet Union, in \$ terms, continued to be lower than in the Middle East.

Nevertheless, the overall picture shows that global gas prices have been on a consistent **convergence path** since 2005, indicating further globalisation of the gas markets<sup>7</sup>.

<sup>7</sup> There was a one-time divergence in 2018, before resuming the trend in convergence

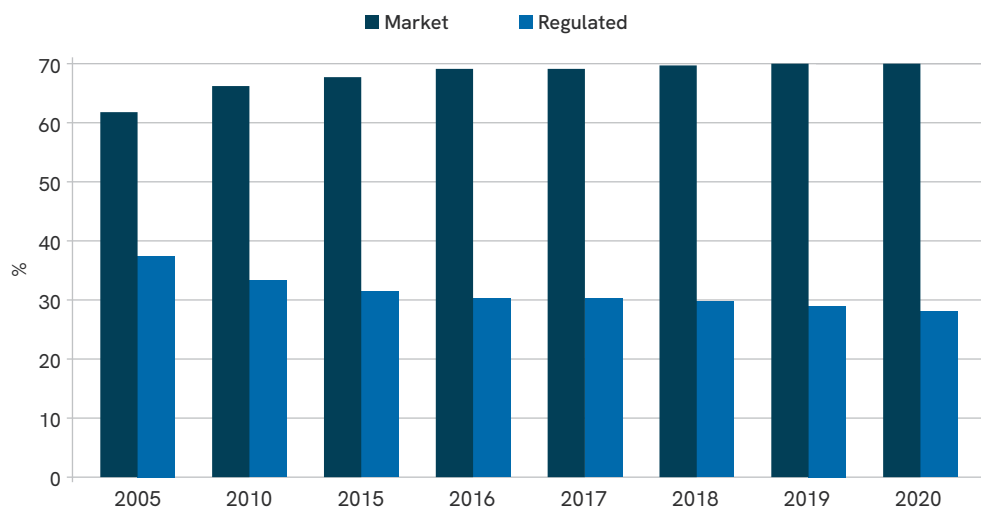
### GLOBAL GAS PRICE CONVERGENCE



Since the IGU started collecting data in 2005, there has been significant evolution in the global gas markets, with a **general trend toward more market-based pricing**. The total of “market” pricing rose from 62% in 2005 to 71.5% in 2020, mirrored by a decline in “regulated” pricing, from 38% in 2005 to 28.5% in 2019. The Trading category is by far the largest in the market pricing– dominated by North America and increasingly Europe – and has increased from 30% of total world consumption in 2005 to 38% in 2020. The Bilateral category has risen from 1.1% to 7.2%, while the Spot LNG category has risen from 0.2% to 4%.

Within the **regulated categories**, the main changes occurred between 2005 and 2012, with a move away from subsidised pricing or regulated below cost (RBC) to higher prices, but still regulated. In 2016, the switch away from regulated pricing mechanisms towards more “market-based” pricing mechanisms, such as GOG and OPE has slowed.

### MARKET AND REGULATED PRICING 2005 TO 2020





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