



COMMODITIES DEMYSTIFIED

A GUIDE TO TRADING AND
THE GLOBAL SUPPLY CHAIN

This outline, summary presentation is based on the new Trafigura publication “Commodities demystified: a guide to trading and the global supply chain”.

For more detail and to download the guide, go to

www.commoditiesdemystified.info

-  Fundamentals of Commodities p.5
-  How Commodity Trading Works p.14
-  Commodity Trading and Financial Markets p.20

- ◆ Commodities trading provides vital underpinning for the global economy
- ◆ Contrary to common perceptions it is not a speculative business
- ◆ Rather it is one built on managing physical and financial logistics within a complex global supply chain
- ◆ Traders help resolve market inefficiencies by transforming commodities in space, time and form
- ◆ Trading firms take ownership of commodities from source to customer, making risk management a central core competence
- ◆ They are indifferent to commodity price levels and managing price risk is one of their key functions
- ◆ Resilience and reliability of service are fundamental

TRAFIGURA GROUP OVERVIEW



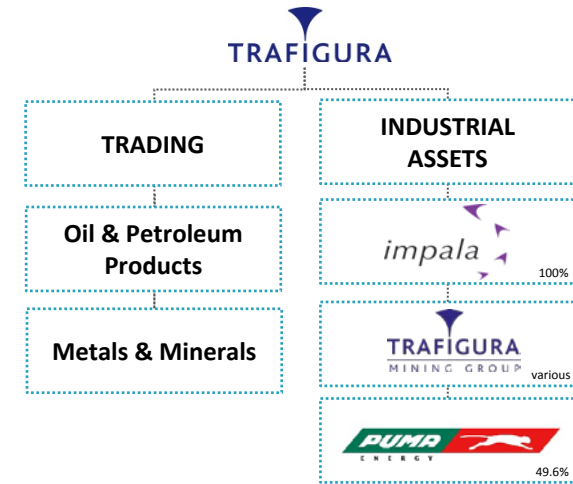
KEY HIGHLIGHTS

- ◆ Two main lines of business: physical trading and industrial assets portfolio
- ◆ Synergies between trading and the Group's industrial assets
- ◆ Strong financial performance and demonstrated robust track record through the cycle
- ◆ Highly-experienced management team
- ◆ Leading market position
 - 1st largest independent LNG trader
 - 2nd largest independent trader in non-ferrous commodities ⁽¹⁾
 - 2nd largest independent trader of crude and refined products ⁽²⁾

(1) Market share in "tradable market" (international traded market where independent traders such as Trafigura operate) for some metals and concentrates

(2) Market share in "tradable market" in crude oil and refined products

COMPLEMENTARY BUSINESS LINES



FY2018 KEY FIGURES

\$180.7bn

Group revenue

275.2mmt

Oil and Petroleum Products
total volume traded

4,316

Employees

\$53.8bn

Total assets

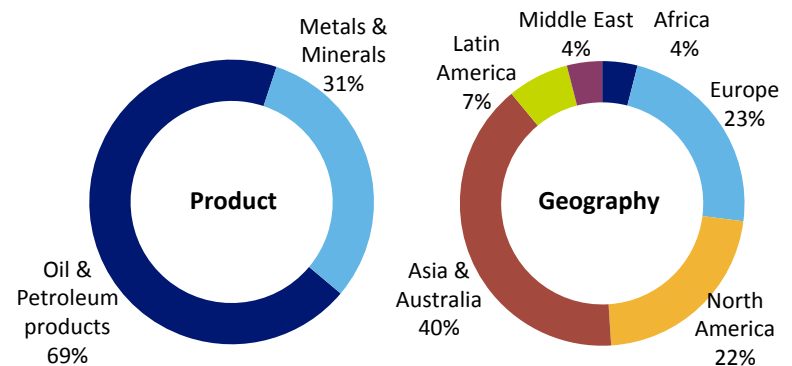
18.5mmt

Metals and Minerals
total volume traded

66

Offices in
38 countries

FY2018 REVENUE BREAKDOWN



FUNDAMENTALS OF COMMODITIES

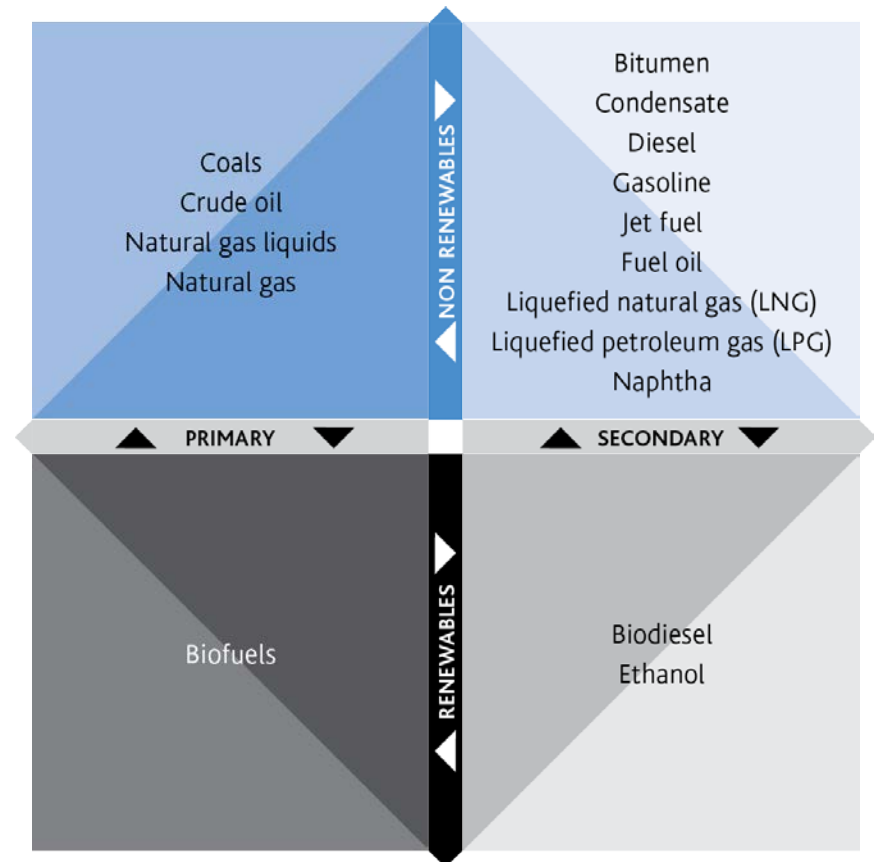


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[/Fundamentals-of-commodities](#)

WHAT ARE PHYSICAL COMMODITIES?

- Products created by natural forces
- Delivered globally, often by sea and usually in bulk
- Exchangeable but non-standard
- Primary (either extracted or captured directly from natural resources) and secondary (produced from primary commodities to satisfy specific market needs) forms

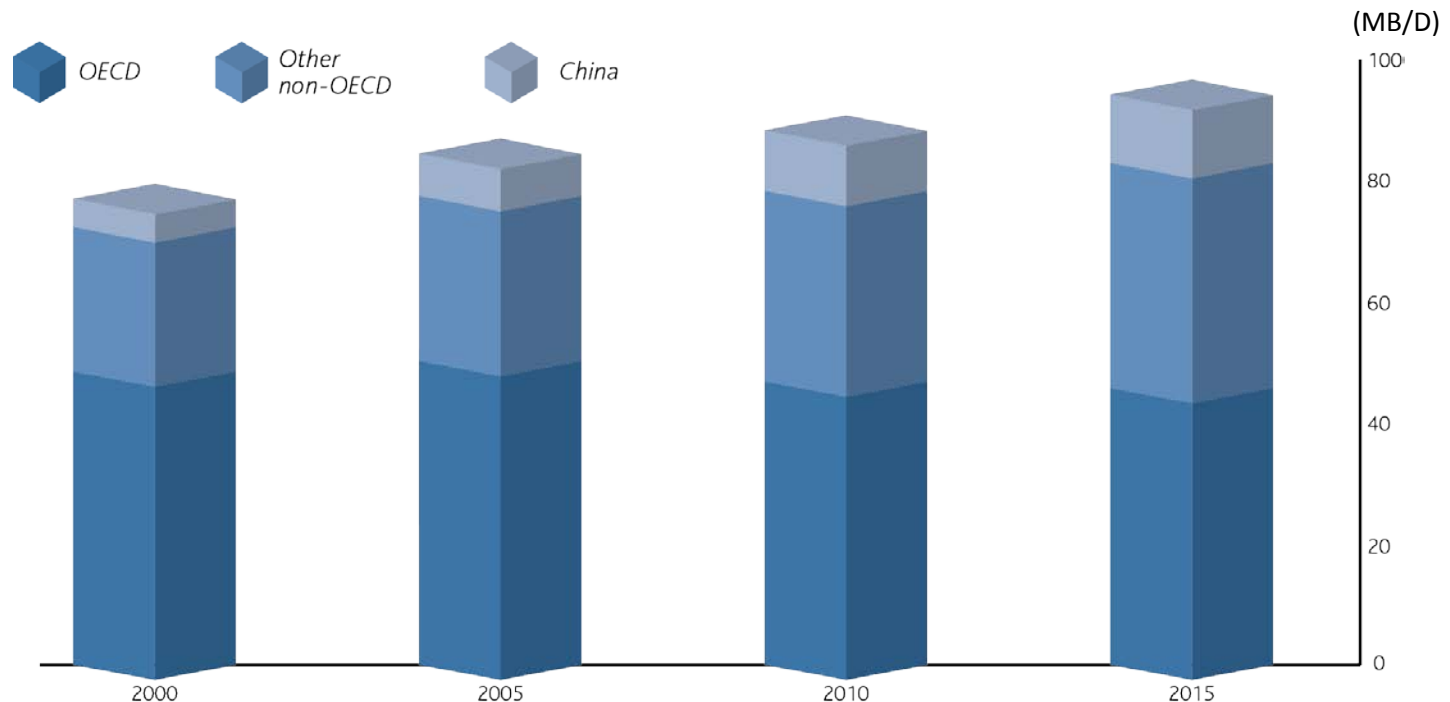
COMMODITIES FOR HEAT, TRANSPORT, CHEMICAL MANUFACTURING AND ELECTRICITY



DRIVERS OF GROWTH: ENERGY TRADING

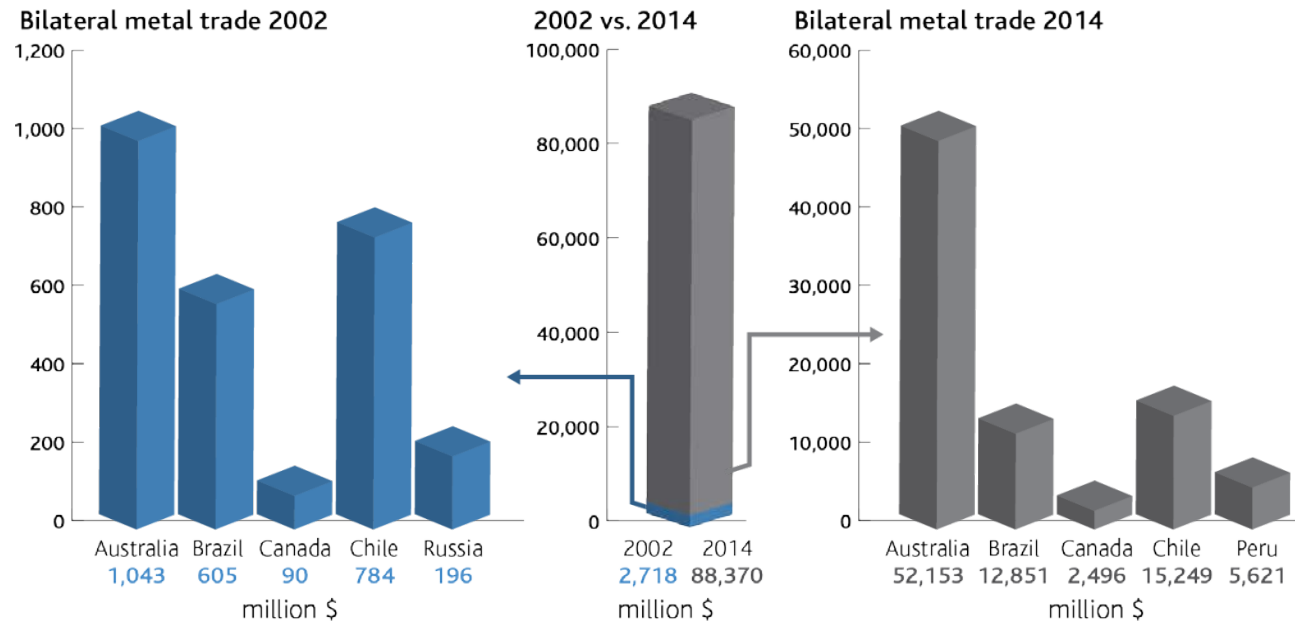
- Disintermediation of oil majors
- New sources of production
- New patterns of demand

GLOBAL OIL DEMAND GROWTH IS DRIVEN BY NON-OECD ECONOMIES



- ◆ Explosion in Chinese demand for metals and minerals
- ◆ Shift of destination countries from West to East
- ◆ Supply diversification spawned by commodities super-cycle
- ◆ Shift of source countries from North to South

EXPONENTIAL GROWTH IN CHINA'S BILATERAL METAL TRADE IMPORTS



Source: IMF World Economic Outlook, October 2015, p.47

*The metals included are aluminium, copper, iron ore, lead, nickel, tin, zinc and uranium

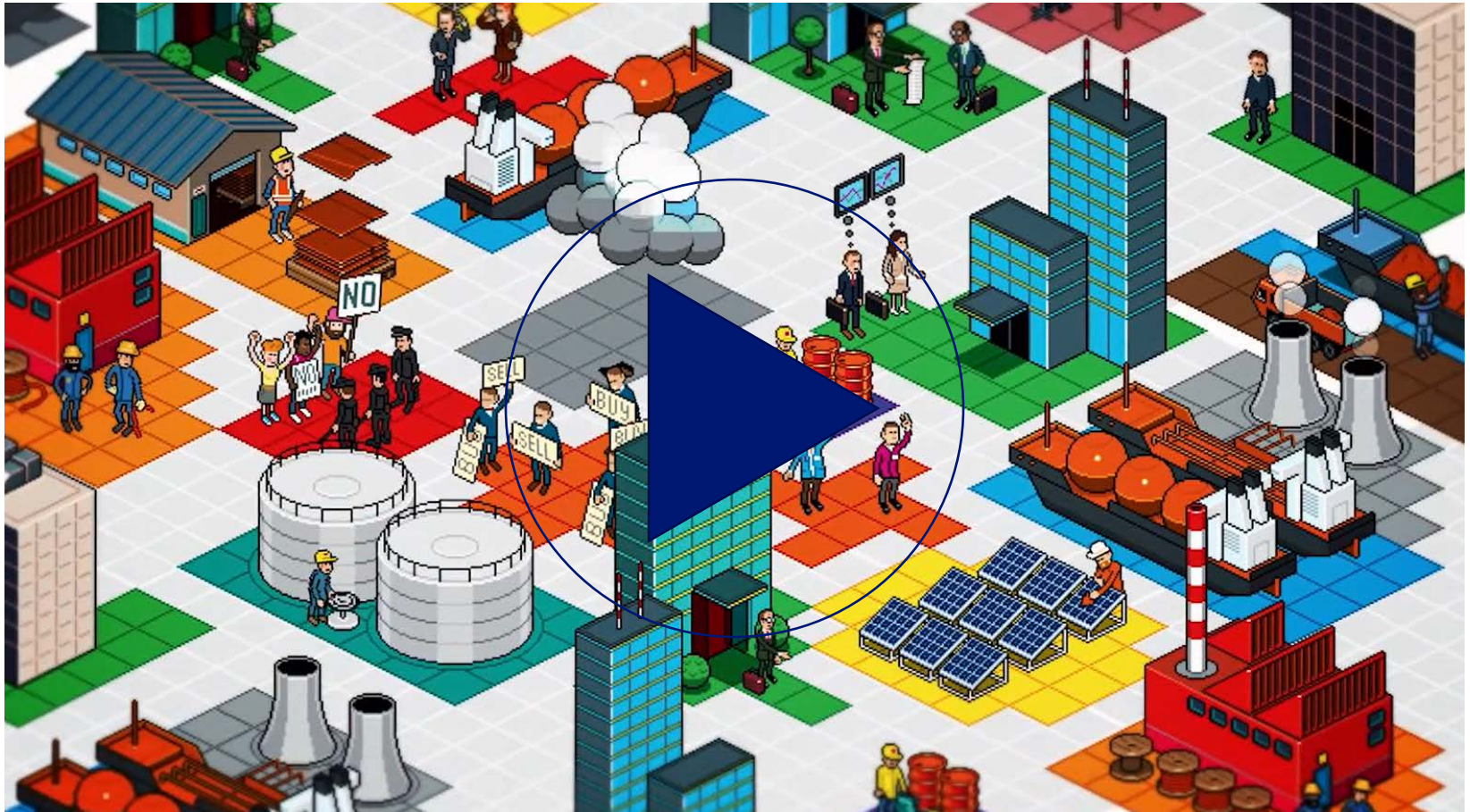
CHANGING DYNAMICS OF TRADE

In metals and minerals as well as in energy, institutionally agreed approaches to commodity pricing have been supplanted by market-led mechanisms

VERTICALLY INTEGRATED INSTITUTIONS	▶	NETWORKED SPECIALIST OPERATORS
LONG-TERM PRICING	▶	SPOT MARKETS
FEWER PRODUCERS / FIXED GEOGRAPHIES	▶	MANY PRODUCERS / MULTIPLE GEOGRAPHIES
STABLE / INFLEXIBLE	▶	VOLATILE / FLEXIBLE
LIMITED TRADING	▶	ACTIVELY TRADED
PRICE RISKS NOT MANAGED	▶	ACTIVE RISK MANAGEMENT

- Mega-mergers at the turn of the century consolidated trading operations. ExxonMobil for instance now only markets its own oil, until the late 1990s it was a very active trading firm.
- Vertical disintegration has continued. Higher oil prices encouraged the majors to sell off refineries and non-core downstream distribution to focus more on highly capital intensive and specialised upstream exploration and production.
- Some commodity trading houses seized the opportunity to buy refineries, around which to build their trading business.
- Independent, specialist operators became increasingly influential with the collapse of the old, vertically integrated, supply chain model. A diffuse, actively traded market created more openings for independent commodity traders and shippers.

OIL TRADING: A MULTIDIMENSIONAL DISCIPLINE

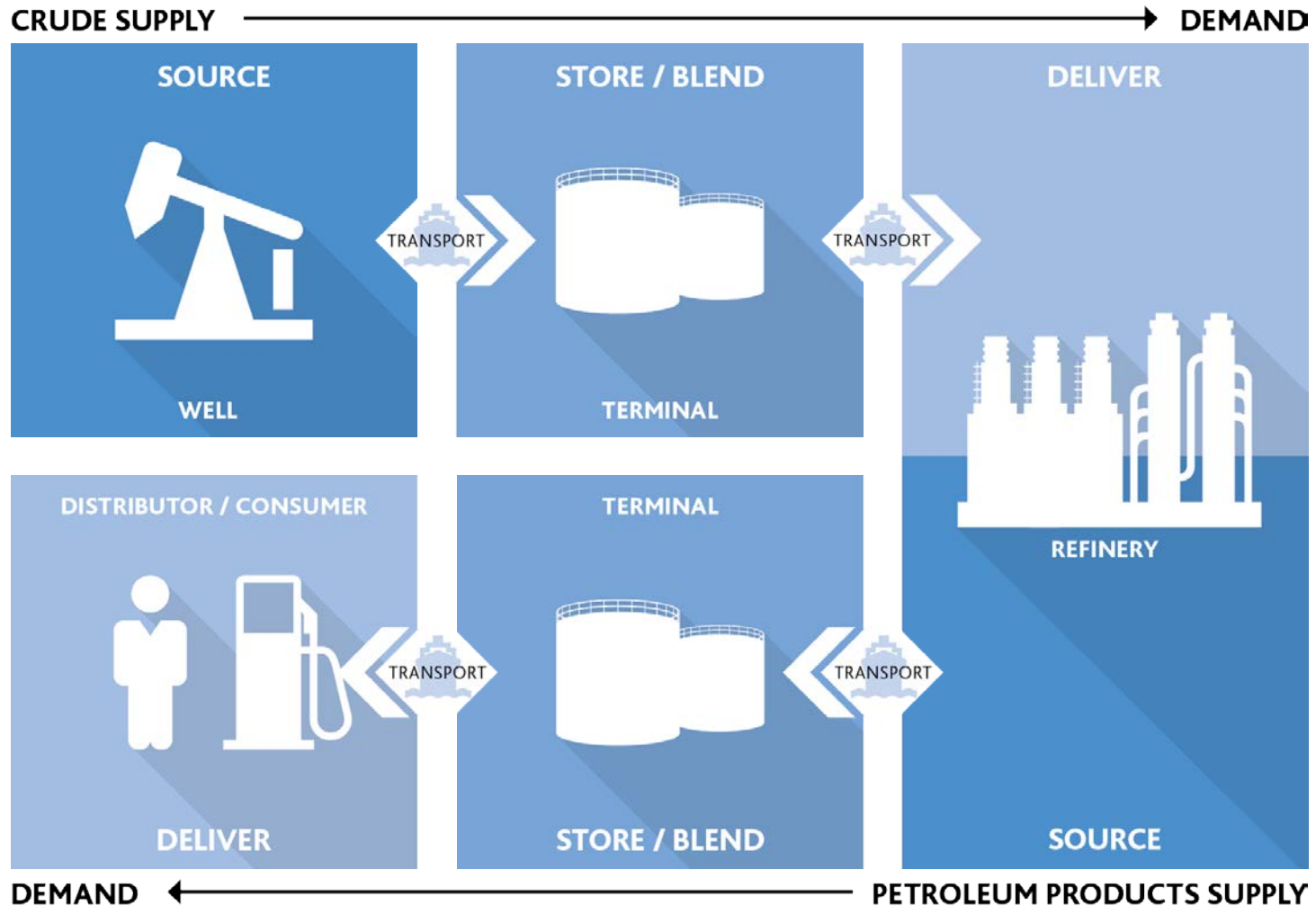


CLICK ON THE ICONS TO WATCH THE ANIMATION
DEMYSTIFYING THE ROLE OF COMMODITY TRADERS

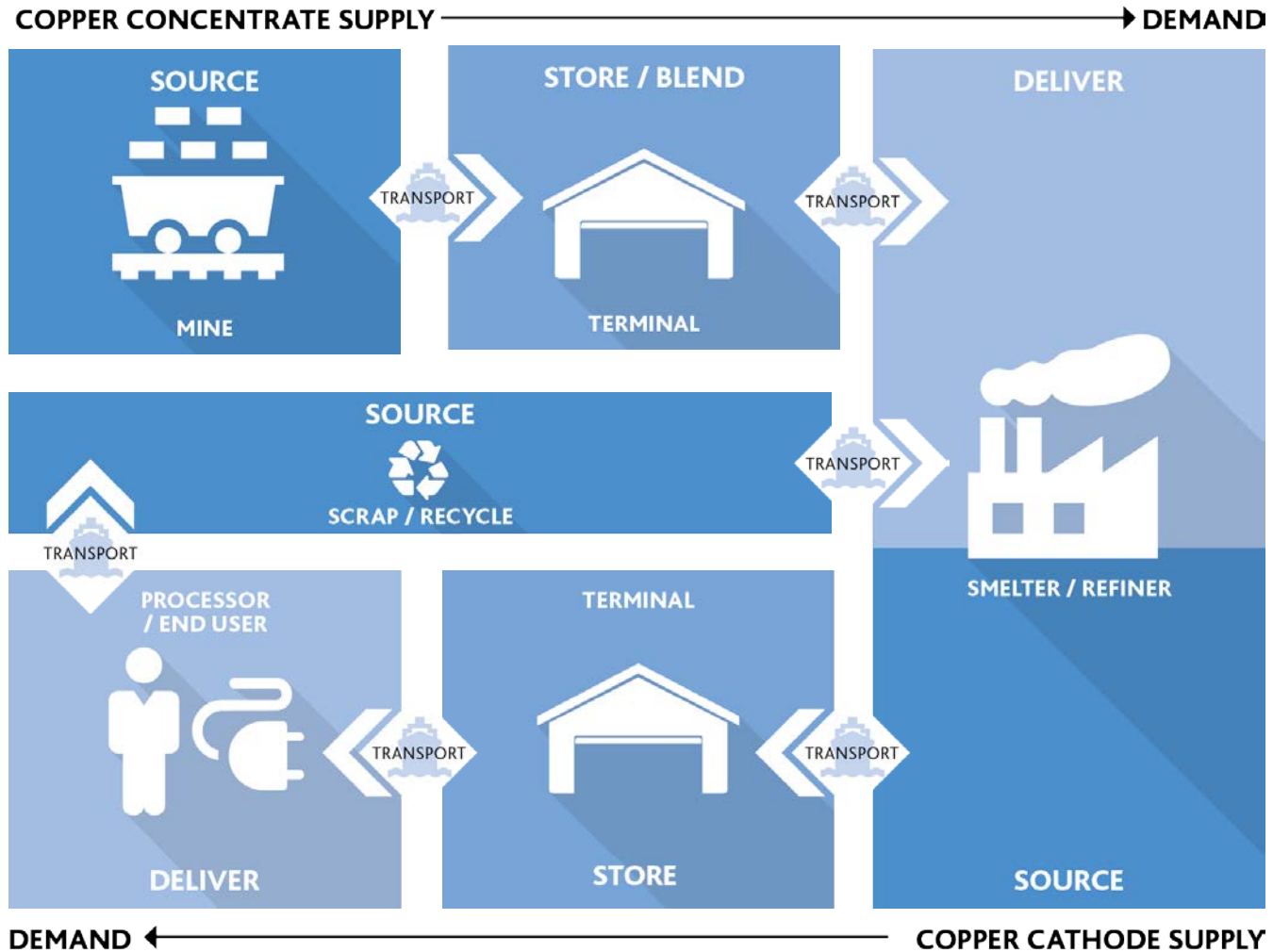


TRADERS AND THE SUPPLY CHAIN

Traders act as conduits between producers and consumers in both primary and secondary commodity markets

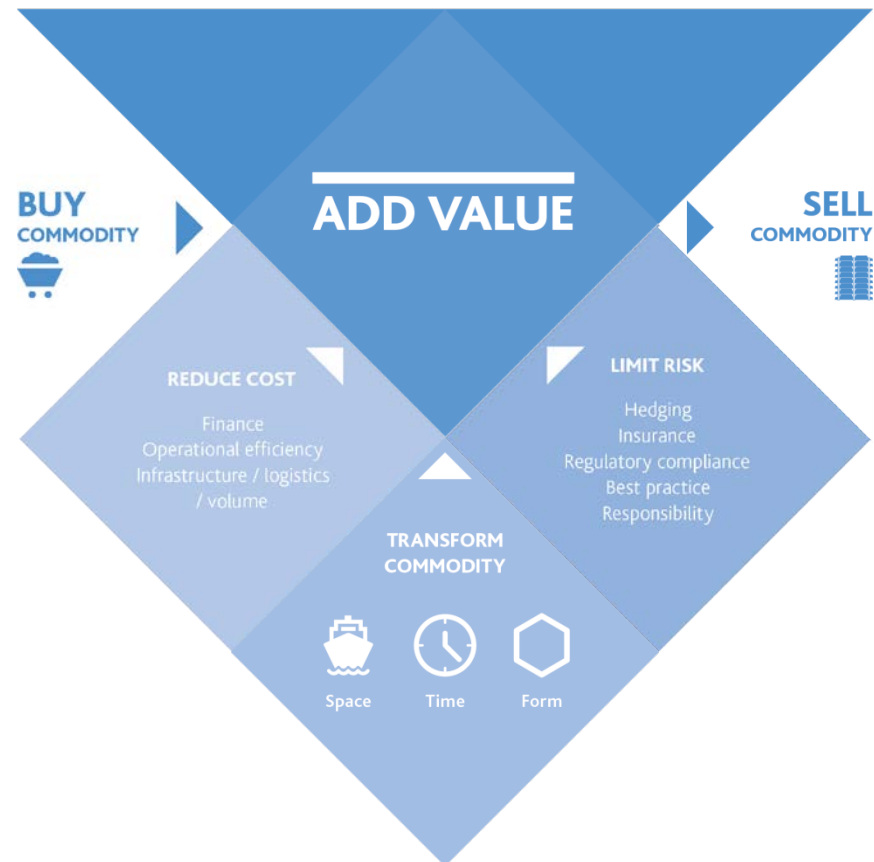


COPPER CONCENTRATE SUPPLY CHAIN



A LOGISTICS BUSINESS BASED ON ARBITRAGE

- Business model based on identifying and eliminating market inefficiencies
- Pricing based on “when, where, what”
- Arbitrage opportunities arise when value of transformation exceeds the cost
- Financial markets used to fund operations and manage price risk



HOW COMMODITY TRADING WORKS



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/How-commodity-trading-works](https://commoditiesdemystified.info/How-commodity-trading-works)

- Arbitrage is the process of identifying and acting on market inefficiencies.
- These are reflected in price differentials between untransformed and transformed commodities.
- Where there is market mispricing – where differentials are larger than justified by fundamentals – traders act on these price signals to direct commodities to where they are most valued.
- This is the role they play in **optimising global trade flows**.



Transformation in space:
geographic arbitrage



Transformation in time:
time arbitrage



Transformation in form:
technical arbitrage

OPTIMISING TRADE FLOWS



In this example, Trafigura is sourcing copper concentrates via an offtake agreement with a Peruvian mine and is delivering copper concentrates to a Finnish smelter.

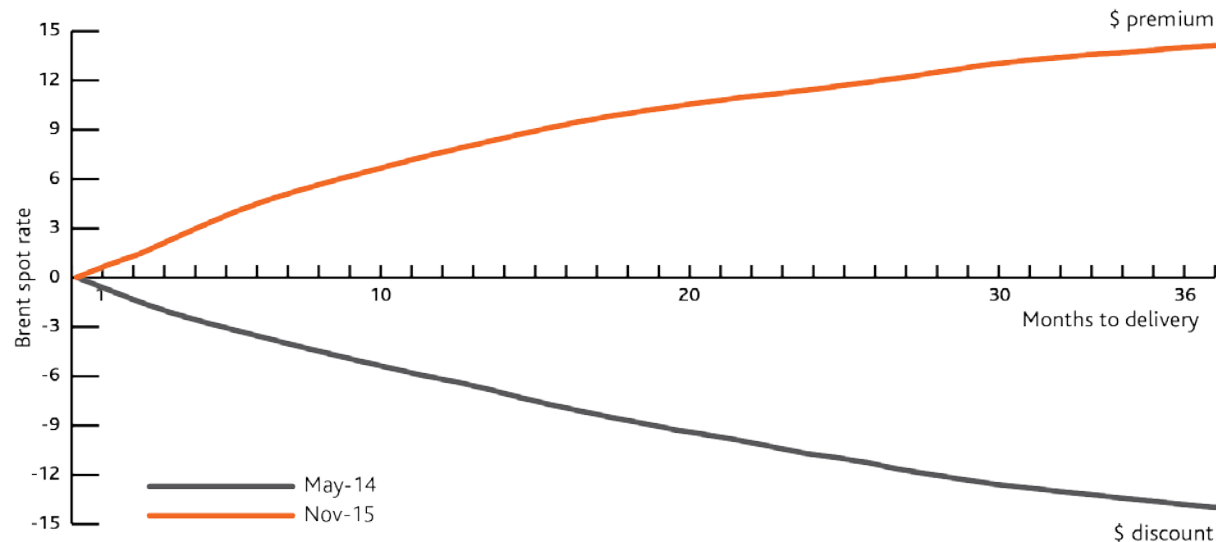
But the company uses multiple arbitrages based on its trading book to find the most efficient way of fulfilling its commitments.



HOW TRADERS ADD VALUE: STORAGE

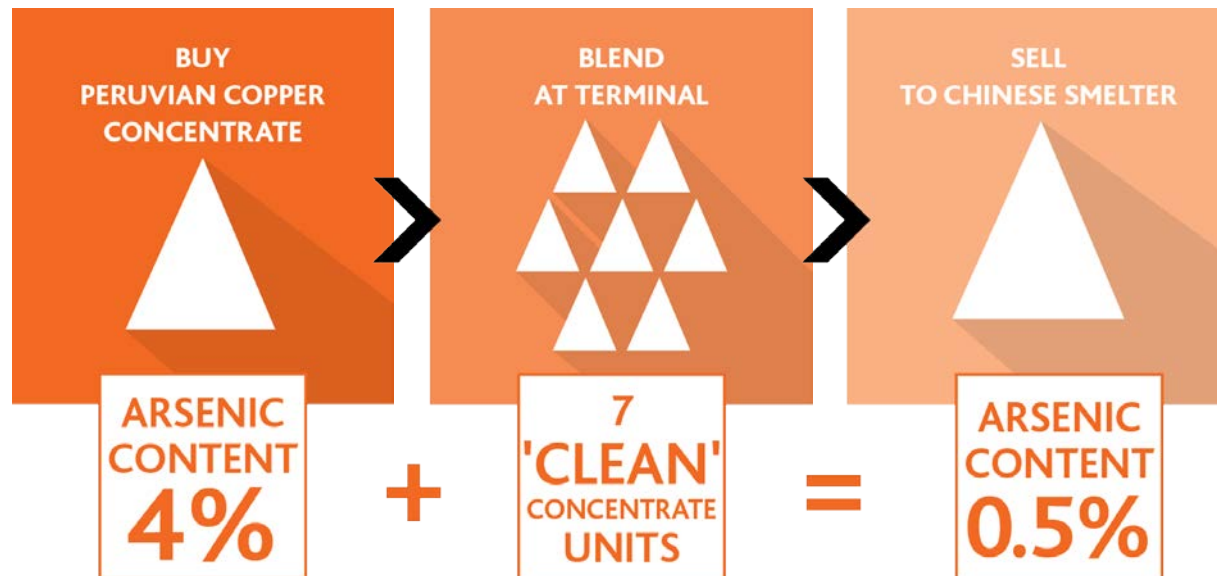
- Commodity markets are characterised by volatility and supply and demand shocks
- Trading firms play a vital role in addressing temporary market imbalances by storing surplus commodities
- They own and control midstream infrastructure and maintain large inventories at strategic locations
- They earn profits over time by reducing stocks when there is excess demand and building inventory when there is excess supply

BRENT FUTURES CURVES

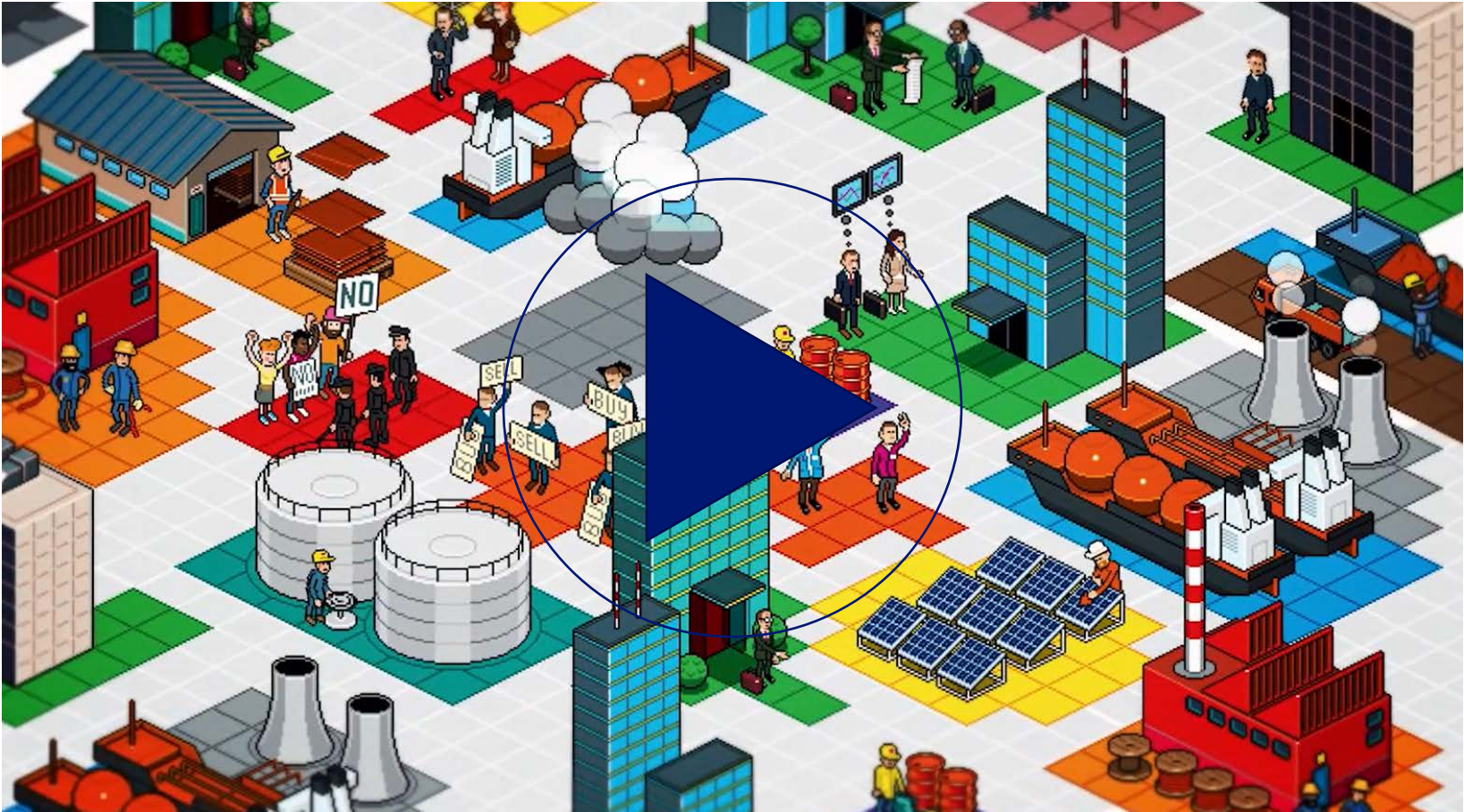


HOW TRADERS ADD VALUE: BLENDING

- Blending is often the cheapest and most efficient way to bridge the gap between demand and supply
- In metals, materials from two or more mines can be combined to create commodities to spec
- Blending can secure better prices by reducing impurities
- In oil, blending is needed to handle the wide diversity of crude grades and refined product specifications



THE ROLE OF OPERATIONS



CLICK ON THE ICONS TO WATCH THE ANIMATION
DEMYSIFYING THE ROLE OF THE OPERATIONS TEAM WITHIN A COMMODITY TRADING FIRM



COMMODITY TRADING AND FINANCIAL MARKETS



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financial-markets](http://commoditiesdemystified.info/Commodity-trading-and-financial-markets)

- Trading is a high-volume, low-margin business
- Firms need to operate flexibly at scale
- This requires them to be able to mobilise significant financial resources to finance working capital and manage price risk

TRAFIGURA 2018 KEY FIGURES



275.2mmt

Oil and Petroleum Products
total volume traded



\$58bn+

Financial lines
available to Trafigura



\$180.7bn

Group revenue



95.9mmt

Metals and Minerals
total volume traded



\$53.8bn

Total assets

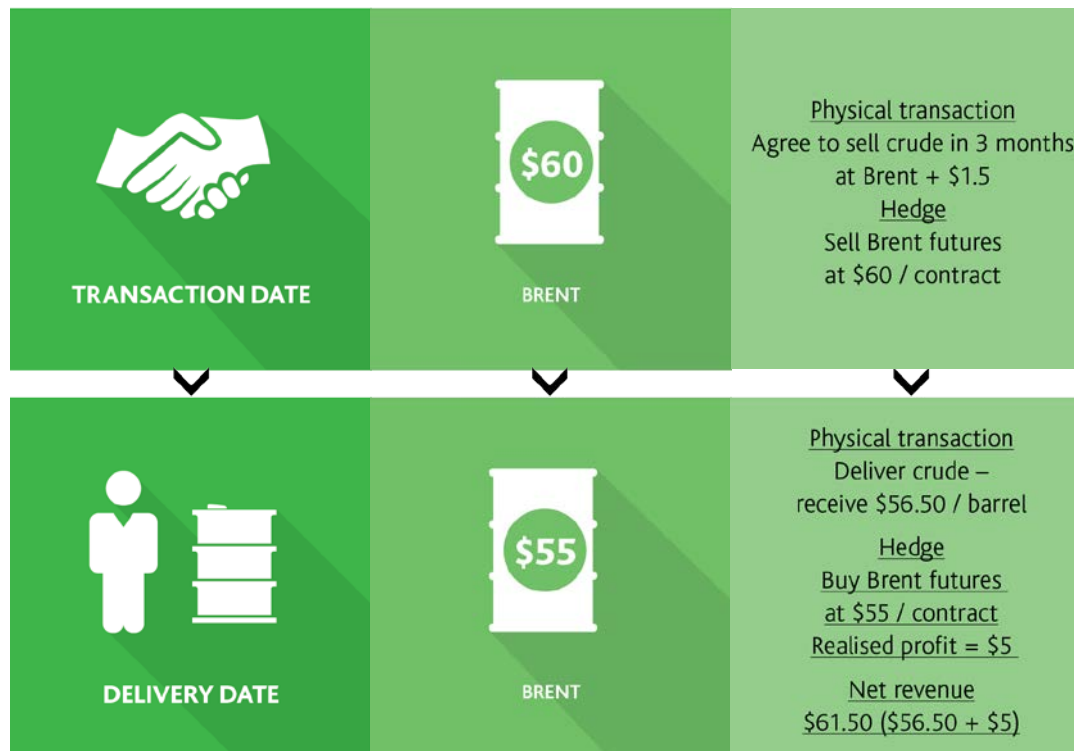


1.3%

Gross profit margin

MANAGING PRICE RISK

- Hedging is fundamental to commodity trading
- Trading firms systematically eliminate price exposure using futures contracts
- They are left with more manageable “basis risks” reflecting difference between specific transaction price and hedging instrument



- ◆ Commodity trading firms play a vital role in organising an efficient, market-based global supply chain for essential raw materials.
- ◆ A more integrated, complex and volatile global economy makes managing risk and large-scale logistics all the more necessary.
- ◆ These are specialist skills which call for companies with resilient and responsive business models that can readily access:
 - liquid financing and financial markets
 - global infrastructure
 - extensive networks of counter-parties
- ◆ Commodity markets are ever-changing. But the core requirements of the physical trading business will stay the same.



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