



Market view

Capital Markets Day
November 22nd 2012

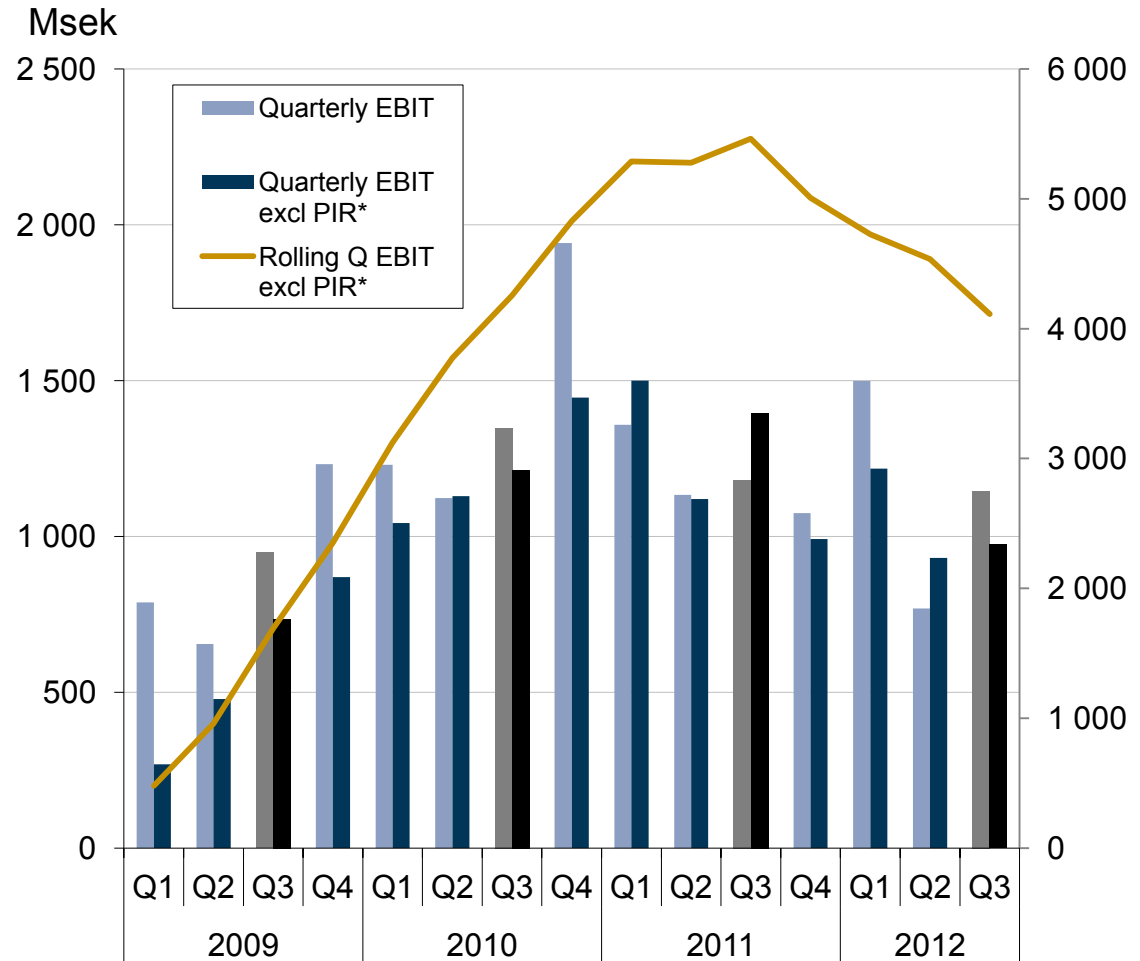
Lennart Evrell
President & CEO

BOLIDEN

Q3 Summary

- Market uncertainty
- Revenues 9,123 (10,553) MSEK
- EBIT ex PIR* 974 (1,397) MSEK
 - EBIT 1,146 (1,180) MSEK
- Free Cash Flow 310 (820) MSEK
- Lower head grades in zinc mines
- Cost control
- Expansion projects on plan

- Write-down -79 MSEK
- Positive end-of-period price effects

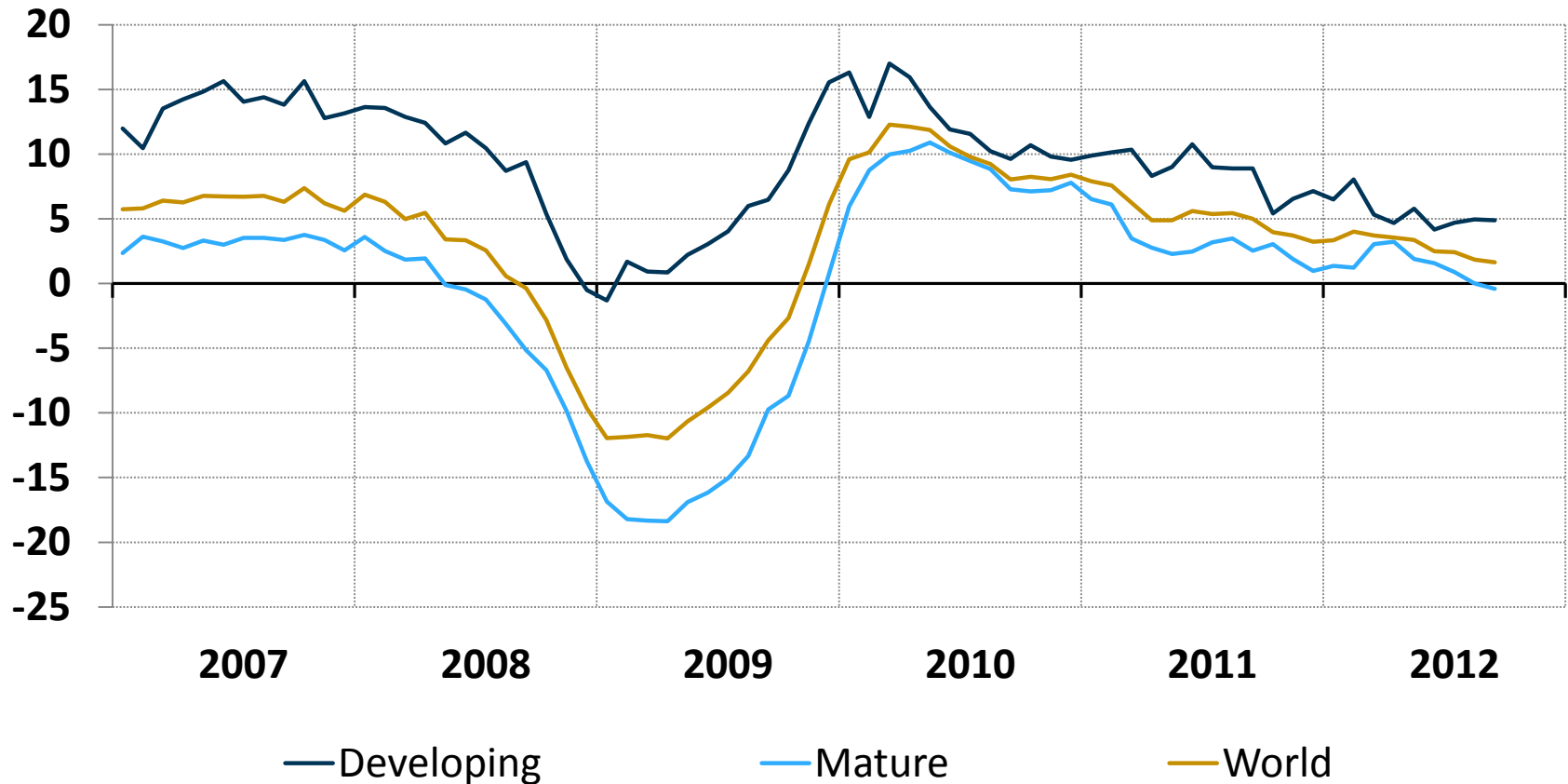


* PIR=Process Inventory Revaluation

- **Global macro**
- Base metal prices
- Financial crisis
- Electricity markets

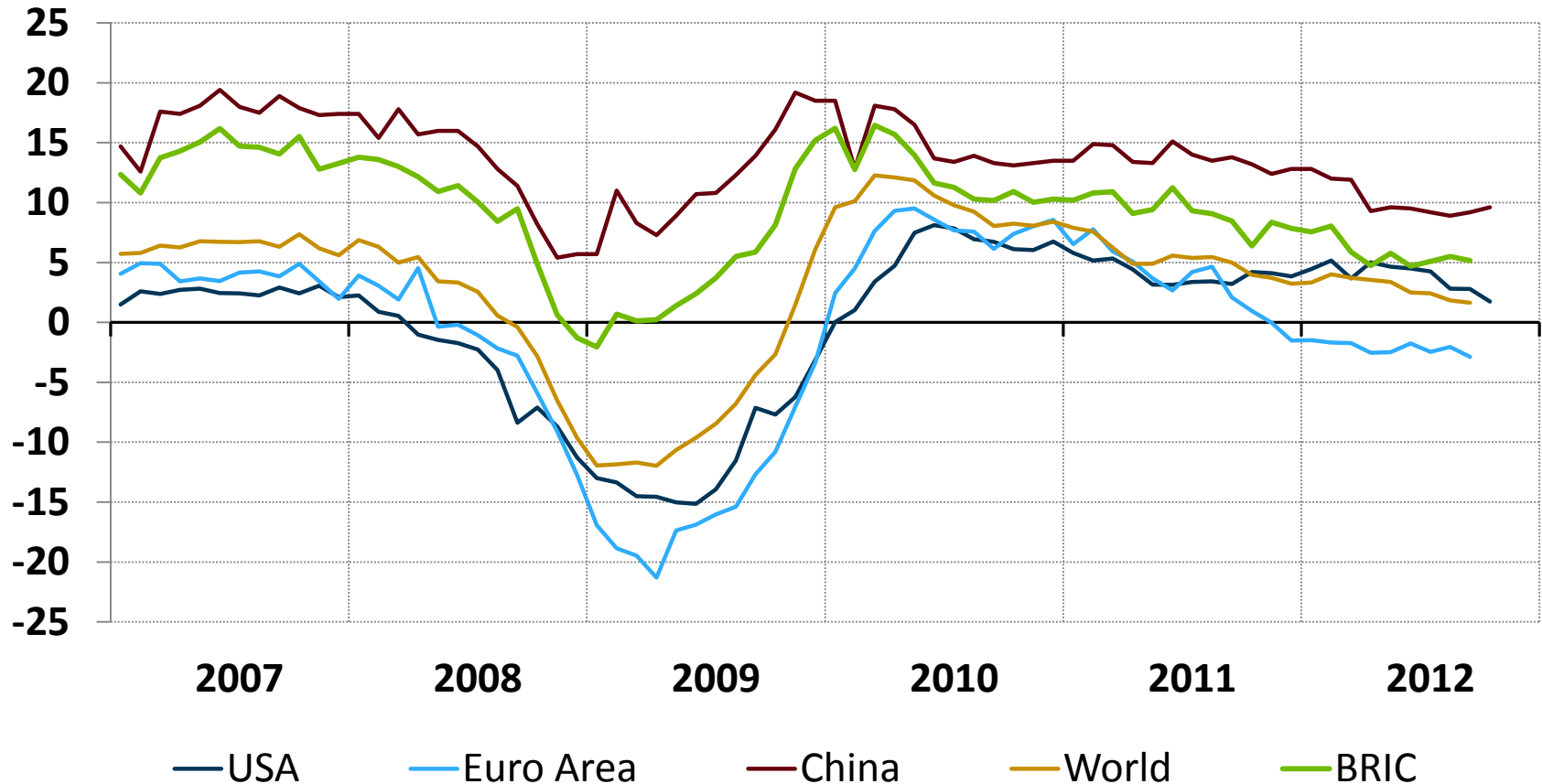
Industrial production

Year on year % (real)



Industrial production

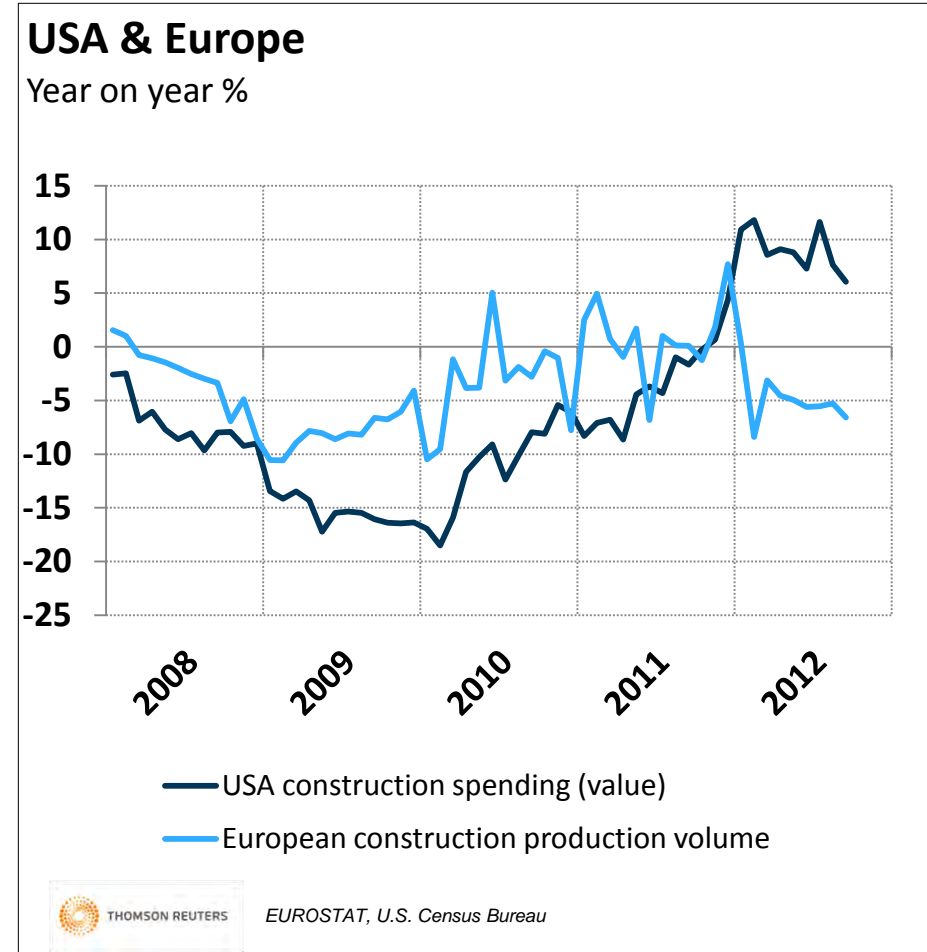
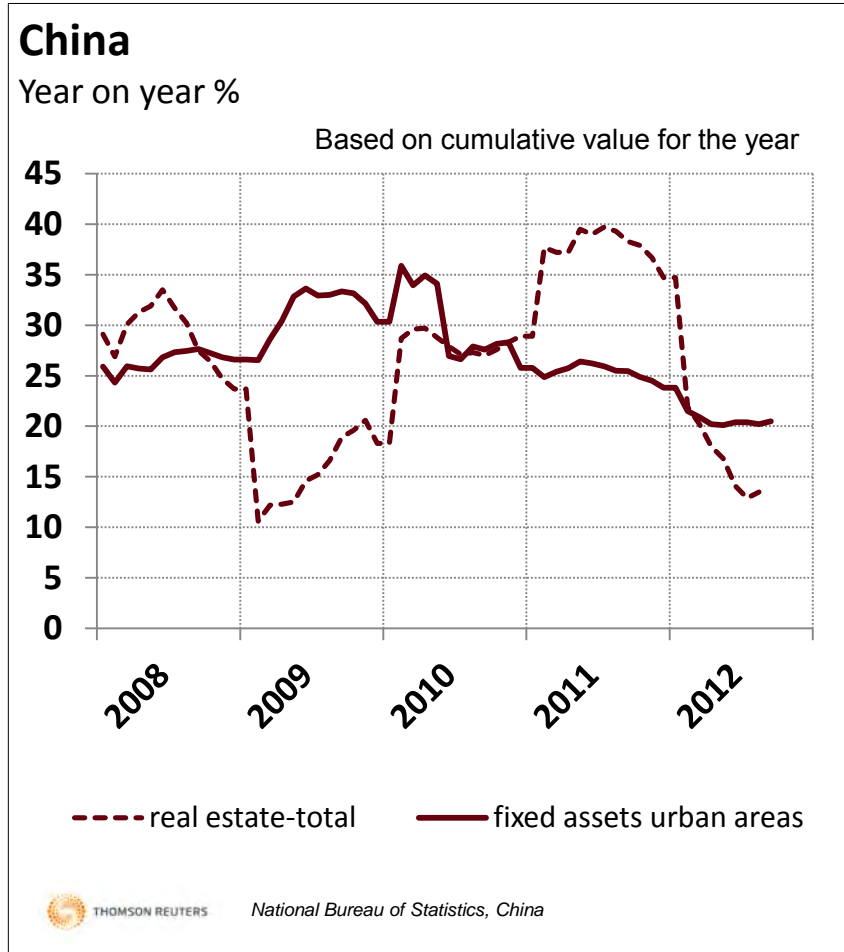
Year on year % (real)



THOMSON REUTERS *Boliden calculation world IP, BRIC IP*

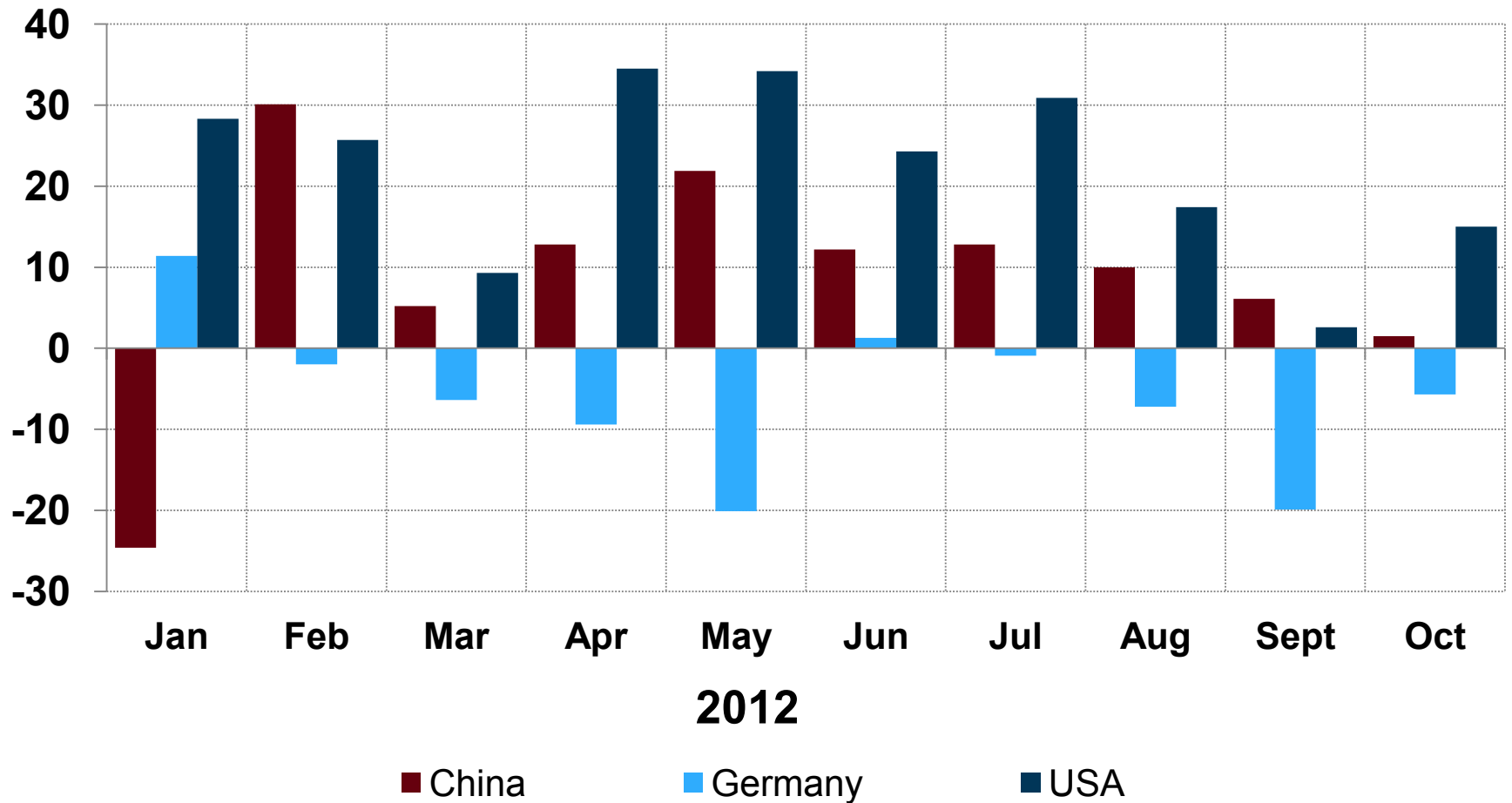
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Construction investments



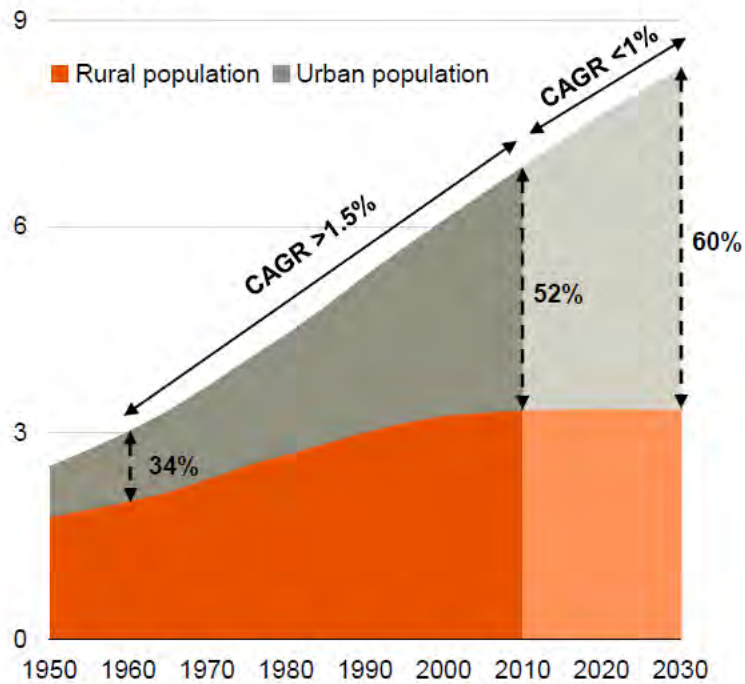
Car production

Year on year %



Urbanization continues

Urbanisation remains a major driver of demand
(billion people)

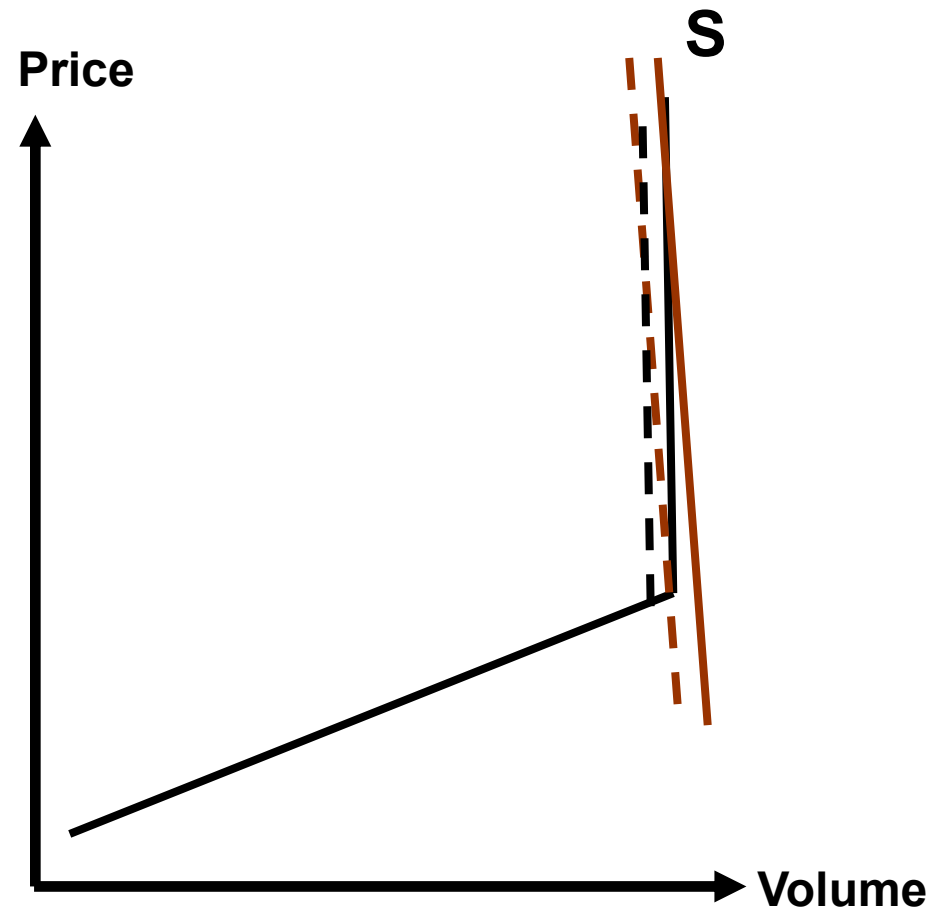


Source: United Nations (Population Division, Department of Economic and Social Affairs).

- Global macro
- **Base metal prices**
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Supply critical for price development

- Supply limitations
 - Lower grades
 - Depletions
 - Production problems - mines, not concentrators are limiting factor
- Capex per ton increasing
- Project incentive prices higher

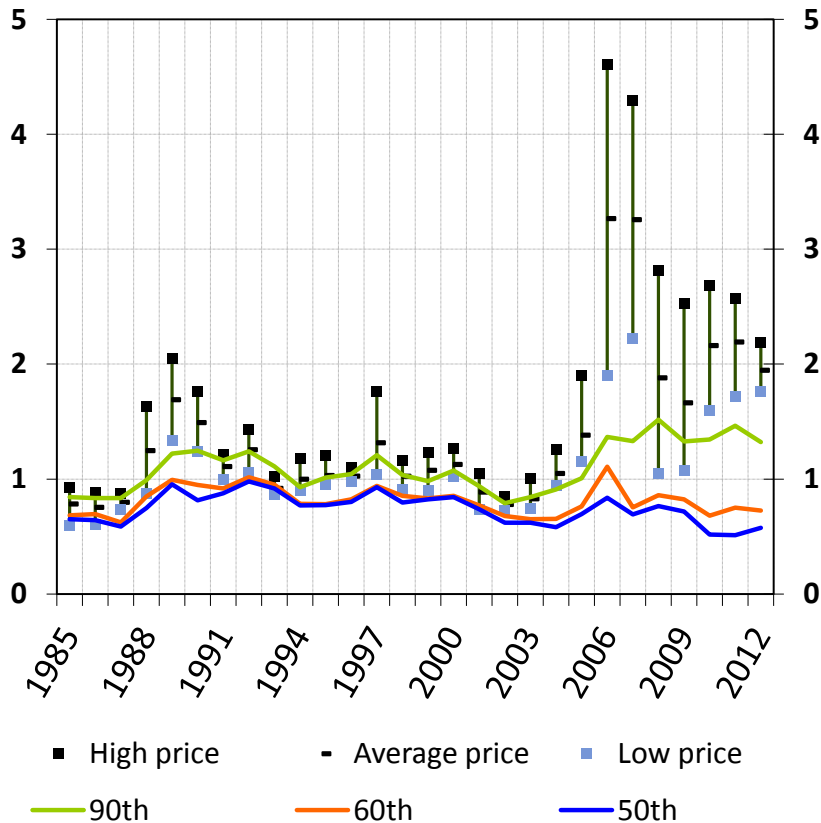


Trough prices are predictable – Peak prices not

Zinc

price and mine cash cost Normal C1

000 USD/t

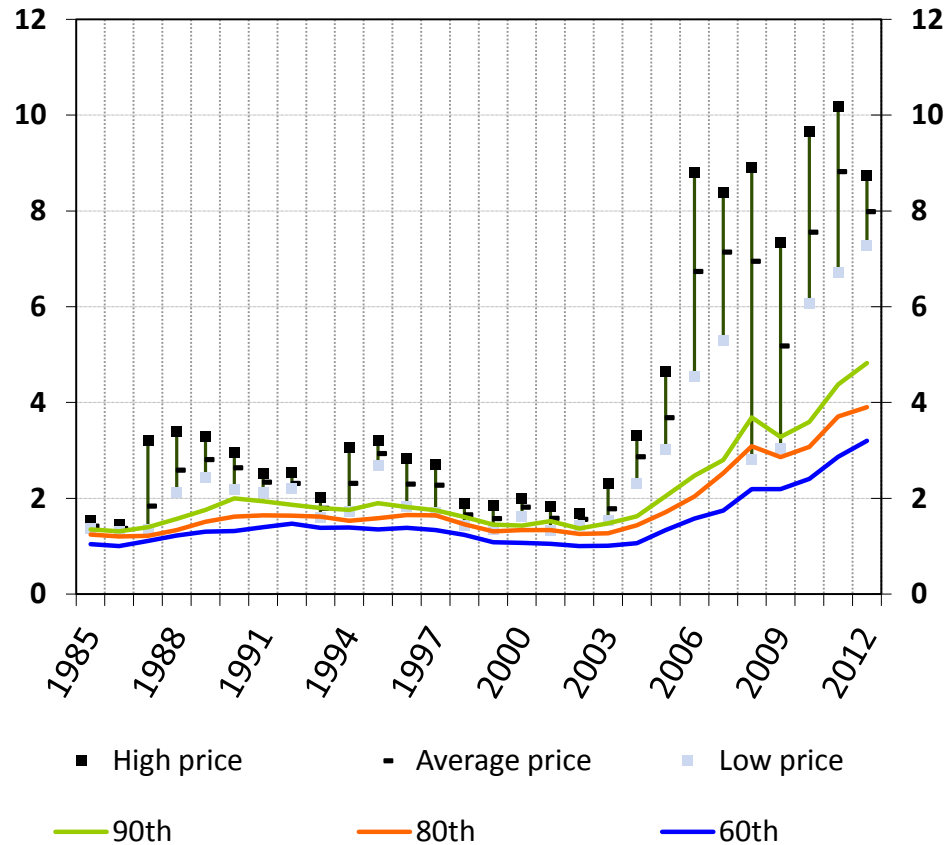


Source: Brook Hunt - A Wood Mackenzie Company, Boliden calculations

Copper

price and mine cash cost Normal C1

000 USD/t



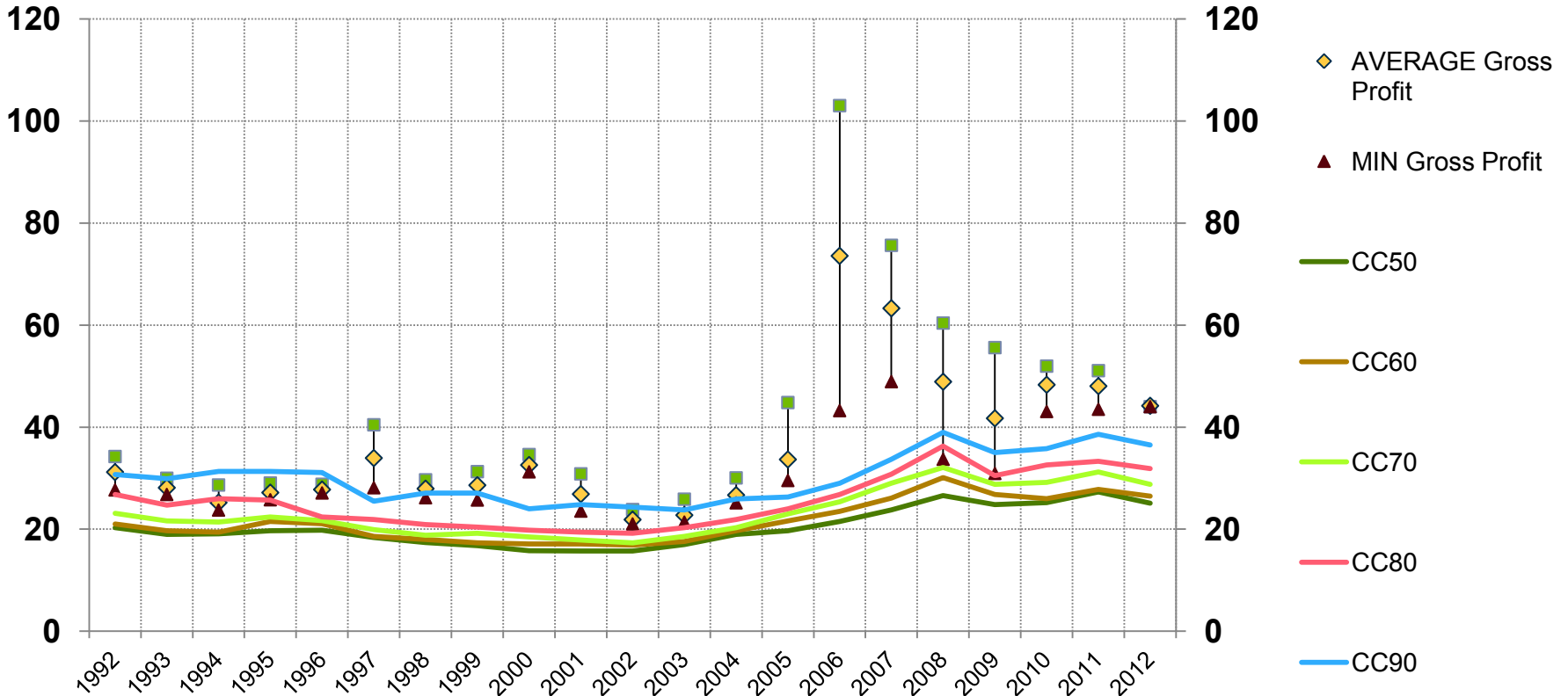
Source: Brook Hunt - A Wood Mackenzie Company, Boliden calculations



Zinc smelter conversion cost and gross profit

Zinc smelter gross profit (incl Ag) versus cash conversion cost

US c/lb paid metal

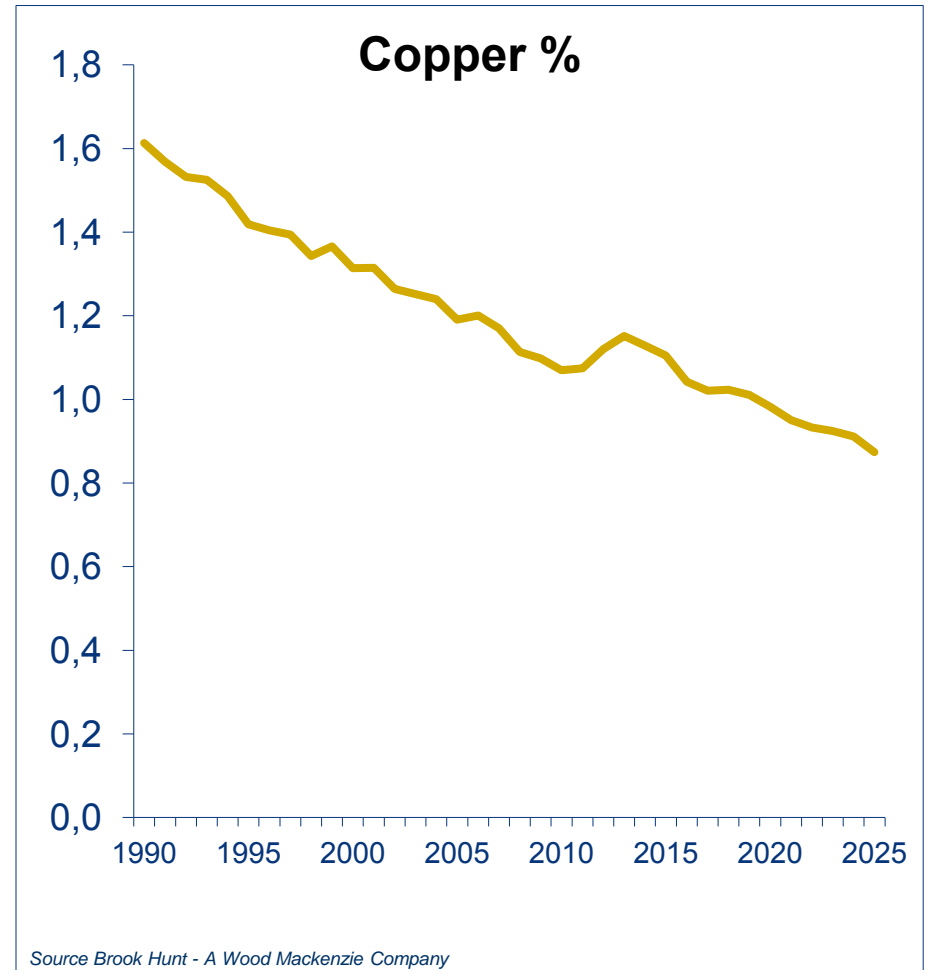
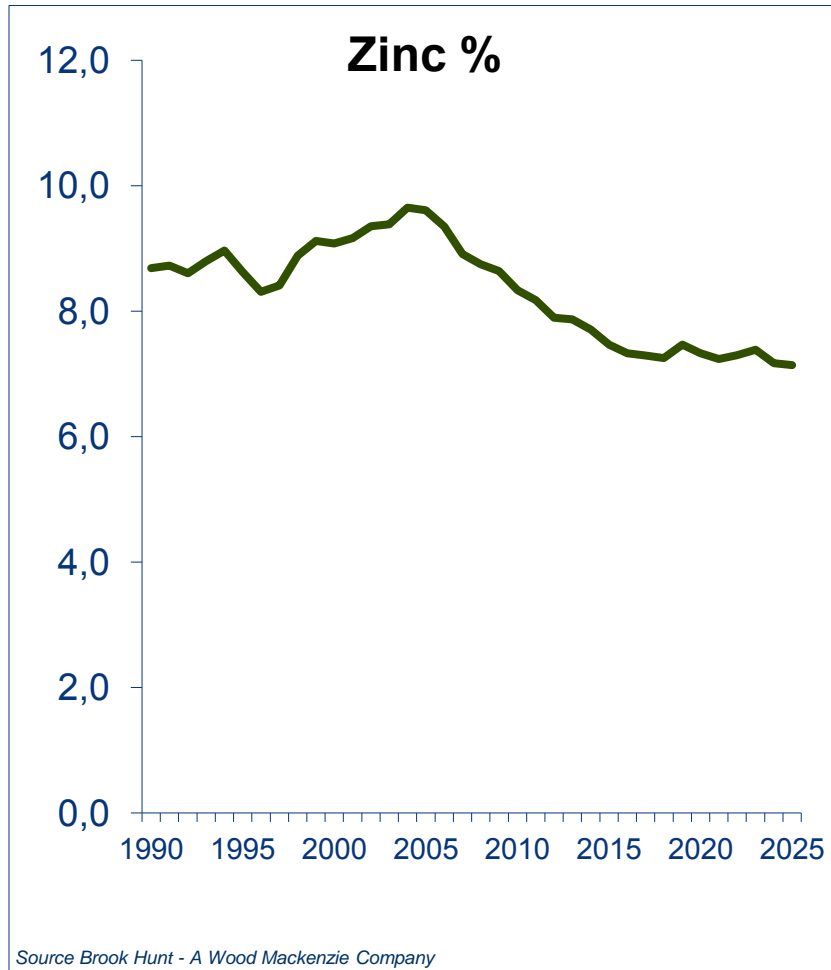


Source: Brook Hunt - A Wood McKenzie company, Reuters, Boliden calculations

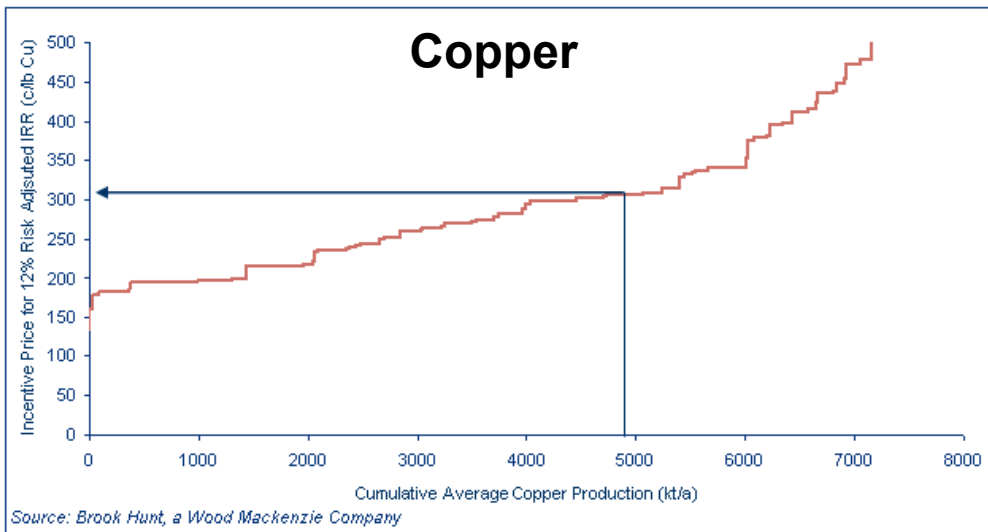
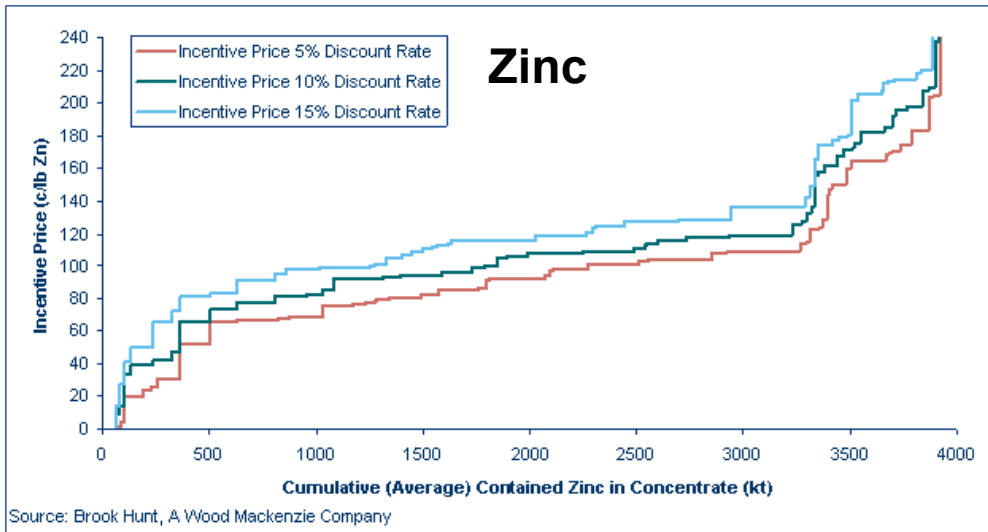


Head grades are declining

(all operations)



Project incentive price



Mine supply to 2016

Ktonnes	Copper	Zinc
Mine capacity 2012	17,477	13,767
Mine closures	-857	-1,338
Expansions	1,205	1,206
New projects	2,859	745
Declining grades/other	-89	-197
Mine capacity 2016	20,595	14,183
Av. annual growth	4.2%	0.7%

Source: Brook Hunt - A Wood Mackenzie Company, Boliden calculations

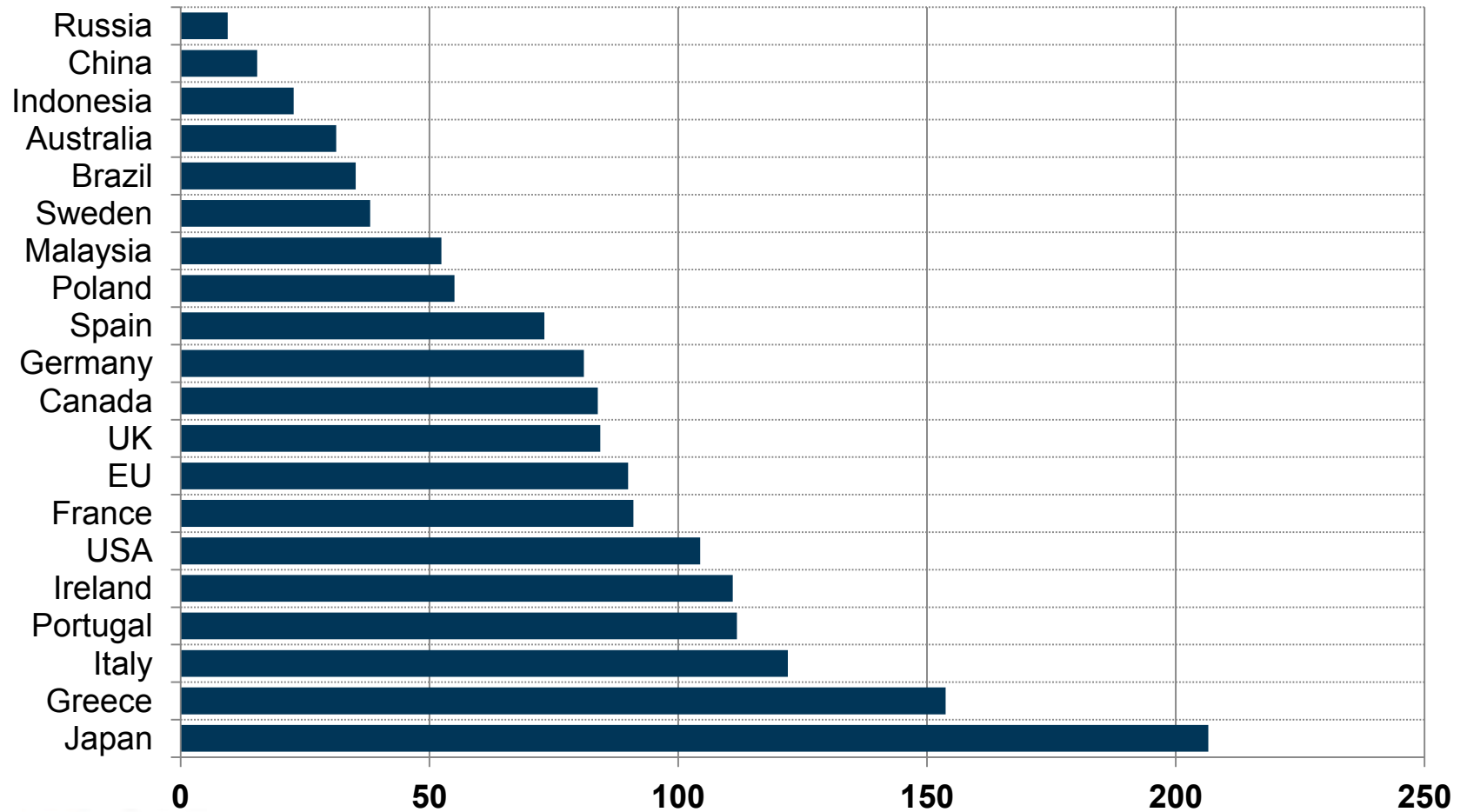


- Global macro
- Base metal prices
- **Financial crisis**
- Electricity markets

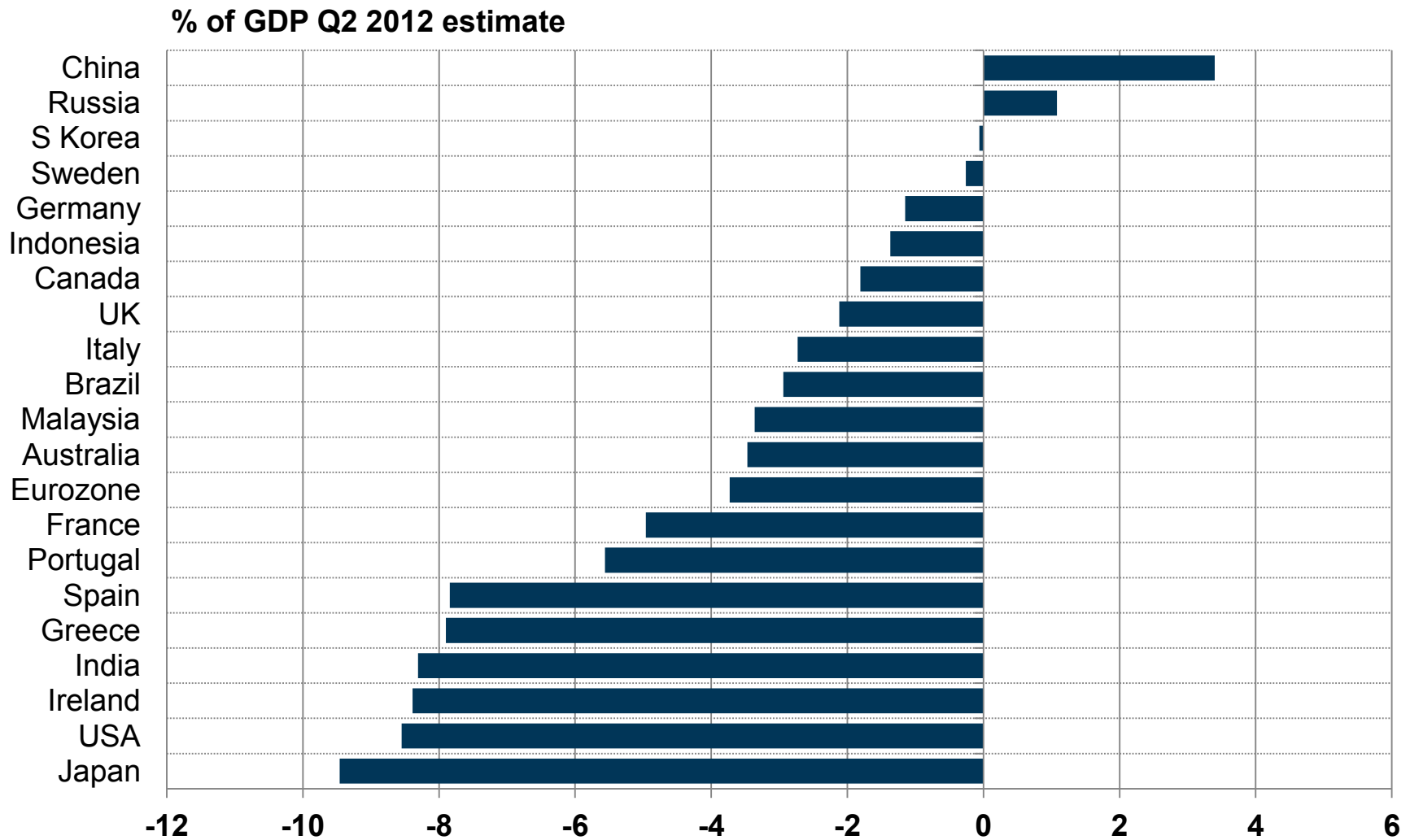
Debt crisis

Gross government debt
Eurozone countries: MAASTRICHT DEFINITION

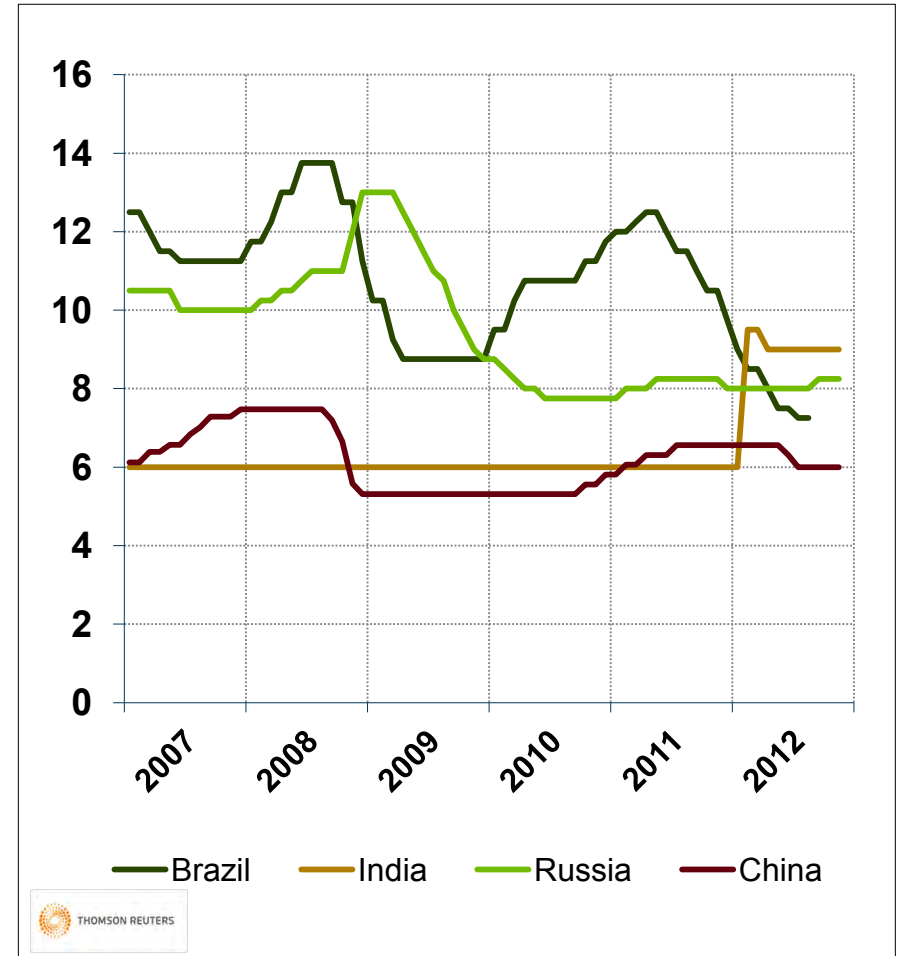
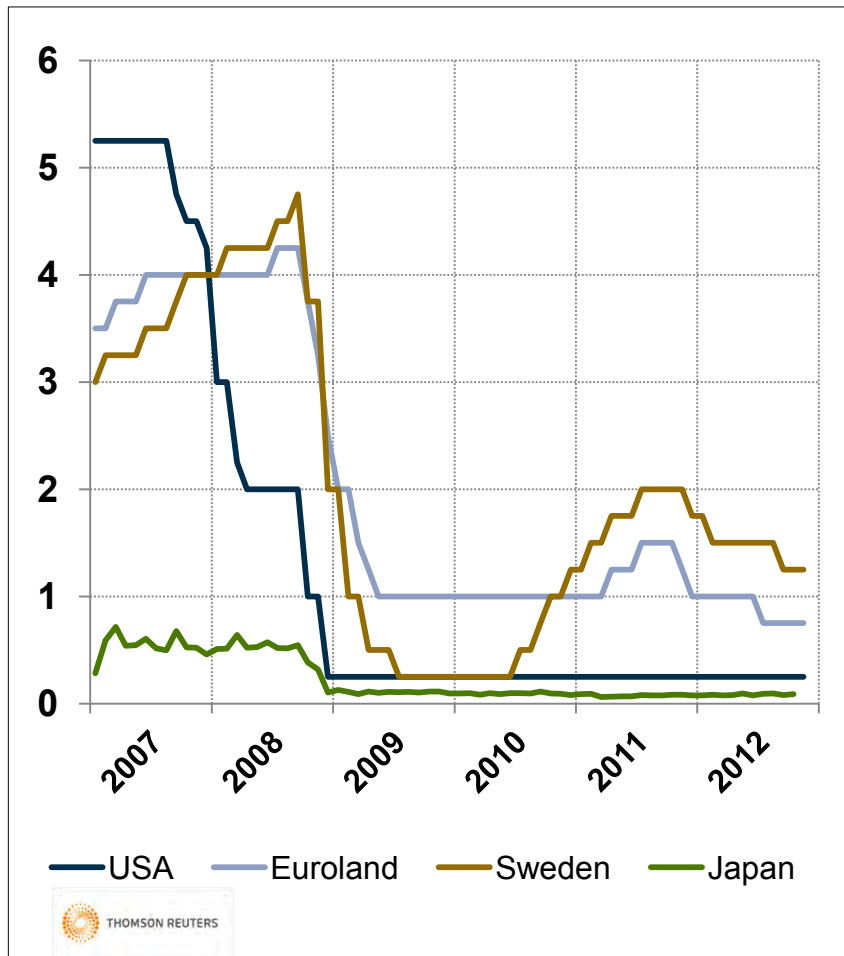
% of GDP Q2 2012 estimate



Room for financial stimulus?



Monetary stimulus?



- Global macro
- Base metal prices
- Financial crisis
- **Electricity markets**



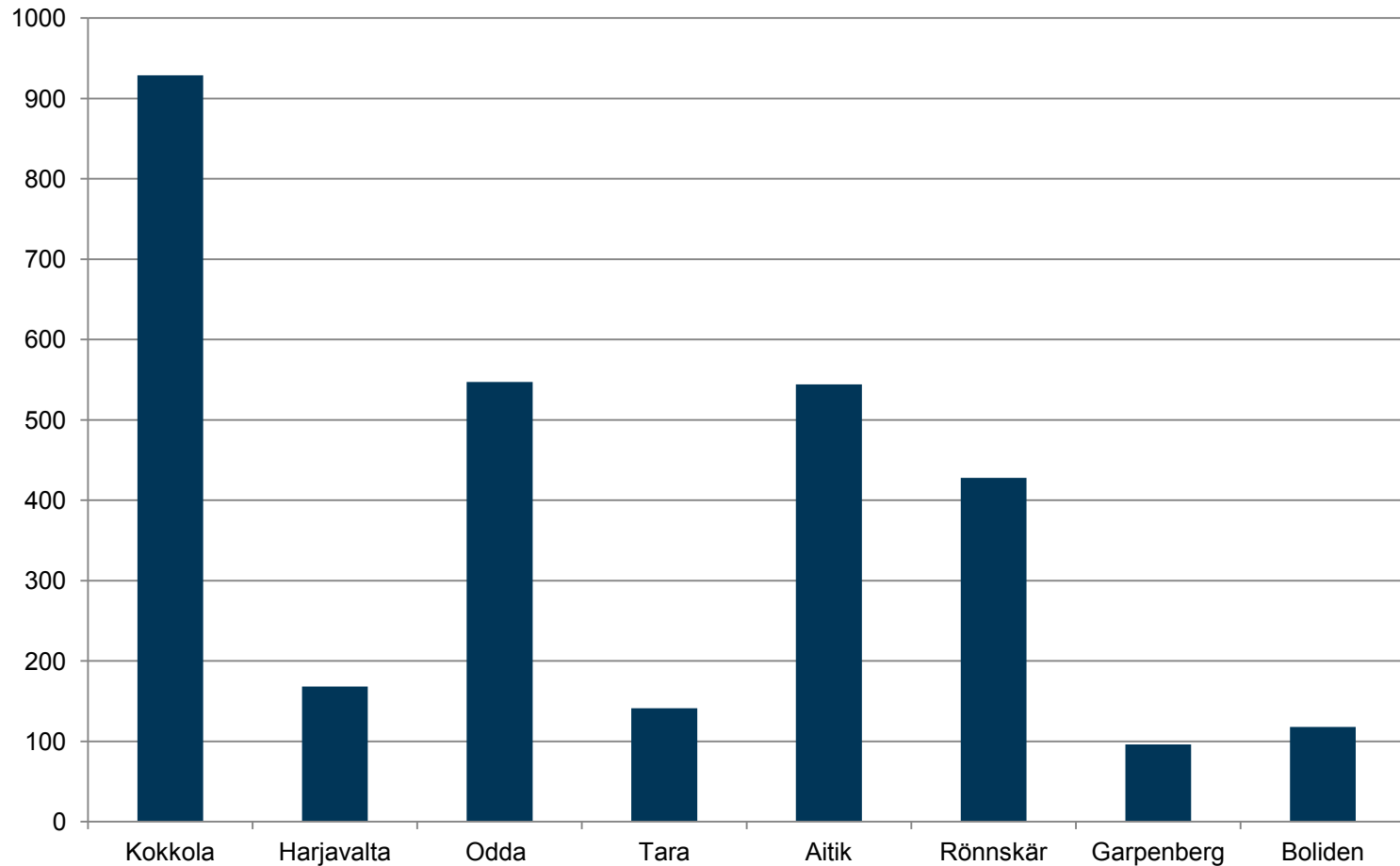
Boliden and electricity

- Boliden consumes 4 TWh p.a.
- Boliden wants low and predictable prices
- Zinc smelters sensitive

Boliden power consumption by site

Jan-Sept 2012, GWh

Power consumption by site 1-9/2012, GWh



Power market dynamics

Metal markets

- Global demand meets global supply
- Bottlenecks
- Can be stored

Electricity markets

- Regional demand meets local supply
- Capacity limitations do not occur
- Price defined by marginal cost of supply
- Can not be stored

Demand

Nordic countries

- Business cycle
 - Significant volatility
- Energy intensive industry volume trend
 - Slow increase
- Energy saving
 - Decline
- Population growth
 - Slow increase
- Household demand
 - Decline
- Total +0.6% p.a.

Supply

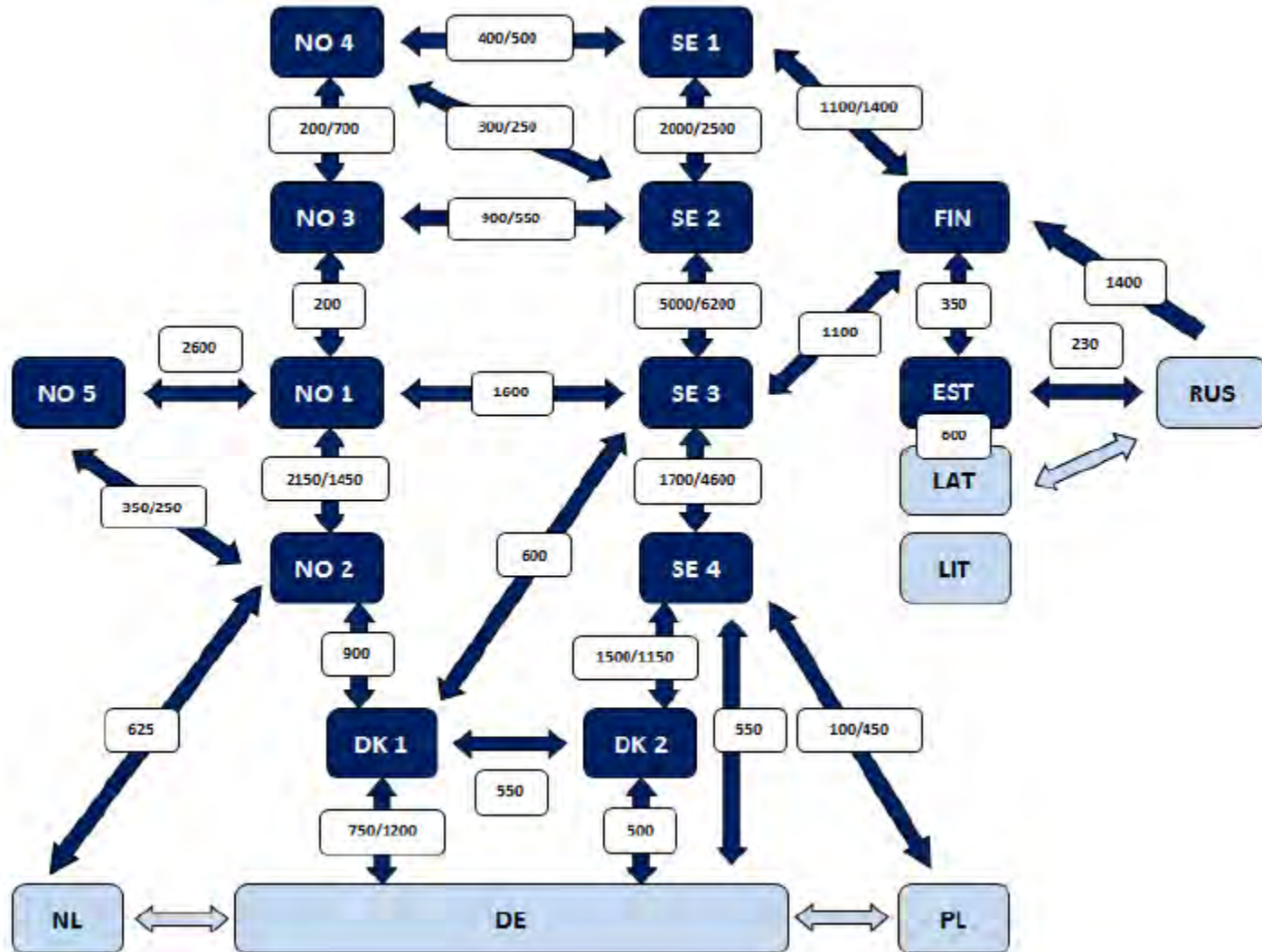
Nordic countries

- Disruptions have immediate impact
- Coal
 - Sets prices – imports of electricity based on coal
 - Traded internationally – international prices
- Hydro power
 - Improved efficiency and some expansion
- Wind power
 - Expansion
 - Subsidized
 - Creates balance issues
- Nuclear power
 - Expansion to 2020, decline in Sweden thereafter
 - New plants in Finland
 - 2016 Olkiluoto 3
 - 2022 Fennovoima
 - 2026 Olkiluoto 4
- Gas?

Transmission

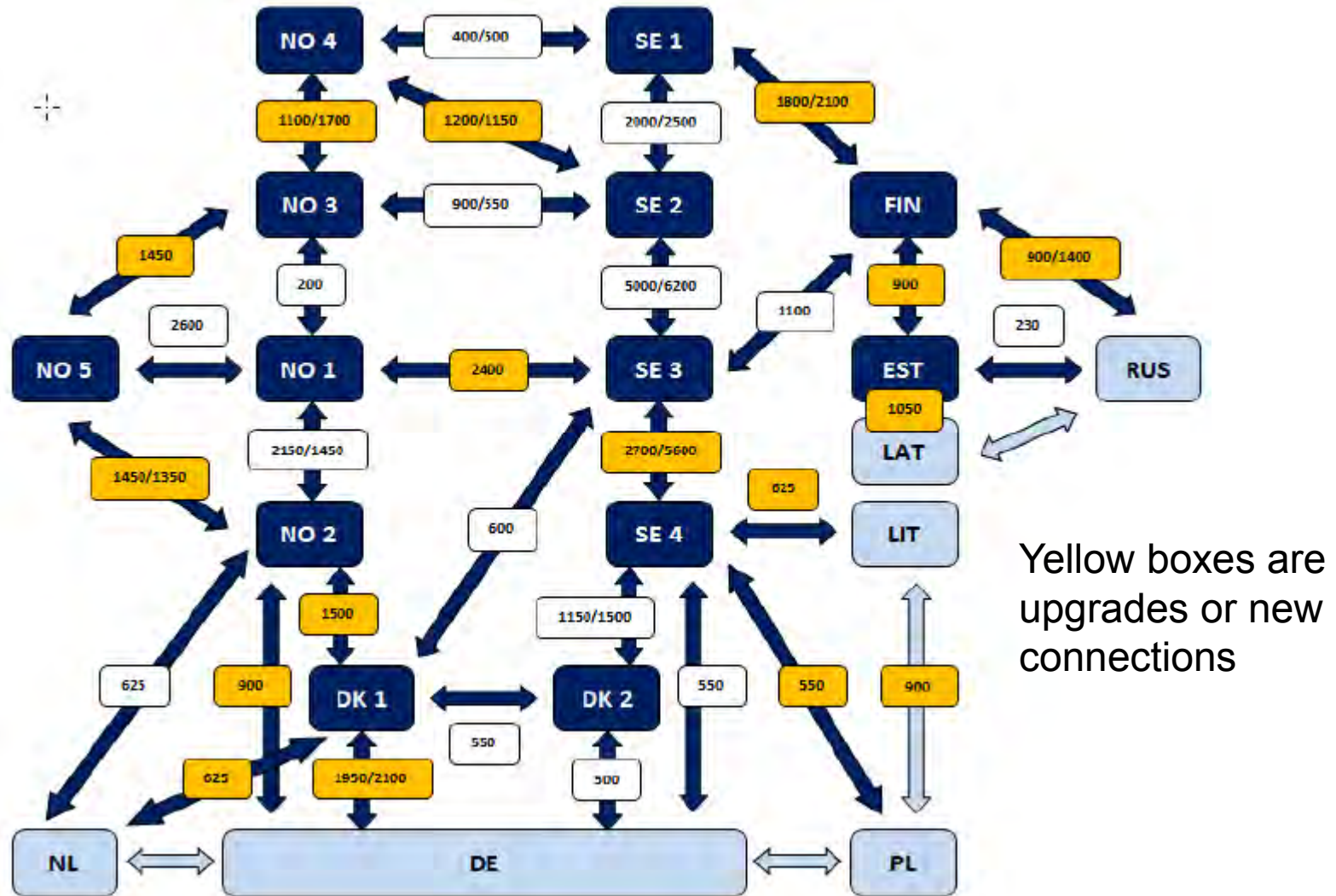
- Nordic countries and continental Europe transmission capacity
 - Adds "infinite" demand, limit to transmission capacity
 - Adds supply at the coal price level, limit to transmission capacity
- EU strives for a common electricity market
- Highly profitable for the Nordic electricity producers
- Transmission of interest to European competitors
- Transmission important to Germany after nuclear ban

Transmission capacity 2012



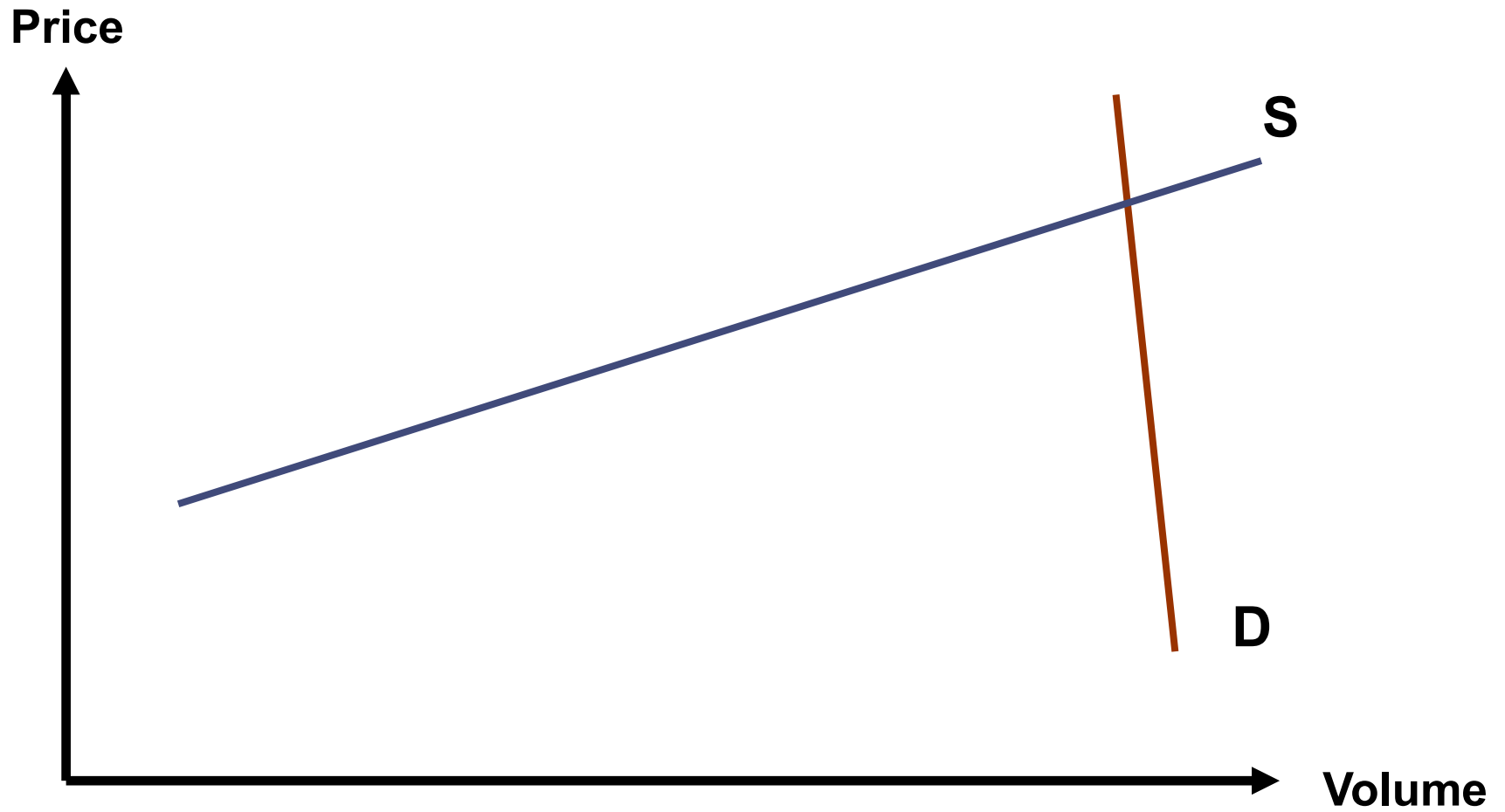
Source: SKM Market predictor, May 2012 analysis

Transmission capacity 2026

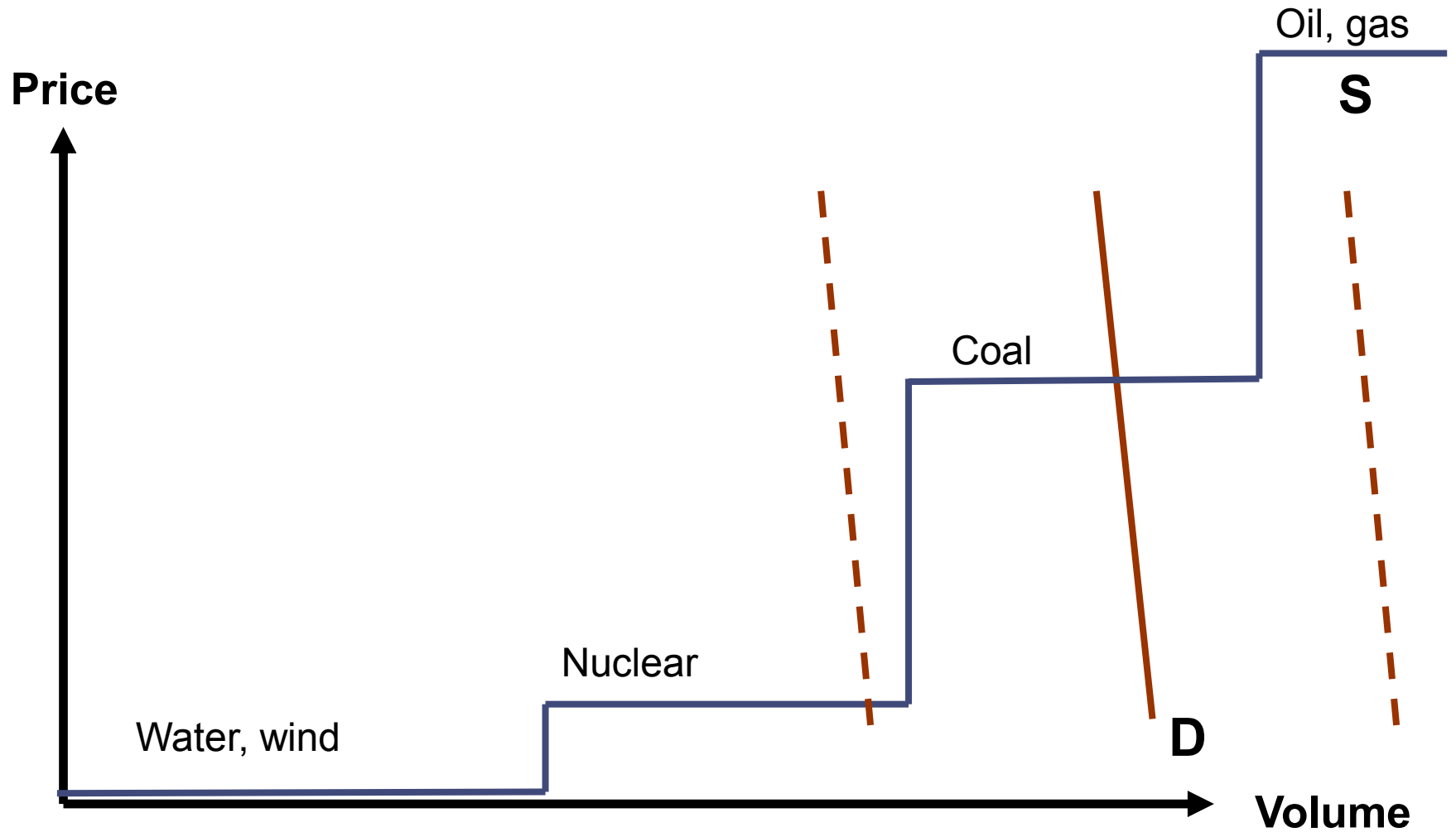


Source: SKM Market predictor, May 2012 analysis

Metal markets

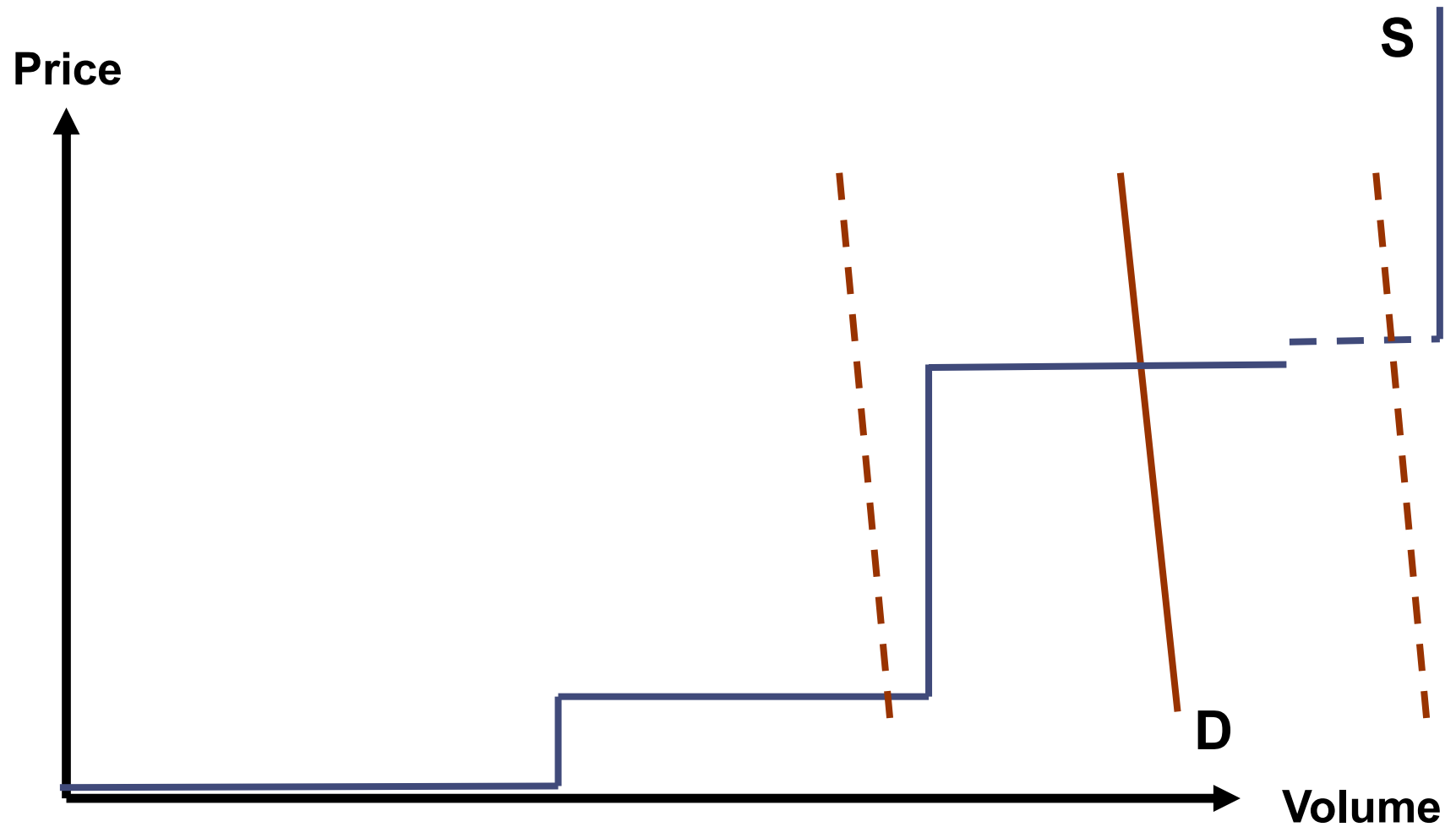


Electricity markets



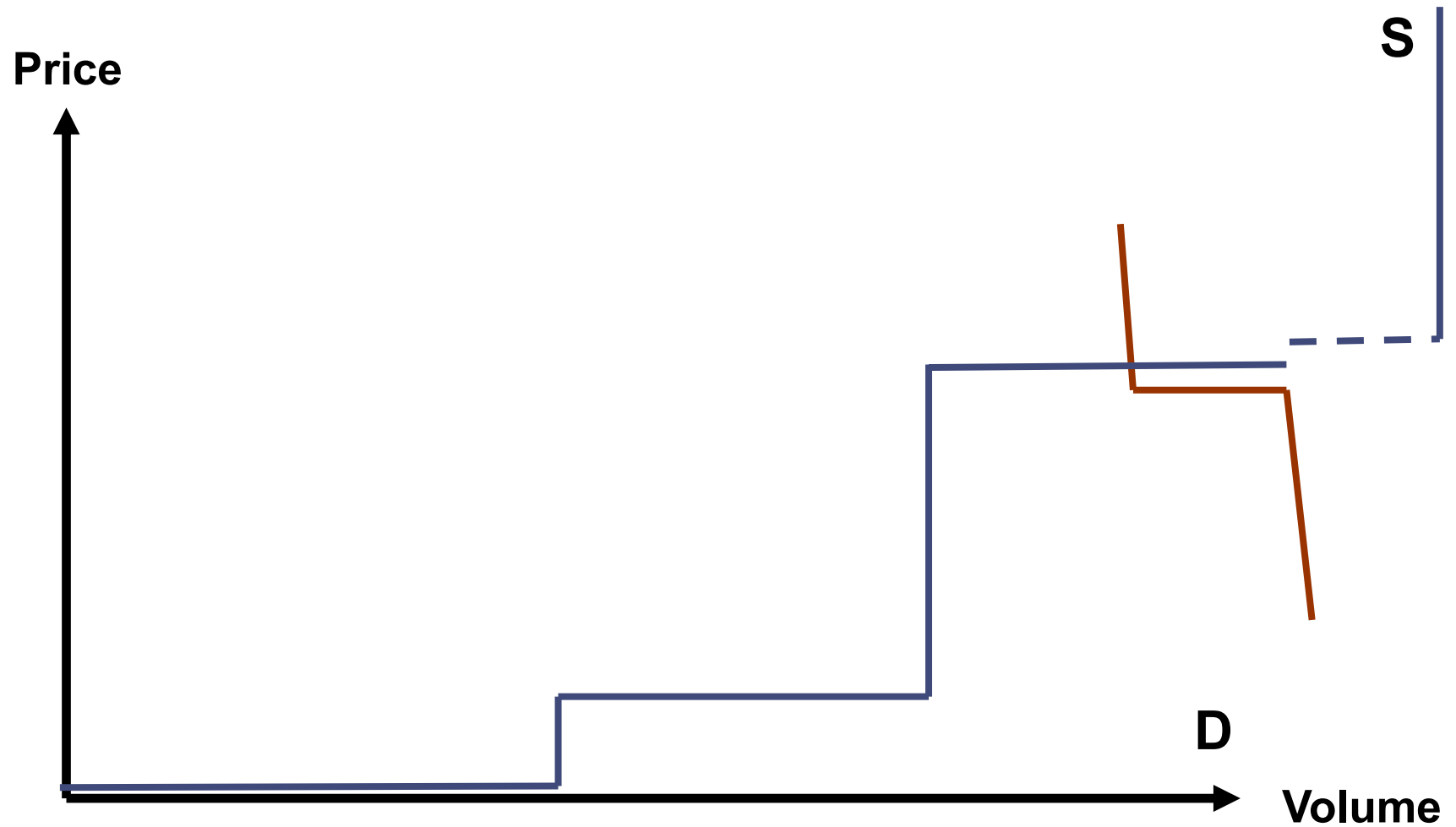
Electricity markets

Transmission cables add supply



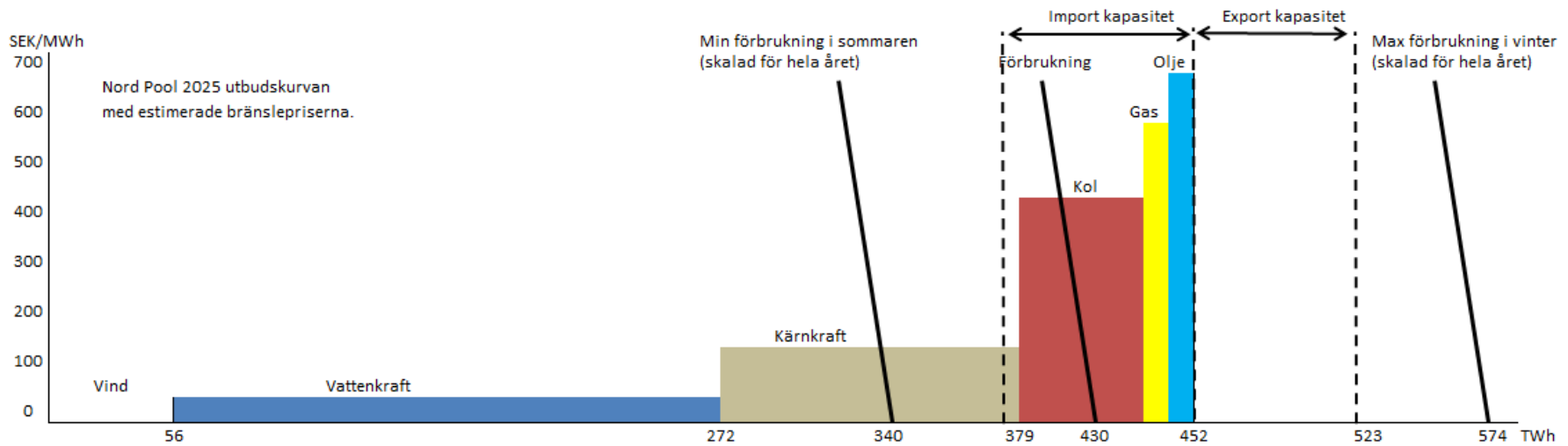
Electricity markets, Sweden

Transmission cables add demand



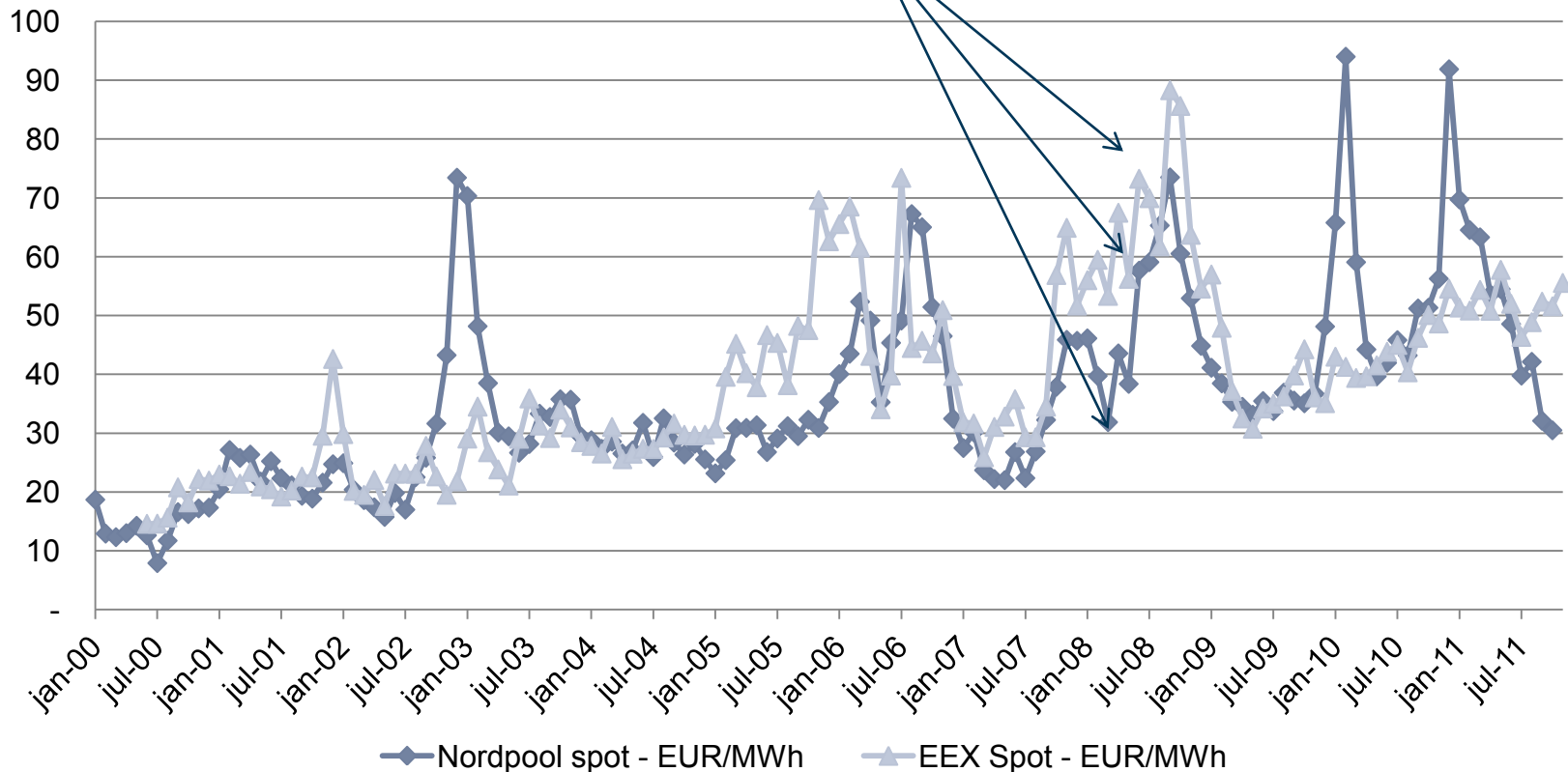
Demand volatility

Nord Pool 2025



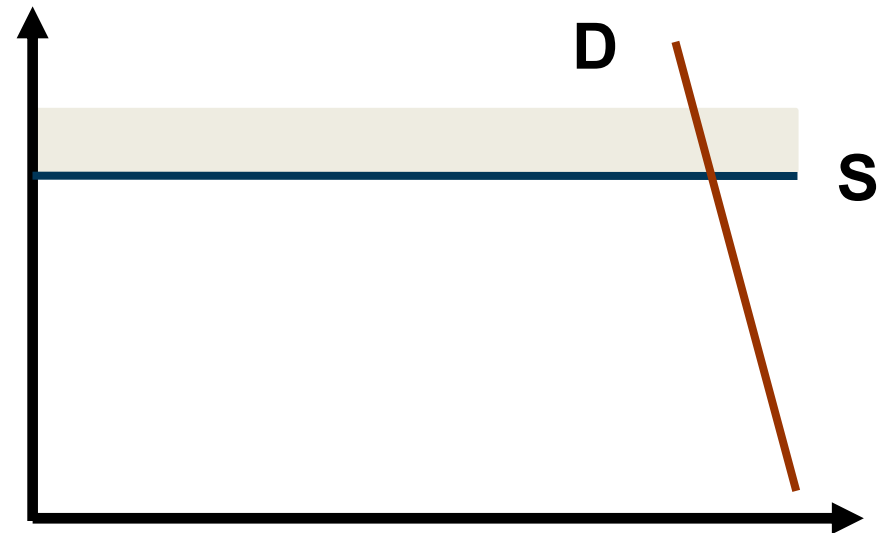
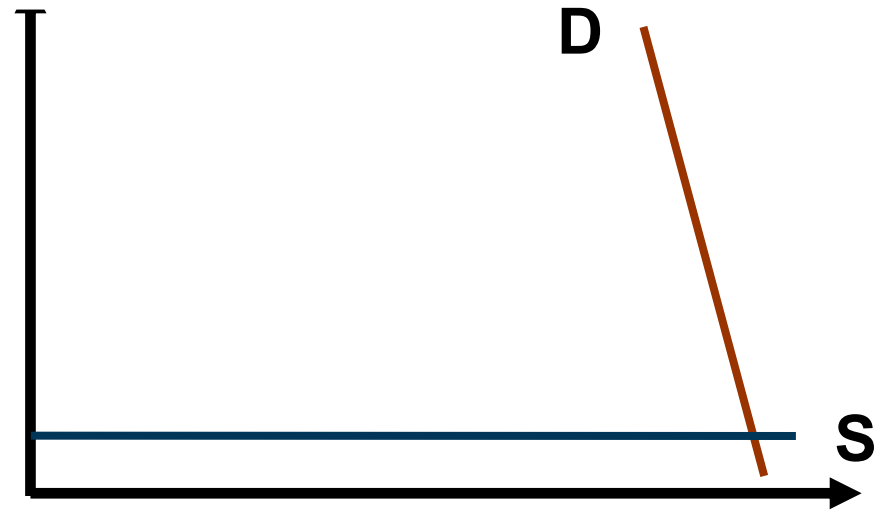
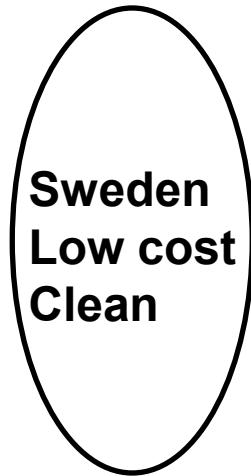
High volatility in the electricity price

- German coal power often set the marginal price
- High correlation between the Nordic electricity price and the price of emission trading rights

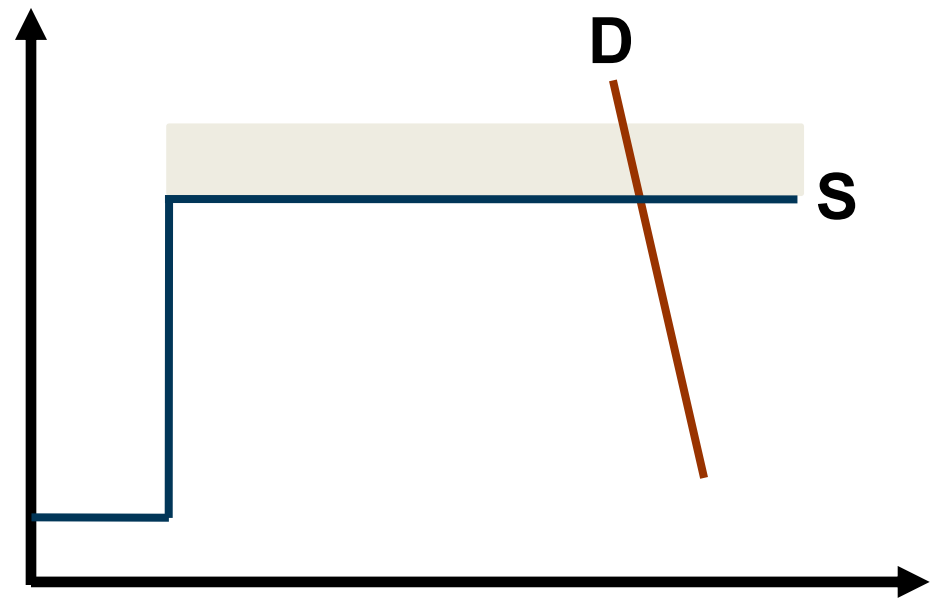
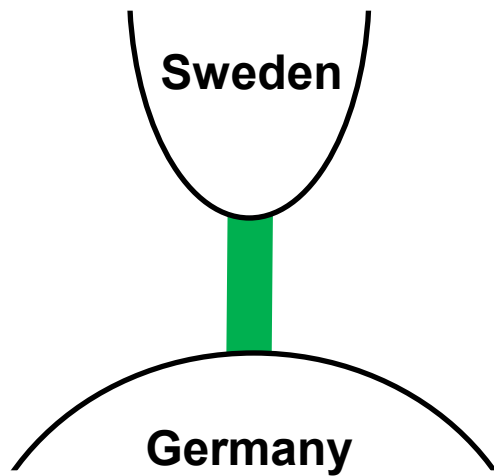


Källa: Nordpool spot, EEX, Pointcarbon, PwC/Boliden analys

ETS, cables and cost in Sweden



ETS, cables and cost in Sweden



Unacceptable effects of indirect ETS cost

- Germany
 - Large ETS revenues
 - Compensation to the industry for indirect higher electricity costs
- Sweden
 - Small ETS revenues
 - Compensation to the industry for indirect higher electricity costs ?
- Norway
 - No ETS revenues
 - Compensation to the industry for indirect higher electricity costs
- France
 - Industry signs long term contracts at cost of production
- UK
 - Funds allocated in support package to the industry



Source: PwC/Boliden analysis

Welcome

Boliden's Capital Markets Days 2012

