Northland Resources

Oslo June 10th 2009

Iron ore market – alternative scenarios for the future

Lithium drawing: Kaianders Sempler.

Magnus Ericsson

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Outline

- Production and trade flows.
- Industry concentration.
- Price developments and future pricing system.
- Impact of falling demand: production cutbacks, project delays, changing ownership structure.
- Medium term outlook.
- Scenarios

UNCTAD Iron Ore Trust Fund

- 1987, since 2002 with Raw Materials Group of Sweden.
- Two annual publications
  - Iron Ore Market Review in May
  - Iron Ore Statistics in September
- Financed by sales and contributions from Australia, Brazil, Canada, Sweden and US.
- Contact ironore@unctad.org for information.

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- Raw Materials Data, Metals/Coal/Iron Ore.
- Strategy development:
  - Mining companies, equipment & service providers.
- Mineral policy, investment promotion:
  - Governments, International organisations.
- Pre-feasibility/Feasibility studies:
  - Financial institutions, companies.

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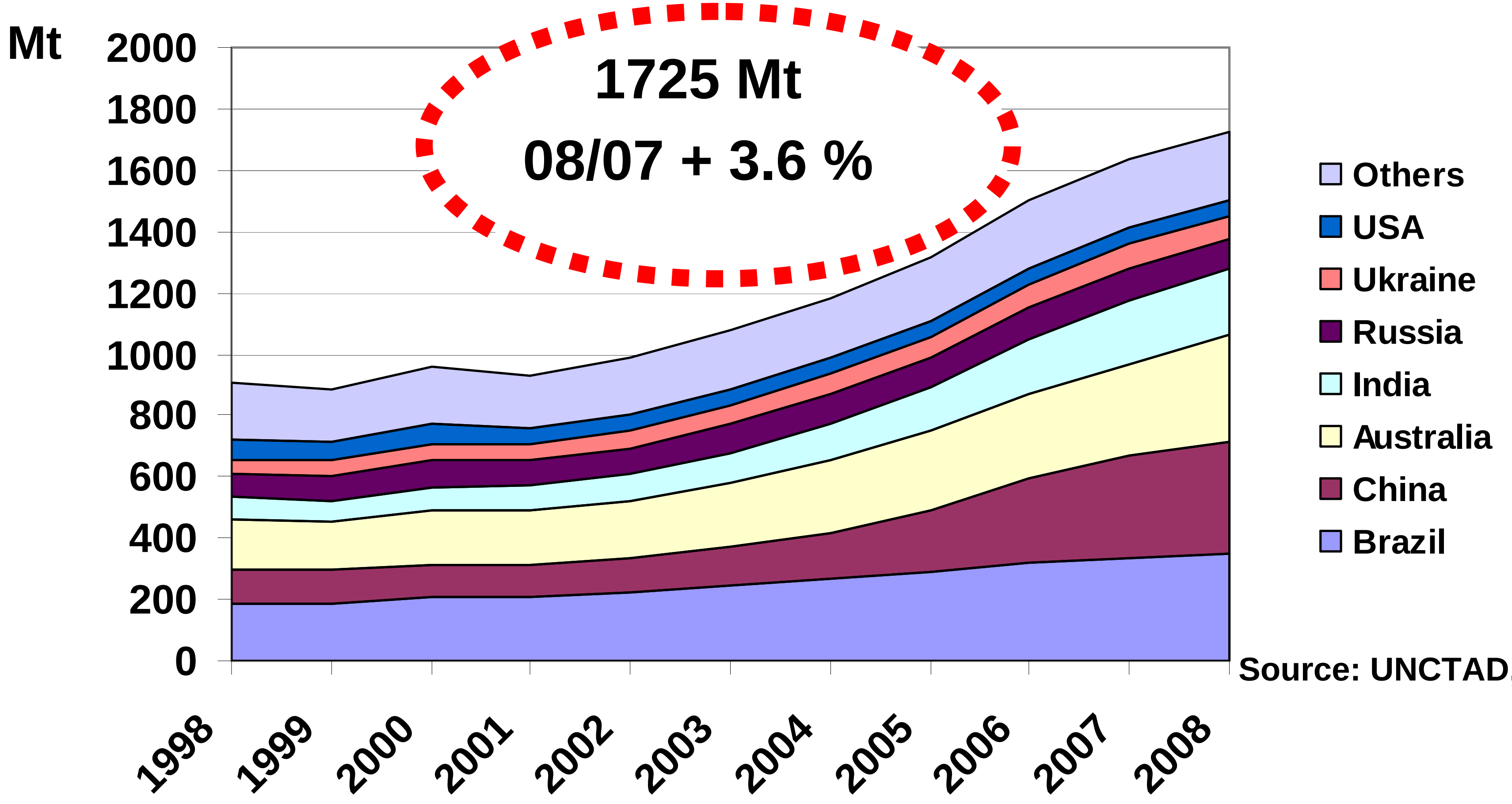
Production & structure

Vanadium drawing: Kaianders Sempler.

Global iron ore production



Source: UNCTAD, 2008.

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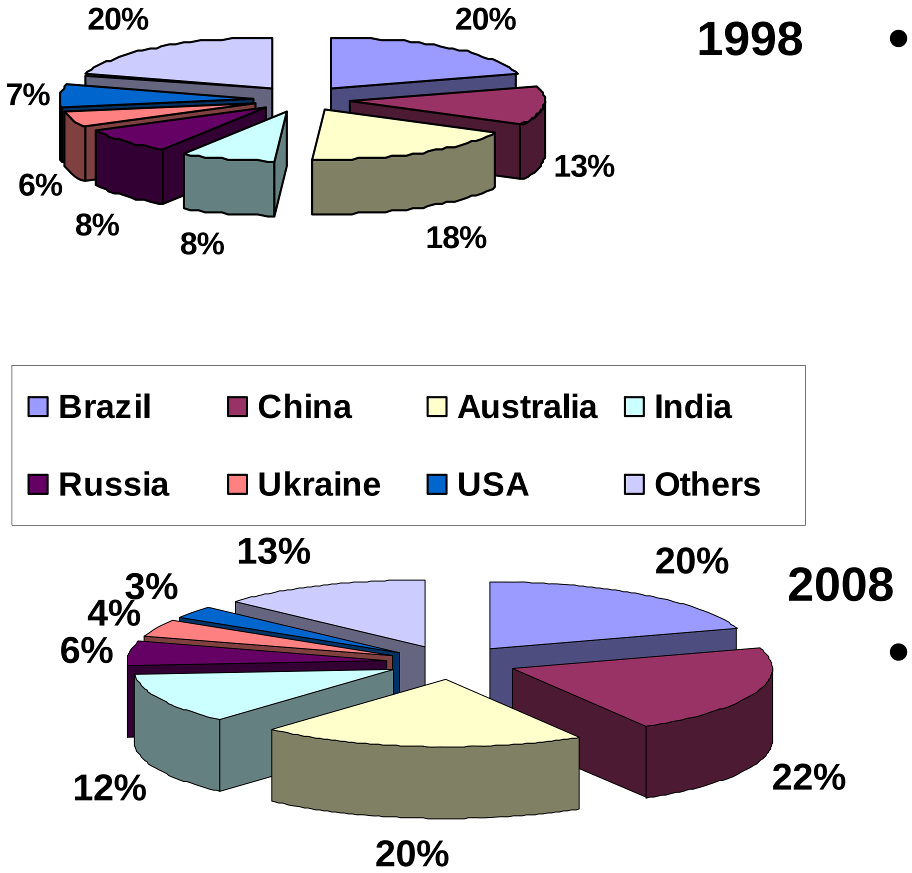
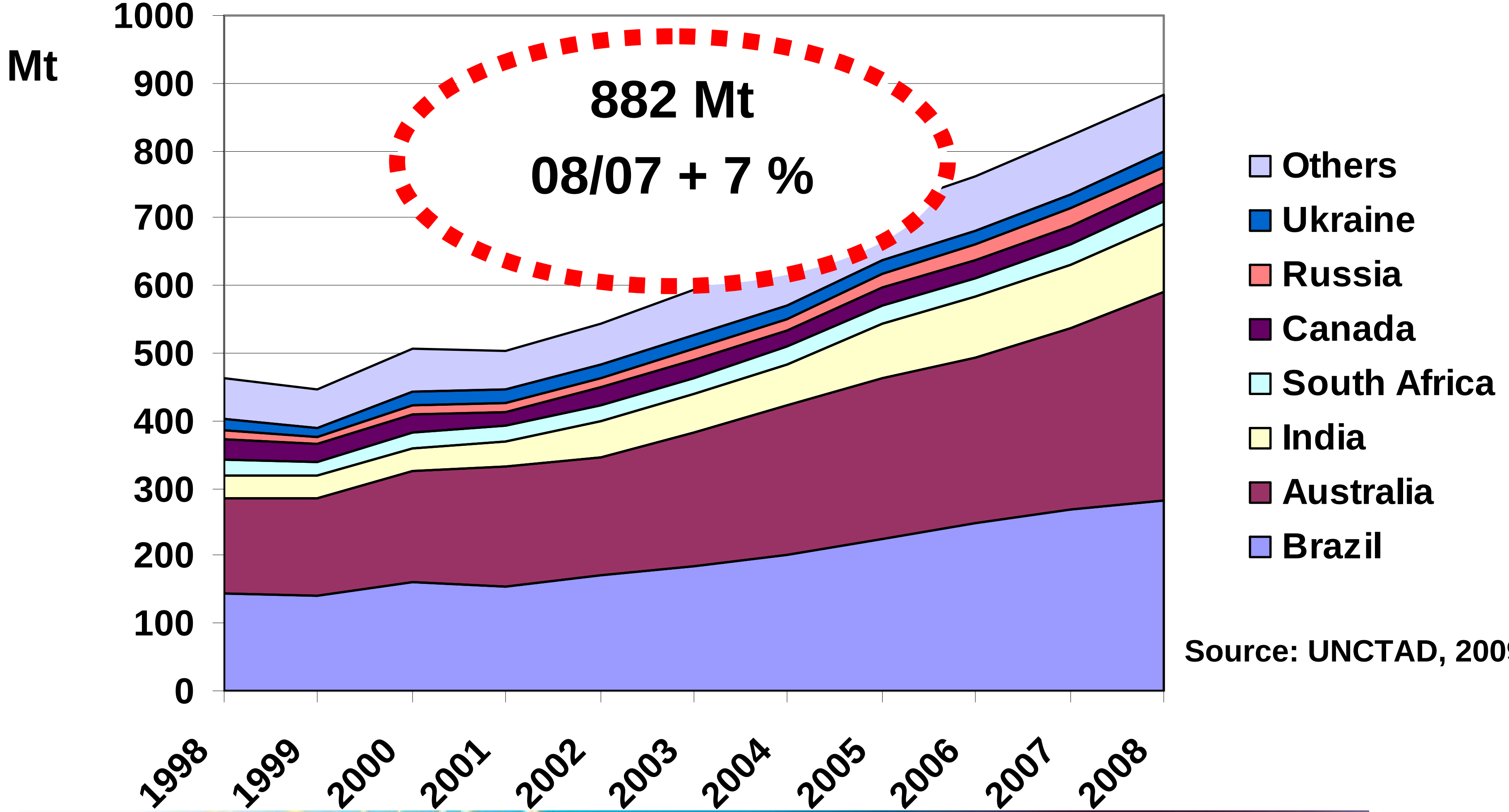
Increasing concentration



Source: UNCTAD, 2009.

- China's production increased at an annual rate of 12 %.
  - World's largest producer.
  - Low grade deposits.
  - Low degree of mechanization, and high operating costs.
- The four largest countries 59 % 1998 and 73 % 2008.

Global iron ore exports



Source: UNCTAD, 2009.

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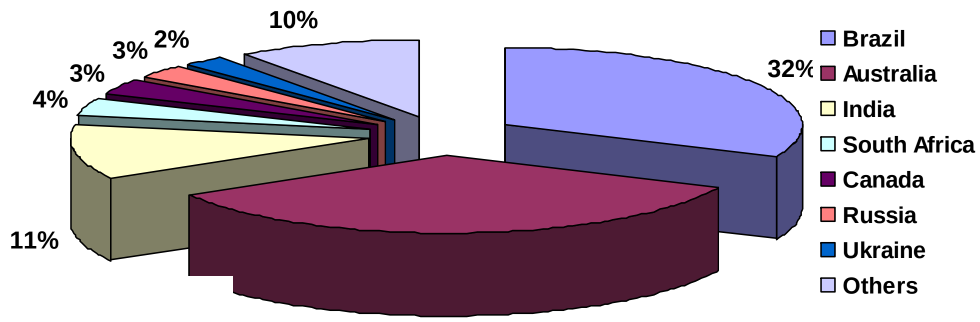
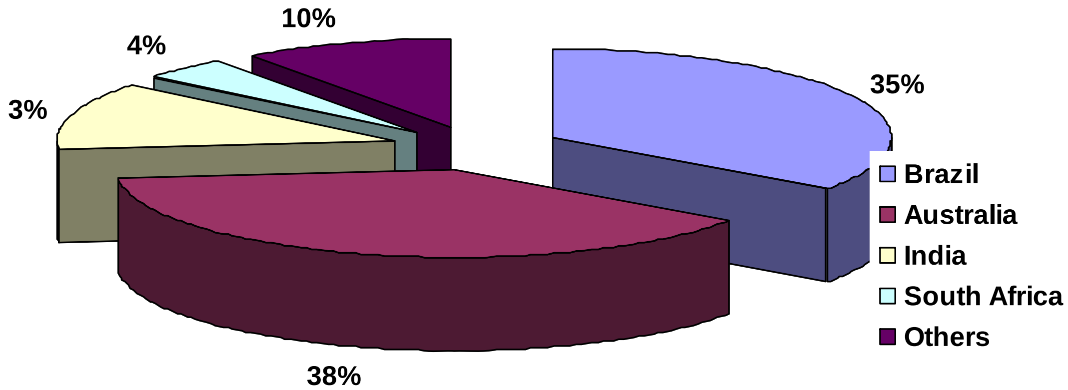
Exports are dominated by Australia and Brazil

Concentration has been growing, due to high barriers to entry in terms of infrastructure investment.

World exports 2008, 887 Mt



World seaborne trade 2008, 805 Mt



Source: UNCTAD, 2009.

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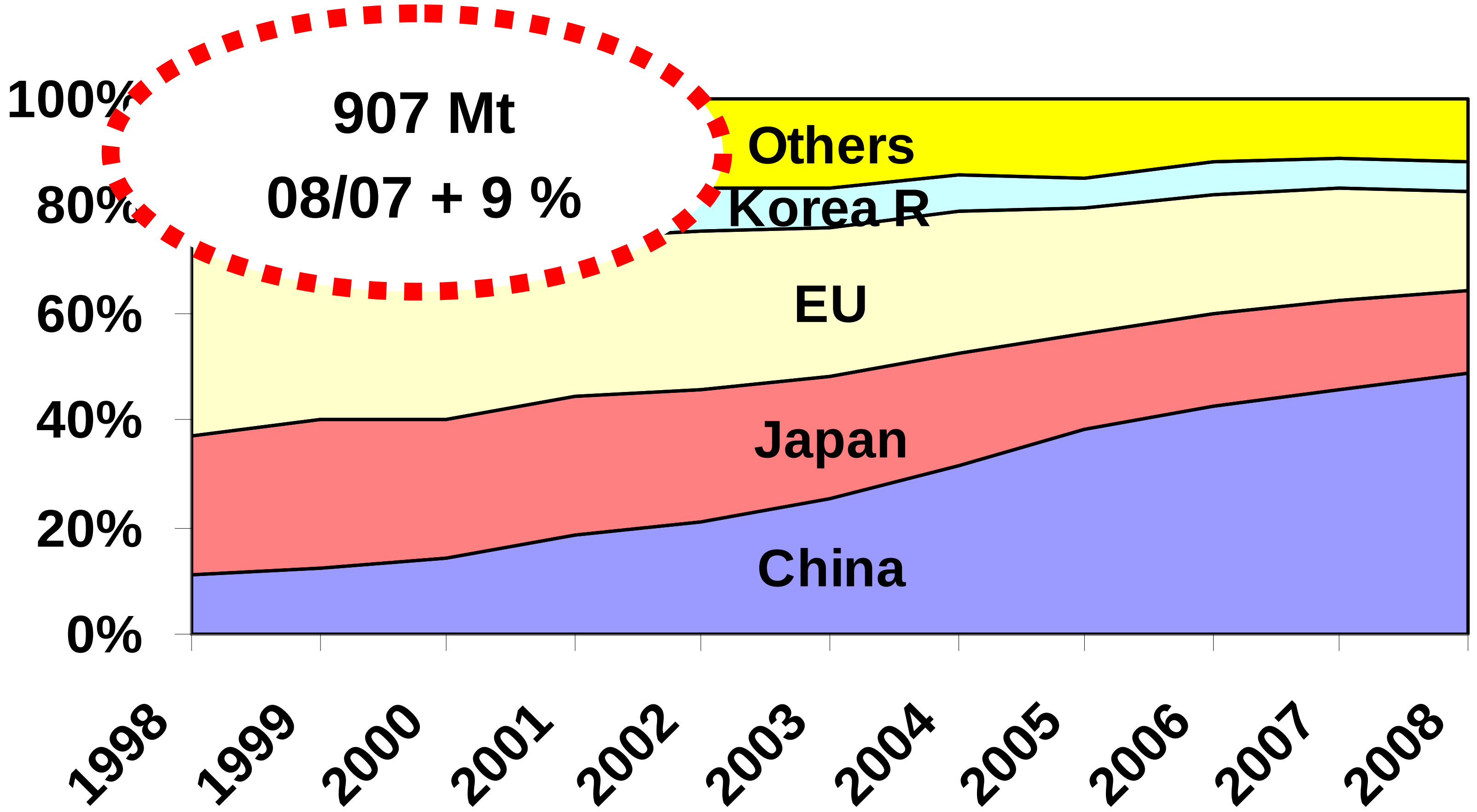
Global iron ore imports



Source: UNCTAD, 2009.

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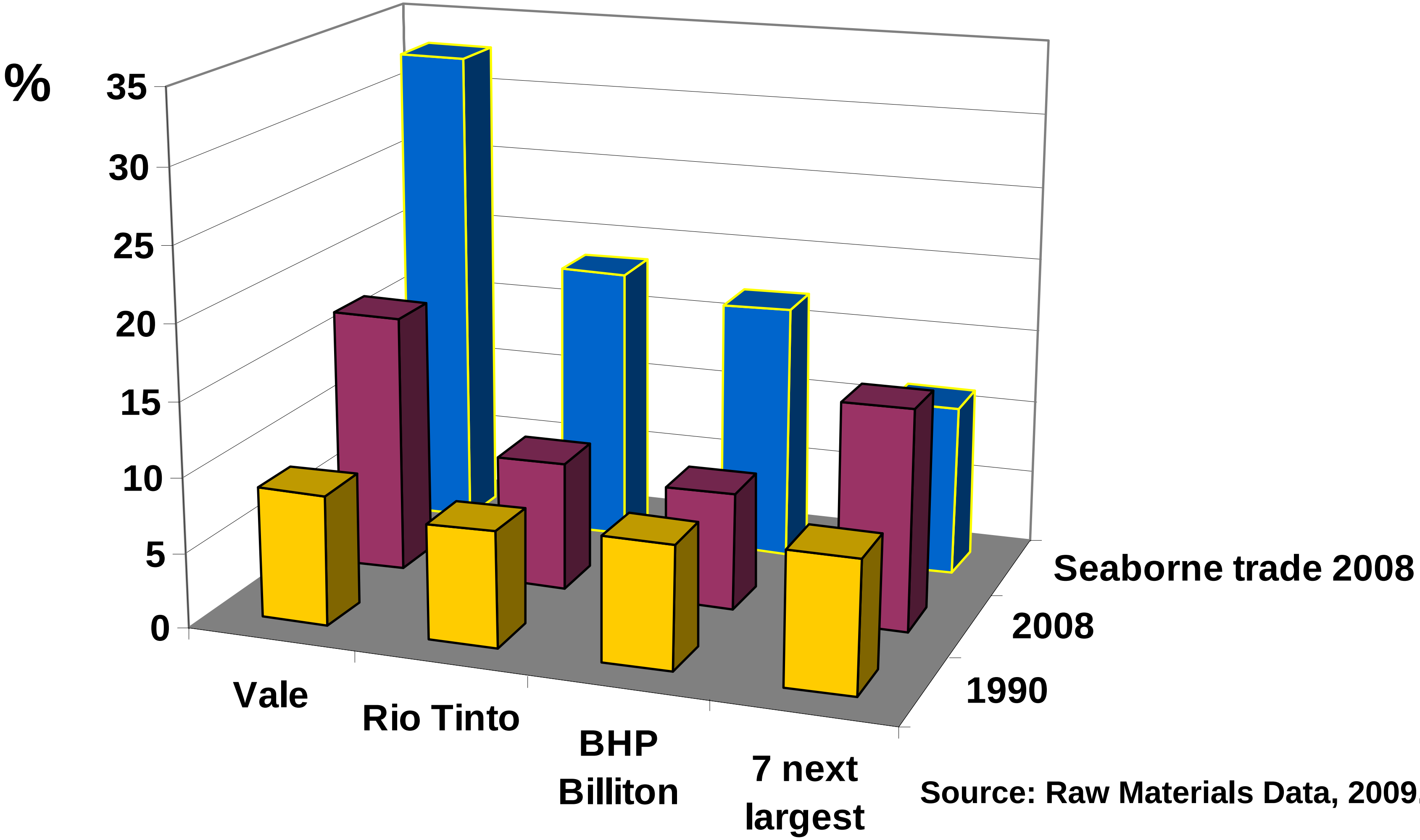
Corporate concentration



Source: Raw Materials Data, 2009.

Price system

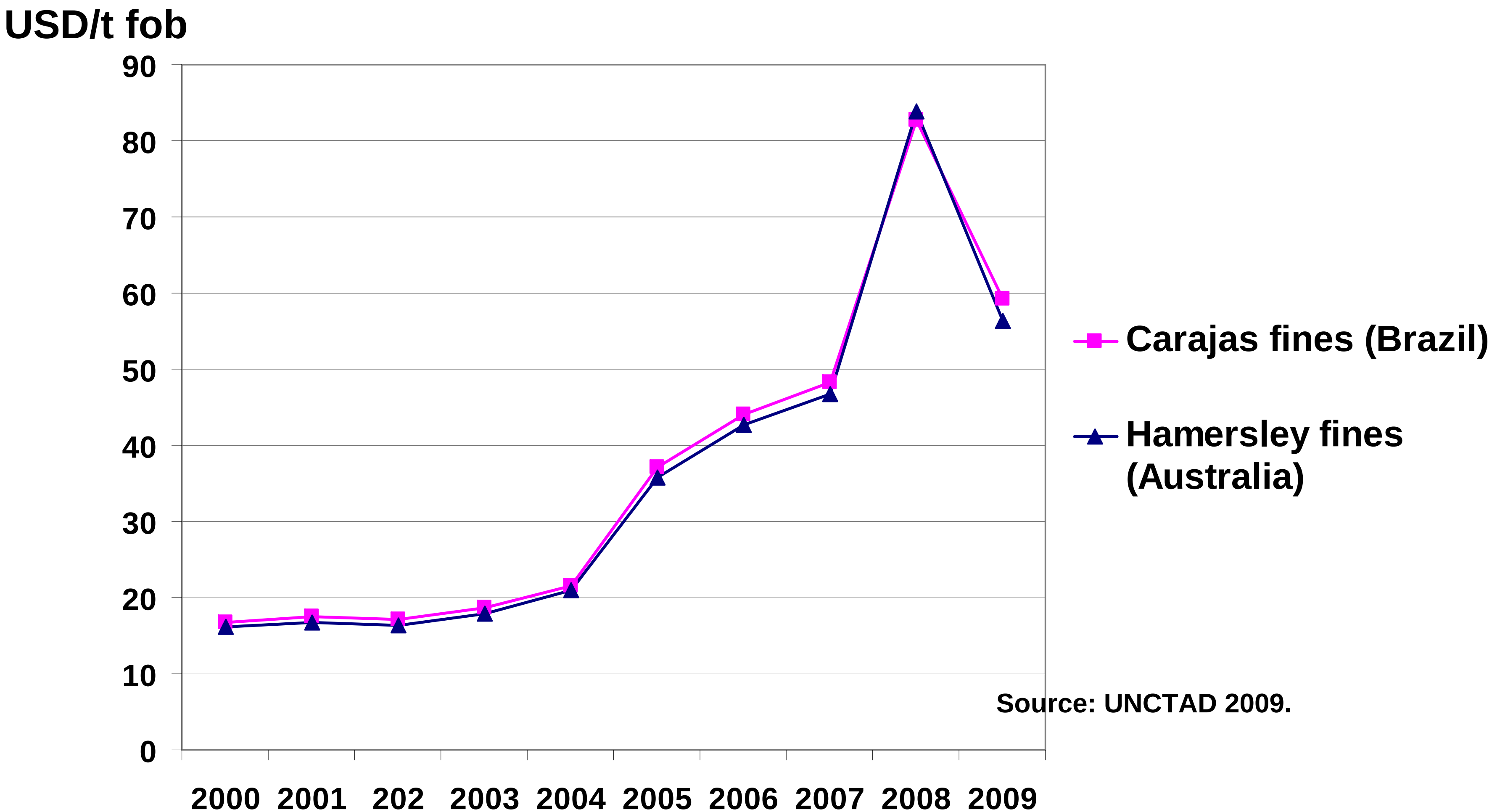
Thorium drawing: Kaianders Sempler.

Price systems

- Bench mark negotiations long term contracts.

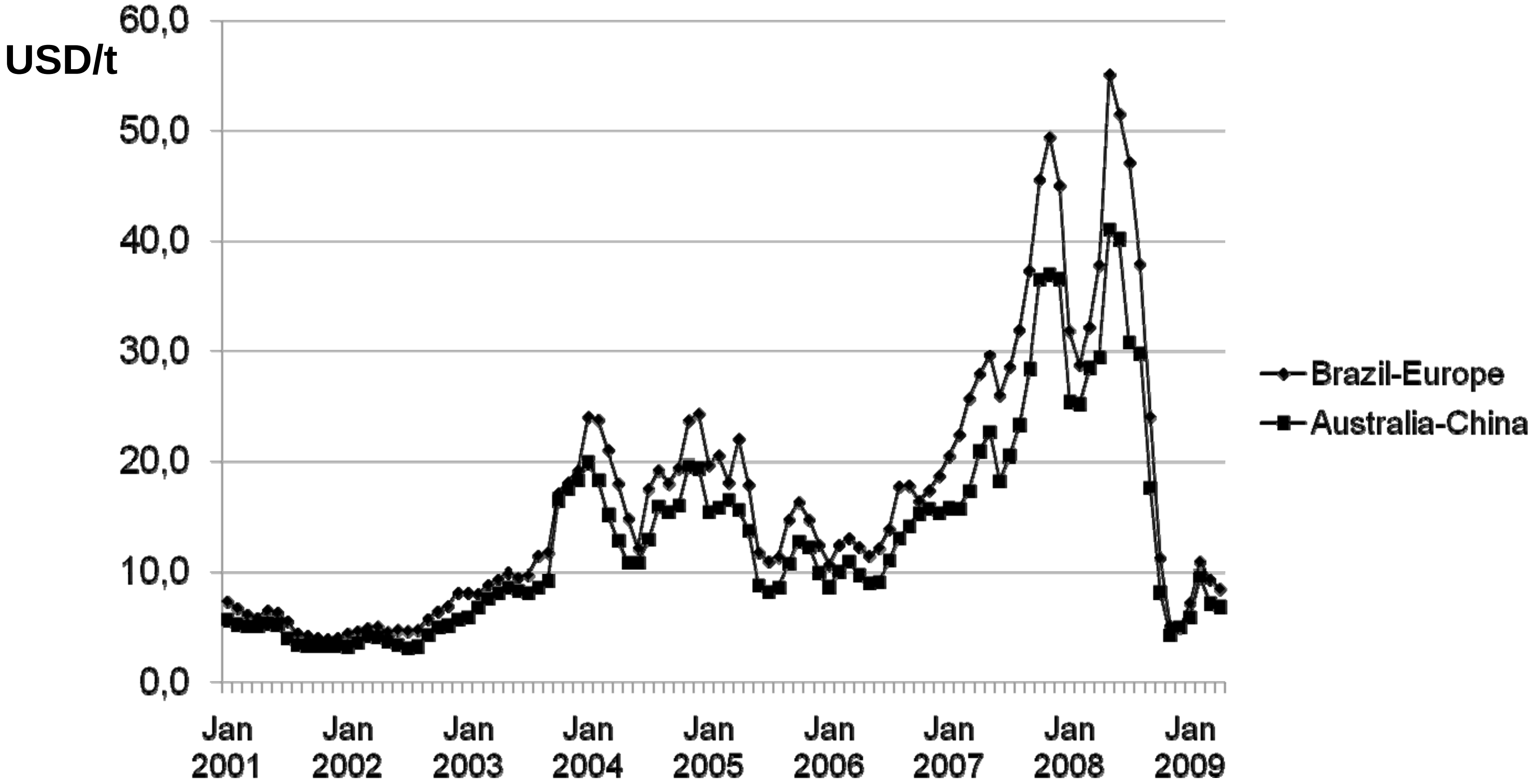
- Spotprices.

Iron ore contract prices



Source: UNCTAD 2009.

Iron ore freight rates



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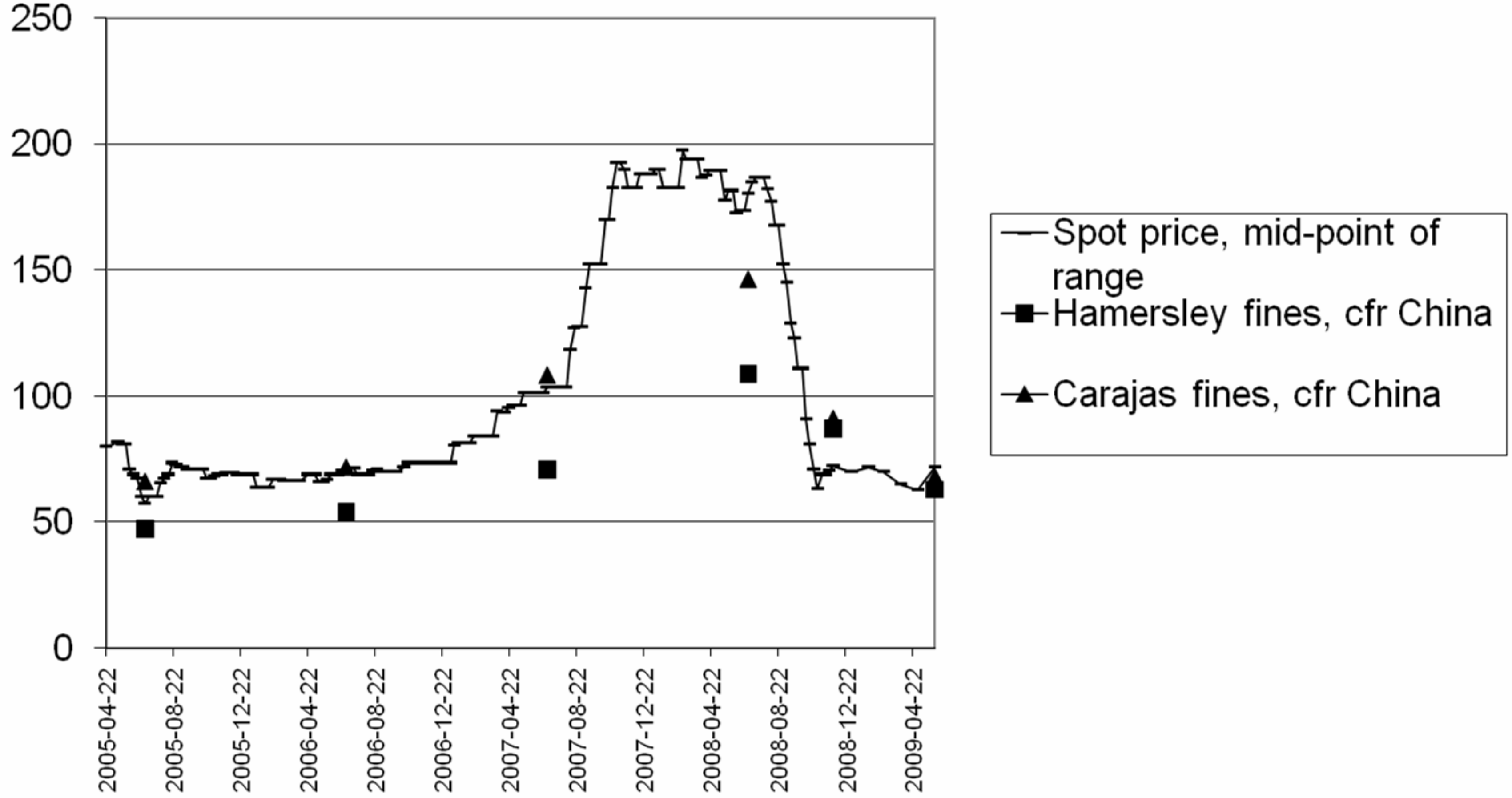
Benchmark and spot prices and freight rate differentials



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The iron ore pricing system

- **Challenges**
  - Large freight rate fluctuations.
  - No longer consensus around consideration of freight costs.
  - Concerns about concentrated supply.
  - Growing and critical importance of spot market.
  - Trend towards vertical integration.
  - Reduced availability of information.
- **Innovations**
  - Australian freight premium.
  - Large producers selling part of production on spot market.
  - More frequent price changes in contracts.
  - Metal Bulletin Iron Ore Index and others.

Iron ore pricing system, tentative conclusions

- Benchmark system no longer the only available.
- Convenient and not likely to be abandoned.
- Advantage of spot prices:
  - More frequent changes.
  - Possibility of hedging.
- Conclusion:

  Benchmark and alternatives will co-exist.

Tungsten drawing: Kaianders Sempler.

Future ?

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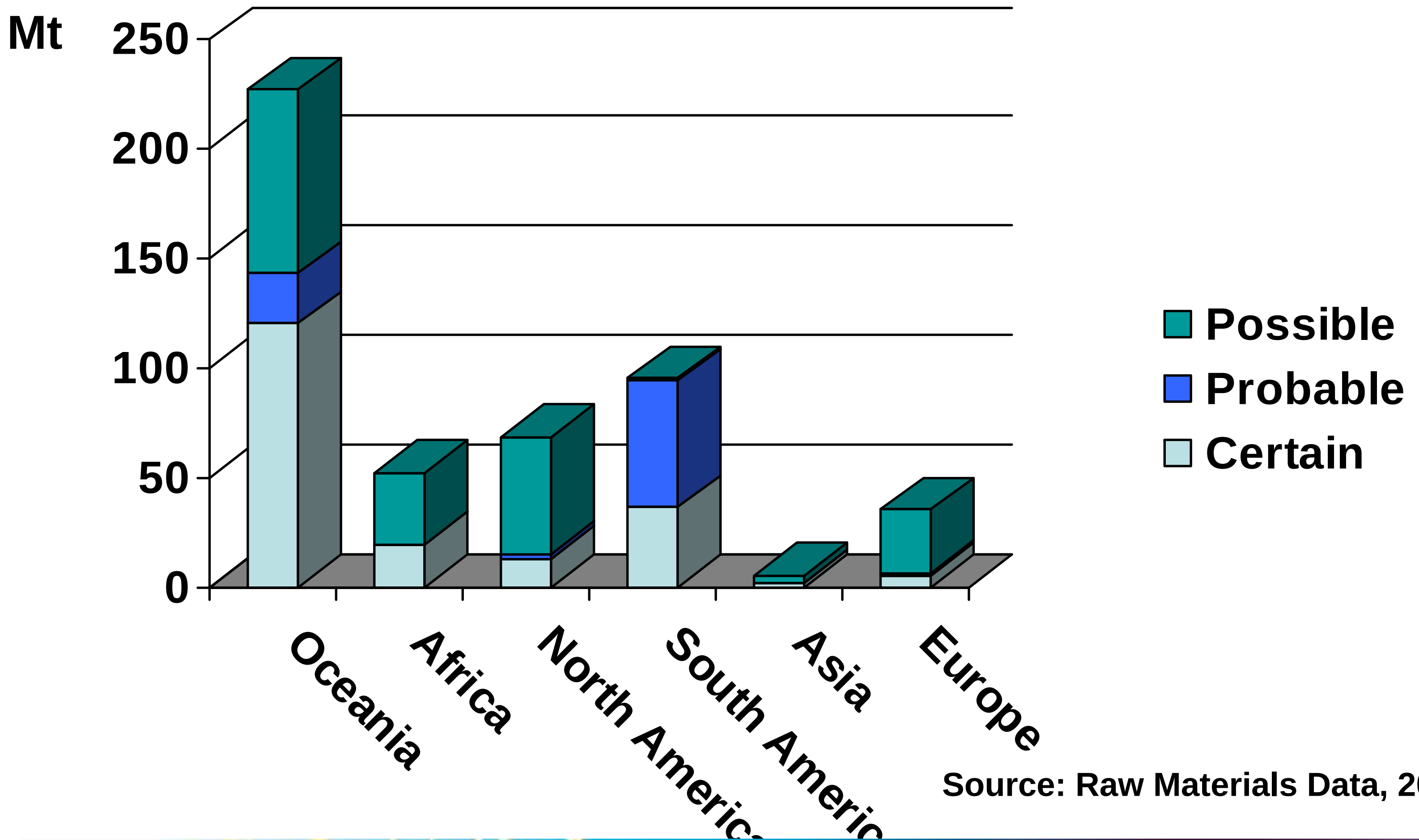
Impact of falling demand

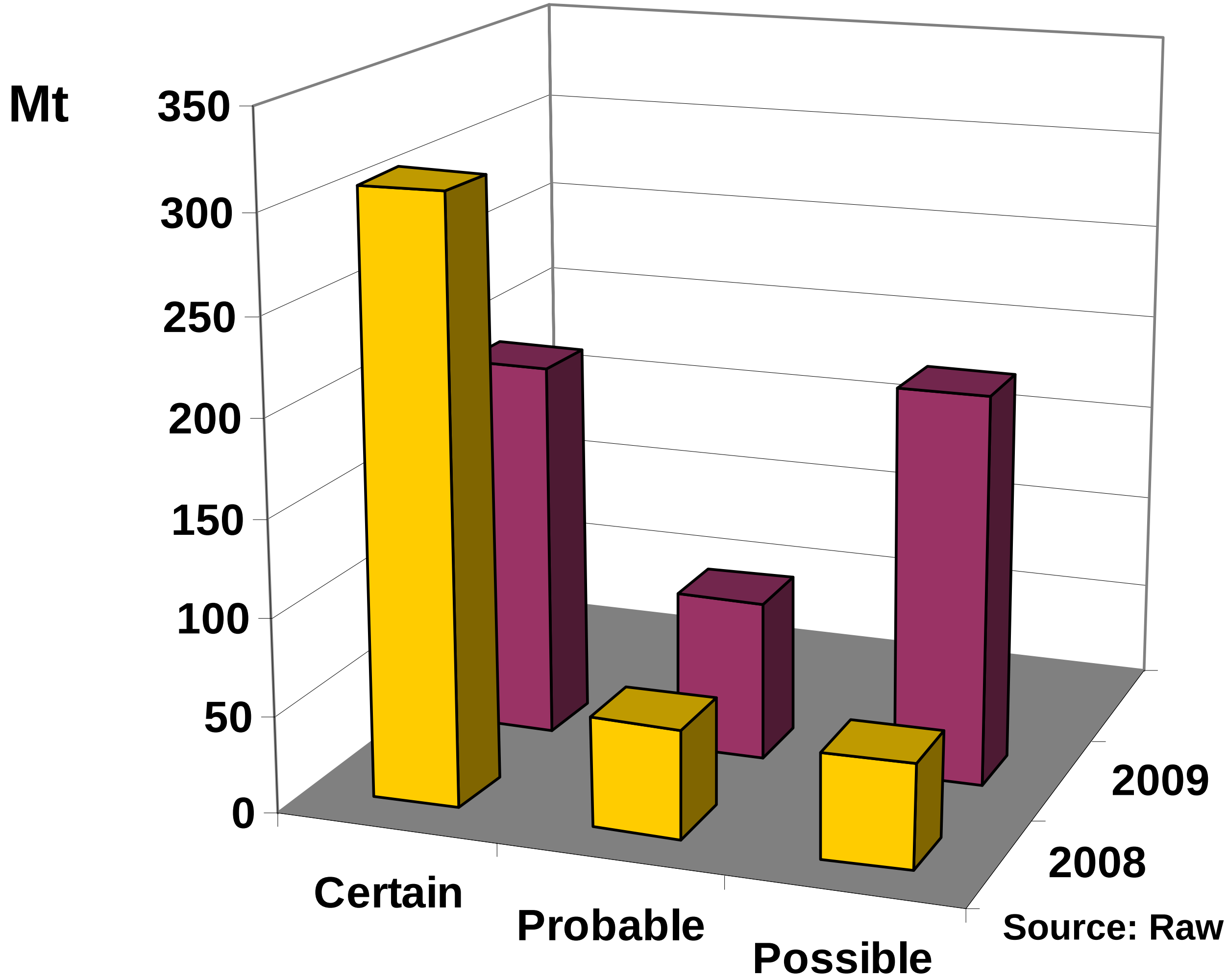
- Producers quick to reduce output
  both majors and others.
- Big unknown: viability of Chinese production.
- Changes in project pipeline.
- Changes in ownership.

Iron ore projects 2009-2011



Source: Raw Materials Data, 2009.

Project pipeline



Source: Raw Materials Data, 2009.

Project pipeline

- Few cancelled projects –
  will change dramatically.
- Projects already under way go on
  but slow ramp up.
- Large producers: capability to wait for market.
  Small/new producers: must sell to pay loans.
- Large infrastructure projects first to cancel.

Ownership structure

- Winners:
  - The largest international producers.
  - Chinese international producers.
- Losers:
  - Chinese domestic miners
  - Juniors without funding
- Increased corporate concentration in future.

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Medium-term outlook 2009/2010/2011

- World crude steel 2008 declined by - 1.2 %.

Assumption:

- Crude steel production 2009 – 15 %.
- 2-3 years to return to 2008 level.
- Further growth 3.3 %.

- Iron ore surplus 2010 300-400 Mt.

Medium-term outlook 2009/2010/2011

- 2009 iron ore production decline.
  2010 no growth or possibly small decline.
  2011 return to slow growth.
- Spot price may provide a floor for contract prices - freight rates remain low
- The market will return to fast growth in 2012. Structural factors – unchanged.
- Prices: 2009 – 25/35 %, 2010 flat, 2011 up?

Scenarios

- Chinese production goes down –
  Chinese subsidizes domestic production.
- Big 3 share declines –
  Big 3 recaptures initiative.
- Captive production increases -
  Mining and steelmaking remains mostly separate
- New producers emerge - sooner or later.

Tungsten drawing: Kaianders Sempler.

THANK YOU !

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