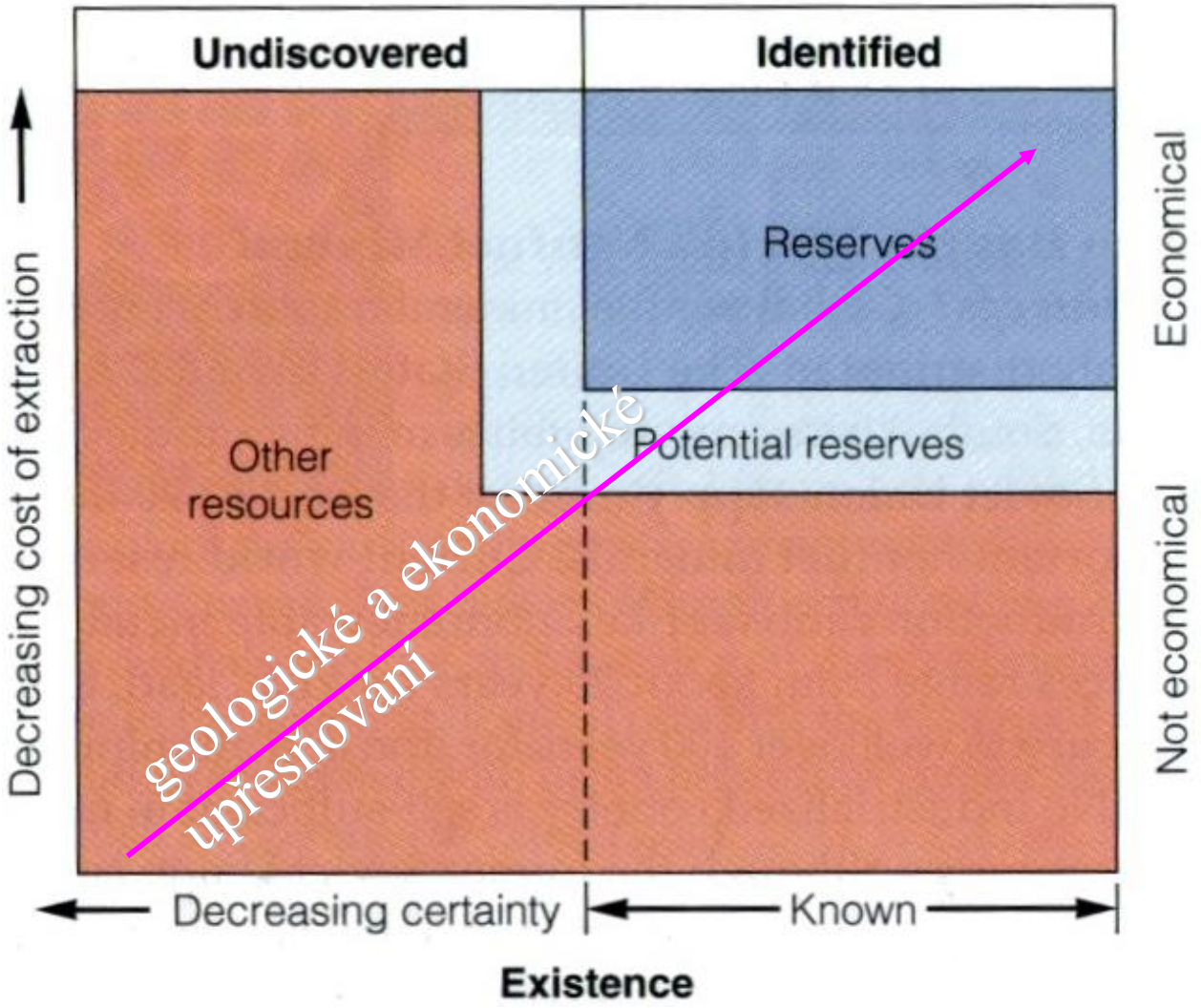
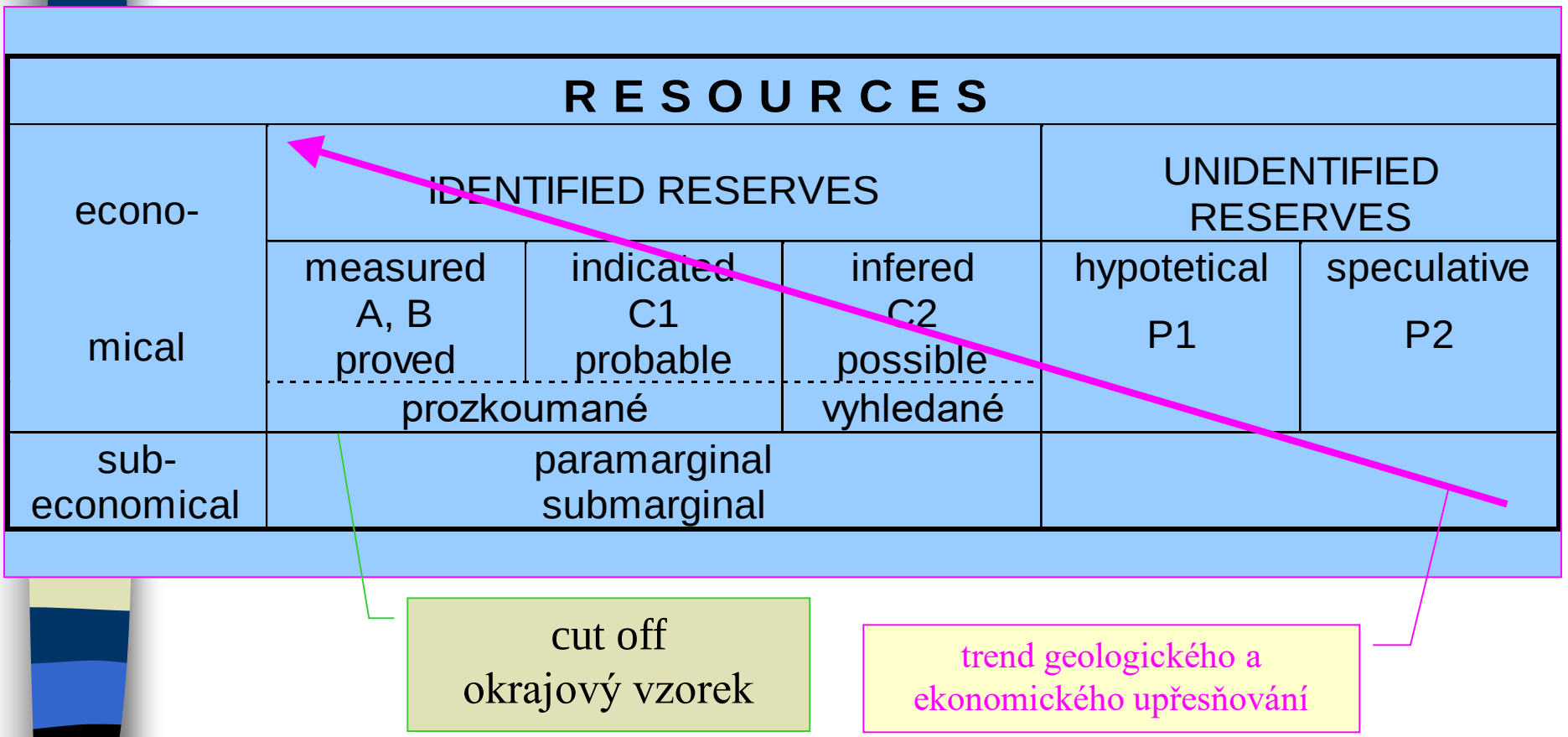
Světové zásoby, jejich podoba a kategorie, životnost surovin

Zásoby a spotřeba
reserves and consumption

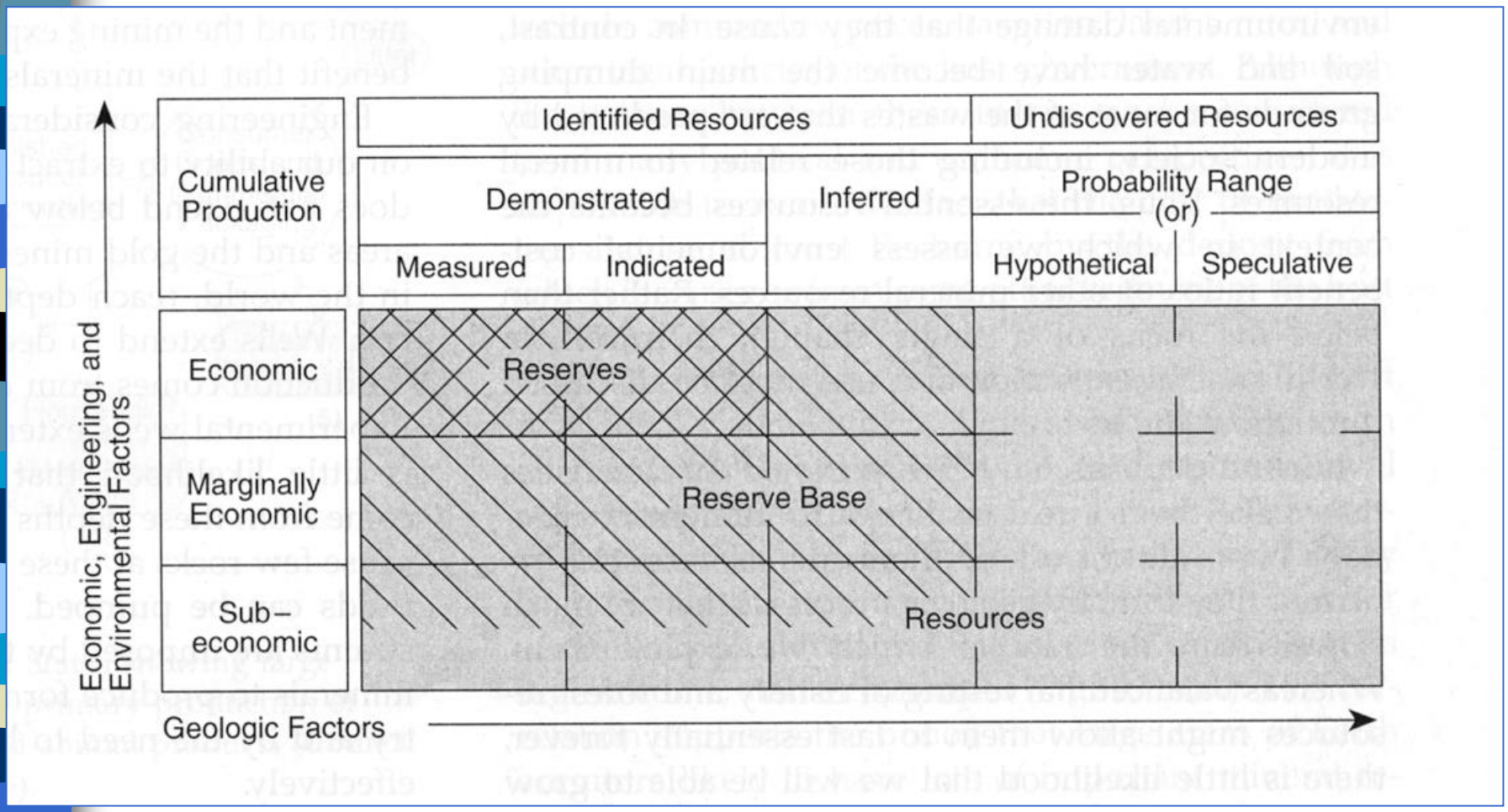
Klasifikace zásob a zdrojů



Klasifikace zásob



Zásoby a zdroje

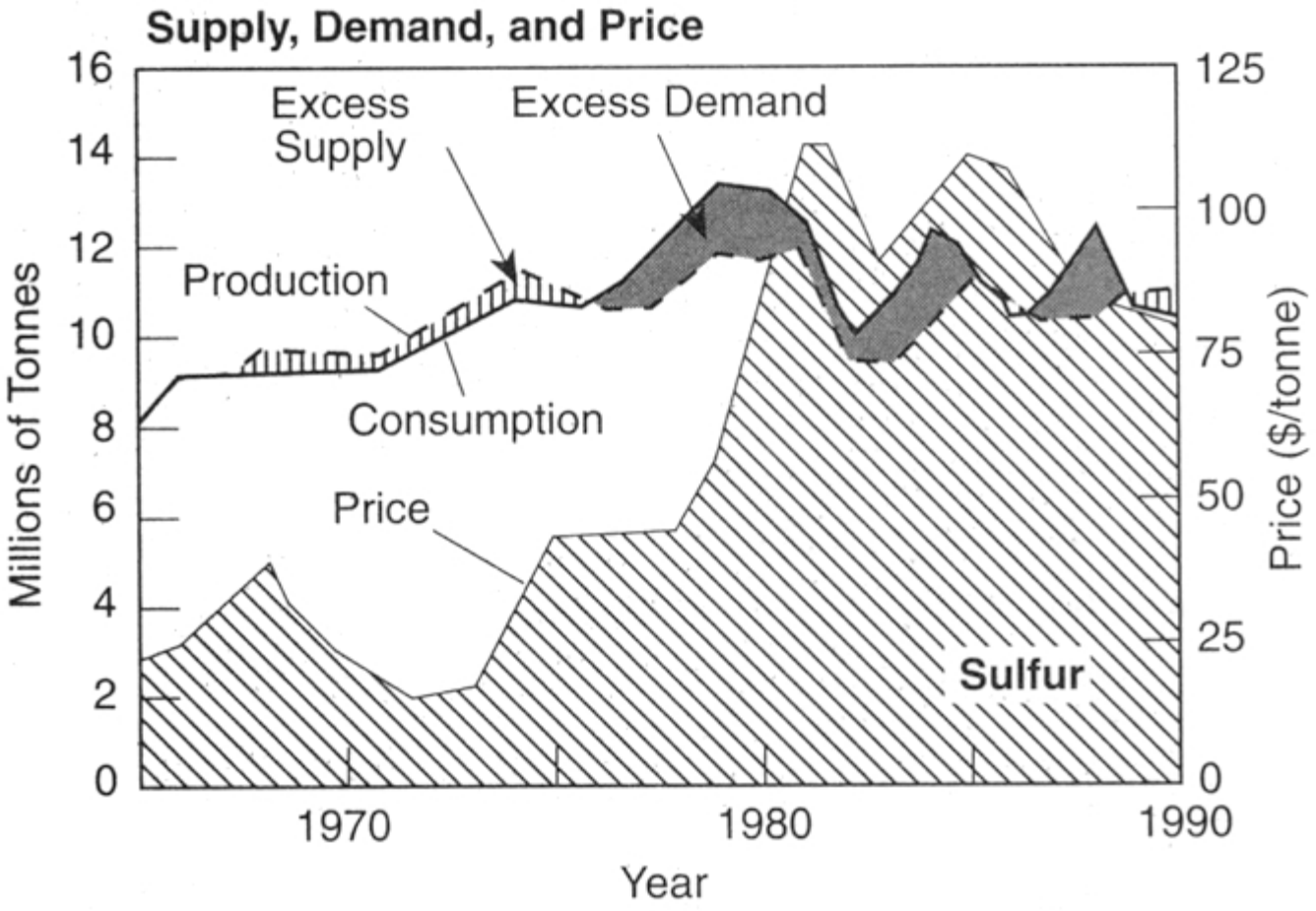


Zásoby a spotřeba surovin

Zásoby a spotřeba surovin jsou neoddělitelné kategorie, které je nutno posuzovat ve vzájemném propojení. Stav zásob je značně proměnlivý v čase. V podstatě závisí na:

- poptávce
- ceně surovin
- investicích do průzkumu
- technickém/technologickém pokroku

Zásoby-poptávka-ceny



Zásoby

- geologické (součet v kategoriích)
- průmyslové (bilanční)
- burzovní

SALIENT IRON ORE STATISTICS[1]

(Thousand metric tons and thousand dollars unless otherwise specified)

	1999	2000	2001	2002	2003
United States:					
Iron ore, usable, less than 5% manganese:[2]					
Production	57 700 r	63 100 r	46 200 r	51 600 r	46 400
Shipments:					
Quantity	58 500	61 000	50 600	51 500	44 500
Value	1 550 000	1 560 000	1 210 000	1 340 000	1 200 000
Average value at mines dollars per metric ton	26,47	25,57	23,87	26,04	26,86
Exports:					
Quantity	6 120	6 150	5 610	6 750	6 770
Value	243 000	246 000	229 000	249 000	248 000
Imports for consumption:					
Quantity	14 300	15 700	10 700	12 500	12 600
Value	399 000	420 000	293 000	313 000	328 000
Consumption, iron ore and agglomerates	75 100	76 500	67 300	59 100 r	60 600
Stocks, December 31:					
At mines, plants and loading docks[3]	5 710	9 150	3 800	4 090 r	4 910
At receiving docks[4]	2 770	2 860	1 960	1 820	1 630
At consuming plants	17 900	16 800	12 300	12 400	10 900
Total[5]	26 400	28 800	18 000	18 300 r	17 500
World, production[6]	1 020 000	1 080 000 r	1 050 000 r	1 100 000 r	1 160 000 e

příklad struktury statistiky zásob pro surovinu/komoditu - železo

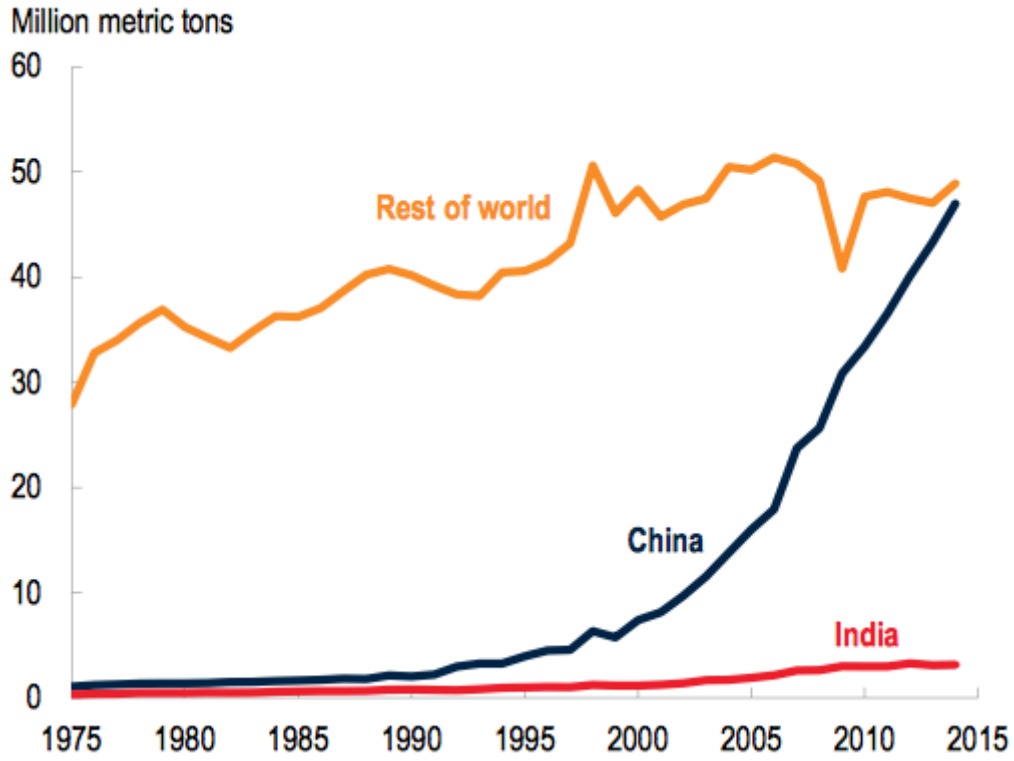
Zásoby a politicko-ekonomické aspekty

- závislost ekonomiky na zemích exportujících dané komodity
- procento závislosti na importu

  = 100% - x% vlastní produkce kryjící vlastní spotřebu

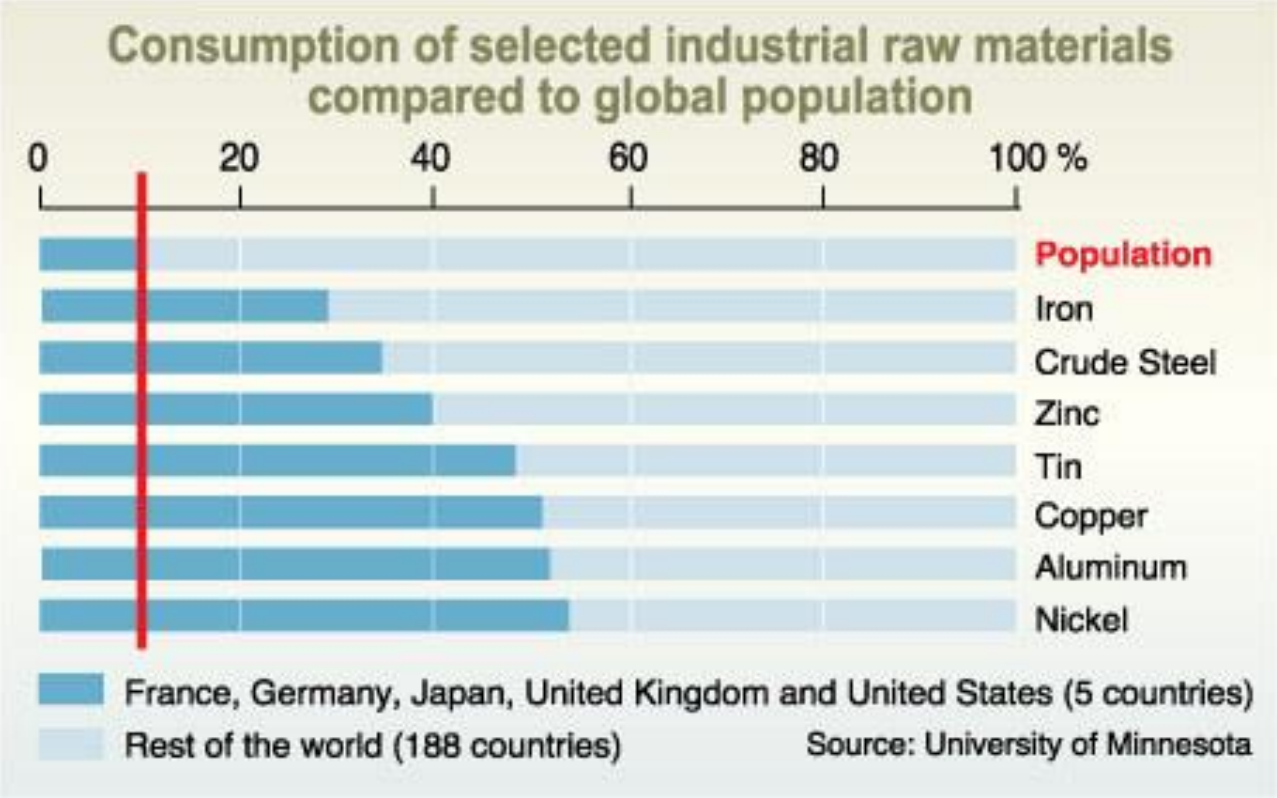
- stupeň zranitelnosti pro danou surovinu
- životnost surovin

Spotřeba nerostných surovin



China's share of world metals consumption tripled from 13 percent in 2000 to 47 percent in 2014.

Spotřeba 02


Consumption of selected industrial raw materials compared to global population
0
20
40
60
80
100 %
Population
Iron
Crude Steel
Zinc
Tin
Copper
Aluminum
Nickel
France, Germany, Japan, United Kingdom and United States (5 countries)
Rest of the world (188 countries)
Source: University of Minnesota

Lifespan of raw materials

Životnost surovin

odvíjí se od investic do průzkumu, výzkumu a dalších faktorů:
např. scénáře A, B, C

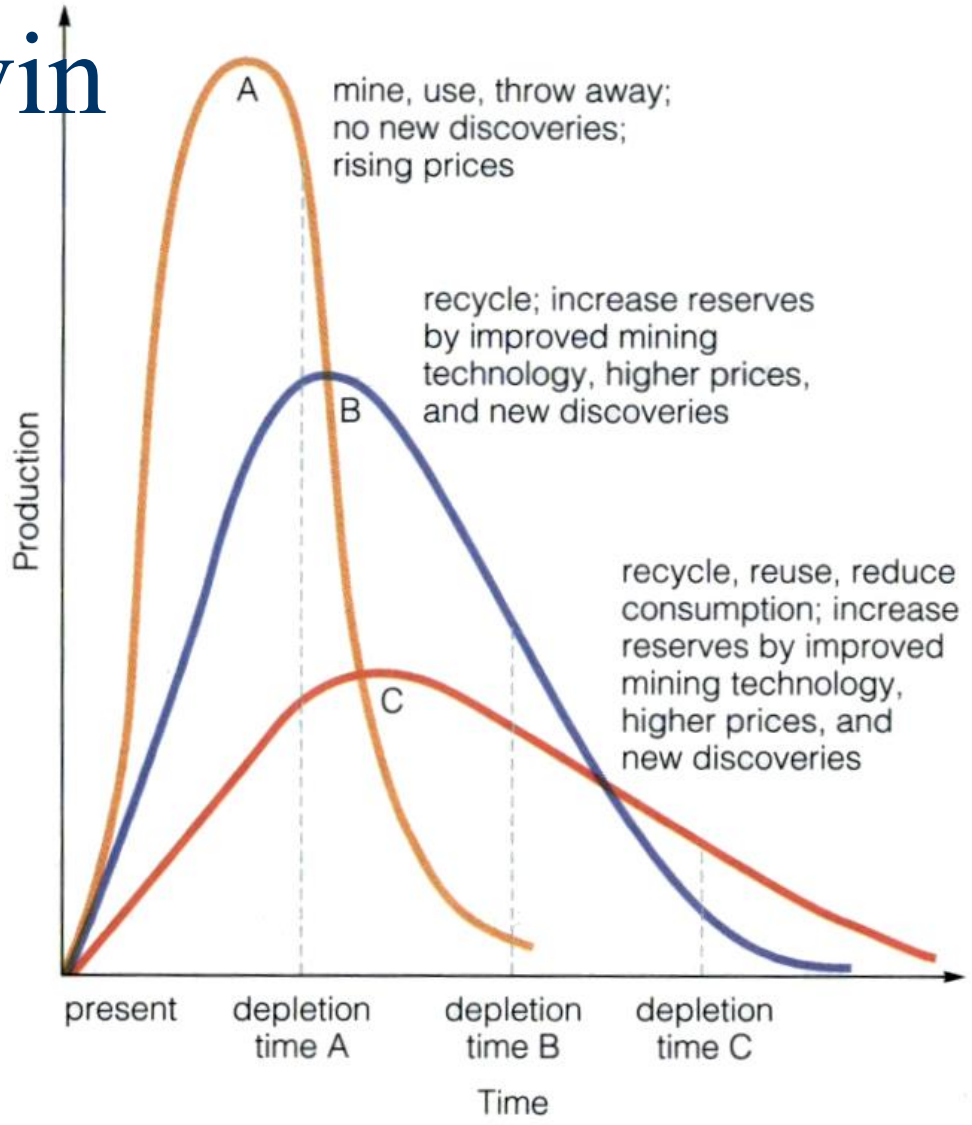


Figure 12-13 Depletion curves for a nonrenewable resource (such as aluminum or copper) using three sets of assumptions. Vertical lines represent times when 80% depletion occurs.

Jak působí technologický pokrok a čím je sám ovlivňován?

Vztah velikosti území a počtu druhů nerostných surovin

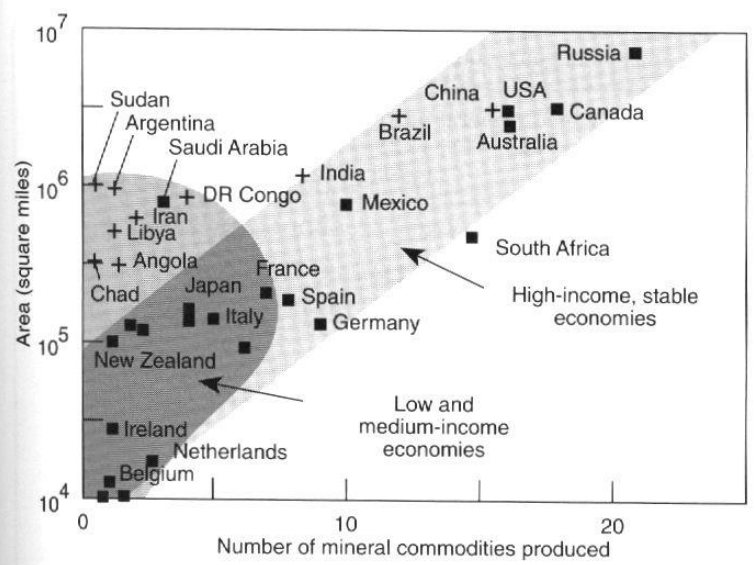


Figure 1.6 Relation between land area and number of minerals produced by various countries showing a good relation for high-income, stable economies and a poor relation for low and medium-income countries with less stable economies. This distinction between countries is similar to the LDC–MDC distinction used in this book and shows that countries with large land areas (and consequent variable geology) and stable fiscal and operational regulations are more likely to host operating mineral deposits.

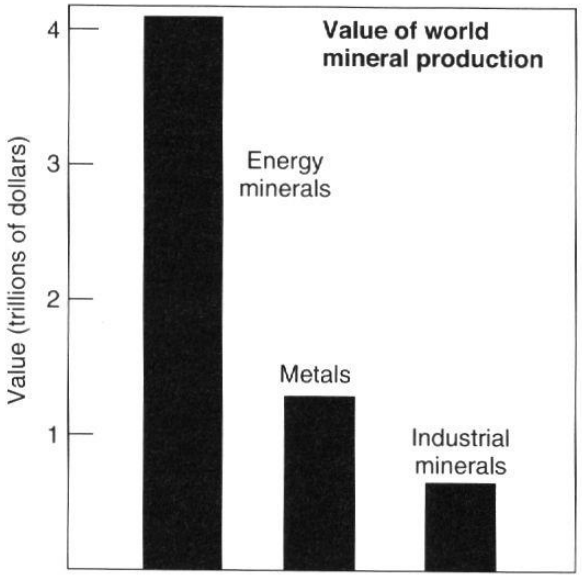


Figure 1.7 Value of world production for the three main classes of mineral products. Recycled material is not included. Steel and cement are the only processed mineral products included here and the exclusion of these would cause the metals and industrial minerals totals to drop to $0.8 billion and $0.4 billion, respectively (compiled from data of the US Geological Survey and International Energy Agency).

Vztah ekonomiky a využívání ložisek

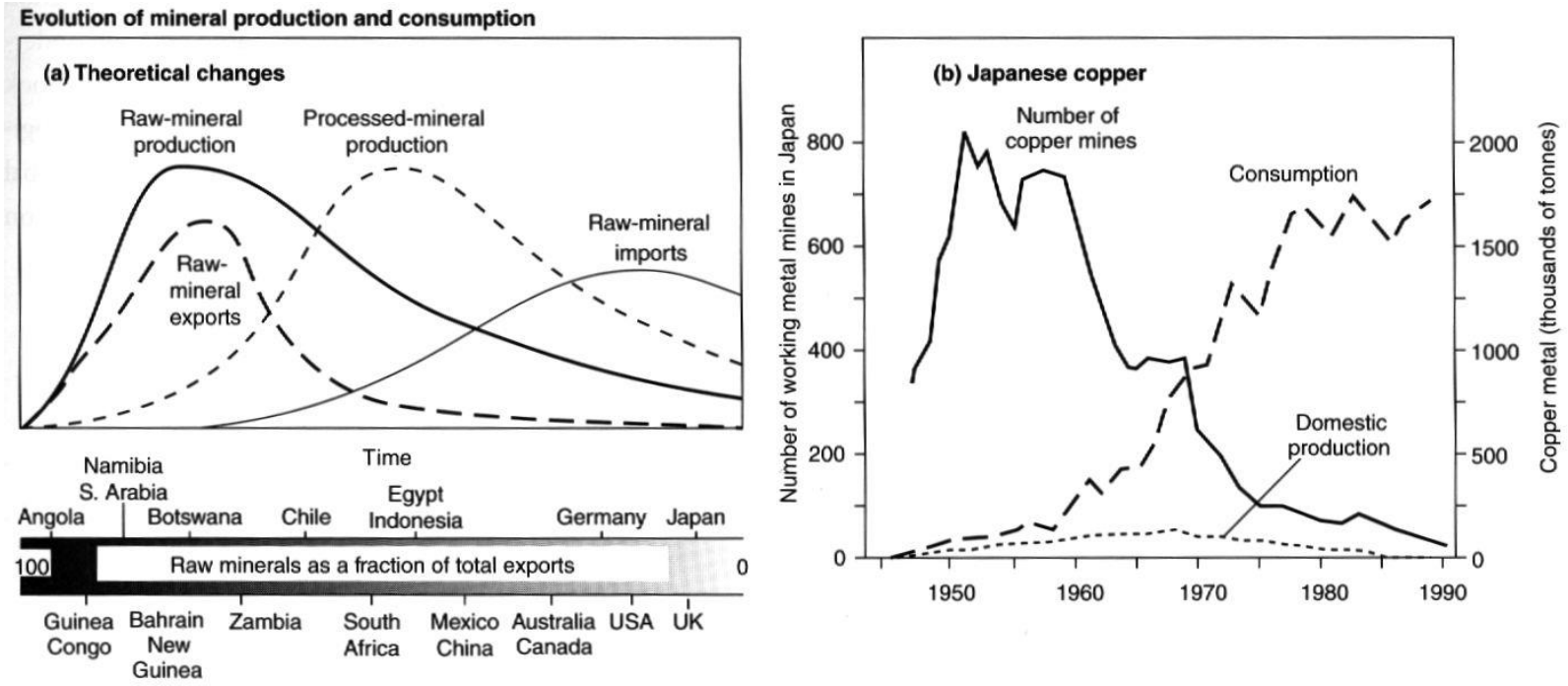


Figure 1.8 (a) Classical relation between economic development and mineral supplies showing the position of several mineral-producing countries as indicated by the proportion of minerals in their total exports. (b) Change in copper mining and production in Japan from 1940 to 1990 showing increased consumption despite decreased domestic production (based on Ishihara, 1992).

Produkce - spotřeba

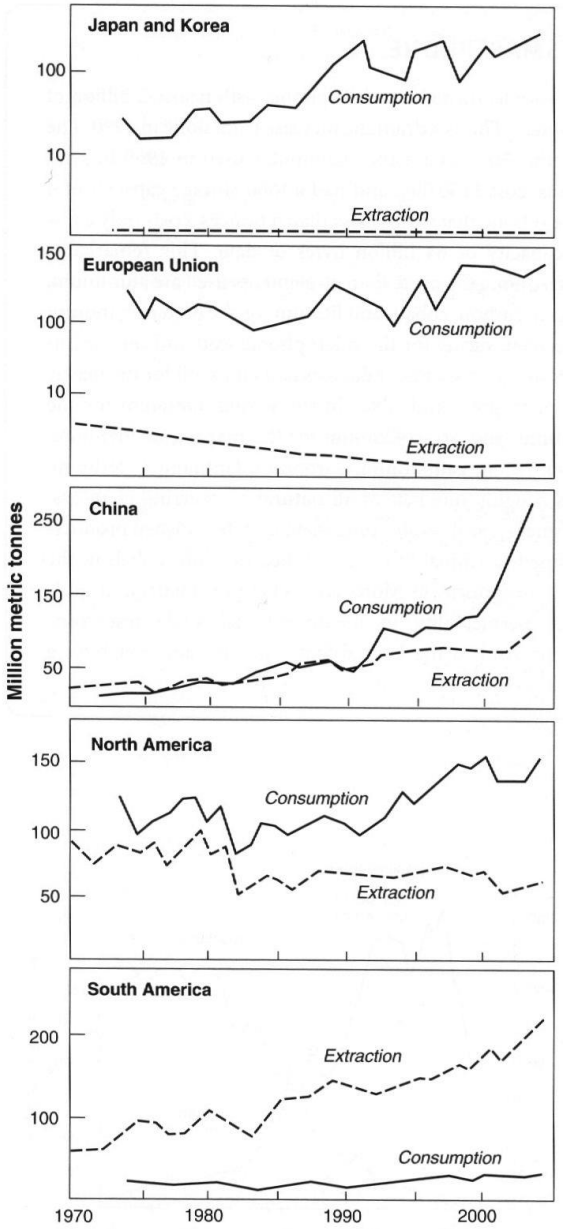


Figure 1.9 Relation between consumption and extraction for iron and steel in various parts of the world, showing the high dependency of the European Union and Japan–Korea on imports, with lesser dependence in China and North America and a large export market for South America (compiled from Rogich and Matos, 2008)