

DPRK Energy and Minerals Trade with China

Trends Since 2007



Today's Presentation

- Notable Findings
- Questions Concerning Bilateral Trade
- Data Sources
- Energy and Fuel Trade
- Minerals Trade
- Trends and Implications

Notable findings

- Since 2000, energy and minerals have become a larger portion of North Korean exports and a smaller portion of imports.
- In 2009, energy comprised 17% of official DPRK imports from the PRC and 33% of exports by value.
- Whereas the DPRK is a net importer of PRC crude oil and oil products, it became a net exporter of electricity and coal to China in 2003.
- Between 2000 and 2009 the value of North Korean minerals exports to China increased by an average annual growth rate of 53%.
- North Korean mineral and electricity exports are sold at discounted prices; on the other hand Chinese bituminous coal, crude oil, and oil product are sold to North Korea at premium prices.
- North Korea is a net exporter of both energy and financial resources in its trade with China.

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This presentation will address five questions on DPRK energy trade with China

- What is the value and quantity of energy and minerals trade between North Korea and China?
- How does each country price energy and minerals exports relative to China's other trading partners?
- How are goods moving between China and North Korea?
- What type of minerals is China importing from North Korea?
- What do trade data indicate about national policy and the domestic energy situation?

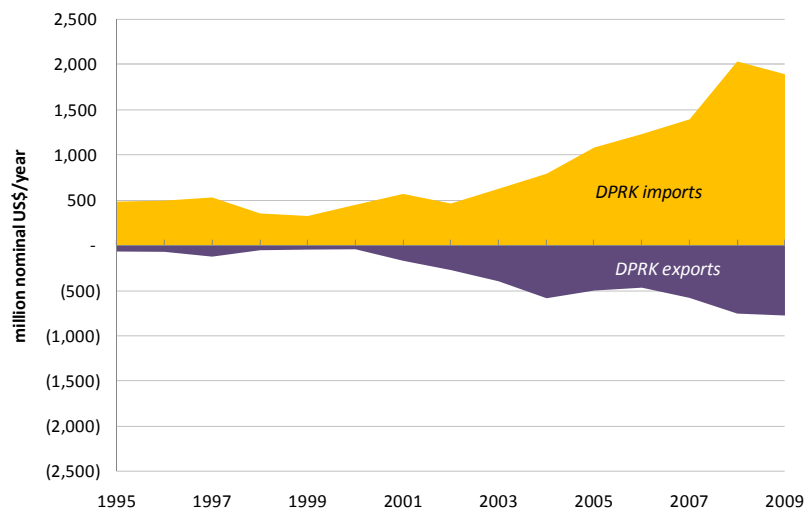
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Direct DPRK data are elusive

- North Korean trade data are covered in the UN International Commodity Trade Database and on a fairly detailed level in Chinese Customs Statistics Yearbooks.
- This presentation reviews data compiled by the China Customs Bureau.
- Bilateral trade data from China Customs were classified under “Other Asia, N.E.S” from August-November, 2009.
- Trade value data are in nominal dollars according to current official exchange rates.

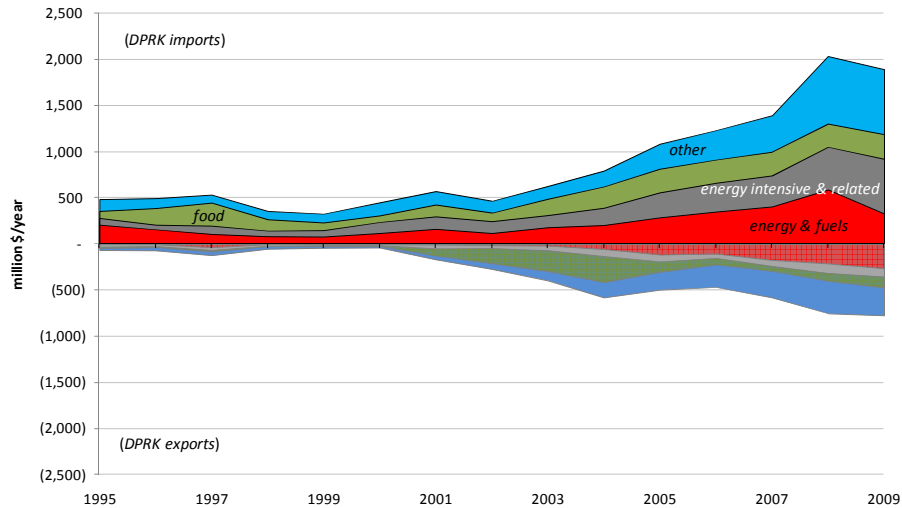
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North Korea's net imports of Chinese goods reached \$1.3 billion in 2008



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Energy and fuels has been a consistent portion of DPRK-PRC trade



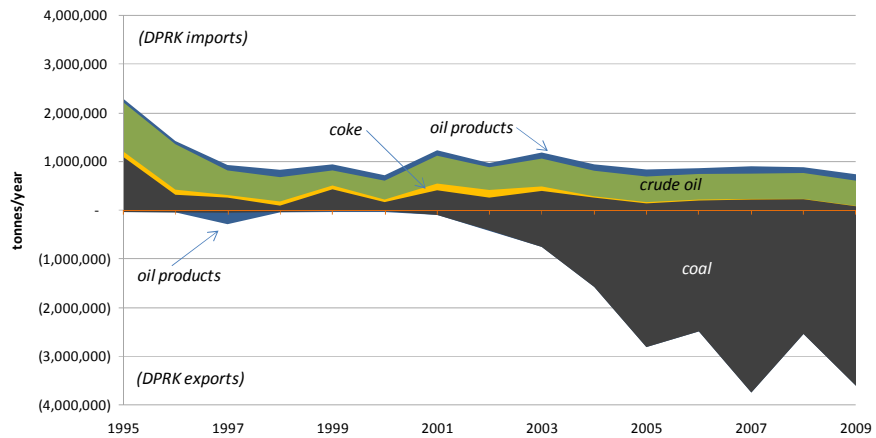
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In 2009, energy and fuels was the single largest official DPRK-PRC trade category

	DPRK Imports		DPRK Exports	
	Commodity	Value (million \$)	Commodity	Value (million \$)
1	Energy & fuels	\$ 327	Energy & fuels	\$ 259
2	Machinery	\$ 160	Ores, slag, ash	\$ 140
3	Electrical machinery	\$ 132	Woven apparel	\$ 93
4	Vehicles, not railway	\$ 103	Iron and steel	\$ 73
5	Knit apparel	\$ 94	Fish and seafood	\$ 57
6	Plastic	\$ 75	Salt; sulfur; earth, stone	\$ 29
7	Iron and steel	\$ 68	Zinc & articles thereof	\$ 20
8	Manmade filament, fabric	\$ 67	Inorg chem; rare earth mt	\$ 16
9	Cereals	\$ 55	Edible fruit and nuts	\$ 16
10	Iron/steel products	\$ 51	Aluminum	\$ 13
	Total Imports	\$ 1,891	Total Exports	\$ 777

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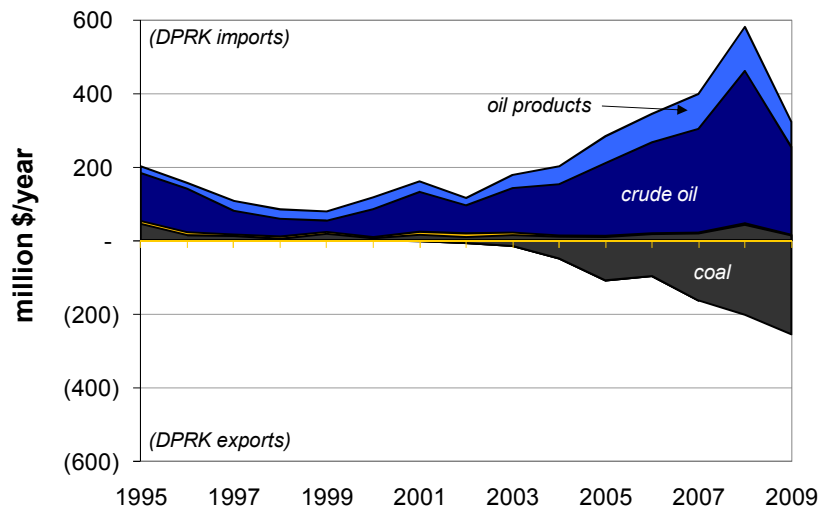
Crude oil imports were overshadowed by 3.6 million tonnes of coal exports in 2009



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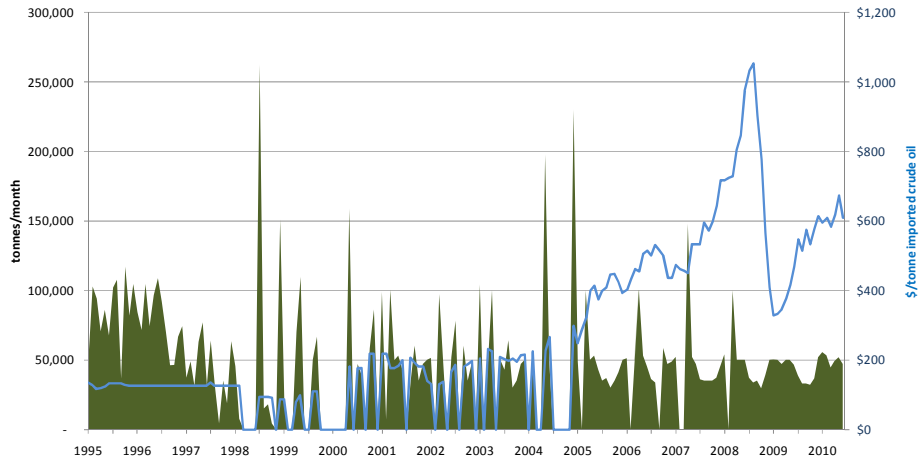
But crude oil is more valuable...



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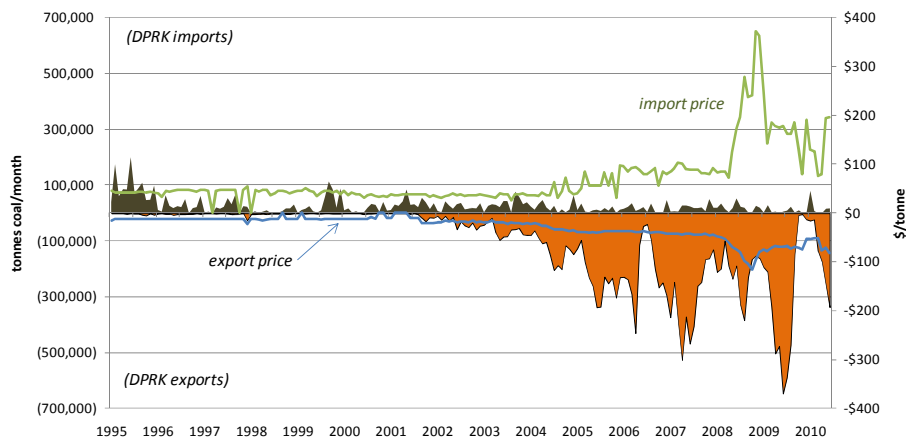
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...and North Korea's sporadic crude oil imports have been largely unabated



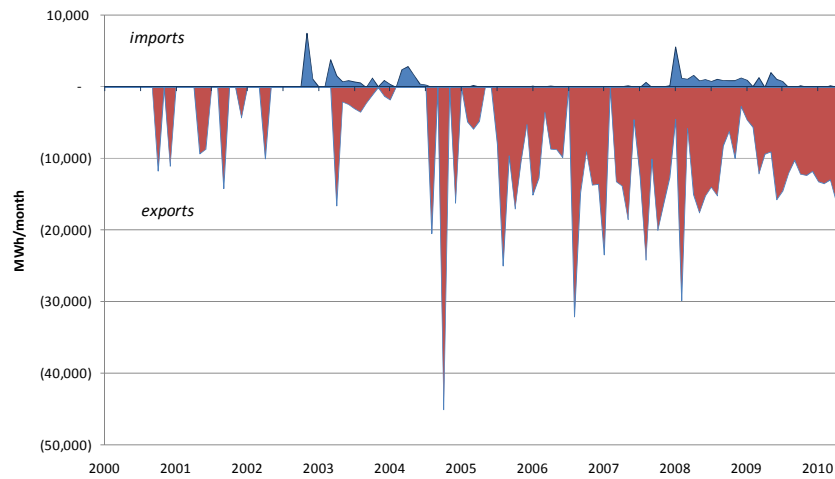
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On the other hand, coal exports surged with prices, while imports have diminished



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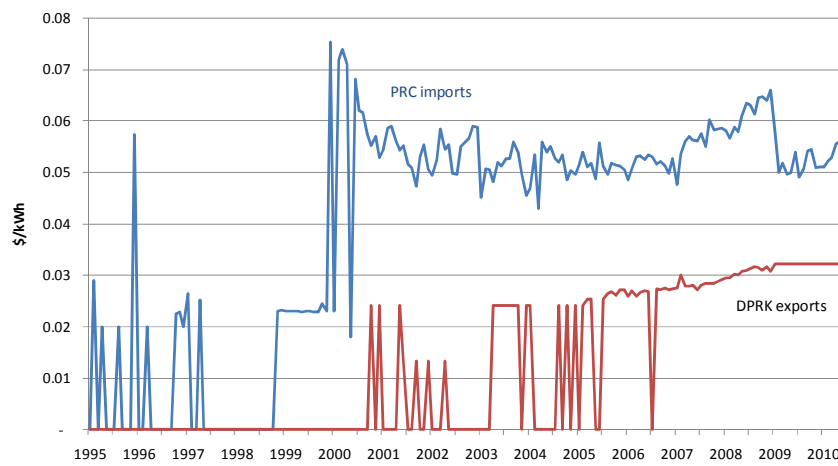
Sporadic exports of DPRK electricity have grown more sustained while imports have subsided



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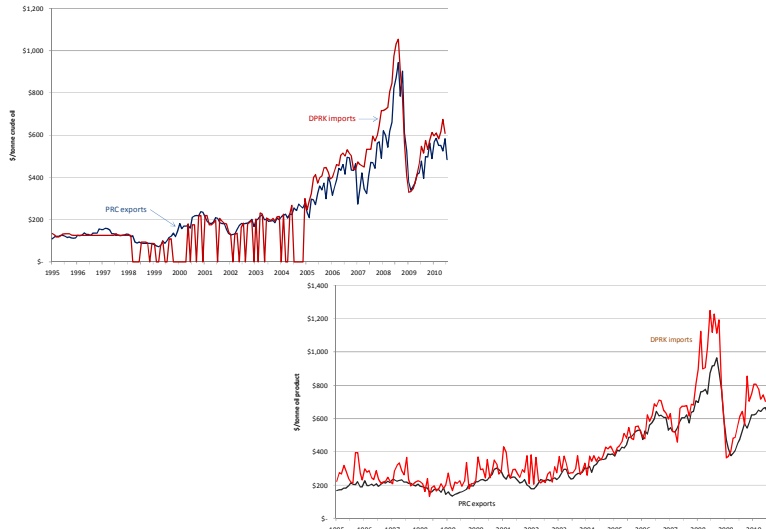
North Korean exports of electricity have grown at “friendship prices” ...



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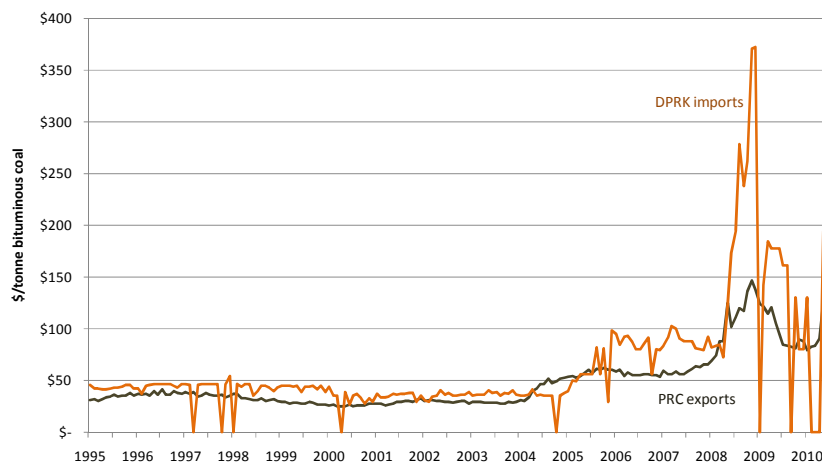
...but Chinese crude oil and oil product have been sold at top dollar



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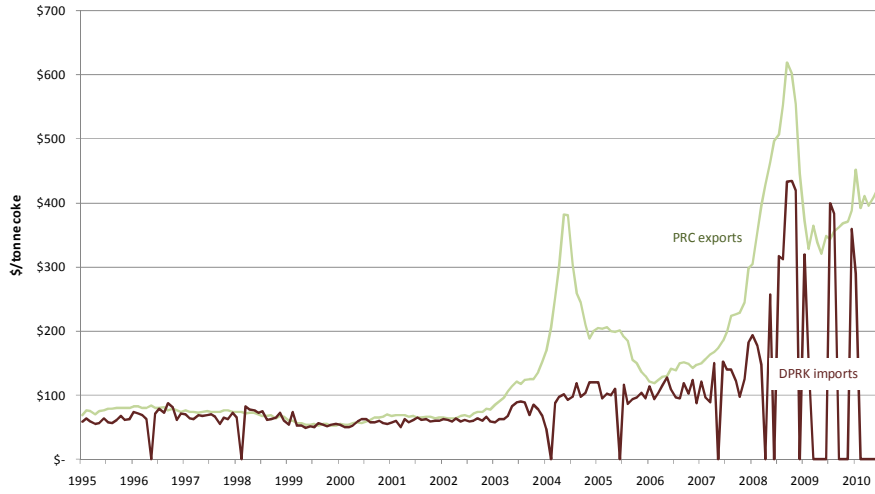
Chinese bituminous coal exports to the DPRK are also priced above average...



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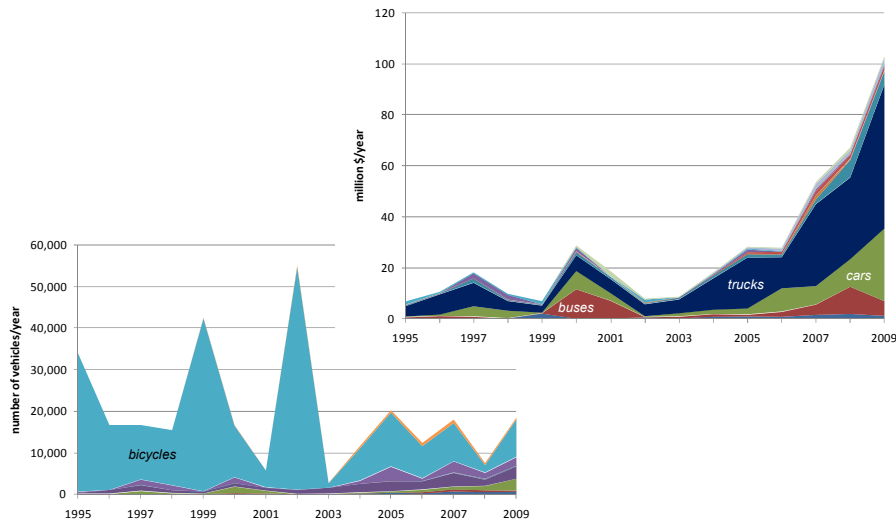
... though the North Korea received a 10% discount during the 5 months of 2009 when it imported Chinese coke



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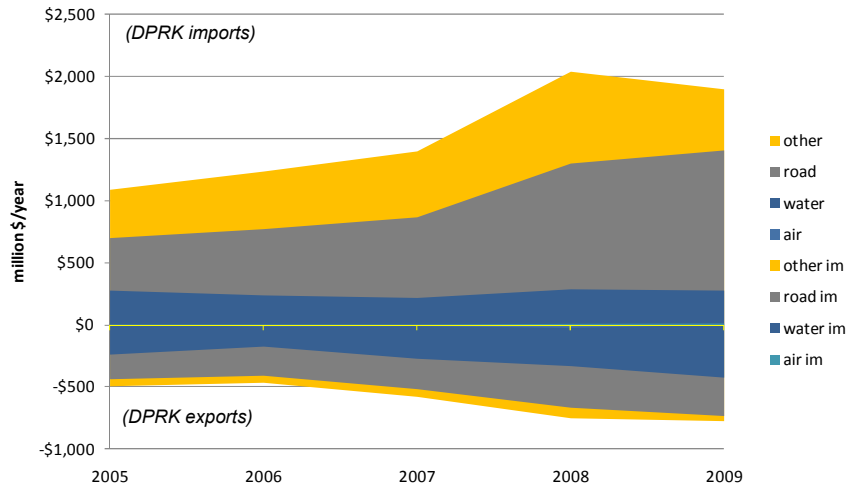
Transportation equipment moves on a one-way street from China to the DPRK



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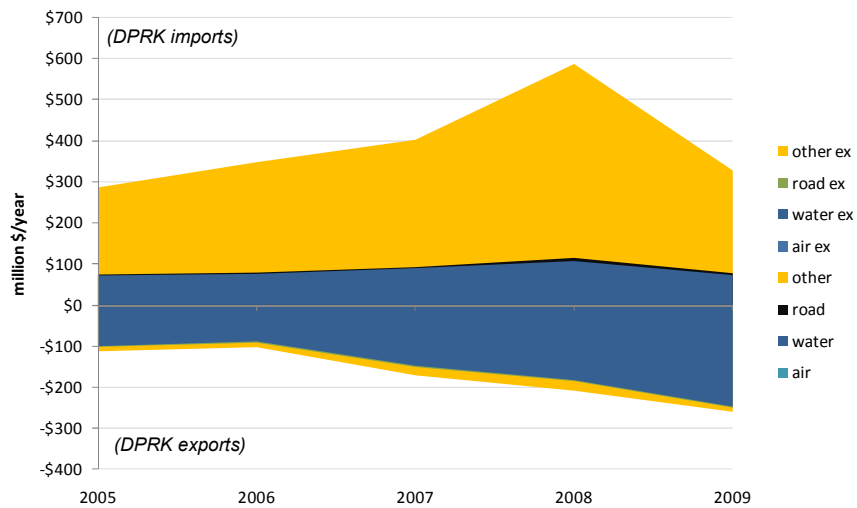
Most North Korean imports from China are transported by road...



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...except for energy & fuels, which move primarily by pipeline and water



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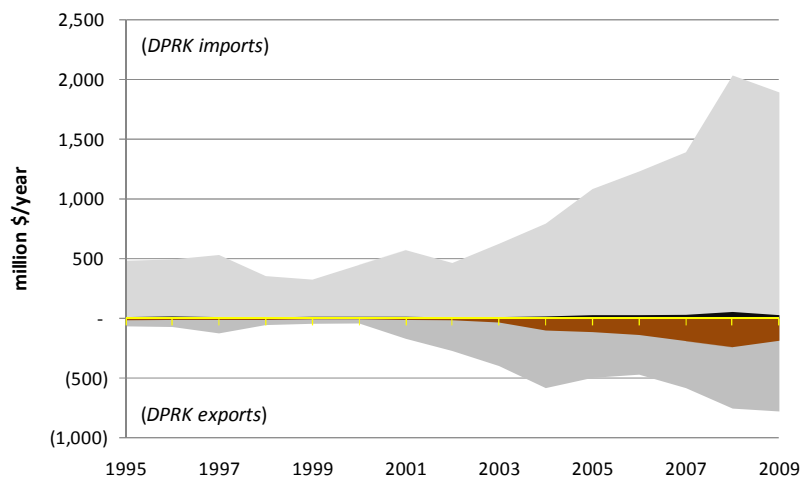
Minerals emerged as the largest DPRK export category in the first half of 2010

DPRK Imports			DPRK Exports	
	Commodity	Value (million \$)	Commodity	Value (million \$)
1	Energy & fuels	\$ 257	Ores, Slag, Ash	92
2	Machinery	\$ 76	Energy & fuels	72
3	Vehicles, Not Railway	\$ 68	Iron And Steel	45
4	Electrical Machinery	\$ 68	Woven Apparel	43
5	Iron And Steel	\$ 39	Zinc+Articles Thereof	16
6	Plastic	\$ 32	Fish And Seafood	16
7	Manmade Filament, Fabric	\$ 26	Salt; Sulfur; Earth, Stone	14
8	Iron/Steel Products	\$ 23	Electrical Machinery	11
9	Cereals	\$ 23	Inorg Chem; Rare Erth Mt	8
10	Manmade Staple Fibers	\$ 23	Knit Apparel	7
	Total Imports	\$ 939	Total Exports	348

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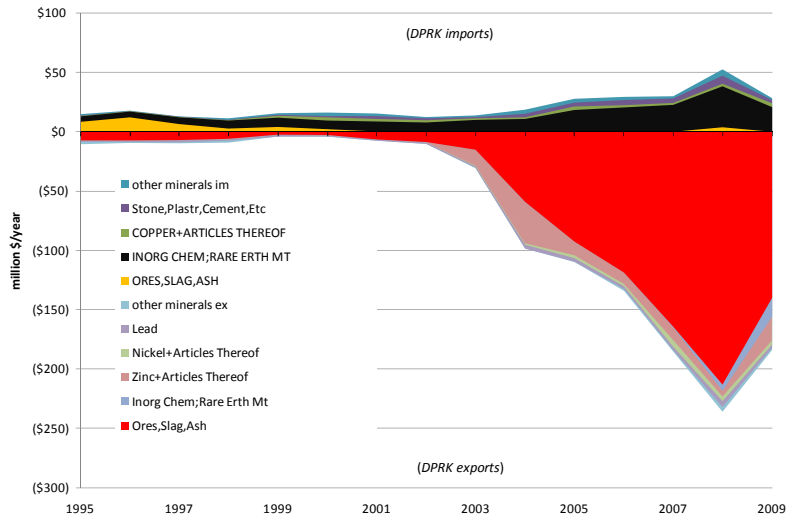
Minerals are a growing component of North Korean exports to China



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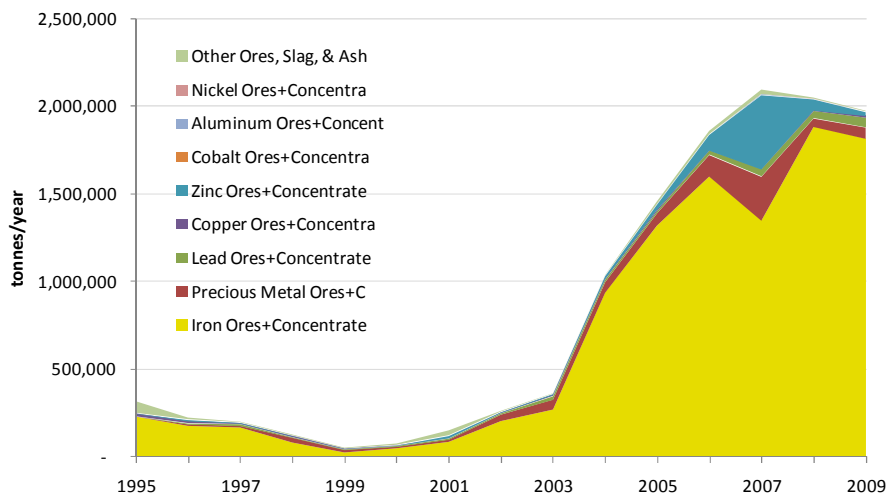
Exports are largely comprised of ores, slag, and ash, while imports are mostly inorganic chemicals and rare earth metals



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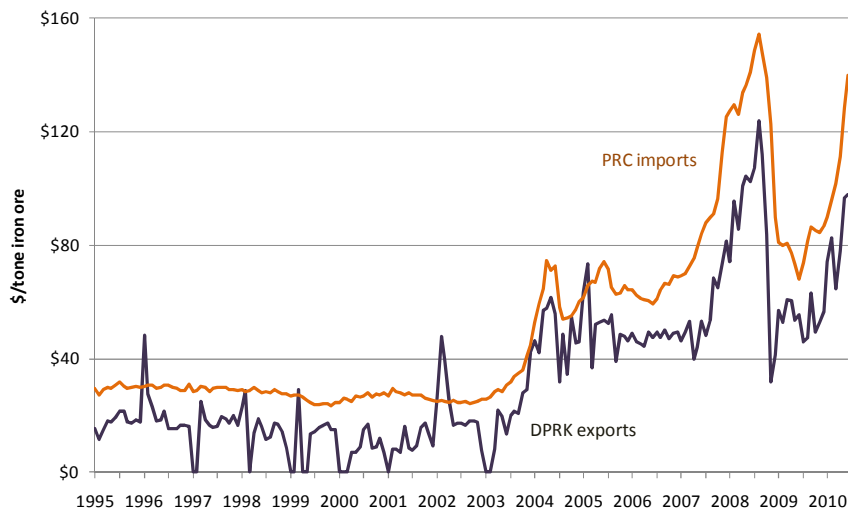
Iron ore dominates North Korea's mineral exports to China by volume



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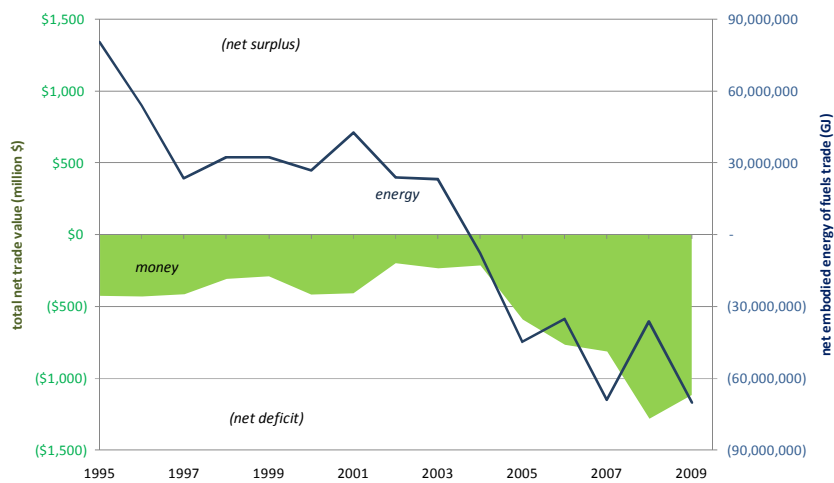
North Korean iron ore exports to China have been consistently discounted



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Bilateral trade is transferring energy and financial resources from DPRK to China



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These 'mirror statistics' have implications for DPRK energy and bilateral relations

- DPRK-PRC trade deficit surged to its highest point in 2008 (\$1.3 billion), at the same time the value of the energy-trade deficit rose to its highest point (\$378 million).
- Expanding coal, electricity, and minerals exports may reflect surplus capacity, dilapidated transmission infrastructure, and/or desperation for hard currency.
- Asymmetrical energy export pricing suggests an unbalanced alliance.
- Simultaneously increasing electricity exports and electrical generator equipment imports suggests the need for grid updating and improvement.
- North Korea's net export of both energy and money in its trade with China suggests increasing reliance on resource extraction for economic survival.

Thank you!

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