

## 原料需給は秋口以降に急軟化、米国発の金融不安が世界の实体经济に影響

### Rapid end to tight supplies of raw materials due to impact of financial instability on the real economy worldwide

#### ● 原料

わが国鉄鋼業界は、主原料の鉄鉱石・原料炭を100%海外からの輸入に依存している。

2008年の鉄鉱石の輸入量は1億4,041万トンで前年比1.1%、153万トンの増加となった。主な仕入国をみると、オーストラリア(前年比1.3%減)、ブラジル(同17.9%増)、インド(同12.7%減)などとなっている。

また、2008年の原料炭の輸入量は6,452万トンで前年比0.7%、47万トンの増加となった。主な仕入国を見ると、オーストラリア(前年比0.1%減)、カナダ(同3.3%減)、中国(同34.0%増)、インドネシア(同22.8%減)などとなっている。

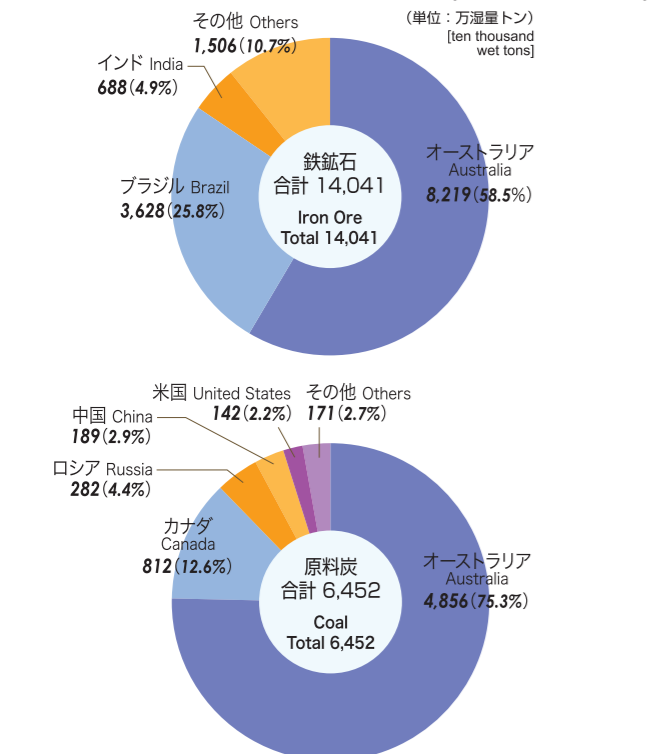
ちなみに、財務省貿易統計による2008年の鉄鉱石輸入単価は、92ドルで前年比29ドル上昇し、原料炭では、191ドルで同100ドルの上昇と過去に例を見ない原料価格の高騰であったことが窺われる。

鉄くずについては、わが国は1996年以降輸出量が輸入量を上回り、純輸出国となっている。2008年の輸出量は544万トンと2年連続で前年比減となった。

2003年以降、中国をはじめBRICs諸国を中心とした鋼材需要の増加を背景に、世界的に鉄鋼生産は増加基調を維持、それとともに原料需給はタイトな状況が続いていたが、米国発の金融不安が实体经济に影響を及ぼし始めた秋口以降、鉄鋼需要は急減速し原料需給の軟化を招来した。しかしながら、鉄鋼各社にとって将来に渡って原料の安定確保が課題であることに変わりなく、引き続き鉱山権益の取得等を通じて鋼材の安定供給を図ることとしている。

#### ■鉄鉱石・原料炭の国別輸入量(2008年)

##### Iron Ore and Coal Imported in 2008, by Supplier Country



出所: 鉄鉱石は財務省「通関統計」、原料炭は日本鉄鋼連盟  
Sources: (Iron Ore) "Customs Clearance Statistics," Ministry of Finance; (Coal) The Japan Iron and Steel Federation

#### ● Raw Materials

The Japanese steel industry depends entirely on imports for the main steelmaking raw materials of iron ore and coal.

In 2008, imports of iron ore increased 1.1%, or 1.53 million tons, to 140.41 million tons. Among major suppliers of iron ore to Japan, imports were down 1.3% from Australia, up 17.9% from Brazil and down 12.7% from India.

Coal imports increased 0.7%, or .47 million tons, to 64.52 million tons in 2008. Among major suppliers of coal to Japan, imports were down 0.1% from Australia and 3.3% from Canada, up 34.0% from China and down 22.8% from India.

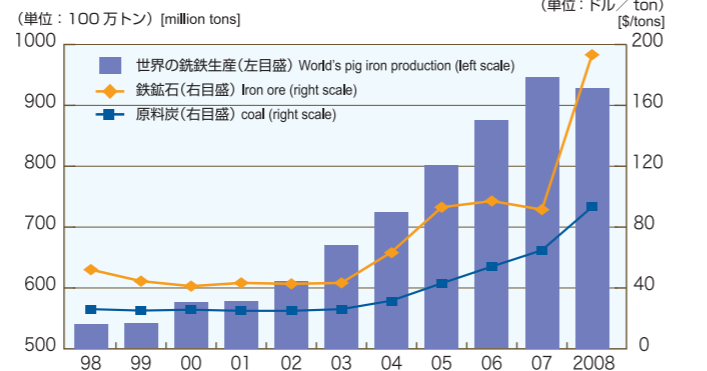
Prices of raw materials increased at an unprecedented rate in 2008. According to Ministry of Finance trade statistics, the unit price of imported iron ore increased \$29 to \$92 in 2008 and the price of coal increased \$100 to \$191.

Japan has been a net exporter of ferrous scrap since 1996, with the volume of exports exceeding imports every year. In 2008, ferrous scrap exports totaled 5.44 million tons and declined for the second consecutive year.

Global production of steel has been climbing steadily since 2003 because of rising demand, primarily in China and other BRIC nations. Rising production resulted in consistently tight supplies of steelmaking raw materials. But since the fall of 2008, when the financial crisis began to affect the real economy, these raw materials are no longer in short supply because of a steep downturn in demand for steel. Despite this easing of raw material supplies, maintaining reliable long-term supplies of raw materials is still a major issue at steel companies worldwide. Steelmakers worldwide continue to acquire mining rights and interests and take other actions aimed at preserving a consistent supply of materials needed to produce steel.

#### ■鉄鉱石・原料炭の輸入単価推移

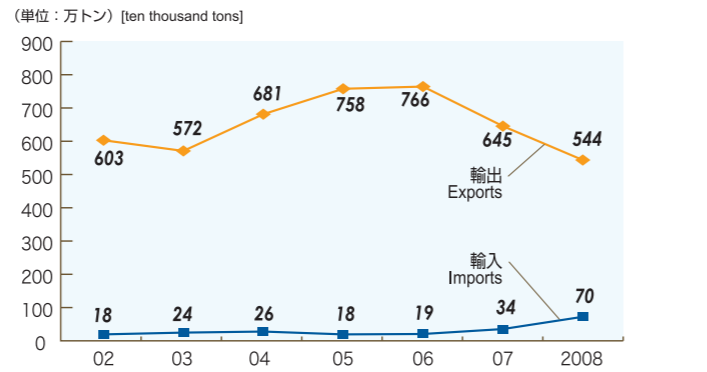
##### Price of Imported Iron Ore and Coal



出所: 世界鉄鋼協会、財務省「通関統計」  
Source: World Steel Association, "Customs Clearance Statistics," Ministry of Finance

#### ■鉄くず輸出入

##### Imports and Exports of Ferrous Scrap (2002-2008)



出所: 財務省「通関統計」 Source: "Customs Clearance Statistics," Ministry of Finance

## に影響 economy worldwide

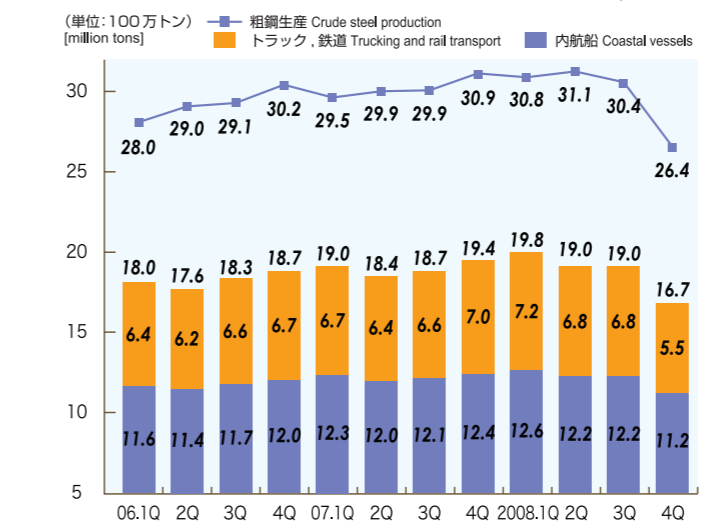
#### ● 物流

鉄鋼業は一面「物流業」、「輸送業」とも言われ、鉄鉱石や石炭等の鉄鋼原料輸入に鉄鋼製品の輸出や国内出荷を合わせると、年間総輸送量はおよそ3億トンに達する。

鉄鋼製品の国内における輸送形態は、製鉄所の臨海立地の特徴を反映し「内航船(海上輸送)」→「流通基地」→「トラック(陸上輸送)」→「需要家」が主体となっており、機関別輸送統計(一次輸送)の2008年実績をみると、内航船が約64.8%、トラックが約34.6%の比率構成である(流通基地から需要家への二次輸送を含めた全輸送量では、トラック比率が上昇し約60%になるものと推計される)。

鋼材輸送を担う内航船、トラック輸送において、燃料油価格の上昇傾向が続く中、国際海運においては、近年の世界的な景気拡大を背景にした貨物輸送量の増大を受け、バラ積み貨物船の船腹需給もタイト化したものの、2008年には世界的な景気後退局面を迎えたことから国際用船マーケットの指標となるバルチック・ドライバルク海運指数(BDI)は前年比744ポイント低下した。

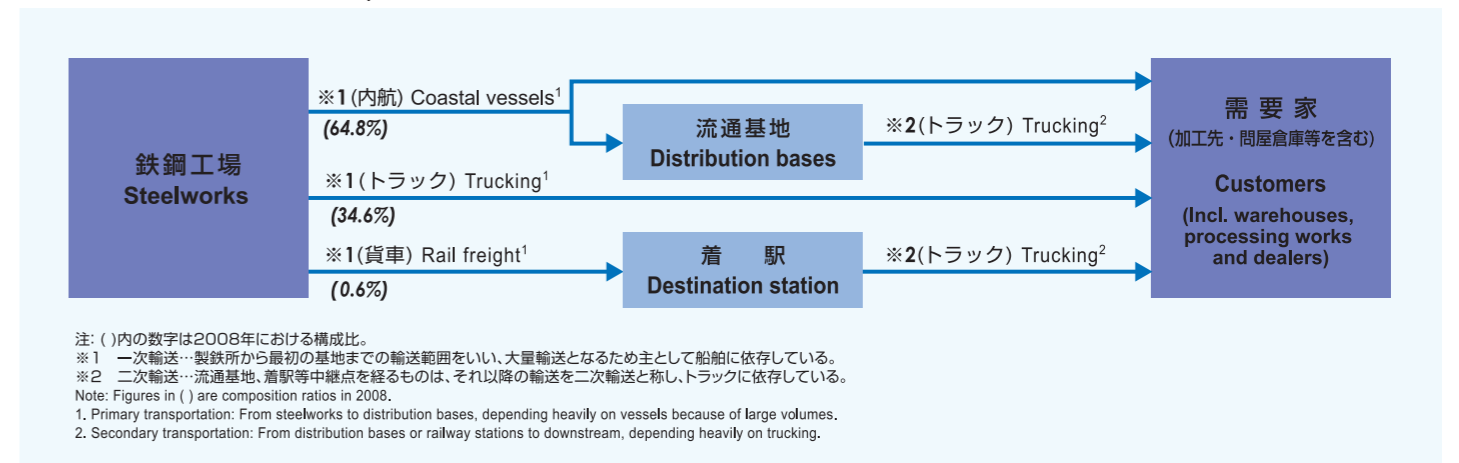
#### ■粗鋼生産と一次輸送量の推移 Crude Steel Production and Primary Transport



出所: 粗鋼生産は経済産業省、一次輸送量は日本鉄鋼連盟  
Source: Ministry of Economy, Trade and Industry (Crude Steel Production); The Japan Iron and Steel Federation (Primary transport)

#### ■鉄鋼製品の輸送形態

##### Modes of Steel Product Transportation



#### ● Logistics

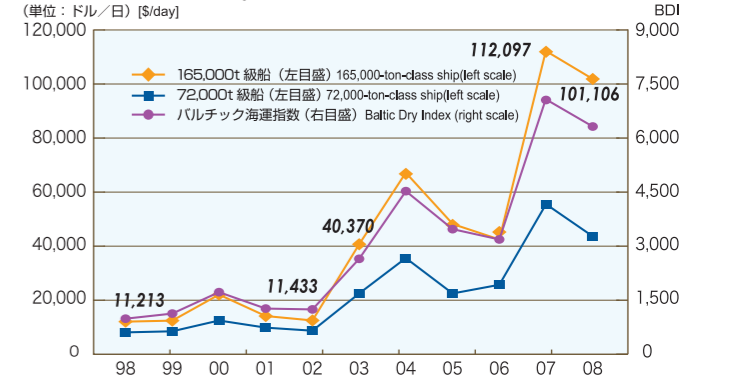
The steel industry can be viewed instead as a logistics industry or transport industry. Annual gross shipments total approximately 300 million tons, including imports of raw materials and exports and domestic shipments of steel products.

Since Japan's steel mills are located on the coast, most shipments of steel products within Japan begin with coastal vessels and are then transported from distribution bases by truck to customers. By mode of transportation for primary transportation, coastal vessels accounted for 64.8% of gross shipments and trucks for 34.6% in 2008. When secondary transportation (from distribution bases to customers) is included, the share of trucking rises to an estimated 60%.

For shipments of steel products within Japan, the rising price of fuel has been affecting the cost of coastal shipping and trucking. For global marine shipments, global economic expansion in recent years has raised the volume of cargo shipments. This has created a tight supply of vessels used to transport bulk cargo. However, the global economic recession that began in 2008 caused the Baltic Dry Index (BDI), which is an indicator of the dry vessel charter market, to drop 744 points from one year earlier.

#### ■用船価格(ドライバルクマーケット)の推移

##### Charter Rates (Dry bulk market)



出所: 「海運状況」株式会社商船三井  
注: BDIはロンドン海運取引所が算出する外航バラ積み船のケーブサイズ(16万t級)の運賃指数(1985年=1,000)  
Source: "Market Information," Mitsui O.S.K. Lines, Ltd.  
Note: BDI: Baltic Dry Index is an indicator of the dry vessel (Capesize (160,000-ton class) ocean-going dry bulk carriers) charter market. It is issued by the Baltic Exchange in London. (Base year (1985) = 1,000)