Perspectives on steel by steel-using industries

DSTI/SU/SC(2010)4
68th Steel Committee Meeting
Paris
6-7 May 2010
Steel consumption by sector

- Construction industry is the largest consumer, accounting for approximately 50% of total world steel consumption.
- Transport sector (cars, trucks, aviation, shipbuilding, and rail) is the second.
- The machinery industry and metal products industry each consume around 14% of the world’s steel.
Steel shipments by product range

- Flat steel products (sheets and plates) and long steel products (re bars, bars, wire rods, structurals and rails) each account for 46% of total global shipments, while pipes and tubes have a share of 8%.
Construction industry

- The output of construction market amounts to around USD 7.5 trillion, representing 13.4% of global GDP.
- The U.S. is the largest market and China is the second.
- Growth in China has been driven by non residential structures and infrastructure.

*2009 ($7.5 trillion)*

- US: 17%
- China: 14%
- Japan: 8%
- Germany: 4%
- Spain: 4%
- France: 4%
- UK: 3%
- Others: 46%
Steel products used in construction

Steel products mainly used for civil engineering and construction purposes are general-purpose steel, in other words, so-called commodity items. They include:

- Rebars
- H beams and other shapes
- Pipes (structural pipes and others)
- Sheet piles
- Galvanized steel sheets and other coated sheets (e.g. roofing)
- Heavy and medium plates
- Steel sheets
- Other secondary and tertiary wire rod products
Steel products used in automobile

- Iron and steel makes up around 70% of an automobile’s weight.
- Surface treated steel sheets are the main products used for vehicle manufacturing, and these generally include hot dipped galvanized, electro galvanized, and galvannealed steel sheets.
- Steel sheets are used in the basic vehicle frame and for making hoods, doors, bumpers, mufflers and fuel tanks.
- Specialty steel excelling in tenacity, mechanical strength and wear resistance is used in engine-related parts, transmissions and suspensions.
Automobile industry

- In recent years, production growth has been led by non OECD economies, particularly in China.
- The automobile industry was severely affected by the economic downturn though the situation in emerging markets was more stable.
Trends affecting the car industry

- **Rise in consolidation**
  - Not only help contain costs, but also enable manufacturers to respond more easily to the demand of the fastest growing segment of car buyers in emerging market

- **Gaining access to emerging economies**
  - Growth in emerging markets is creating entire new classes of potential automobile consumers.

- **A shift towards small/efficient cars and eco-friendly vehicles**
  - Reflecting economic and political pressures to reduce fuel consumption and CO2 emissions
Machinery industry

• According to VDMA, China’s industry has grown rapidly in recent years, and its share of global industry turnover has risen to 17% from 12% in 2005.

• Although developed countries have lost market share, they are still thought to have a significant advantages in high end machinery products.

![Pie chart showing share of global machinery industry turnover by country.](image)

2005 (€1.16 trillion)
- USA: 21%
- Germany: 14%
- Japan: 14%
- China: 12%
- Italy: 6%
- France: 4%
- UK: 3%
- S. Korea: 3%
- Others: 23%

2008 (€1.6 trillion)
- USA: 21%
- Germany: 14%
- Japan: 14%
- China: 17%
- Italy: 7%
- Others: 36%
- France: 4%
- UK: 3%
- S. Korea: 3%
Steel products used in machinery

- Most industrial equipment components are made by cutting and welding steel plates, though other widely used steels include sheets, pipes, and bars.
- Specialty steel and highly functional steel are also widely used in machinery as they are in automobiles.