Changing trends of Lead in global market

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Engineering, electrical and electronics, infrastructure, automobile and automobile components, packaging etc. are key industries of global economy and majority of their requirements are met through the nonferrous metals industry comprising of zinc, nickel, tin, lead, copper, aluminium etc. This report focuses on lead- which is monopolistic in nature as compared to zinc industry which is duopolistic in nature, its growth in mine production over the years, major influence of price and its versatility.

Lead-Global Scenario

Global mine production of lead concentrate increased by about 7 percent in 2008. Whereas in 2007, domestic lead mine production of recoverable lead was 434,000 metric tons, an increase of 4 percent compared with that of 2006. Alaska and Missouri were the dominant producing states with a 92 percent share. Other appreciable lead mine production was in Idaho, Montana, and Washington. Domestic secondary production of refined lead was increased by about 2 percent in 2007. Secondary lead accounted for 91 percent of domestic lead refinery production compared with 88 percent in 2006. Lead-acid batteries continued to be the dominant source of recoverable lead scrap, accounting for 93 percent of all lead produced from secondary sources. U.S. lead mine production in 2006 decreased slightly from that of 2005 to about 430,000 tons, and production of secondary refined lead, mostly derived from spent lead-acid batteries, was unchanged so exports (lead in concentrates) decreased 29 percent, and imports of refined metal increased 16 percent, resulting in an increase in U.S. apparent consumption of lead of about 10 percent.

Table 1: World Refined Lead Supply and Usage for 2004 - 2009

000 tons	2004	2005	2006	2007	2008	2008 Jan-Feb	2009 Jan-Feb	Nov	2008/2009 Dec	Jan	Feb
Mine Production	3130	3421	3525	3610	3885	572	544	330.9	328.4	268.5	275.4
Metal Production	6998	7632	7925	8122	8753	1339	1301	761.5	763.4	643.3	657.2
Metal Usage	7296	7801	8071	8189	8719	1348	1292	745.3	741.8	633.6	658.4

Source : ilzsg.org

In 2008, global production of refined lead was expected to be 7 percent higher than that of the previous year, owing to production increases in Australia, Canada, China, Kazakhstan, the Republic of Korea, Malaysia, the United Kingdom, and the United States. China continued to be both the largest producer and consumer of refined lead in the world. The Chinese trade balance for refined lead has shifted during the past year as a result of export tax increases that were implemented in 2007. Chinese exports of refined lead declined by more than 20 percent during the first half of 2008 compared with those of the same period of the previous year. Conversely, Chinese exports of lead-acid batteries, which are not subject to the higher export taxes, have increased in 2008 compared with those of the previous year. The value of recoverable mined lead in 2008, based on the average U.S. producer price, was $1.23 billion. Mine production rose in Bolivia, Canada, China, India, Mexico, and Russia owing to new projects coming online, along with expansions at some existing operations. As compared to 2005, the price of refined lead increased in the U.S. and world markets. The main driver behind the growth, as it had been for several years, was higher use in China for vehicle fleet expansion, production of automotive batteries for export, and investment in telecommunications and information technology. European lead use decreased by about 2 percent. Global mine production increased by approximately 4 percent in 2005. The world refined lead production in 2005 was approximately 1 percent less than world consumption, and a minor production deficit was forecast to continue into 2006. U.S. lead mine production in 2005 decreased by about 1 percent compared with production in 2004. Production of secondary refined lead, mostly derived from spent lead-acid batteries, decreased by about 1 percent, and U.S. reported consumption of lead increased by about 4 percent. Through the first half of the year, there was a significant increase in shipments of original equipments and replacement SLI batteries. The lead-acid battery industry recycled a little more than 99 percent of the available lead scrap from spent lead-acid batteries during the period 1999 through 2003.

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Five lead mines in Missouri, plus lead-producing mines in Alaska, Idaho, Montana, and Washington, yielded most of the total. Primary lead was processed at one smelter-refinery in Missouri. Out of 21 plants that produced secondary lead, 12 had annual capacities of 15,000 tons or more and accounted for more than 99 percent of secondary production. Lead was consumed at about 110 manufacturing plants. The lead-acid battery industry continued to be the principal user of lead, accounting for 88 percent of the reported U.S. lead consumption for 2008. Lead-acid batteries were primarily used as starting-lighting-ignition (SLI) batteries for automobiles and trucks. Lead-acid batteries were also used as industrial-type batteries for uninterruptible power-supply equipments for computers and telecommunications networks and hospitals; for load-leveling equipments for commercial electrical power systems; and as traction batteries used in airline ground equipment, golf carts, industrial forklifts, mining vehicles, etc. About 10 percent of lead was used in ammunition; casting material; pipes, sheets (including radiation shielding), traps and extruded products; building construction, cable covering, and caulking lead; solder; and oxides for ceramics, chemicals, glass, and pigments. The balance was used in ballast and counter weights, brass and bronze, foil, terne metal, type metal, wire, and other undistributed consumption

Prices

Figure 1: 5 year Lead spot prices

"The ongoing economic growth in emerging industrialized nations such as China and India drove strong global demand for lead in 2007."

Lead prices continued the trend that had begun in 2006 and increased throughout the first three quarters of 2007. The ongoing economic growth in emerging industrialized nations such as China and India drove strong global demand for lead in 2007. This, coupled with the supply disruption at a major lead mine in Australia, drove lead prices to historically high levels in 2007. Lead price increases typically have been passed on to consumers by manufacturers because there were very few suitable substitutes for lead in the production of SLI and industrial batteries, which were its primary uses. During 2007, the average price of refined lead rose appreciably from that of 2006 on both the U.S. and world markets, approaching record highs. Consistent with this rise in price, the global supply situation for refined lead remained tight, as stocks continued to decline and demand remained strong. Use of lead worldwide was estimated to have increased by 4 percent in 2007. Continued strong economic growth in the automotive, telecommunications, and information

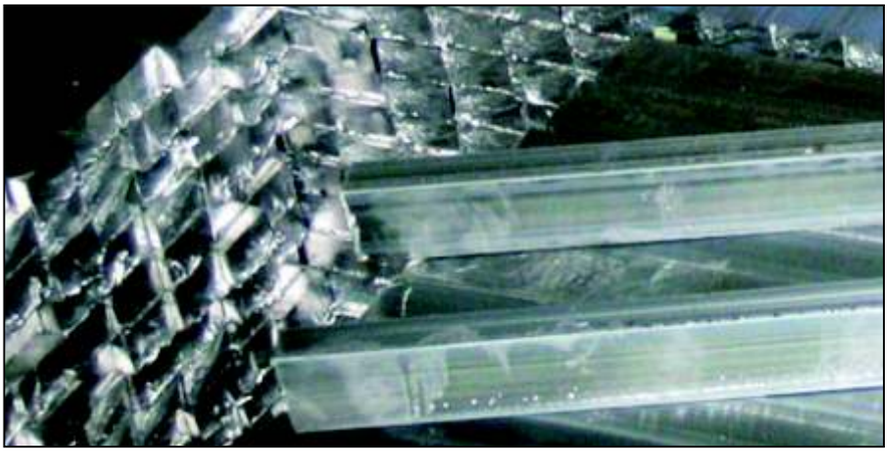
technology sectors in China was the most significant factor influencing increased lead usage. Automobile sales alone in China were increased by an estimated 25 percent during 2007. Also contributing to the increase in worldwide lead demand were notably stronger economies continuing to emerge in other areas of Southeast Asia, particularly India, as well as many of the countries in Eastern Europe. Global mine production of lead concentrate increased by about 5 percent in 2007. However, Chinese net imports of lead concentrate rose significantly during the year, affecting the supply of concentrate on the world market. Increases in lead concentrate production are anticipated in China, Europe, and South America to meet the rising world demand. Influenced by the higher domestic demand for lead, China removed the value-added tax rebate and imposed a 10 percent tax on exports of refined lead, leading to significantly decrease such exports. As a result, an appreciable shortage of refined lead was evident on the world market during 2007. Increases in refined lead production were begun in China, India, and some European countries in order to more closely meet the rising demand for refined lead. U.S. mine production of lead in concentrate remained steady during 2007, as did production of secondary lead that was sourced principally from recycled spent lead-acid batteries.

The average LME cash and North American producer prices in 2007 were up by $0.585 per pound (102 percent) and $0.464 per pound (60 percent) respectively, from the average prices of $0.585 per pound and $0.774 per pound, respectively, in 2006. Prices for refined lead began to drop in the second half of 2008 and continued to decline until year end,

World Mine Production, Reserves, and Reserve Base: Reserves estimates for Australia, Canada, and the United States were revised based on information released by producers in the respective countries.

	Mine production		Reserves[6]	Reserve base[6]
	2007	2008*		
United States	444	440	7,700	19,000
Australia	641	576	24,000	59,000
Canada	82	95	400	5,000
China	1,500	1,540	11,000	36,000
India	78	85	NA	NA
Ireland	54	56	NA	NA
Kazakhstan	40	47	5,000	7,000
Mexico	120	145	1,500	2,000
Morocco	45	35	500	1,000
Peru	329	335	3,500	4,000
Poland	85	53	NA	5,400
South Africa	42	48	400	700
Sweden	62	69	500	1,000
Other countries	248	300	24,000	30,000
World total (rounded)	3,770	3,800	79,000	170,000

> "Chinese net imports of lead concentrate rose significantly during the year, affecting the supply of concentrate on the world market"



reflective of global demand that weakened during the same period. The average North American producer and London Metal Exchange cash prices in September were nearly 30 percent lower than they were at the beginning of 2008. Use of lead worldwide was estimated to have increased by about 5 percent in 2008, driven primarily by strong economic growth in the information technology, telecommunications, and transportation sectors in China. During 2005, the price of refined lead increased in the U.S. and world markets. The average North American producer and London Metal Exchange prices for the first 9 months of the year were 60.66 cents per pound and 43.17 cents per pound, respectively. These averages represent a 10 percent and a 7 percent increase, respectively, from the annual average prices for 2004. Estimated world use of lead rose by between 3 percent and 4 percent in 2005. During 2006, the price of refined lead continued to increase in the U.S. and world markets. The average North American Producer and LME prices through October were 76.06 cents per pound and 55.19 cents per pound, respectively. These averages increased 25 percent from the average prices for 2005. Estimated world use of lead again increased by 3 percent to 4 percent in 2006. Much of the growth was attributed to increased production of SLI and industrial batteries in China. Growth also was attributed to increased manufacture of SLI batteries for automobiles and industrial batteries for the telecommunications and information technology industries. Global mine production increased by approximately 1 percent in 2006.

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