Investors should note that Hatch, an experienced consultant in the metals and mining industry, was engaged to prepare the Hatch Report for use in this Prospectus. Hatch prepared its report based on its in-house database, independent third-party reports, publicly available data from reputable industry organizations, and data provided by our Company and other subconsultants engaged by us (with respect to the non-ferrous resources of the Shizishan Mine). Hatch has not made an analysis, verified or rendered an independent judgment as to the validity, accuracy and completeness of the information provided by such other sources or subconsultants. It has assumed that the information and data that it relied on are complete and accurate.

Hatch has provided part of the statistical and graphical information contained in this Industry Overview. Hatch has advised that (i) some information in its database is derived from estimates from industry sources or subjective judgments; and (ii) the information in the databases of other mining data collection agencies may differ from the information in Hatch's database.

We believe that the sources of the information in this section are appropriate sources for such information, and have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading, or that any part has been omitted that would render such information false or misleading. Investors should also note that no independent verification has been carried out regarding any facts or statistics that are directly or indirectly derived from official government and non-official sources. The Company, the Sole Global Coordinator, the Sole Sponsor, the Joint Bookrunners, the Joint Lead Managers, any of the Underwriters, any of their respective directors and advisers, or any other persons or parties involved in the Global Offering make no representation as to the accuracy of the information from official government and non-official sources, which may not be consistent with other information compiled within or outside the PRC. Accordingly, the official government and non-official sources contained herein may not be accurate and should not be unduly relied upon.

Upon the completion of the Global Offering, our mineral properties will consist primarily of the Shizishan Mine and the Dazhupeng Mine in Yunnan Province, which is the second largest nonferrous metal producing province (in terms of metal production from mine) in China, according to the Hatch Report. In 2009, Yunnan Province had a combined output of 2,114 kt in ten kinds of nonferrous metal (i.e. copper, primary aluminium, lead, zinc, nickel, tin, antimony, magnesium, mercury and titanium). The Shizishan Mine is a large lead-zinc-silver polymetallic mine with abundant resources and reserves. The main products from the Shizishan Mine are lead-silver and zinc-silver concentrates. The Dazhupeng Mine is a lead-zinc-silver polymetallic mine with significant potential in lead, zinc, gold and silver resources. The main products from the Dazhupeng Mine will be lead-silver and zinc-silver concentrates. We also entered into a share transfer agreement to acquire the Liziping Mine and an option agreement to obtain the right to acquire the Dakuangshan Mine, both of which are lead-zinc-silver polymetallic mines. Additionally, we will produce and sell tungsten and tin concentrates using raw ore sourced from the Lushan Mine on an exclusive basis. The metals contained in our concentrates can be separated and smelted downstream. The following is an overview of the lead, zinc, silver, tungsten, and tin industries.

OVERVIEW

The players in the non-ferrous mining industry are usually categorized into "independent mines" or "pure mining companies", which only conduct upstream operations in exploration, mining and primary processing of mineral resources without downstream operations such as smelting, refining and further processing, and "integrated mines and smelters", which conduct both upstream and downstream operations. According to China Nonferrous Metals Industry Association 2010

yearbook, there were 1,904 independent non-ferrous mines which in aggregate recorded RMB175.86 billion sales revenue in 2009 and 2,867 integrated mines and smelters which in aggregate recorded RMB955.84 billion sales revenue in the same year.

LEAD

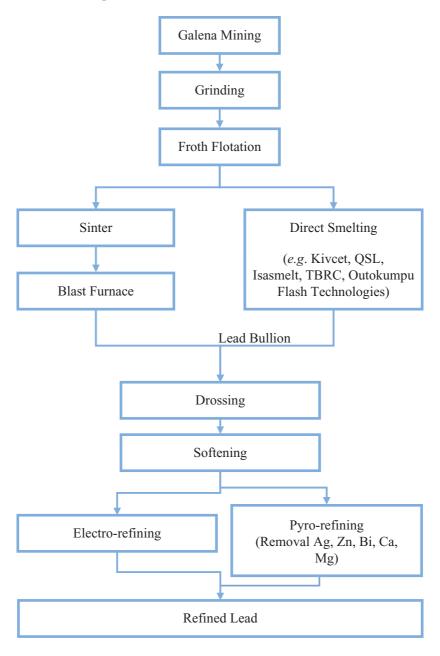
Introduction to lead

Lead (Pb) is a very corrosion-resistant, dense, ductile, and malleable blue-gray metal that has been used for at least 5,000 years. Lead is usually found in ore with zinc, silver and copper and is extracted together with these metals. The main lead mineral is galena (PbS). Other common varieties include cerussite (PbCO $_3$) and angelsite (PbSO $_4$).

Lead production process

Lead ore is first ground to a fine suspension in water. The lead-rich mineral ore is then separated from the other materials through a froth flotation process. From there, metallic lead is produced from the concentrate by roasting the lead concentrate or heating the lead oxide in a furnace with coke. Lead can be further refined to remove impurities. The following chart illustrates the lead production process.

Simplified Flow for Lead Production Process



Global Lead Industry

Global lead resources

Global lead reserves were 80 million tonnes of lead in 2010, according to United States Geological Survey ("USGS"). Australia, China, United States, Peru, and Mexico collectively accounted for 73.3% of the world's total reserves in 2010.

Global Lead Reserves in 2009 and 2010 (Unit: kt of lead contained)

	2009	2010
Australia	23,000	27,000
China	12,000	13,000
United States	7,700	7,000
Peru	6,000	6,000
Mexico	4,700	5,600
Sweden	1,300	1,100
Poland	3,500	1,500
Canada	700	650
South Africa	300	300
Others	19,800	17,850
Total	79,000	80,000

Source: USGS

Global lead supply

World lead concentrate production increased at a CAGR of 4.2% from 3,129 kt in 2004 to 3,847 kt in terms of contained zinc in 2009, according to International Lead and Zinc Study Group ("ILZSG"). In 2010, world lead concentrate production increased to 4,090 kt. China is the leading producer of lead concentrate.

Global Lead Concentrate Production 2004-2010 (Unit: kt of lead contained)

	2004	2005	2006	2007	2008	2009	2010
China	997	1,142	1,331	1,402	1,145	1,160	1,852
Australia	642	715	621	589	594	525	536
Mexico	118	134	135	137	142	144	185
Peru	306	319	313	329	345	302	263
United States	439	432	429	434	423	406	263
Europe	228	256	247	287	311	338	351
Others	399	415	449	432	960	972	640
Total	3,129	3,414	3,525	3,610	3,920	3,847	4,090
— Growth Rate		9.1%	3.3%	2.4%	8.6%	-1.9%	6.3%

Source: ILZSG, CNIA, Hatch

From 2004 to 2010, global refined lead production increased at a CAGR of 5.0% from 6,998 kt to 9,401 kt. From 2004 to 2008, lead production in the rest of the world (excluding China) increased

at an average of just 2% per annum from 5,186 kt to 5,604 kt and decreased to 5,158 kt in 2009. At the same time, the global share of China's refined lead production increased from 25.9% in 2004 to 38.1% in 2008. In 2010, China's share of the world's total refined lead production increased to 44.7%.

Global Refined Lead Production 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
China	1,812	2,390	2,710	2,783	3,452	3,708	4,199
Including: Mine production	1,499	1,863	2,141	2,079	2,350	2,626	2,836
Rest of the World	5,186	5,242	5,215	5,532	5,604	5,158	5,202
Including: Mine production	1,631	1,580	1,405	1,570	1,429	1,221	1,252
Total	6,998	7,632	7,925	8,315	9,056	8,866	9,401
Including: Mine production	3,130	3,443	3,546	3,649	3,779	3,847	4,088
— Growth Rate		9.1%	3.8%	4.9%	8.9%	-2.1%	6.0%

Source: ILZSG

Global lead demand

From 2005 to 2010, the world's lead concentrate consumption increased by a CAGR of 3.5% from 3,443 kt to 4,088 kt in terms of lead content. The following table sets forth world lead concentrate consumption from 2005 to 2010:

Global Lead Concentrate Consumption 2005-2010 (Unit: kt of lead contained)

	2005	2006	2007	2008	2009	2010
Consumption	3,443	3,546	3,649	3,779	3,847	4,088
— Growth Rate		3.0%	2.9%	3.6%	1.8%	6.3%

Source: ILZSG

Note: Lead concentrate consumption is assumed same as the primary lead production

ILZSG reported that global refined lead consumption increased at a CAGR of 4.2% from 7,296 kt in 2004 to 9,353 kt in 2010. The increase came mainly from the growth of China's lead consumption, whose share of global lead consumption jumped from 22.9% in 2004 to 45.0% in 2010.

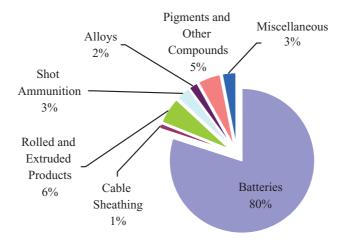
Global Refined Lead Consumption 2004-2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
China	1,670	1,990	2,290	2,569	3,456	3,860	4,213
Rest of the World	5,626	5,811	5,781	5,798	5,588	4,949	5,140
Total	7,296	<u>7,801</u>	8,071	8,367	9,044	8,809	9,353
— Growth Rate		6.9%	3.5%	3.7%	8.1%	-2.6%	6.2%

Source: ILZSG, Hatch

About 80% of the lead produced globally is used for making lead-acid batteries, which can be found in motor vehicles and in emergency systems (such as hospitals) as well as in computers and fork lift trucks. The following chart sets forth the global refined lead consumption by sector:

World Refined Lead Consumption by Sector



Source: ILZSG

Global lead trade

Lead concentrate is widely traded. According to ILZSG and International Lead Association ("ILA"), lead concentrate is mostly produced in the Americas, Oceania and Asia, much of which is then exported to Europe and Asia. China continues to hold first place in lead concentrate imports with 1,605 kt (the equivalent of 962 kt of lead content) imported in 2010.

Global Major Lead Concentrate Exporters and Importers 2008-2009 (Unit: kt, gross weight)

Exporters			Importers		
	2008	2009		2008	2009
Peru	424	497	China	1,442	1,605
Australia	335	426	South Korea	236	312
USA	295	287	Germany	213	234
Belgium	115	149	Belgium	98	192
Bolivia	142	137	Japan	206	155
Russia	120	133	Bulgaria	119	63
Ireland	95	110	Canada	66	54
Mexico	50	87	Italy	86	29
South Africa	64	70	•		

Source: Customs of respective countries, Hatch

In addition, China also holds first place for refined lead imports, taking in 157 kt in 2009, a five-fold increase from 2008. Australia is the leading exporter of refined lead of the world, followed by Germany, Mexico, UK and Canada.

Global Major Refined Lead Exporters and Importers 2008–2009 (Unit: kt)

Exporters			Importers						
	2008	2009		2008	2009				
Australia	214	240	China	31	157				
Germany	133	156	United States	167	141				
Mexico	69	142	South Korea	90	127				
United Kingdom	78	127	India	91	115				
Canada	86	102	Spain	107	113				
Belgium	65	82	Brazil	79	75				
Kazakhstan	88	79	Turkey	69	68				
Japan	26	56	Italy	76	68				
Russia	43	52	Thailand	52	67				

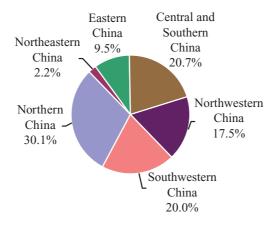
Source: Customs of respective countries, Hatch

China's Lead Industry

China's lead resources

According to the National Bureau of Statistics of China ("NBSC"), China's lead reserves were 13,401 kt of lead in 2009. Inner Mongolia and Yunnan have the largest lead reserves, possessing 28.8% (3,858 kt of lead) and 13.4% (1,795 kt of lead) of total national reserves, respectively, according to NBSC. They are followed by Guangdong, Hunan and Gansu, each with lead reserves exceeding 1 million tonnes. According to China Nonferrous Metals Industry Association ("CNIA"), the average lead grade of China's open-pit mines and underground mines were 1.74% and 3.29%, respectively, in 2009.

Geographic Distribution of China's Lead Reserves in 2009



Source: NBSC

China's lead supply

China is the world's largest lead concentrate producer. In 2010, China's lead concentrate output reached 1,851 kt, increasing 36.1% year-on-year. From 2004 to 2010, China's lead concentrate output increased at a CAGR of 10.9%. Inner Mongolia, Hunan, Guangxi, Sichuan, Guangdong and Yunnan were the top six lead concentrate producing provinces in 2010.

China's Lead Concentrate Production by Province 2004-2010 (Unit: kt of lead contained)

	2004	2004 2005		2006 2007		2009	2010
Inner Mongolia	84	99	144	197	263	288	426
Sichuan	33	52	83	104	139	172	223
Guangdong	55	57	79	94	123	121	129
Yunnan	82	114	104	133	115	111	106
Hunan	124	111	100	138	102	149	273
Guangxi	49	54	58	74	69	126	238
Qinghai	59	75	76	75	60	60	61
Henan	14	15	20	36	56	68	63
Gansu	53	68	68	60	44	35	40
Fujian	27	26	34	45	43	53	68
National Total	997	1,142	1,331	1,402	1,145	1,360	1,851
— Growth Rate		14.5%	16.5%	5.3%	-18.3%	18.8%	36.1%

Source: NBSC, CNIA

As the world's largest refined lead producer, China's refined lead production grew at a CAGR of 13.8% from 1,934 kt in 2004 to 4,199 kt in 2010, according to CNIA. In 2010, China's production of refined lead and primary lead (lead produced from lead ore concentrate) were 4,199 and 2,836 kt, respectively.

According to CNIA, Henan, Hunan, Anhui and Yunnan were the top four refined lead-producing provinces in the past five years. In 2010, the top eight refined lead-producing provinces collectively produced 3.7 million tonnes of refined lead, accounting for 87.2% of the national total. Yunnan was the fourth largest refined lead-producing province in 2010. In Yunnan, the production of refined lead increased from 319 kt per year in 2009 to 379 kt per year in 2010.

China's Refined Lead Production by Province 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Henan	611	861	935	924	1,108	1,192	1,054
Anhui	125	204	339	309	396	617	857
Hunan	373	404	499	497	541	636	827
Yunnan	195	218	288	375	364	319	379
Jiangsu	85	132	78	115	128	173	171
Guangxi	131	178	172	151	147	138	149
Jiangxi	24	24	28	21	77	75	115
Guangdong	83	86	85	102	130	133	112
Shaanxi	18	15	14	8	48	73	90
Hubei	42	45	48	50	52	78	86
Chongqing	14	8	21	31	35	70	84
Shanghai	6	6	6	9	6	19	59
Inner Mongolia	10	21	38	18	39	19	55
Liaoning	3	7	9	21	31	22	35
Shandong	2	_	_	_	_	42	33
Ningxia	27	31	53	60	31	34	28
National Total	1,934	2,391	2,715	<u>2,788</u>	3,206	3,773	4,199
— Growth Rate		23.6%	13.6%	2.7%	15.0%	17.7%	11.3%

Source: CNIA

China's lead demand

China is the world's largest lead concentrate consumer. From 2004 to 2010, its lead concentrate apparent consumption grew at a CAGR of 16.1% from 1,146 kt to 2,813 kt in terms of lead contained. With the depletion of high grade lead resources in China, CNIA believes that China will remain a net importer of lead concentrate in the near future.

China's Lead Concentrate Apparent Consumption 2004-2010 (Unit: kt of lead contained)

	2004	2005	2006	2007	2008	2009	2010
Production	598	627	784	953	1,145	1,360	1,851
Imports	548	612	713	760	867	963	962
Total Apparent Consumption	1,146	1,239	1,497	1,713	2,012	2,323	2,813
— Growth Rate		4.8%	25.0%	21.6%	20.1%	18.8%	36.1%

Source: NBSC, China Customs

Notes: Assuming the imported concentrate grade at 60%

China is also the world's largest refined lead consumer with 44.7% of the world lead consumption in 2010. According to ILZSG, China's refined lead consumption increased at a CAGR of 16.7% from 1,670 kt in 2004 to 4,213 kt in 2010.

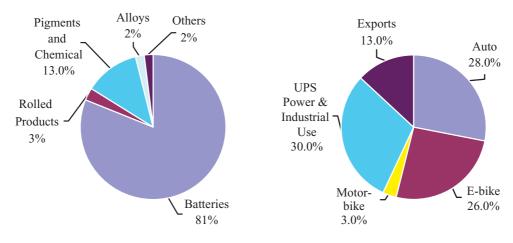
China's Refined Lead Consumption 2004-2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Consumption	1,670	1,990	2,290	2,569	3,456	3,860	4,213
— Growth Rate		19.2%	15.1%	12.2%	34.5%	11.7%	9.1%

Source: ILZSG

According to Antaike and CNIA, lead-acid battery industry consumed 81% of refined lead in 2009 in China. The automobile, electrical-bicycle and uninterruptible power supply, or UPS, industries are the top three end-users of refined lead in China. The following two figures show China's refined lead consumption by use and the rapid growth of the lead acid battery industry in the past seven years.

Chinese Refined Lead Consumption by First Use and End Use in 2009



Source: CNIA, Antaike

China's Lead Acid Batteries Production 2004-2010 (Unit: million KVAh)

	2004	2005	2006	2007	2008	2009	2010
Production	60	67	78	94	97	119	144
— Growth Rate		10.8%	17.0%	20.3%	3.8%	22.8%	20.7%

Source: NBSC

China's lead trade

China holds first place for lead concentrate imports, with 1,605 kt (equivalent to 963 kt of lead contained) in 2009, an increase of 11.1% over 2008. In 2010, China's lead concentrate imports stayed steady at 1,604 kt (equivalent to 962 kt of lead contained).

China's Lead Concentrate Imports 2004-2010 (Unit: kt of lead contained)

	2004	2005	2006	2007	2008	2009	2010
Imports	548	612	713	760	867	963	962
— Growth Rate		11.7%	16.5%	6.5%	14.1%	11.0%	0.0%

Source: China Customs, CNIA

Notes: Assuming the imported concentrate grade at 60%

China was the largest refined lead exporter of the world before 2008. In 2006, China's total exports of refined lead reached 537 kt, but dropped significantly to 236 kt in 2007 and continued to drop ever since. Meanwhile, China's refined lead imports increased sharply from 43 kt in 2004 to 157 kt in 2009, making it the world's largest importer of refined lead in 2009. In 2010, China's refined lead imports dropped by 86% due to increased demand in other parts of the world and increased domestic production of refined lead.

China's Imports and Exports of Refined Lead 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Imports	43	36	33	25	31	157	22
— Growth Rate		-16.5%	-6.6%	-25.0%	23.4%	408.8%	-86.3%
Exports	447	402	537	236	34	23	23
— Growth Rate		-9.9%	33.5%	-56.1%	-85.7%	-31.6%	0.3%

Source: China Customs, CNIA

China's lead competition

China was the world's largest lead concentrate producer in 2010, producing 1,851 kt of lead in 2010. Due to the geographic distribution of China lead resources, the industry is fragmented and mostly composed of small mines. According to CNIA, the majority of lead mines have an annual production capacity of below 10,000 tonnes of concentrate. The following chart lists the 10 largest lead concentrate mining companies and their respective output in 2007.

China's Major Lead Concentrate Mining Companies in 2007 (Unit: kt of lead contained)

	2007
Western Mining	69
Shenzhen Zhongjin Lingnan Nonfemet Co., Ltd Fankou Mine	46
Jieshou City Jinlong Lead Chemical Co., Ltd	44
Inner Mongolia Yindu Mining Co., Ltd.	35
Ganluo Yuguang Mining Co., Ltd.	19
Henan Found Mining Co., Ltd	16
Huize Xianghua Pb-Zn Mining	16
China Tin Group Co., Ltd.	15
Baiyin Non-ferrous Metals Group Co., Ltd.	15
Inner Mongolia Bairen Mining Co., Ltd	14

Source: NBSC, CNIA, Antaike

In terms of refined lead, the combined output of the top 10 refined lead producers accounted for over 35.3% of China's national total lead production in 2008.

China's Top 10 Refined Lead Producers in 2008 (Unit: kt)

	Output	Capacity
Jiyuan Yuguang Gold and Lead Group Co., Ltd	300	300
Anyang City Yubei Gold-Lead Co., Ltd	120	210
Shenzhen Zhongjin Lingnan Nonfemet Co., Ltd. Shaoguan Smelter	120	120
Henan Jinli Lead Group	120	130
Shuikoushan Non-ferrous Co., Ltd	100	100
Hunan Zhuye Non-ferrous Metals Co., Ltd	90	100
Yunnan Chihong Zinc & Germanium Co., Ltd	90	100
Jiyuan Wanyang Smeltery Group Co., Ltd	80	180
Xuzhou Chunxing Alloy Co., Ltd	60	240
Anhui Huaxin Lead Group Co., Ltd	50	200

Source: Antaike

The following table lists the top lead smelters in Yunnan in 2007 and their respective smelting capacities:

Yunnan's Key Lead Smelters in 2007 (Unit: kt per year)

Smelters	Capacity
Yunnan Chihong Zinc & Germanium Co., Ltd	100
Yunnan Tin Group	100
Yunnan Xiangyun Feilong Nonferrous Metals Co., Ltd	80
Yunnan Gejiu Shadian Electric Smelting Plant	70
Yunnan Zhenxing Industry Group Co., Ltd	60
Datong Electric Smelting Plant	30
Guangbo Electric Smelting Plant	25
Mengzi Mining and Metallurgy Co., Ltd	25
Gejiu Shadian Hexing Lead Industry Co., Ltd	20
Yunnan Lancang Lead Mine	20

Source: CNIA

Lead Prices

Lead is traded on the London Metal Exchange ("LME"). The 3-month lead futures contract on the LME is the principal futures contract traded on the exchange and serves as an international pricing benchmark. From 2004 to 2008, the LME 3-month lead future price rose sharply due to the gap between world supply and demand and peaked at US\$3,719/tonne in October 2007. However, impacted by the global financial crisis in the second half of 2008, it dropped sharply to US\$968/tonne in December 2008. With improved market conditions in 2009 and the recovery of lead consumption, the lead price increased steadily from US\$968/tonne to over US\$2,368/tonne in January 2010. Since then, the LME 3-month lead price tumbled to US\$1,729/tonne in June 2010 and then rallied to US\$1,959/tonne in October 2011. There were no officially recognized lead futures contracts in China prior to March 24, 2011, but China's lead prices are generally in line with LME prices. The following charts show the monthly price trend of refined lead from January 2004 to October 2011 on the LME and in China.

LME Lead Prices January 2004-October 2011 (US\$/tonne)



China's Lead Prices January 2004-October 2011 (RMB/tonne)



Source: LME, Antaike

ZINC

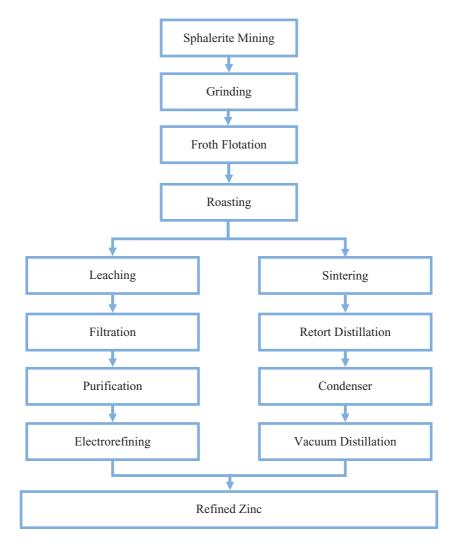
Introduction to zinc

Zinc (Zn) is a bluish-white, lustrous, diamagnetic metal. Zinc is the fourth most common metal in use, trailing only iron, aluminum, and copper, with an annual global production of about 13 million tonnes. Approximately 95% of the world's zinc is mined from sulfidic ore deposits, in which sphalerite zinc (ZnS) is nearly always mixed with the sulfides of copper, lead and iron.

Zinc production process

More than 70% of zinc produced worldwide is derived from mine production, and the remaining 30% comes from zinc scrap. In mine production, zinc ore is first processed to a fine suspension in water by grinding balls or rod mills, then concentrated through a selective froth flotation process. Zinc concentrate is then roasted into zinc oxide and further refined by leaching the ore concentrate with sulfuric acid or by combining zinc oxide with carbon or carbon monoxide to reduce it into zinc vapor to be collected in a condenser. The following chart illustrates the zinc production process.

Simplified Flow for Zinc Production Process



Global Zinc Industry

Global zinc resources

Global zinc reserves in 2010 were 250 million tonnes of zinc, according to USGS. The top six countries collectively accounted for 66.8% of world zinc reserves in 2010. China has the world's second largest zinc reserves. In 2010, China's zinc reserves amounted to 42 million tonnes of zinc or approximately 16.8% of the world's total zinc reserves.

Global Zinc Reserves in 2009-2010 (Unit: kt of zinc)

	2009	2010
Australia	21,000	53,000
China	33,000	42,000
Peru	19,000	23,000
United States	14,000	12,000
Kazakhstan	17,000	16,000
Mexico	14,000	15,000
Canada	8,000	6,000
Others	74,000	83,000
Total	200,000	250,000

Source: USGS

Global zinc supply

World zinc concentrate production increased from 9,740 kt to 12,210 kt in terms of contained zinc over the period from 2004 to 2010 at a CAGR of 3.8%, according to ILZSG.

The following table contains a breakdown of zinc concentrate producing countries from 2004 to 2010. China, Peru, Australia, United States, Canada, Mexico, India and Kazakhstan were the major zinc concentrate production countries in 2010 and collectively accounted for about half of the global zinc concentrate output:

Global Zinc Concentrate Production 2004-2010 (Unit: kt of zinc contained)

	2004	2005	2006	2007	2008	2009	2010
China	2,391	2,548	2,867	3,160	3,186	3,117	3,699
Peru	1,209	1,202	1,202	1,444	1,603	1,509	1,484
Australia	1,298	1,329	1,321	1,408	1,476	1,253	1,426
EU	1,006	1,057	1,037	1,026	1,046	1,057	1,057
USA	739	720	718	794	829	750	765
Canada	791	667	638	610	746	702	656
India	340	446	509	521	616	640	740
Kazakhstan	404	405	451	505	482	444	490
Mexico	426	476	481	479	464	485	595
Others	1,136	1,300	1,236	1,453	1,336	1,421	1,298
Total	9,740	10,150	10,460	11,400	11,784	5,499	12,210
— Growth Rate		4.2%	3.1%	9.0%	3.4%	-53.3%	122.0%

Source: ILZSG, Hatch

During the period from 2004 to 2010, global refined zinc production increased at a CAGR of 3.5% from 10,158 kt to 12,764 kt. The majority of the refined production came from primary production.

In 2010, China accounted for about 40% of the world's total. The following is a breakdown of the global refined zinc output from 2004 to 2010.

Global Refined Zinc Production 2004-2010 (Unit: kt of zinc contained)

	2004	2005	2006	2007	2008	2009	2010
China	2,519	2,683	3,163	3,743	4,042	4,357	5,164
Rest of the World	7,639	7,579	7,492	7,602	7,727	6,906	7,600
Total	10,158	10,262	10,655	11,345	11,769	11,263	<u>12,764</u>
— Growth Rate		1.0%	3.8%	6.5%	3.7%	4.3%	13.3%

Source: ILZSG, Hatch

Global zinc demand

Since direct data is not available for zinc concentrate consumption, it is represented by the production of refined zinc. Please see "— Global Zinc Supply" for more information.

The following is a table of world refined zinc consumption from 2004 to 2010. Global refined zinc consumption increased at a CAGR of 2.7% from 10,648 kt in 2004 to 12,500 kt in 2010:

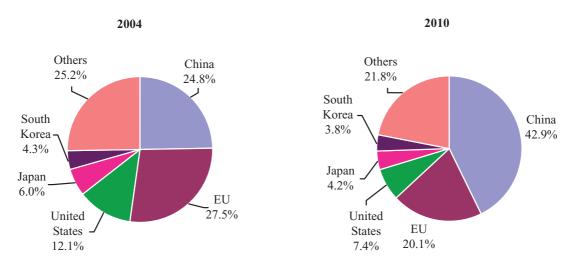
Global Refined Zinc Consumption 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Consumption	10,648	10,611	11,013	11,275	11,485	10,832	12,500
— Growth Rate		-0.4%	3.8%	2.4%	1.9%	5.7%	15.4%

Source: ILZSG, Antaike, Hatch

As the world's largest zinc consuming country, China's share in the world's zinc consumption increased from 24.8% in 2004 to 42.9% in 2010.

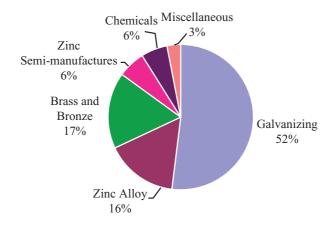
Global Refined Zinc Consumption by Region in 2004 and 2010



Source: Antaike

Zinc is used in a variety of applications. About half of refined zinc is used to make anti-rust protective coating for galvanized steel products, which are mostly used for the construction industry. The remainder is used to make zinc alloy, brass and bronze, zinc compounds and chemicals. The following table sets forth a breakdown of world refined zinc consumption by first use in 2009:

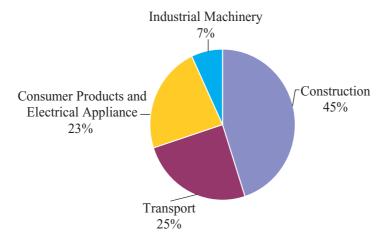
Global Refined Zinc Consumption by First Uses in 2009



Source: ILZSG

The top three end-users of refined zinc are the construction (45%), transportation (25%), and consumer products and electrical appliances (23%) industries.

Global Refined Zinc Consumption by End Uses in 2009



Source: ILZSG

Global zinc trade

Zinc concentrate is a widely traded product. According to ILZSG and International Zinc Association ("IZA"), zinc concentrate is mostly produced in the Americas, Oceania and Asia, then exported to Europe and Asia. The top five global zinc concentrate importers in 2008 and 2009 were China, South Korea, Spain, Japan, and Finland. The top five global zinc concentrate exporters in 2008 and 2009 were Peru, Australia, United States, Bolivia and Belgium. The following table lists the top importing and exporting countries of zinc concentrate:

Global Major Zinc Concentrate Importers and Exporters (Unit: kt, gross weight)

Importers			Exporters		
	2008	2009		2008	2009
China	2,385	3,851	Peru	2,559	2,423
South Korea	1,487	1,342	Australia	2,246	2,114
Spain	1,114	909	United States	401	790
Japan	1,163	886	Bolivia	741	786
Finland	582	532	Belgium	742	785
Netherlands	431	321	Ireland	404	594
Canada	304	301	Sweden	389	396
Germany	384	272	Mexico	177	301
France	239	242			
Norway	244	210			
Italy	162	155			
Thailand	194	148			

Source: Customs of respective countries, Hatch

The following table lists the top importing and exporting countries of refined zinc. Canada, Australia and South Korea were the three top refined zinc exporters in 2009 while the United States, China and Germany were the top three refined zinc importers in 2009. China imported 670 kt of refined zinc in 2009, closely trailing the biggest refined zinc importer, the United States, by only 16 kt in 2009:

Global Major Refined Zinc Importers and Exporters (Unit: kt)

Importers			Exporters		
	2008	2009		2008	2009
United States	601	686	Canada	599	592
China	183	670	Australia	317	359
Germany	305	286	South Korea	311	329
Belgium	207	238	Kazakhstan	334	295
Turkey	147	138	Finland	257	269
France	164	129	Mexico	203	225
Italy	184	120	Spain	192	216
Netherlands	155	104			

Source: Customs of respective countries, Hatch

China's Zinc Industry

China's zinc resources

Due to their use of different sources, NBSC has slightly different reserve figures than USGS. According to NBSC, China's zinc reserves were 38,385 kt in 2009. Inner Mongolia and Yunnan had 26.2% (or 10,058 kt of zinc) and 21.4% share (or 8,200 kt of zinc) of the total national zinc reserves, respectively, in 2009.

Zinc Reserves by Province in 2009 (Unit: kt of zinc)

	2009
Inner Mongolia	10,058
Yunnan	8,200
Guangdong	2,045
Hunan	1,872
Guangxi	1,536
Hebei	1,458
Others	13,216
National Total	38,385

Source: NBSC

According to the Ministry of Land and Resources ("MLR"), China does not have many large lead and zinc reserves. According to CNIA, the average grade of open-pit zinc mines and underground zinc mines in China were 7.25% and 5.37%, respectively, in 2009.

China's zinc supply

China is the world's largest zinc concentrate producing country. In 2010, its zinc concentrate production, 3,700 kt of zinc contained, set a new record, and represented a 19.7% year-on-year increase.

China's Zinc Concentrate Production by Province 2004-2010 (Unit: kt of zinc contained)

	2004	2005	2006	2007	2008	2009	2010
Inner Mongolia	249	273	383	473	606	622	758
Hunan	169	185	203	307	408	434	559
Yunnan	371	497	661	681	695	577	547
Sichuan	92	99	140	189	199	285	360
Guangxi	153	166	163	232	206	175	357
Gansu	210	289	300	275	196	150	193
Guangdong	120	116	125	158	177	180	187
Shaanxi	126	123	121	147	145	182	179
Fujian	55	55	64	95	100	121	141
Qinghai	75	92	98	99	84	74	77
National Total	2,391	2,548	2,844	3,048	3,153	3,092	3,700
— Growth Rate	·	6.6%	11.6%	7.2%	3.4%	-1.9%	19.7%

Source: CNIA

China is also the largest refined zinc producer in the world. Its refined zinc production grew at a CAGR of 11.3% from 2,719 kt in 2004 to 5,164 kt in 2010, according to CNIA and Antaike, and approximately equals the amount of its consumption of zinc concentrate.

The top five refined zinc producing provinces in China are Hunan, Yunnan, Shaanxi, Guanxi, and Liaoning. Yunnan is the second largest refined zinc producing province in China and its production increased by 12.3% from 775 kt in 2009 to 870 kt in 2010.

China's Refined Zinc Production by Province 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Hunan	619	657	696	784	865	984	1,172
Yunnan	385	415	623	762	764	775	870
Shaanxi	206	193	260	317	352	379	545
Guangxi	253	197	254	295	315	377	500
Liaoning	282	258	289	366	356	353	384
Inner Mongolia	49	52	93	191	203	218	366
Henan	28	85	145	162	193	296	273
Guangdong	180	185	141	187	247	257	269
Sichuan	240	216	198	213	173	250	258
Gansu	215	226	230	231	208	198	235
Qinghai	32	33	31	47	103	129	94
Zhejiang	25	24	26	65	64	67	91
National Total	<u>2,719</u>	<u>2,776</u>	3,163	3,743	3,913	4,357	5,164
— Growth Rate		2.1%	13.9%	18.3%	4.5%	11.3%	18.5%

Source: CNIA

China's zinc demand

China is the biggest producer and importer of zinc concentrate, making it the number one zinc concentrate consuming country.

China's Zinc Concentrate Apparent Consumption 2004–2010 (Unit: kt of zinc contained)

	2004	2005	2006	2007	2008	2009	2010
Production	2,391	2,548	2,867	2,948	3,184	3,092	3,700
Imports	308	284	414	1,075	1,192	1,925	1,620
Total Apparent Consumption	2,699	2,832	3,281	4,024	4,376	5,017	5,320
— Growth Rate		4.9%	15.9%	22.6%	8.8%	14.6%	6.0%

Source: CNIA, China Customs

Notes: Assuming the imported concentrate grade at 50%

China is also the largest refined zinc consumer in the world with a 42.9% share of world zinc consumption in 2010. Its refined zinc consumption grew at a CAGR of 11.9% from 2,735 kt in 2004 to 5,358 kt in 2010, according to CNIA and Antaike.

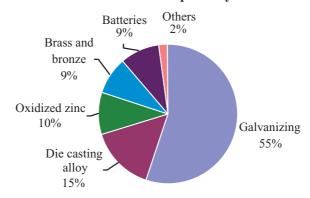
China's Refined Zinc Consumption 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Consumption	2,735	3,045	3,158	3,616	4,025	4,836	5,358
— Growth Rate		11.3%	3.7%	14.5%	11.3%	20.2%	10.8%

Source: CNIA, Antaike

CNIA reports that galvanizing steel consumed 55% of China's refined zinc in 2010. The remainder was used to make die casting alloy, oxidized zinc, brass and bronze, batteries, and others products. The following chart sets forth China's refined zinc consumption by end-use in 2010.

China's Refined Zinc Consumption by Sector in 2010



Source: CNIA

China's Galvanized Steel Production 2004-2010 (Unit: million tonnes)

	2004	2005	2006	2007	2008	2009	2010E
Production	5.2	7.6	12.0	16.3	17.7	17.7	24.2
— Growth Rate		45.8%	57.8%	35.8%	8.7%	-0.3%	36.8%

Source: China Iron and Steel Association (CISA), Hatch

China's zinc trade

China continued to be the biggest world zinc concentrate importer, with 3,851 kt (equivalent to 1,926 kt of zinc contained) unloaded at Chinese ports in 2009, an increase of 61.4% over 2008. In 2010, China imported 3,241 kt of zinc concentrate (equivalent to 1,620 kt of zinc contained). China's exports of zinc concentrate was negligible.

China's Zinc Concentrate Imports 2004-2010 (Unit: kt, gross weight)

	2004	2005	2006	2007	2008	2009	2010
Imports	616	568	828	2,151	2,385	3,851	3,241
— Growth Rate		-7.8%	45.8%	159.2%	10.8%	61.4%	-15.8%

Source: China Customs

China was a net importer of refined zinc, in past three years. In 2009, China imported 670 kt of refined zinc, and only exported 29 kt of refined zinc. In 2010, China remained a net importer of refined zinc. With the depletion of high grade zinc resources in China, CNIA believes China will remain a net importer of zinc concentrate and refined zinc in the near future. The following table sets forth China's total imports and exports of zinc from 2004 to 2010:

China's Refined Zinc Imports and Exports 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Imports	239	392	318	149	183	670	323
— Growth Rate		63.8%	-18.9%	-53.0%	22.7%	265.1%	-51.7%
Exports	224	_	325	276	71	29	43
— Growth Rate		_	_	-15.3%	-74.1%	-59.0%	47.4%
Net Imports	15	392	-7	-126	112	640	280
— Growth Rate		2465.9%	-101.8%	-1645.4%	188.8%	471.3%	-56.2%

Source: China Customs

China's zinc competition

Due to the geographic distribution of China's zinc resources, the industry is fragmented and mostly composed of small mines. According to CNIA, the majority of zinc mines have an annual production capacity of below 10,000 tonnes of concentrate.

Yunnan Province has the second largest lead and zinc reserves in China. The following chart sets forth the top companies in terms of lead and zinc resources in Yunnan Province:

Yunnan's Top Lead-Zinc Companies

	Ownership	Business
Yunnan Lanping Jinding Zinc		
Industry Co., Ltd	Privately owned	Integrated mining and smelting
Yunnan Chihong Zinc &		
Germanium Co., Ltd	State owned	Integrated mining and smelting
China Polymetallic Mining		
Limited	Privately owned	Non-intergated pure mining
Yunnan Xiangyun Feilong		
Nonferrous Metals Co., Ltd	Privately owned	Integrated mining and smelting
Yunnan Copper Industry Group		
Co., Ltd	State owned	Integrated mining and smelting
Yunnan Tin Group	State owned	Integrated mining and smelting

Source: Hatch Report

Note: Ranking of Yunnan's Top Lead-Zinc Companies is based on lead and zinc resources of the Group indicated in the Competent Person's Report and of the other companies as of December 31, 2010.

In terms of refined zinc, the combined production of the top 10 refined zinc producers accounted for over 48.8% of China's total zinc production in 2008. The following is a chart of the key refined zinc producers in China in 2008 and their respective capacities and outputs:

China's Key Refined Zinc Producers in 2008 (Unit: kt per year, kt)

	Output	Capacity
Hunan Zhuye Torch Metals Co., Ltd	400	500
MCC Huludao Nonferrous Metals Group	349	390
Shenzhen Zhongjin Lingnan Nonfemet Co., Ltd	216	200
Yunnan Chihong Zinc & Germanium Co., Ltd	177	160
Shaanxi Dongling Zinc Industry Co., Ltd	160	230
Baiyin Non-ferrous Metals Co	140	170
Yuguang Gold-Lead Group Co. Ltd	137	200
Lanping Jinding Zinc Industry Co., Ltd	123	120
Hanzhong Bayi Zinc Co., Ltd	108	120
Chifeng Kumba Hongye ZincCorporation Ltd	100	110

Source: Antaike

The following chart lists Yunnan's key zinc smelters in 2007:

Yunnan's Key Zinc Smelters in 2007 (Unit: kt per year)

Smelters	Capacity
Yunnan Chihong Zinc & Germanium Co., Ltd	200
Yunnan Jinding Zinc Industry Co., Ltd	140
Yunnan Xiangyun Feilong Nonferrous Metals Co., Ltd	130
Yunnan Luoping Zinc and Electricity Co., Ltd	120
Yunnan Yuntong Zinc Co., Ltd	110
Mengzi Mining and Metallurgy Co., Ltd	50
Yunnan Yongchang Lead & Zinc Co., Ltd	20
Yunnan Lancang Lead Mine	20
Yunnan Tin Group	20
Yunnan Zhenxing Industry Group Co., Ltd	20
Yunnan Gejiu Shadian Electric Smelting Plant	20

Source: CNIA

Zinc Prices

Zinc is traded on the LME. Three-month zinc futures contract on the LME is the principal futures contract traded on the exchange and serves as an international pricing benchmark. Zinc is also traded on in the Shanghai Futures Exchange ("SHFE") as a futures product. SHFE zinc prices are generally in line with LME prices.



Source: LME, SHFE

Notes: SHFE started zinc future trade in March 2007

Zinc prices rose sharply from 2005 to 2007. The LME 3-month zinc future price hit US\$4,603/tonne in November 2006 and, pushed upward by the supply shortage and rising demand, reached its second highest level in the last 5 years to US\$4,071/tonne in May 2007. The price then dropped to US\$1,125/tonne in December 2008 due to the global financial crisis. From January 2009 to late October 2011, the zinc price increased from US\$1,224/tonne to US\$1,933/tonne.

SILVER

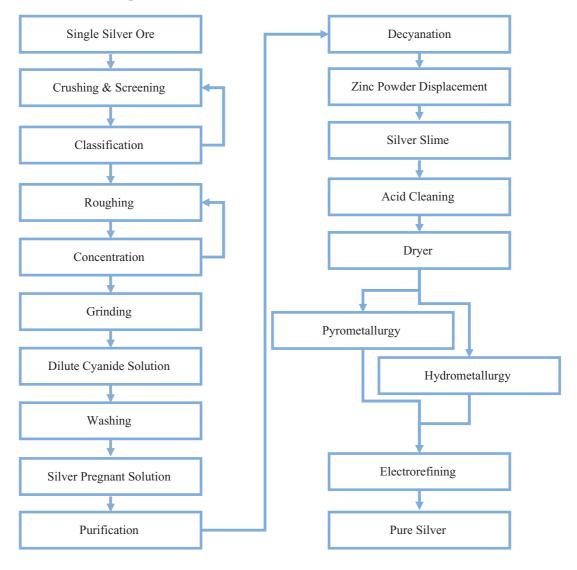
Introduction to Silver

Silver (Ag) is a lustrous, white, malleable and ductile precious metal. Silver has a number of unique properties including strength, malleability, ductility, electrical and thermal conductivity, sensitivity to and high reflectance of light and the ability to endure extreme temperature ranges. Silver's unique properties restrict its substitution in most applications.

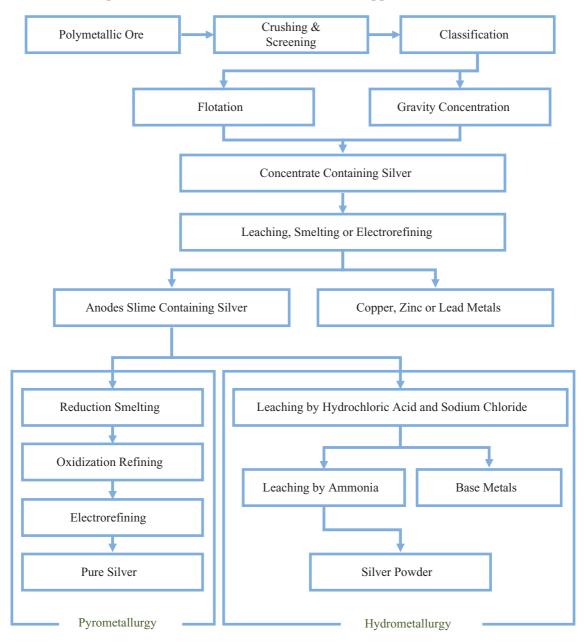
Silver production process

Silver is only found in 1*10⁻⁵% of materials in the earth's crust. Although silver does exist in pure form, most silver is found in association with other compounds such as copper, lead and zinc. Therefore, most of silver is extracted from silver-bearing lead, zinc and/or copper ores. The process of flotation is adopted in producing silver concentrate from a pure silver mine whereas a variety of procedures, such as single flotation, joint gravity separation or cyanide flotation, are used in processing associated silver minerals. The following charts illustrate silver production process from pure and polymetallic ores, respectively.

Simplified Flow of Silver Production from Pure Silver Ore



Simplified Flow of Silver Production from Copper/Lead/Zinc Ores



Global Silver Industry

Global silver resources

According to the 2011 USGS, global silver reserves totaled 510,000 tonnes. Most silver reserves are found in Peru, Chile, Australia, Poland, and China. Together, they account for 72.7% of the world's total reserves. China has the fifth-largest silver reserves in the world. Its silver reserves are 43,000 tonnes, or about 8.4% of the world's total.

Global Silver Reserves by Country (Unit: tonne of silver contained)

	:	2010
	Reserves	Share of Global Reserves
Peru	120,000	23.5%
Chile	70,000	13.7%
Australia	69,000	13.5%
Poland	69,000	13.5%
China	43,000	8.4%
Others	139,000	27.3%
Total	510,000	100.0%

Source: USGS

Global silver supply

World silver supply can be divided primarily into mine production, net government sales, and old silver scrap. The vast majority of silver comes from mine production. In 2009, world silver-mine production constituted 79.8% of the world's total silver supply. The vast majority, or about 70%, of the total production of silver mine production come from polymetallic ore, especially lead and zinc ores, which comprise 35% of total mine production, while only 30% come from pure silver mines.

Global Silver Supply 2004–2009 (Unit: tonne)

	2004	2005	2006	2007	2008	2009
Mine Production	19,066	19,807	19,934	20,665	21,296	22,071
— Growth Rate		3.9%	0.6%	3.7%	3.1%	3.6%
Net Government Sales	1,925	2,050	2,432	1,322	858	426
— Growth Rate		6.5%	18.6%	-45.6%	-35.1%	-50.4%
Silver Scrap	5,714	5,785	5,847	5,655	5,474	5,154
— Growth Rate		1.2%	1.1%	-3.3%	-3.2%	-5.9%
Total	27,004	28,500	28,214	27,642	27,629	27,651
— Growth Rate		5.5%	-1.0%	-2.0%	-0.1%	0.1%

Source: Silver Institute

World silver-mine production grew by a CAGR of 3%, steadily increasing from 19,066 tonnes in 2004 to 22,071 tonnes in 2009. As estimated by USGS, world silver mine production continued to rise to 22,200 tonnes in 2010. Silver output was driven higher by strong production in several Latin American countries and by higher output in Asia, principally in China and Turkey.

Global Silver Mine Production by Country (Unit: tonne)

	2004	2005	2006	2007	2008	2009	2010E
Peru	3,061	3,191	3,456	3,502	3,680	3,854	4,000
Mexico	2,569	2,896	2,970	3,135	3,241	3,257	3,500
China	1,966	2,084	2,342	2,448	2,578	2,771	3,000
Australia	2,224	2,407	1,729	1,879	1,925	1,636	1,700
Bolivia	435	398	473	526	1,114	1,325	1,360
Russia	942	1,011	974	911	1,232	1,313	1,400
Chile	1,359	1,378	1,602	1,928	1,397	1,300	1,500
United States	1,250	1,219	1,141	1,260	1,120	1,238	1,280
Poland	1,362	1,260	1,260	1,232	1,210	1,219	1,200
Kazakhstan	703	812	796	706	628	675	700
Others	3,194	3,151	3,191	3,138	3,173	3,484	2,560
Total	19,066	19,807	19,934	20,665	21,296	22,071	22,200
— Growth Rate		3.9%	0.6%	3.7%	3.1%	3.6%	0.6%

Source: Silver Institute, USGS

Global silver demand

World silver demand is divided into fabrication, producer de-hedging, and implied net investment. The following table sets forth world silver demand from 2004 to 2009:

Global Silver Demand 2004–2009 (Unit: tonne)

	2004	2005	2006	2007	2008	2009
Fabrication	25,841	26,394	26,018	26,205	25,775	22,702
— Growth Rate		2.1%	-1.4%	0.7%	-1.6%	-11.9%
— Industrial Applications	11,434	12,659	13,281	14,186	13,791	10,955
— Photography	5,561	4,986	4,429	3,882	3,263	2,578
— Jewelry	5,437	5,406	5,172	5,085	4,924	4,871
— Silverware	2,090	2,099	1,897	1,816	1,770	1,851
— Coins & Medals	1,319	1,244	1,238	1,235	2,028	2,448
Producer De-Hedging	_	_	212	753	361	694
— Growth Rate				255.2%	-52.1%	92.2%
Implied Net Investment	1,163	2,106	1,984	684	1,493	4,255
— Growth Rate		81.1%	-5.8%	-65.5%	118.3%	185.0%
Total Demand	27,004	28,500	28,214	27,642	27,629	27,651
— Growth Rate	·	5.5%	-1.0%	-2.0%	-0.1%	0.1%

Source: Silver Institute

Silver fabrication demand derives from traditional sectors (e.g., coinage, photography, silver jewelry, and silverware and table settings), industrial sectors (e.g., batteries, bearings, brazing and soldering, catalysts, and electronics), and other emerging sectors (e.g., medical applications, mirrors and coating, solar energy, and water purification). World silver fabrication demand constituted 82.1% of the total global demand in 2009. This demand dipped by 11.9% to 22,702 tonnes in 2009 due to the lingering effects of the global financial crisis.

The United States, China, India, Japan, and Italy are the five largest consumers of silver fabrication products, and together constitute 60.2% of the world's silver fabrication demand.

Others 39.9%

Italy Japan 9.7%

9.1%

Global Silver Fabrication Demand by Country in 2009 (Unit: tonne)

Source: Silver Institute

The global financial crisis pushed up demand for silver as an investment as investors flocked to perceived safety in precious metals. Silver investment demand reached 4,255 tonnes in 2009, the highest level in ten years, representing a year-on-year growth rate of 184%, and recording a CAGR of 29.6% from 2004 to 2009. The emergence of exchange-traded funds ("ETFs"), one of the investment channels for silver, contributed to the rapidly rising demand for silver as an investment. An ETF is a basket of equities linked to silver (*i.e.*, the physical metal, the producers, the refiners, etc.) that is traded on exchanges throughout the day. ETFs have risen in popularity in recent years because they give the investor exposure to the market without the necessity of taking physical delivery, thereby requiring no storage, insurance, or assaying costs.

Global silver trade

In 2009, world silver concentrate trade volume was 101,100 tonnes, up by 7.9% year-on-year. This figure, however, was 56.5% less than the peak level of 232,650 tonnes in 2007. The following graph sets forth world silver concentrate trade volumes from 2004 to 2009.

Global Silver Concentrate Trade 2004-2009 (Unit: tonne)

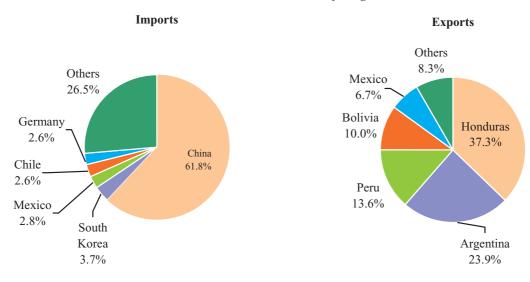
	2004	2005	2006	2007	2008	2009
Trade Volume	97,544	113,710	136,964	232,650	93,665	101,100
— Growth Rate		16.6%	20.5%	69.9%	-59.7%	7.9%

Source: Customs of respective countries

China has been the world's largest silver concentrate importer in the past six years. Its silver concentrate imports reached 62,490 tonnes in 2009, accounting for 61.8% of the world total silver concentrate trade.

On the export side, the top five major silver concentrate exporters, namely Honduras, Argentina, Peru, Bolivia, and Mexico, accounted for 91.7% of the world's total silver concentrate trade in 2009. The following graph sets forth silver concentrate imports and exports by country in 2009:

Global Silver Concentrate Trade by Region in 2009



Source: Customs of respective countries

Global silver trade, which includes products such as silver powder, unwrought silver and semi-manufactured silver, fell in 2008 and 2009 due to the global financial crisis. For example, silver trade volume decreased 84.1% year-on-year from 256,971 tonnes in 2008 to 40,807 tonnes in 2009.

Global Silver Trade 2004–2009 (Unit: tonne)

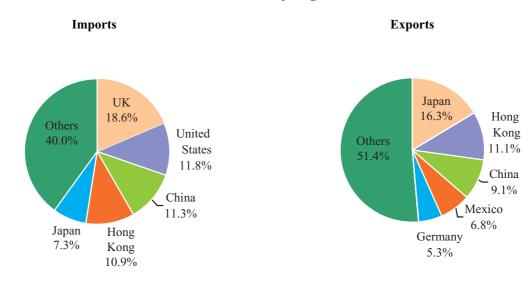
	2004	2005	2006	2007	2008	2009
Trade Volume	57,320	150,094	44,361	55,421	256,971	40,807
— Growth Rate		161.9%	-70.4%	24.9%	363.7%	-84.1%

Source: Customs of respective countries

The U.K. was the biggest importer of silver products in 2009, accounting for 18.6% of the world silver trade. The United States, China, Hong Kong, and Japan are also major silver importers. Silver imports of the above five countries or region accounted for 60.0% of the world's total.

Japan, Hong Kong and China, Mexico, and Germany are major silver exporters. Together, they accounted for 48.6% of the world's total. The following graph sets forth world silver trade breakdown by region in 2009:

Global Silver Trade by Region in 2009



Source: Customs of respective countries

China's Silver Industry

China's silver resources

According to the USGS, China has the fifth-largest silver reserves in the world. China's silver reserves are primarily found in Inner Mongolia (20%), Jiangxi (11%), Yunnan (9%), and Hunan (7%). The primary source for silver production in China is polymetallic ores, especially lead and zinc ores, which constitute 71% of China's total silver production source.

China's silver supply

According to the Silver Institute, China is the world's third largest silver mine producing country. According to the CNIA, China's total silver production reached 11,617 tonnes in 2010, representing a CAGR of 12.8% from 5,637 tonnes in 2004. The following table sets forth China's silver production from 2004 to 2010:

China's Silver Production 2004–2010 (Unit: tonne)

	2004	2005	2006	2007	2008	2009	2010
Total Production	5,637	6,754	8,252	9,092	9,587	10,348	11,617
— Growth Rate		19.8%	22.2%	10.2%	5.4%	7.9%	12.3%

Source: CNIA, Antaike, Hatch

Hunan, Jiangxi, Henan, Zhejiang and Yunnan are the top five silver-producing provinces in China. They produced an aggregate of 9,187 tonnes of silver in 2010, which together accounted for 79.2% of the national silver production in 2010. Yunnan produced 727 tonnes of silver in 2010, which was 6.3% of the national total.

China's silver demand

China is one of the largest silver-consuming countries in the world. China's silver demand increased rapidly from 2004 to 2010, driven mostly by investment and domestic industrial needs. The following chart sets forth China's silver demand by categories from 2004 to 2010:

China's Silver Demand 2004-2010 (Unit: tonne)

	2004	2005	2006	2007	2008	2009	2010
Fabrication Demand	2,300	2,600	3,000	3,600	4,500	5,200	6,000
— Growth Rate		13.0%	15.4%	20.0%	25.0%	15.6%	15.4%
Exports	3,584	4,286	4,712	4,683	4,186	3,729	1,575
— Growth Rate		19.6%	9.9%	-0.6%	-10.6%	-10.9%	-57.8%
Producer De-Hedging and Implied							
Net Investment	433	1,262	4,201	6,659	7,081	6,048	9,201
— Growth Rate		191.5%	232.9%	58.5%	6.3%	-14.6%	52.1%
Total Demand	<u>6,317</u>	8,148	11,913	14,941	15,767	14,978	16,776
— Growth Rate		29.0%	46.2%	25.4%	5.5%	-5.0%	12.0%

Source: CNIA, China Customs, Antaike, Hatch Note: Imports and exports are in gross weight

China's total demand for silver jumped from 6,317 tonnes in 2004 to 16,776 tonnes in 2010, representing a CAGR of 17.7%. This surge was lead by silver investment and fabrication demand. According to Antaike, silver investment demand peaked at 9,201 tonnes while fabrication silver demand of China reached 6,000 tonnes in 2010, representing a CAGR of 66.5% and 17.3%, respectively. In terms of fabrication demand, electronics took the largest proportion with 35% of the total fabrication silver demand, followed by solder and brazing alloys and jewelry and silverware with 25% and 21% of the share, respectively.

Coins and Medals 4% Jewelry and Silverware Electronics 21% 35% Photography 10% Decorative and Other Solders and Industry Brazing Application Alloys 5% 25%

China's Silver Fabrication Demand by Sector in 2010

Source: Antaike, Hatch

China's silver trade

China is the biggest importer of silver concentrates in the world and imported 191,406 tonnes of silver concentrate in 2010. As a result of its huge domestic demand, China seldom exports any silver concentrate. The following graph sets forth China's silver concentrate import volumes from 2004 to 2010.

China's Silver Concentrate Imports 2004–2010 (Unit: tonne)

	2004	2005	2006	2007	2008	2009	2010
Imports	17,487	47,609	67,630	188,684	71,931	62,490	191,406
— Growth Rate		172.3%	42.1%	179.0%	-61.9%	-13.1%	206.3%

Source: China Customs

In terms of silver trade, China has been a net importer of silver since 2007 due to the booming domestic demand for semi-manufactured silver, silver powder, and unwrought silver. In 2010, silver net imports reached historical high of 3,584 tonnes in China, rising by 298% year-on-year, according to China Customs, and silver imports in general have grown at a CAGR of 40.2% from 2004 to 2010.

China is becoming the silver processing base of the world and generally exports only higher purity silver products that have been processed from imported semi-manufactured silver. Hence, China's silver trade exports decreased from 3,584 tonnes in 2004 to 1,575 tonnes in 2010. The following chart sets forth China's silver imports and exports from 2004 to 2010:

China's Silver Imports and Exports 2004–2010 (Unit: tonne)

	2004	2005	2006	2007	2008	2009	2010
Imports	680	1,394	3,661	5,849	6,180	4,630	5,159
— Growth Rate		105.0%	162.6%	59.8%	5.7%	-25.1%	11.4%
Exports	3,584	4,286	4,712	4,683	4,186	3,729	1,575
— Growth Rate		19.6%	9.9%	-0.6%	-10.6%	-10.9%	-57.8%
Net Imports	-2,904	-2,892	-1,051	1,167	1,994	900	3,584
— Growth Rate		0.4%	63.7%	211.0%	70.9%	-54.9%	298.2%

Source: China Customs

China's silver competition

Due to the fact that silver is primarily a byproduct of lead, zinc or copper production and that about 70% of China's silver is extracted from lead and zinc mines, China's silver industry is relatively fragmented. Henan Yuguang Gold and Lead is the largest silver-producing company in China. Its silver production was 605 tonnes in 2010, accounting for 5.2% of the national total production.

Silver production of the major 10 silver producers listed below amounted to 3,278 tonnes in 2010, accounting for 28.2% of the national total silver production. Xinda Silver Industry is one of the largest pure silver producers in China. According to Xinda's company report, its silver production capacity reached 600 tonnes by the end of 2010.

China's Major Silver Producing Companies in 2009 and 2010 (Unit: tonne)

	2009	2010
Henan Yuguang Gold and Lead	611	605
Jiangxi Copper	443	470
Tongling Nonferrous Metals	217	379
Yunnan Copper	317	350
Chenzhou Jingui Nonferrous Metals	300	400*
Anyang Yubei Gold and Lead Group	250	200*
Daye Nonferrous Metals	270	300*
Hunan Shuikoushan Nonferrous Metals	213	200*
Yunnan Chihong Zinc & Germanium	168	135
Jiangxi Longtianyong Nonferrous Metals	245	240*
Xinda Silver Industry	_	600†
Others	7,314	7,738
Total	10,348	11,617

Source: CNIA, Respective companies' report, companies' Annual Report, Hatch

Note: * Estimated production; † Production capacity

The following table lists Yunnan's key silver smelters in 2007:

Yunna's Key Silver Smelters in 2007 (Unit: tonne per year)

Smelters	Capacity
Yunnan Chihong Zinc & Germanium Co., Ltd	180
Yunnan Tin Group	160
Yunnan Xiangyun Feilong Nonferrous Metals Co., Ltd	116
Mengzi Mining and Metallurgy Co., Ltd	80
Yunnan Gejiu Shadian Electric Smelting Plant	50
Yunnan Lancang Lead Mine	30

Source: CNIA

Silver Prices

Silver prices published by the London Bullion Market Association ("LBMA") and the New York Commodity Exchange ("COMEX") are considered the benchmark prices for the world. Silver spot prices on the LBMA and COMEX are closely synchronized. International silver prices generally maintained an upward trend from 2004 to 2011. In 2004, the silver price began to rise dramatically and, in 2006, it reached levels not seen in 26 years. The price of silver continued to rise until the first half of 2008 when rapidly deteriorating economic conditions depressed prices for all metals in the second half of 2008. Silver price then quickly recovered in the first quarter of 2009 and has risen rapidly since. It recorded a historic high in 2011, reaching over US\$43/oz in April 2011, and came to US\$32 in October 2011. The graph below illustrates silver prices from January 2004 to October 2011:

Monthly Average Silver Prices January 2004-October 2011 (Unit: US\$/ounce)



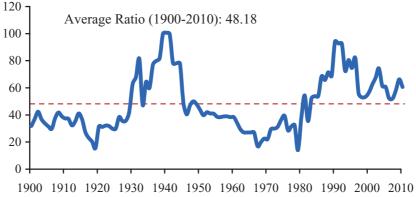
Source: Silver Institute

Silver's strong price performance is due to growing investor demand, as well as increasing industrial use as world economies improve. Silver investment demand has been driven by the following: U.S. dollar devaluation, the sovereign debt crisis in Europe, inflation fears, ultra-low interest rates, and the further growth in commodities as an asset class. Additionally, silver price trend is positively related to the holdings of ETFs, which has emerged as a popular investment tool for silver and has become an important index for measuring the activity of silver investment. High demand for silver ETFs was an important factor in rising silver prices from 2004 to 2008.

The gold/silver price ratio has also declined to the seven-year lowest since 1950 amid the rapid growth of international silver price in 2010.

Average Ratio (1900-2010): 48.18

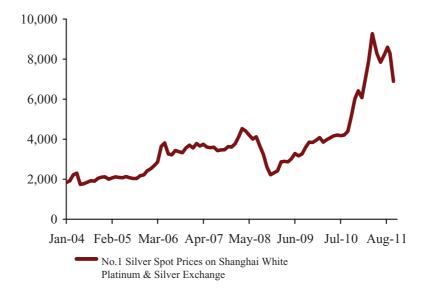
Annual Average Gold/Silver Price Ratio 1900-2010



Source: Silver Institute, Comex, World Gold Council

In China, silver is mainly traded on the Shanghai White Platinum & Silver Exchange ("Shanghai White Exchange"). Silver prices on the Shanghai White Exchange closely follow international price trends. The graph below illustrates the upward trend in silver prices in China:

Monthly Average Silver Prices in China January 2004-October 2011 (Unit: RMB/kg)



Source: Antaike

Note: Silver delivered on Shanghai White Platinum & Silver Exchange is of 99.99% purity

TUNGSTEN

Introduction to tungsten

Tungsten (W), occurs in nature only in the form of chemical compounds. In the processing of tungsten, tungsten ore is first crushed and milled, and then beneficiated by different ways such as gravity, froth flotation, magnetic or electrostatic separation, or a combination of the foregoing methods. Secondary tungsten raw materials such as recycled (oxidised) scrap and residues that contain 40% to 95% tungsten are also an important feed for chemical tungsten processing. Secondary tungsten generally account for about a third of the total global tungsten consumption.

Global and China's tungsten resources

Global tungsten reserves were estimated to be 2,900 kt of tungsten in 2010, according to USGS. China has the largest tungsten reserves with 1,900 kt in 2010, accounting for 65.5% of the world's share.

Global and China's tungsten supply

Tungsten comes in two varieties: unrefined tungsten (ore/concentrate) and refined tungsten products. According to the estimates from USGS, global tungsten ore output was 61 kt of tungsten content in 2010. About 85.2% of global tungsten ore output came from China, making it the world's largest tungsten producer. China's tungsten concentrate production increased from 80 kt in 2004 to 115 kt in 2010, representing a CAGR of 6.2%, according to CNIA. Most of the tungsten concentrates supplied to the market are 65% grade.

China's Tungsten Concentrate Output 2004-2010 (Unit: kt, 65% Tungsten trioxide (WO₃))

	2004	2005	2006	2007	2008	2009	2010
Output	80	73	80	80	84	99	115
— Growth Rate		-9.3%	9.9%	0.7%	5.0%	17.3%	16.1%

Source: CNIA, CTIA

According to CNIA, about half of China's tungsten concentrate was produced in Jiangxi in 2010. Yunnan is the sixth largest tungsten concentrate producing province in China and produced 3.2 kt in 2010.

China is a major producer of refined tungsten products. According to China Customs and CTIA, China supplied 21.3 kt of tungsten in 2010. China's refined tungsten products primarily include ammonium paratungstate, or APT, tungsten oxide, and tungsten powder.

China's Tungsten Product Output 2004–2009 (Unit: kt)

	2004	2005	2006	2007	2008	2009
APT	47.8	51.8	45.6	54.9	52.9	56.2
Tungsten Oxide	33.5	38.1	39.9	46.2	42.5	44.0
Tungsten Powder	21.2	20.6	20.2	21.9	24.1	27.0
Ferrotungsten	_	11.6	11.1	12.0	11.0	6.2
Tungsten Rod (Bar)	_	4.2	3.1	3.3	3.4	3.1
Tungsten Wire (billion meters)	_	19.0	19.0	20.2	22.8	21.0
Hardmetal	14.9	12.3	14.5	15.5	16.5	15.3

Source: CTIA, CNIA

Global and China's tungsten demand

According to estimation of the International Tungsten Industry Association ("ITIA"), primary tungsten and secondary tungsten accounts for 66% and 34%, respectively, of total world tungsten consumption. World tungsten concentrate consumption was 53.0 kt and 64.6 kt of tungsten content in 2004 and 2007, respectively. Due to the global financial crisis, world tungsten concentrate consumption dropped to 63.1 kt and 57 kt of tungsten content in 2008 and 2009, respectively.

Approximately 66% of tungsten is used in the production of hard metals, or cemented carbides. These are cutting, drilling and wear materials for use in machine tools and drilling equipment. About

16% of tungsten is used to make mill-products, which generally include tungsten rod, sheet and wire. Super alloys, lighting, steel and chemical industry are the remaining end-user sectors, accounting for about 5%, 4%, 4% and 3% of the total tungsten consumption, respectively.

According to ITIA and CTIA, China was the largest tungsten concentrate consumer, accounting for more than 85% of the world's total consumption in 2010. China's tungsten concentrate consumption increased from 42.8 kt in 2004 to 62.4 kt of tungsten content in 2010 at a CAGR of 6.5%, according to CNIA and China Customs. Hard metal and special steel are the two largest end-users for tungsten in China.

In terms of refined tungsten, China consumed 27.0 kt of tungsten in 2009 and an estimated 31 kt in 2010, according to CNIA. That figure rose to 30.9 kt, an increase of 14.5%, in 2010. According to CNIA, hardmetal and special steel comprised 46.7% and 31.3% of China's tungsten product demand, respectively, in 2010. The following table sets forth China's tungsten consumption from 2005 to 2010:

China's Tungsten Consumption 2005–2010 (Unit: kt)

	2005	2006	2007	2008	2009	2010E
Consumption	23	25	27	27	27	31
— Growth Rate		8.7%	8.0%	0%	0%	14.8%

Source: CNIA

Global and China's tungsten trade

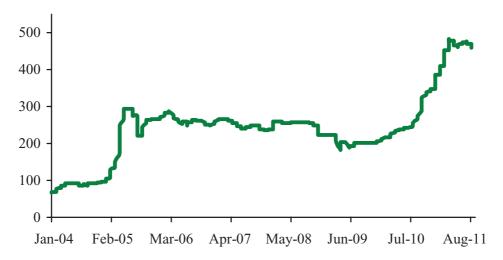
According to figures from China Customs, more than 15 kt of tungsten concentrate were traded in 2009. China is the largest tungsten concentrate importing country. China's tungsten concentrate imports reached 9.0 kt in 2009, accounting for 57.1% of the world total imports.

Although China is by far the largest producer of tungsten ore and concentrate, it does not export much of these products, preferring to export more processed tungsten. According to China Customs and CNIA, 99.5% of its tungsten exports, or 21.3 kt, comprised of refined tungsten products in 2010, including tungsten trioxide (WO₃), other tungsten oxides, tungsten carbide (WC), and APT. The exports of the foregoing top four types of products collectively accounted for 78.3% of China's total tungsten exports.

Tungsten prices

Tungsten concentrate and other tungsten products are sold largely on a spot basis by traders and dealers. Industry prices are mainly based on the quotations published twice a week by London's "Metal Bulletin" and other trade journals such as ITIA. In recent years, trade in concentrates has diminished and the market has relied more and more upon the APT quotation as a price guide since APT is the most traded product. International APT prices started to take off in 2004. After the global financial crisis, international APT prices began to increase from around US\$200/mtu at the beginning of 2009 to US\$458/mtu in October 2011. The following graph sets forth international prices for APT from 2004 to 2011.

International APT Prices January 2004-October 2011 (Unit: US\$/mtu WO₃)

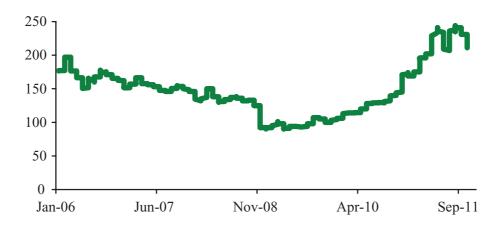


Source: ITIA

Note: "Metric Ton Unit", or "mtu", means a metric ton of APT, containing 1% of WO3 and corresponds to 10kg WO3

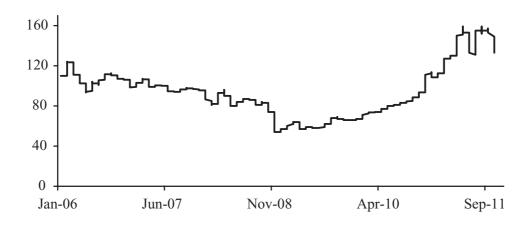
China's domestic tungsten prices fluctuate more than international prices. The APT prices dropped to RMB90,580/tonne at the end of 2008 because of the global financial crisis, but recovered to RMB222,400/tonne by October 2011. The tungsten concentrate prices dropped to RMB59,400/tonne in November 2008 due to the financial crisis, but recovered to RMB140,400/tonne by October 2011. The following graphs set forth China's prices of APT and tungsten concentrates from 2006 to 2011.

China's APT Prices January 2006-October 2011 (Unit: RMB thousand/tonne)



Source: Chinacem

China's Tungsten Concentrate Prices January 2006-October 2011 (Unit: RMB thousand/tonne)



Source: Chinacem

TIN

Introduction to tin

Tin (Sn) does not occur naturally as a metal. It is typically extracted from a base compound, usually cassiterite (SnO2), and then processed. Pure tin is generally produced from a multi-stage process, beginning with the mining and concentrating of low-grade ores containing tin cassiterite minerals, and followed by smelting and electrolytic refining or pyro-refining to produce pure tin.

Global and China's tin resources

Global tin reserve was 5,200 kt of tin in 2010, according to USGS. According to USGS, China has the largest tin reserve. In 2010, China's tin reserves amounted to 1,500 kt, or approximately 28.8% of the world's total reserves. According to NBSC, Guangxi, Yunnan, Guangdong, Hunan, Inner Mongolia and Jiangxi are the top six tin resource-rich provinces. The accumulated reserves in the above six provinces and autonomous regions account for around 98% of national total tin reserves. Yunnan is the second richest tin resource province, possessing approximately 30% of China's tin resources. Gejiu City in Yunnan is the most famous tin reserve and tin producing region in China and is appropriately named China's Tin Capital.

Global and China's tin supply

Tin comes in two varieties: tin concentrate and refined tin. Indonesia, China and Peru are the top three tin concentrate producing countries. The total tin concentrate production of these three countries reached 213 kt, or 77.7% of world total, in 2010.

China is the world's second largest tin concentrate producer, according to ITRI. China's tin concentrate output reached 84 kt of contained tin in 2010, achieving a year-on-year rise of 15.4%, according to NBSC. Most of the tin concentrates produced in China are 45%-55% grade. Yunnan and Hunan were the top two tin concentrate producing provinces, each with more than 30,000 tonnes of tin output in 2010.

Yunnan has been the largest tin concentrate producing province in China for the past five years. In 2010, Yunnan's tin concentrate output was 31 kt of contained tin, up 5.8% year-on-year, according to NBSC. From 2006 to 2010, Yunnan achieved a CAGR of 7.0% increase in tin concentrate production.

Global refined tin production grew at a CAGR of 1.7% from 304 kt in 2004 to 337 kt in 2010. China is the world's largest refined tin producer. China's refined tin production grew at a CAGR of 5.0% from 108 kt in 2004 to 145 kt in 2010, according to CNIA.

Global and China's Refined Tin Production 2004-2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
China	108	117	138	151	138	141	145
Rest of the World	196	230	224	201	200	193	192
Total	304	347	362	352	337	334	337
— Growth Rate		14.1%	4.2%	-2.6%	-4.3%	-1.0%	0.9%

Source: Antaike, Hatch

According to CNIA and NBSC, Yunnan has the largest refined tin production in China and accounted for 50% of China's tin output in 2010.

Yunnan's Tin Concentrate Production 2006-2010 (Unit: kt of tin contained)

	2006	2007	2008	2009	2010
Output	24	25	27	29	31
— Growth Rate		5.1%	6.8%	10.5%	5.8%

Source: NBSC

Global and China's tin demand

According to ITRI and Antaike, world refined tin consumption reached 360 kt in 2010, an increase of 12.5% year-on-year. China is the largest refined tin consumer in the world and its share of the global tin consumption increased from 28% in 2004 to 41% in 2010. The following is a comparison of China's tin consumption against the rest of the world's.

Global and China's Refined Tin Consumption 2004-2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
China	90	101	120	132	134	132	147
Rest of the World	229	231	236	228	214	188	214
Total	318	332	356	361	348	320	360
— Growth Rate		4.4%	7.1%	1.3%	-3.4%	-8.1%	12.5%

Source: CNIA, Antaike, Hatch

Given its good fusion abilities and non-toxic qualities, tin is often used in combination with other metals, either as an alloying element or as coating and is widely used in the making of solder, bronze, tinplate, pewter and die casting alloys. In 2010, the solder, tinplate and chemicals industries accounted for 52%, 18% and 15% of the total global refined tin consumption, respectively.

Global and China's tin trade

China has been a large tin concentrate importer since 2004. In 2010, China imported 20 kt of tin concentrate, surging by 94.4% year-on-year.

China's Tin Concentrate Imports 2004-2010 (Unit: kt, gross weight)

	2004	2005	2006	2007	2008	2009	2010
Imports	9	7	7	21	7	10	20
— Growth Rate		-16.0%	-5.2%	191.7%	-65.4%	42.6%	94.4%

Source: China Customs

From 2002 to 2008, China was a net exporter of refined tin. That reversed in 2008, however, when the Chinese government started to levy a 10% export tax on refined tin. Since then, China has become a net importer of refined tin. In 2010, China imported 16 kt of refined tin, decreasing by 22.9% year-on-year. From 2008 to 2010, annual exports of refined tin were all below 1 kt.

China's Refined Tin Imports and Exports 2004–2010 (Unit: kt)

	2004	2005	2006	2007	2008	2009	2010
Imports	10	19	16	13	10	21	16
— Growth Rate		90.0%	-15.8%	-18.8%	-23.1%	110.0%	-23.8%
Exports	32	23	20	23	1	1	1
— Growth Rate		-28.1%	-13.0%	15.0%	-97.8%	40.0%	0.0%
Net Imports	-21	-3	-4	-10	9	21	15
— Growth Rate		85.2%	-34.1%	-145.0%	191.0%	130.9%	-29.6%

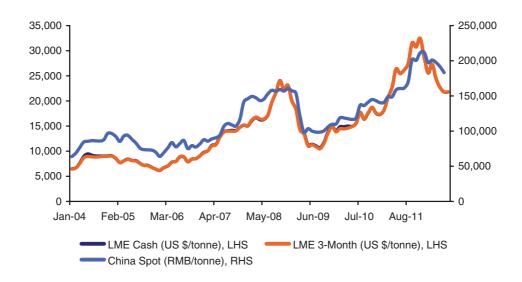
Source: China Customs, CNIA

International and China's tin prices

World tin prices are set by the LME. A 3-month tin futures contract on the LME is the benchmark contract traded on the exchange. LME's monthly average tin cash prices dropped sharply to US\$10,676/tonne in March 2009 and then steadily increased to over US\$21,793/tonne in October 2011 with the recovery of global tin consumption.

There is no tin-futures contract in China, but China's tin prices are generally in line with the LME tin price trend. China's monthly average tin spot market prices increased continuously from RMB98,513/tonne in February 2009 to over RMB183,167/tonne in October 2011. The following graph shows the monthly price trend of refined tin in the past six years:

China's and LME Tin Prices January 2004–October 2011



Source: LME, Antaike PRC tin prices

SOURCES OF INFORMATION

Hatch Report

We have engaged Hatch, an Independent Third Party and an experienced consultant in the mining and metals industry, to prepare the Hatch Report for use in whole or in part in this Prospectus.

The research and writing of the Hatch Report was a desktop exercise carried out by experienced Hatch professionals who have extensive knowledge of the mining and metals sector. Hatch utilized its in-house database, independent third-party reports, publicly available data from reputable industry organizations, official government assessments and data provided by our Company (with respect to the non-ferrous resources of the Shizishan Mine) to prepare the Hatch Report, with no reliance on any single source. While Hatch has not made an independent inquiry into the accuracy or completeness of data from third parties, Hatch believes that the information contained in the Hatch Report is reliable and generally indicative of the conditions in the PRC metals market. A test of each source's information and views against those of others is applied to ensure reliability and to eliminate bias from various sources. Where necessary, Hatch's researchers contact companies operating in the industry to gather and synthesize information about the market, prices and other relevant information. Therefore, the data in the Hatch Report reflects the consensus of industry for historical data including market size and shares.

The Hatch Report is based on historical data and does not contain any predictions, forecasts, or commentary regarding the future outlook of the PRC metals industry. Therefore, it has not made any assumptions in the report, except for the completeness and accuracy of the information and data that it has relied on. Hatch has confirmed that it is not aware of anything which could possibly lead it to believe that this belief is unfair, unreasonable or incomplete.

Hatch seeks to operate according to international standards of moral, legal and professional conduct to protect its reputation for independence and confidentiality. Hatch has more than 15 years of project experience in the PRC and has completed assignments on over 150 projects with a capital value in excess of US\$3.0 billion.

We have agreed to pay Hatch a total of RMB600,000 in fees for the preparation and update of the Hatch Report.

Others

We have not engaged Antaike, CNIA, COMEX, ILZSG, LBMA, LME, American Bureau of Metal Statistics, China Customs, National Bureau of Statistics of China, Shanghai White Platinum and Silver Exchange, the Ministry of land and Natural Resources PRC (MLR), or the United States Geological Survey when preparing data cited in this Prospectus. Data from these sources were not prepared on a commissioned basis by us.