

Chinese Titanium Market in 2008

Rakhman Turgyn

(Advanced Material Japan Corporation)

September 15, 2009

Advanced Material Japan Corporation

AMJ is a leading titanium sponge and ingot trading company in Japan, head office in Tokyo, with branches in Beijing, Shanghai, Moscow and Toronto.

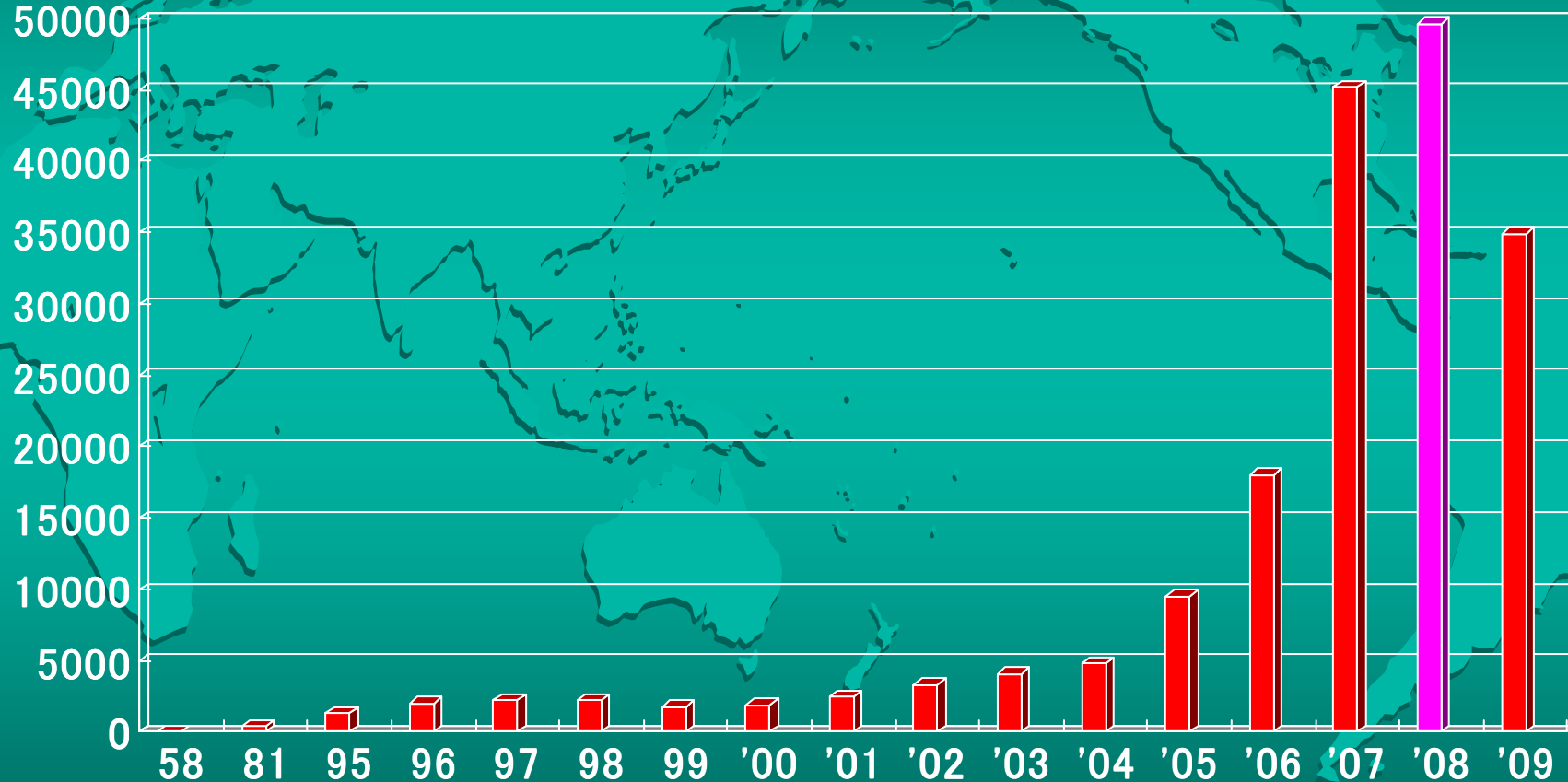
Contents

1. Sponge Production
2. Sponge Export and Import
3. Ingot Production
4. Mill Product Output
5. Mill Product Export and Import
6. Conclusion

1. Sponge Production

1.1. Sponge Production

(49,632t in 2008, comparing with 2007, a net 4,432t, 9.81% increase)
(2009 data is an estimation by doubling production in 2009 first half)
(would be 30% decrease comparing with 2008)



1.2. Sponge Production of 13 plants in 2008

(13 companies, total production is 49,632t)

(Unit: t)

Plant No. 1	Plant No. 2	Plant No.3	Plant No.4	Plant No.5	Plant No.6	Plant No.7	Plant No.8	Plant No.9	Plant No.10	Plant No.11	Plant No.12	Plant No.13
12,864	8,000	5,035	4,800	4,500	4,444	3,539	1,750	1,300	1,000	1,000	900	500

1.3. Sponge Capacity

(‘08 total capacity is 71,000t, a 8,000t increase comparing with ‘07)

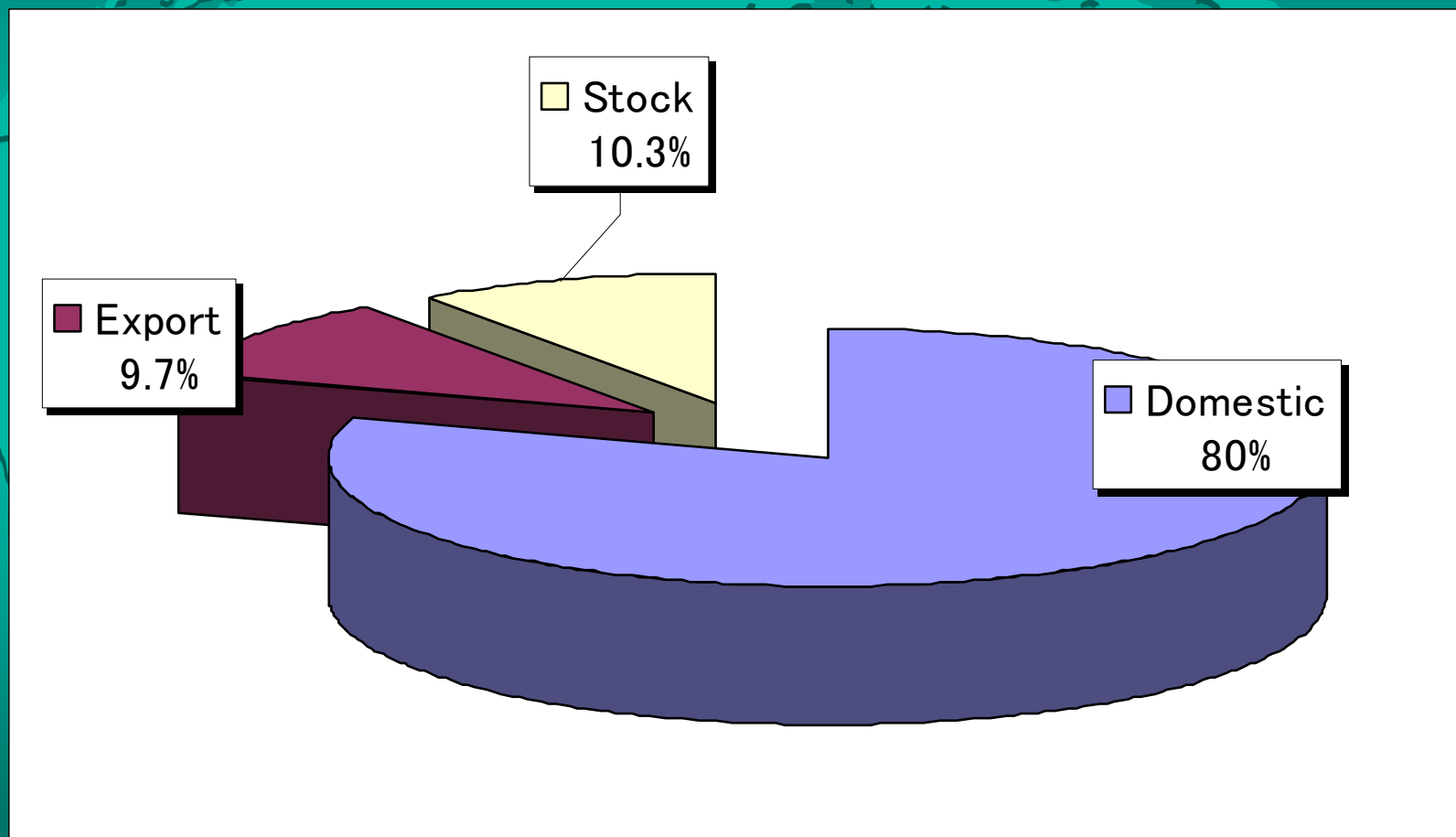
Company Name	Capacity (t)
遵义钛业	14,000
锦州华神	12,000
朝阳百盛	8,000
抚顺钛业	5,000
朝阳金达	5,000
唐山天赫	5,000
洛阳双瑞万基	5,000

1.4. Ongoing New Sponge Project

Designed Capacity per year (t)

遵儀チタン業	20,000
中国アルミ (JV with ARICOM)	30,000
金川公司	15,000
攀鋼集団	15,000
中信錦鉄	10,000
東方タンタル業	10,000
雲南冶金集団	10,000
Total	110,000

1.5. 2008 Sponge Consumption



1.6. 2009 first half sponge production

(10 companies, total sponge production is 17,470t in 2009 first half)

(38.2% decrease comparing with the same period of '08)

(whole year would reach 35,000t)

(Unit: t)

Plant No. 1	Plant No. 2	Plant No.3	Plant No.4	Plant No.5	Plant No.6	Plant No.7	Plant No.8	Plant No.9	Plant No.10
5415	2659	2400	1659	1500	1481	1236	800	200	120

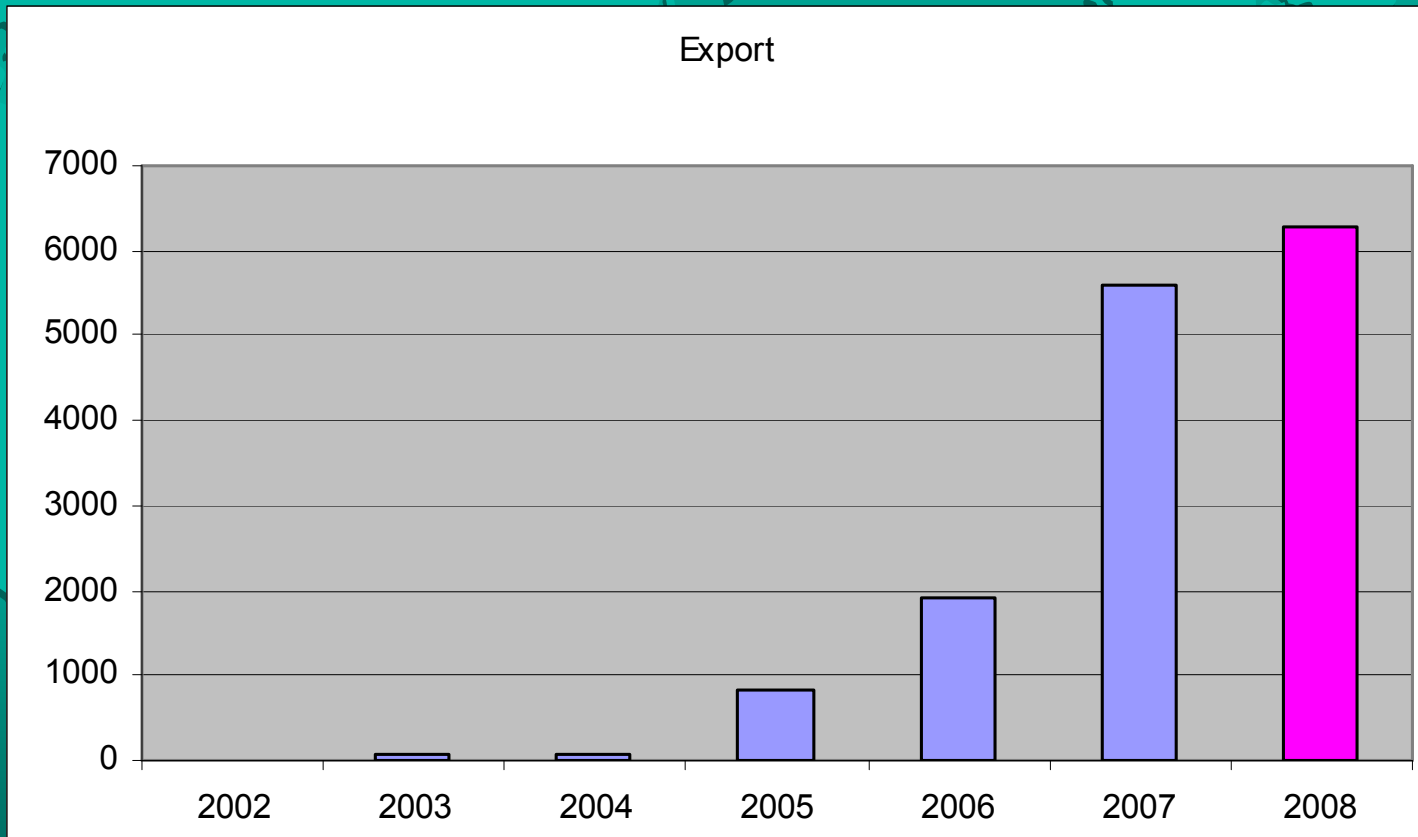
2. Sponge Export and Import

2.1. Sponge Export & Import

Year	Import	Export	Net import
2002	2147	11	+2136
2003	2824	73	+2751
2004	1838	57	+1781
2005	1718	828	+890
2006	1608	1920	-312
2007	1133	5584	-4451(+1327%)
2008	1221	6292	-5071(+14%)

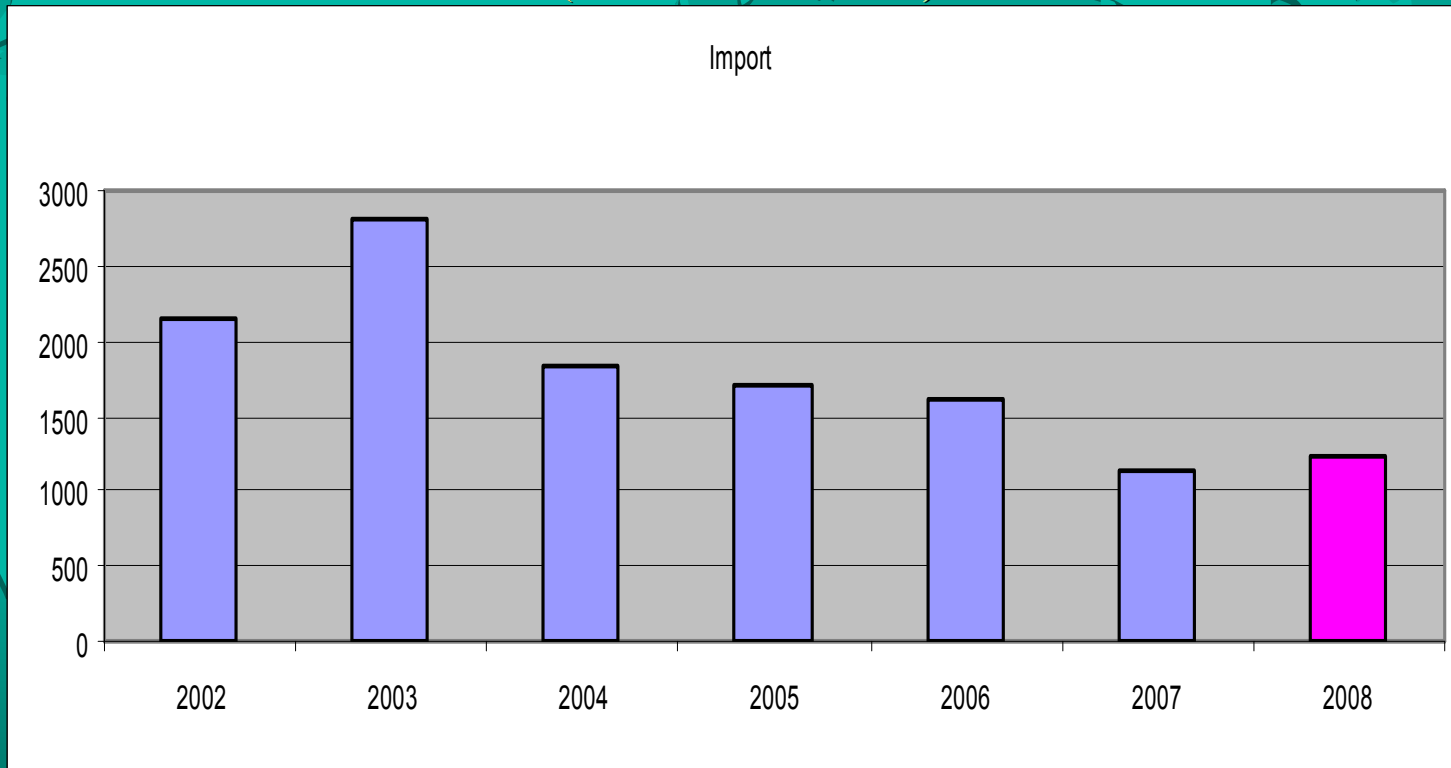
2.2. Sponge Export

(In 2008, a 14% increase comparing with 2007) (total export 6,292t)
('09 first half is 266t, a 93.9% decrease comparing last year same period)
(whole year would reach 600t)



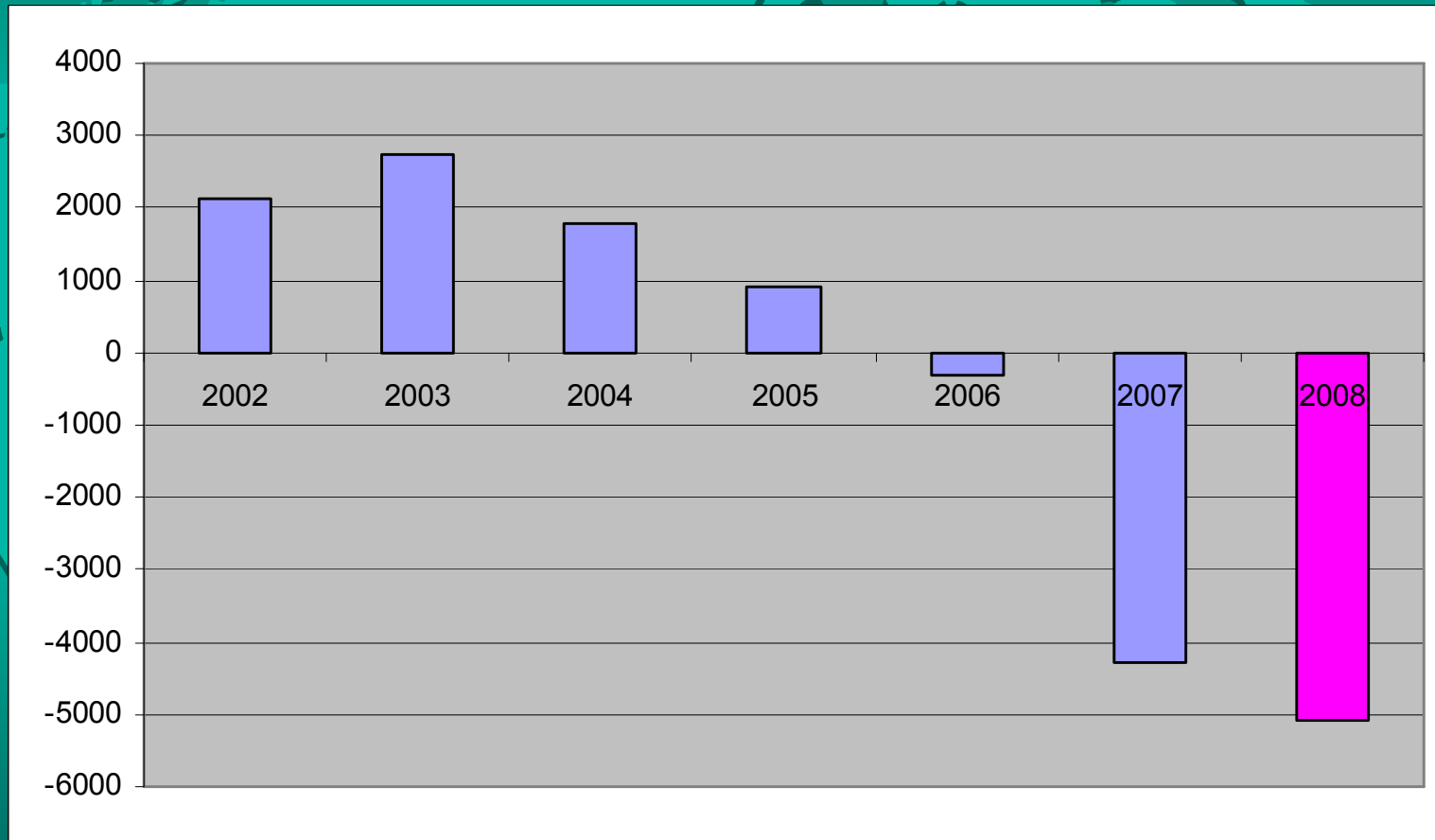
2.3. Sponge Import

(in 2008, a 7.8% increase comparing with 2007) (total import: 1221t)
(*'09 first half is 192t)

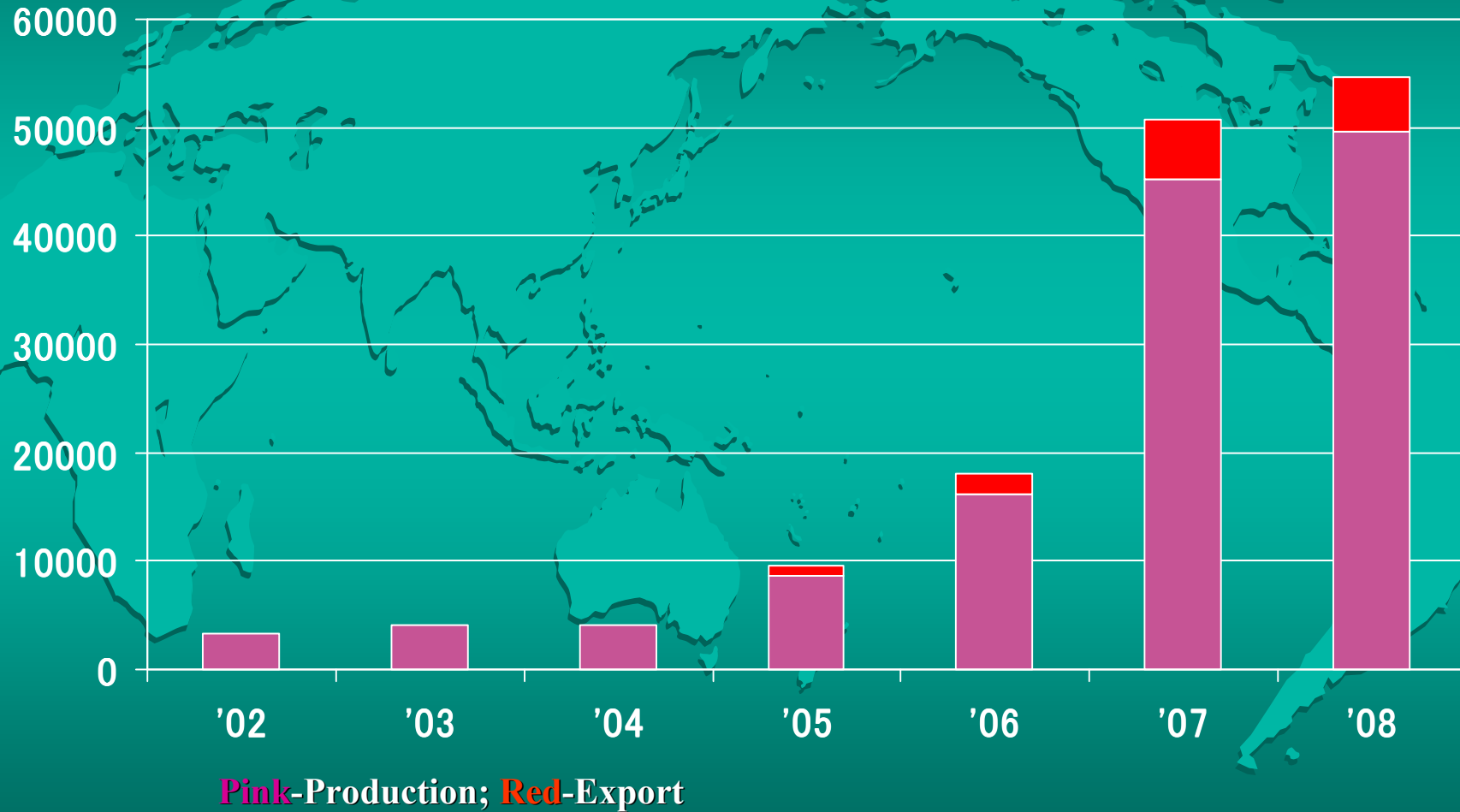


2.4. Sponge Net Import

(net import in 2008 is 1221t)



2.5. Sponge Export Share in Total Production (still small but increasing)



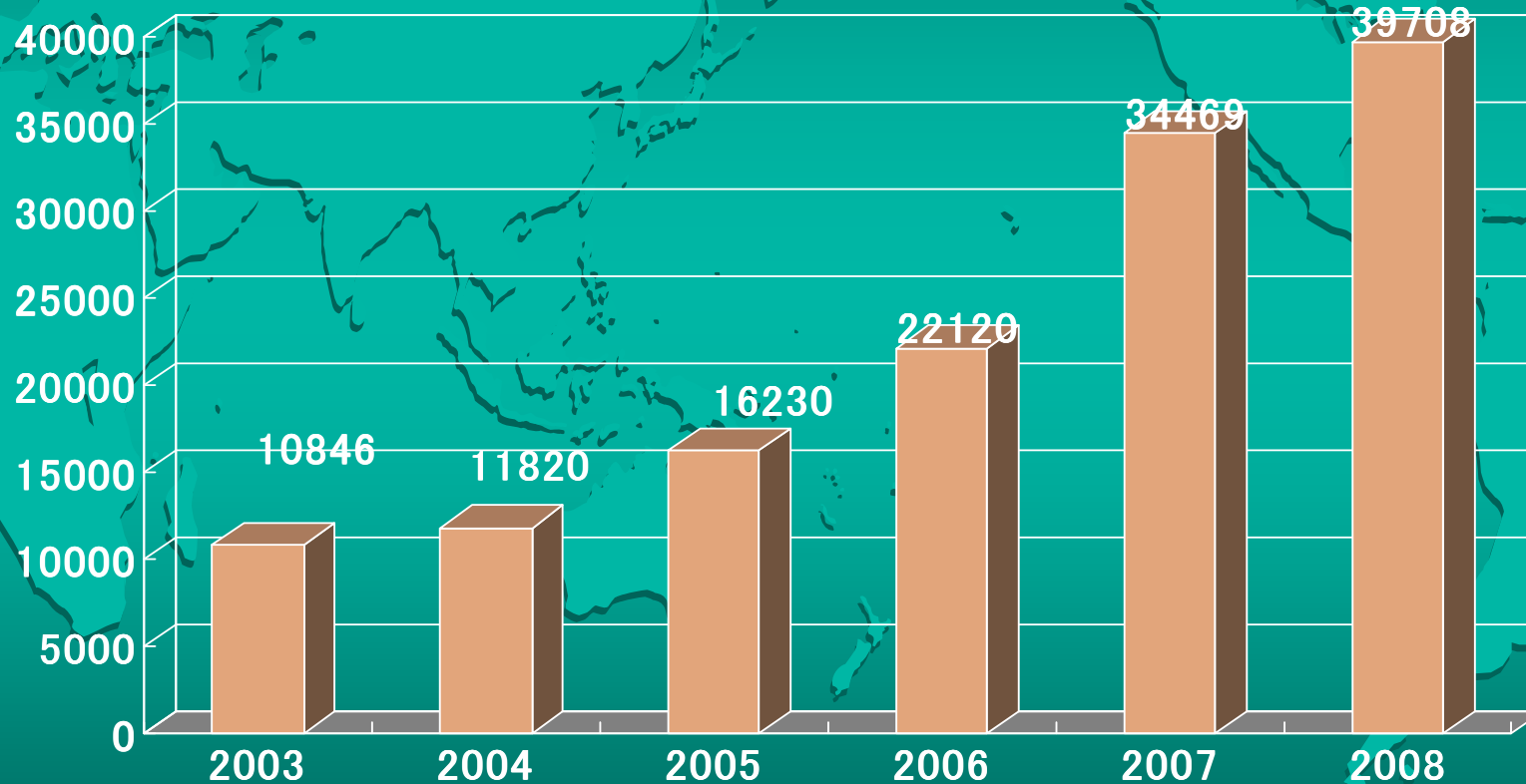
A stylized world map in shades of blue and green, centered on the Pacific Ocean. The map shows the outlines of continents and major islands.

3. Ingot Production

3. Ingot Production (t) in 2008

(a 5,239t, 15.2% increase comparing with 2007)

(Capacity is 69,200t, a 20,900t increase comparing with 2007)



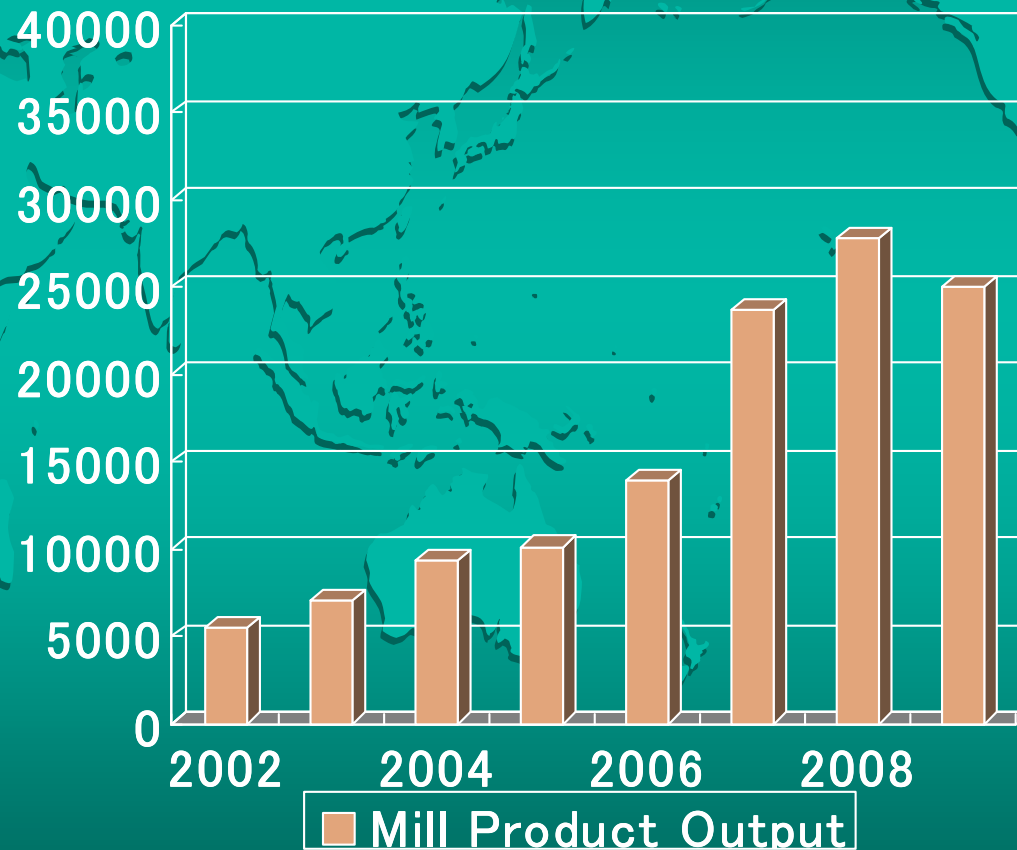
4. Mill Product Output

4. Mill Product Output

(4097t, 17.3% increase comparing with 2007.)

('09 first half is 12,648t, a 10.2% decrease comparing last year same period)

(may near 25,000t in 2009)



5. Mill Product Export and Import

5. Mill Product Export and Import

(Import in '09 first half is 2,752t, a 7.0% decrease comparing last year same period)

(Export in '09 first half is 2,170t, a 51% decrease comparing last year same period)

Year	Import	Export	Net import
2004	4197	1310	+2887
2005	5700	2513	+3187
2006	4682	4610	+72
2007	3964	8047	-4083(+5571%)
2008	6387	8570	-2183(-47%)

6. Conclusion

- China is becoming a big titanium country, No.1 in titanium sponge production and production capacity. China is also a big titanium sponge consumer. In 2008 China consumed about 40,000t of titanium sponge.
- Chinese titanium manufactures are having very difficult time. Now Chinese titanium sponge is sold at a low price, almost without profit. It will be difficult for manufactures to decrease sponge price more than current level. It has reached the bottom.
- But due to the high sponge production cost, still Chinese sponge price is not so cheap. So in July of 2009 China imported 863t of sponge to get cheaper sponge. Due to the global economy crises, Chinese titanium sponge and mill product productions have been decreased. But mill product production has been decreased not so much.
(may near 25,000t in 2009)
- Mill product import and export have also comparatively been decreased . But import has been decreased not so much. (2,752t in '09 first half, including 1,730t of welded tube and 473t of sheet)
Though the global financial crises have been continued, Chinese demand for titanium mill product is still big.
- Total production of titanium sponge is increasing but increase rate is definitely decreasing now.

- Chinese sponge manufacturers still need some time to compete with other major sponge manufacturers in the world in quality and productivity matters, but may take some market share from existing players as well.
- Chinese domestic titanium market is growing faster; in 2008 China consumed 24,068t of mill products. (Total production is 27,737t). (China has become the No.2 country in the world in consumption of titanium mill products.) Mills are trying and planning to produce coil, welded tube. Big Aircraft Production Project was announced too. We believe most of the sponge productions will continually consuming domestically in China.
- New Chinese sponge manufacturers will face a hard competition domestically and worldwide. In 2008 totally 13 titanium sponge manufactures produced sponge. In 2009, in the first half they have decreased to 10.