Glass

Through China's looking glass

Subsidies to the Chinese Glass Industry From 2004-08

By Usha C. V. Haley

In 2009, China is the largest producer of glass and glass products, has the greatest number of glassproducing enterprises, and has the largest number of float-glass production lines in the world. Since 2003, glass production in China has more than doubled. Concurrently, production capacity in China has also doubled since 2003 and increased more than threefold since 2000. This report documents the industry's explosive growth and exports and the government subsidies that have bolstered it from 2004 to 2008.

Executive summary

• From 1987 to 2007, China's glass output has risen, on average, by 18% annually. Along with increasing production, the Chinese glass industry experienced a three-fold increase in exports to the United States from 2000 to 2008; correspondingly, the U.S. trade deficit with China on glass also tripled in the same period. In 2008, China contributed over 31% of global glass production. It has become the largest exporter of fl at glass and glass fiber in the world.

• Despite competitive pressures, more production capacity is added annually to China's glass industry, and the industry displays enormous excess capacity. The number of new float-glass production lines added annually more than doubled from 2000 to 2007.

• China's glass industry enjoys no economies of scale or scope. The industry's sales and profits are dominated by smalland medium-sized enterprises, which are also the fastest growing. The industry also displays geographic fragmentation, with manufacturers in 29 of the 32 provinces. Most of the glass manufacturers run much smaller float-glass production lines than those of the five global giants.

• China is the largest consumer of glass in the world, but declines in the real estate and automobile sectors, combined with enormous excess capacity, have made exports the engine behind the industry's growth. Because of existing and planned production capacity, glass exports from China are expected to increase at least until 2011, far outpacing projected increases in domestic demand.

• Data and calculations in this report reveal that China's glass and glass products industry received at least $30.3 billion in subsidies from 2004 to 2008. The subsidies spanned heavy oil, coal, electricity, and soda ash and have been growing steadily in this period, reaching about 35% of gross industrial output value of glass in 2008.

• Data and calculations also reveal that China's flat-glass sector within the industry received approximately $4.8 billion in subsidies from 2004 to 2008. The subsidies spanned heavy oil, coal, electricity, and soda ash and have been growing steadily in this period.

Introduction

In 2009, China is the largest producer of glass and glass products globally, has the greatest number of glass-producing enterprises, and has the largest number of fl oat-glass production lines in the world. Since 2003, glass production in China has more than doubled. Concurrently, production capacity in China has doubled since 2003 and increased more than three-fold since 2000.

This report documents the explosive growth of China's glass and glass products industry and the government subsidies that have bolstered this growth from 2004 to 2008. The glass and glass-products industry in China consists of five sectors: flat glass, glass fiber, container glass, glass tableware, and specialty glass. From 1987 to 2007, China's total glass output has risen, on average, by 18% year-on-year.

TABLE 1

Output and growth of Chinese glass, 2003-07

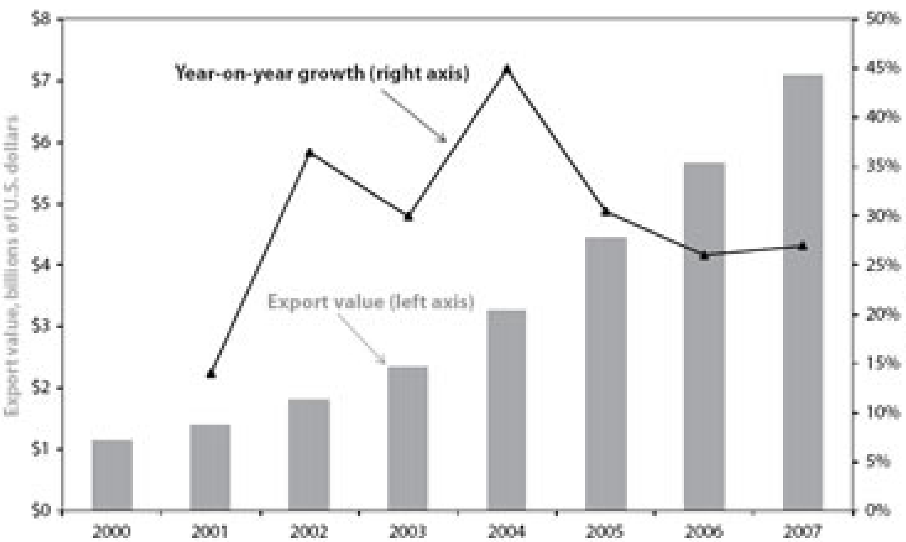
	Glass & glass-products industry		Flat-glass sector	
	Gross industrial output value (billions of Chinese yuan)	*Year-on-year growth (percent)*	*Gross industrial output value (billions of Chinese yuan)*	*Year-on-year growth (percent)*
2003	82.4		20.3	
2004	123.4	49.8%	28.6	40.9%
2005	150.8	22.2	31.9	11.5
2006	190.4	26.3	36.1	13.2
2007	258.4	35.7	45.7	26.6

SOURCE: National Bureau of Statistics, China; author's estimates.

Table 1 describes some of this output and growth for the industry and the flat-glass sector. Through May 2008, output of all glass products (except laminated glass) displayed double-digit year-on-year growth: for example, flat glass in total grew by 12.2%, glass fi ber by 43.5%, sealed-insulating glass by 35.9%, tempered glass by 17.8%, laminated glass by 9.8%, household-glass products by 12.8%, and heat-preserving glass receptacles by 19.0%. Sales of glass and glass products jumped 31.0% from the previous year to $16.5 billion through May 2008, while gross industrial output value reached $17.1 billion, up 31.3% (China Economic Information Network 2003-09).

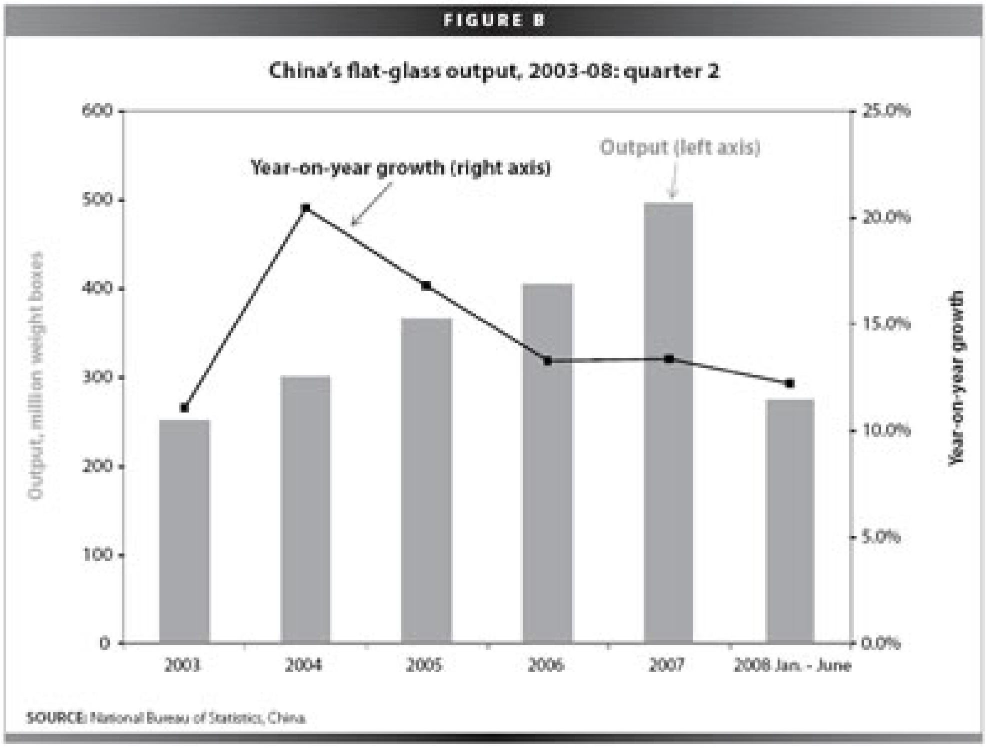
FIGURE A

Exports of China's glass and glass-products industry, 2000-07



SOURCE: National Bureau of Statistics, China; General Administration of Customs, China.

Along with increasing production, as ***Figure A*** shows, the industry experienced a seven-fold increase in exports from 2000 to 2007. China has become the largest exporter of fl at glass and glass fi ber in the world.



Flat glass comprises a core sector of the glass and glass-products industry in China. ***Figure B*** traces the growth of flat-glass output in China from 2003 to 2008. In 2007, official statistics indicate that China produced a total of 497 million weight boxes1 of flat glass (National Bureau of Statistics, China 2003-09); however, some private sources have estimated that Chinese flat-glass production may have reached 600 million weight boxes in that year.2 Globally, nearly two-thirds of flat-glass production flows into the construction industry and about a quarter flows into the transportation industry for the making of auto-safety glass. The production of mirrors accounts for less than 9% of flat-glass production. In China, too, the construction industry absorbs the bulk of Chinese flat glass, followed by automobiles.

China's strong economic growth together with the introduction of float-glass technology, has contributed to some of the increased glass output since the late 1980s. However, industry characteristics and government policies show that generous government subsidies have bolstered growth as well. Data and calculations in this report reveal that China's glass industry received total subsidies approximating at least $30.3 billion from 2004 to 2008.

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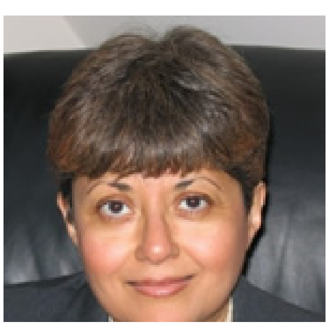
The Contents:
- Industry characteristics and structure
- Analysis of glass supply
- Analysis of glass demand
- Production process and manufacturing costs of Chinese glass
- Measuring subsidies to Chinese glass
- Subsidies to China's glass and glass products industry
- Conclusions and future directions
- Appendix: Definition and measurement of variables



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Photos: Economic Policy Institute, LandGlass
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