

Analysis and Outlook of Chinese Ferromanganese Market

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Ferromanganese is the largest series of production capacity in China. It is also the largest series of exported ferroalloys. For years it has supplied the demand of Chinese steel industry, which is rapidly growing.

1 Current status of Chinese ferroalloys and ferromanganese

- **1.1 Basic status of producers**
 - • **Statistics shows there are more than 800 ferroalloys producers in China. The total annual production capacity is 7,290,000 tons. The number of producers of ferromanganese, including HC FeMn, SiMn, MC FeMn. is around 230, 27% of the total ferroalloys producers. The production capacity of ferromanganese is 2,700,000 t, 37% of the total capacity.**
 - • **The number and production capacity is shown in Figure 1 and Figure 2.**

Figure 1 Constitution of The Chinese ferroalloy producers

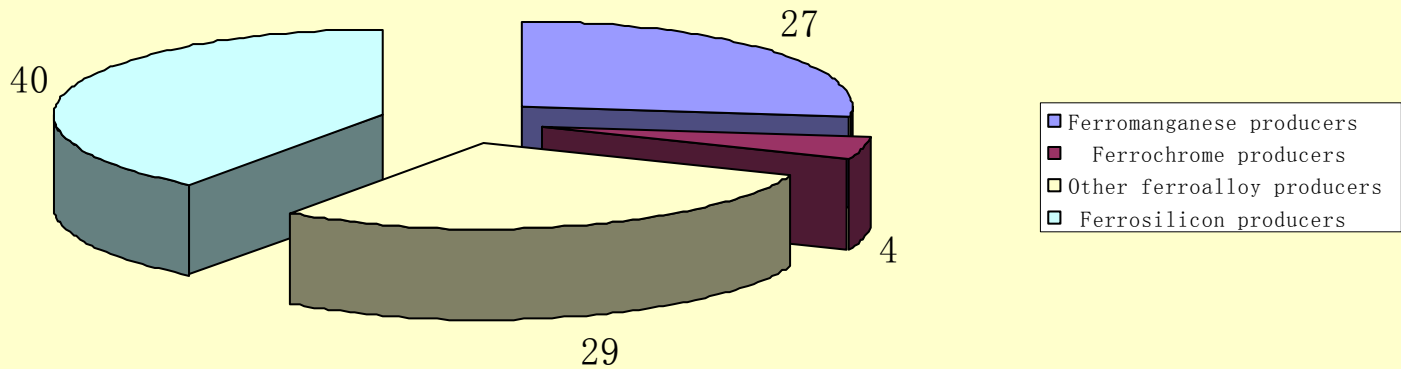
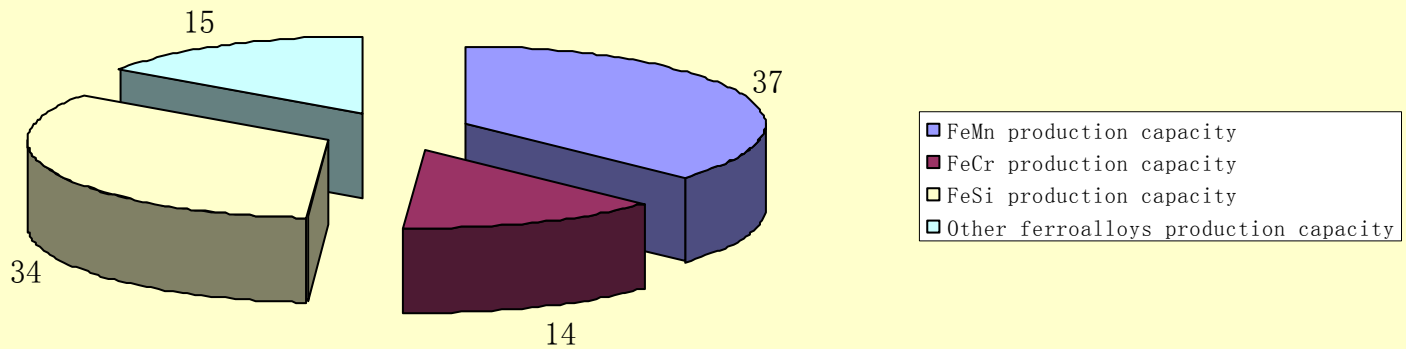


Figure 2 Constitution of The Chinese ferroalloys production capacity



1.2 The output of Chinese ferroalloys

- The output of Chinese ferroalloys in 1995 is 4,320 kt. It was a record in the history.**
- Since 1996 the output dropped year by year. The output recovered in 1999.**
- The output in 2001 is 4,508 kt. It is a new record in the history. The output is shown in Figure 3.**
- The output of SiMn, BF HC FeMn, EF HC FeMn, MC FeMn in recent years are shown in Figure 4, Figure 5 and Figure 6 respectively.**

Figure 3 Output of ferroalloys in recent years

Unit: 10000 t

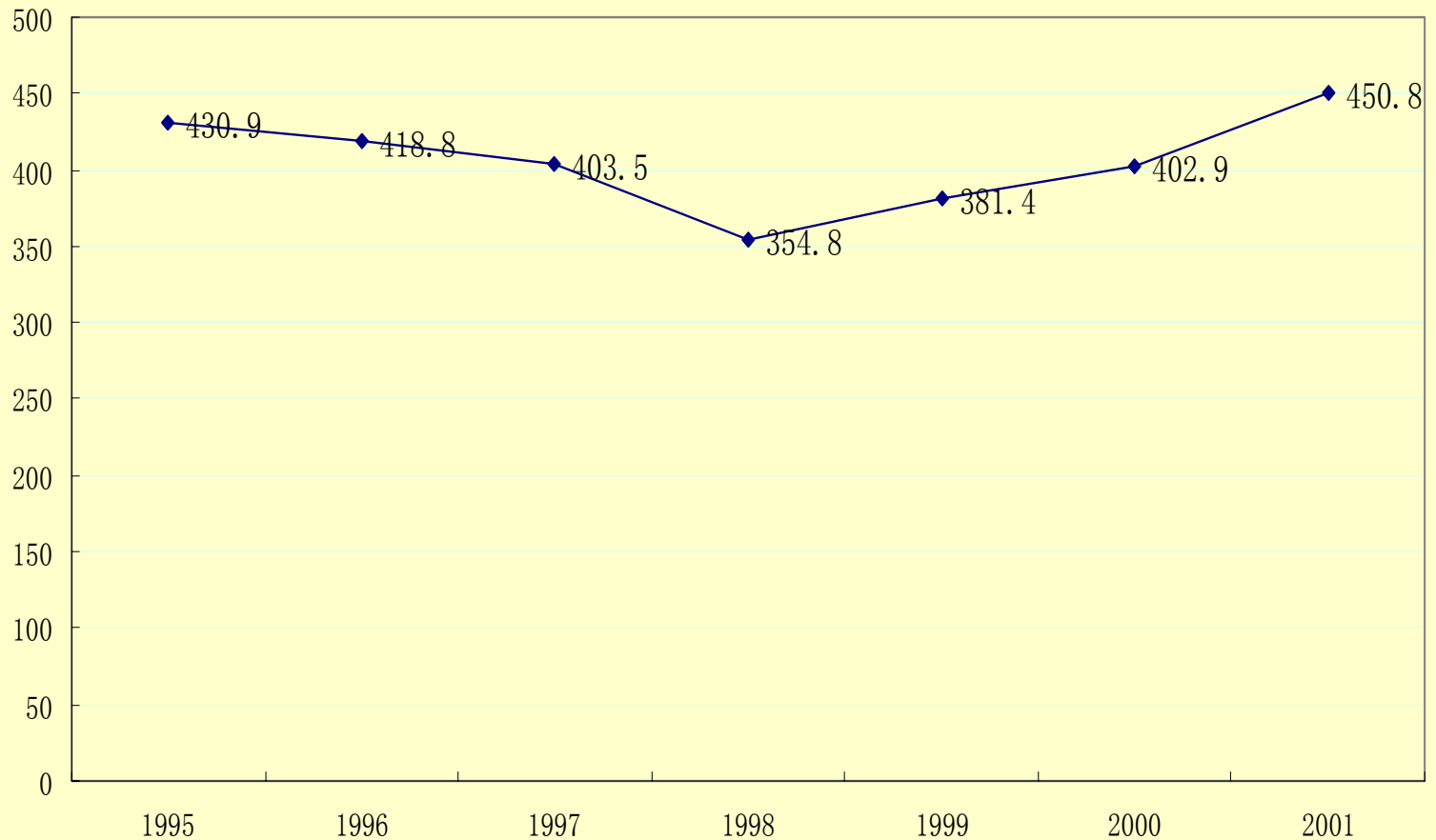


Figure 4 SiMn output in recent years

Unit: 10000 t

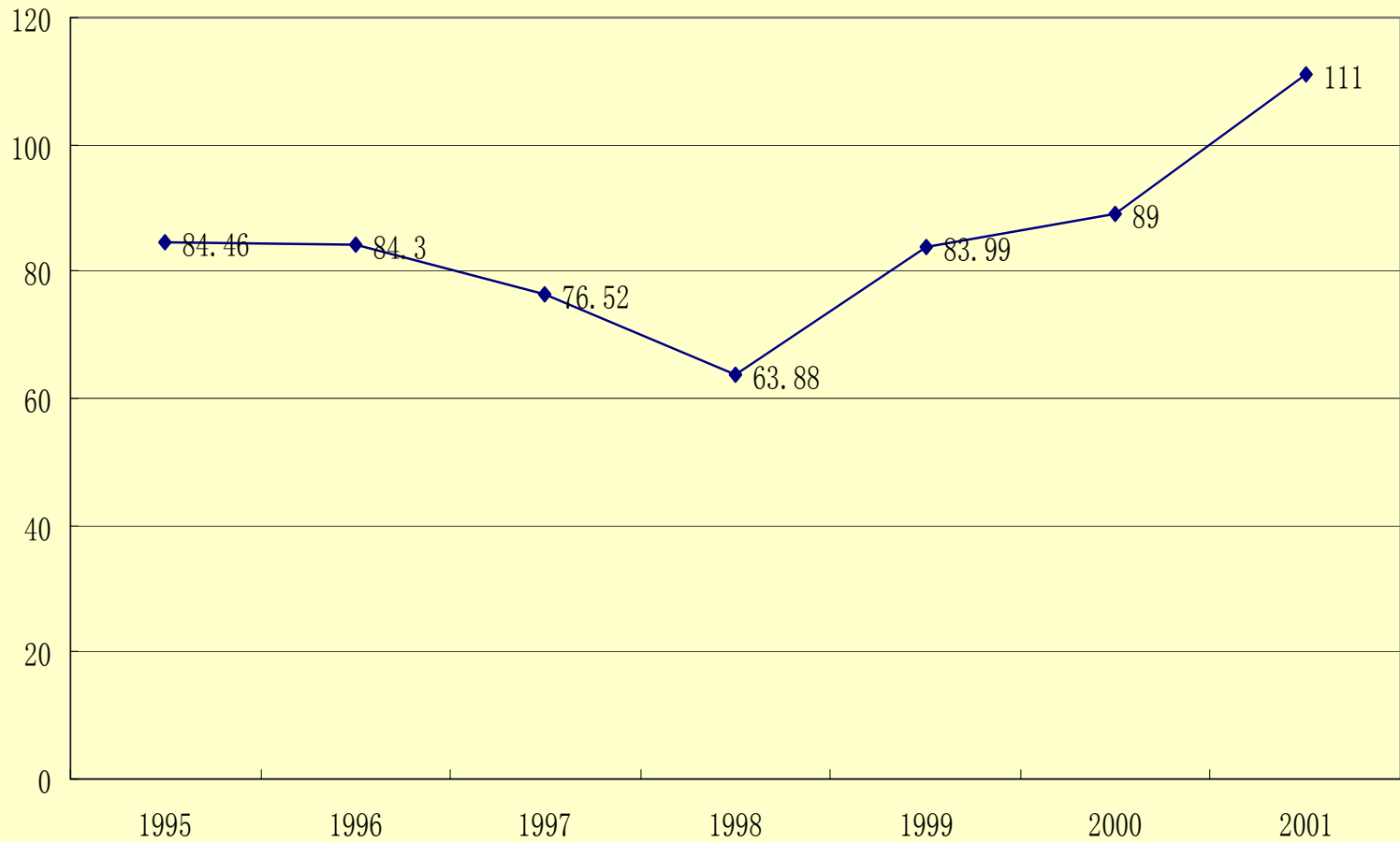


Figure 5 Output of BF FeMn and EF FeMn in recent years

Unit: 10000 t

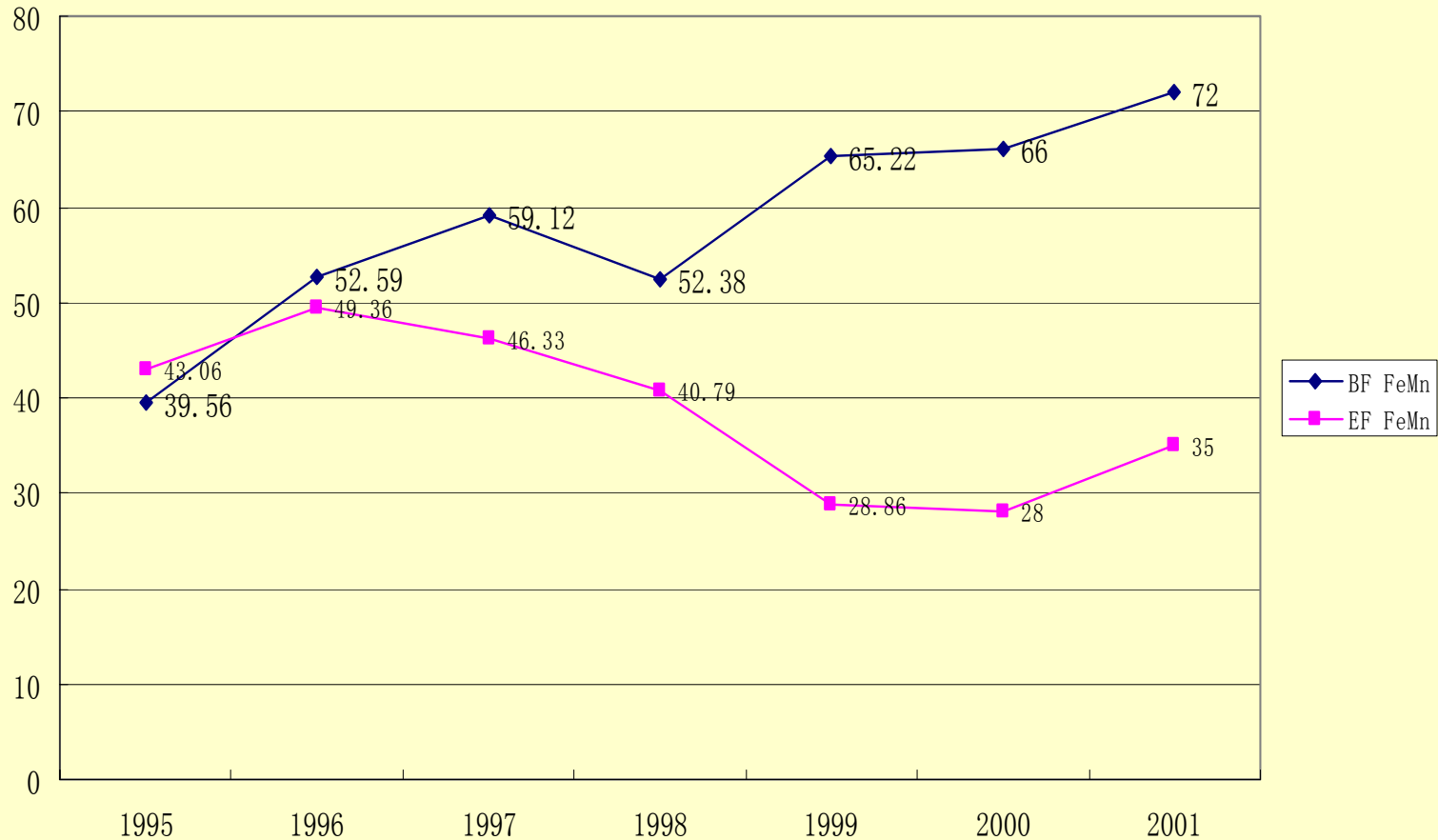
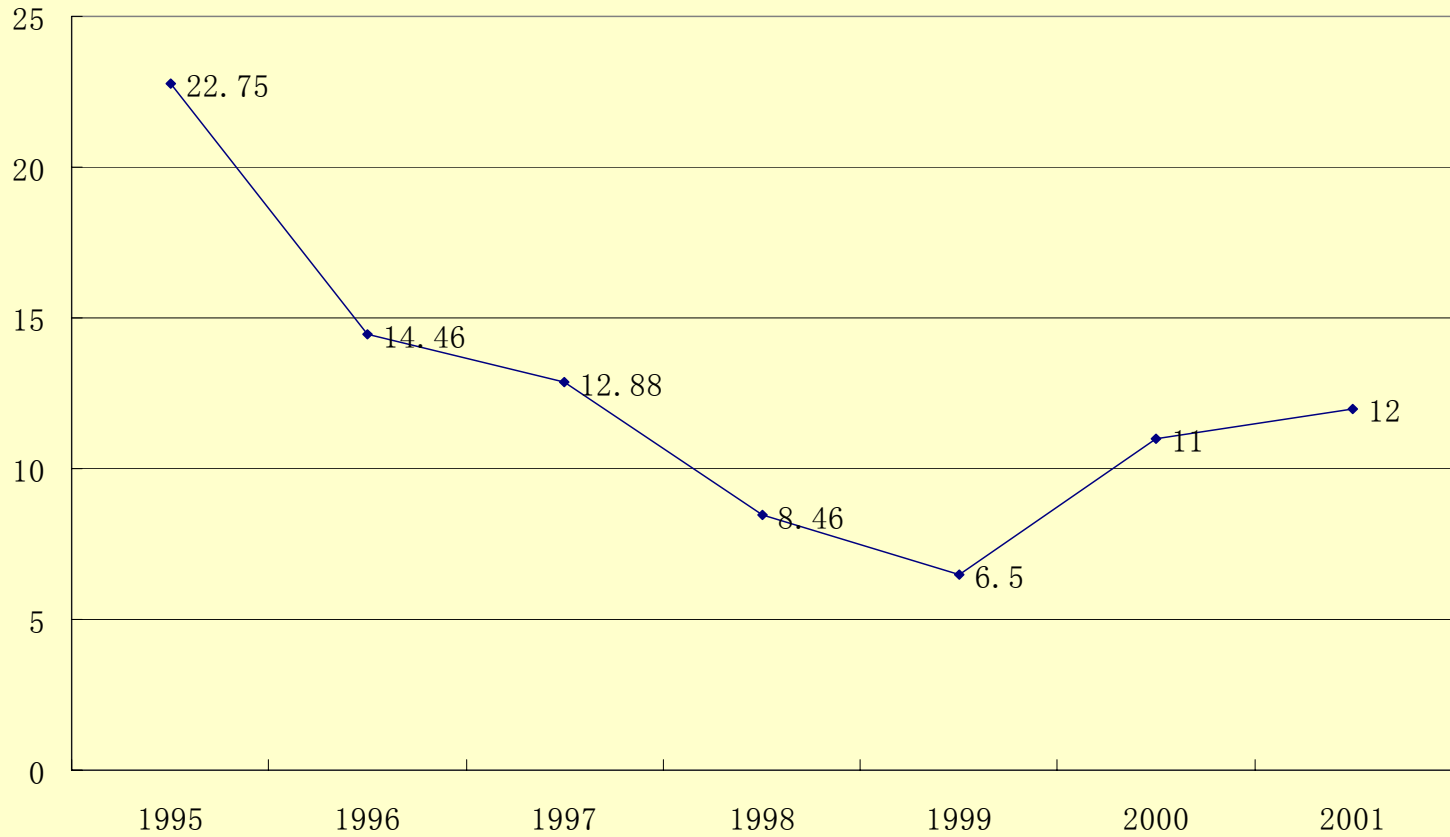


Figure 6 Output of MC FeMn

Unit: 10000 t



1.3 Export status

Ferroalloy export in 1995 is 1,475,400 t. Figure 7 shows ferroalloy export in recent years.

The exports of SiMn, HC FeMn, MC FeMn are shown in Figure 8, Figure 9 and Figure 10.

Figure 7 Ferroalloy export in recent years.

Unit: 10000 t

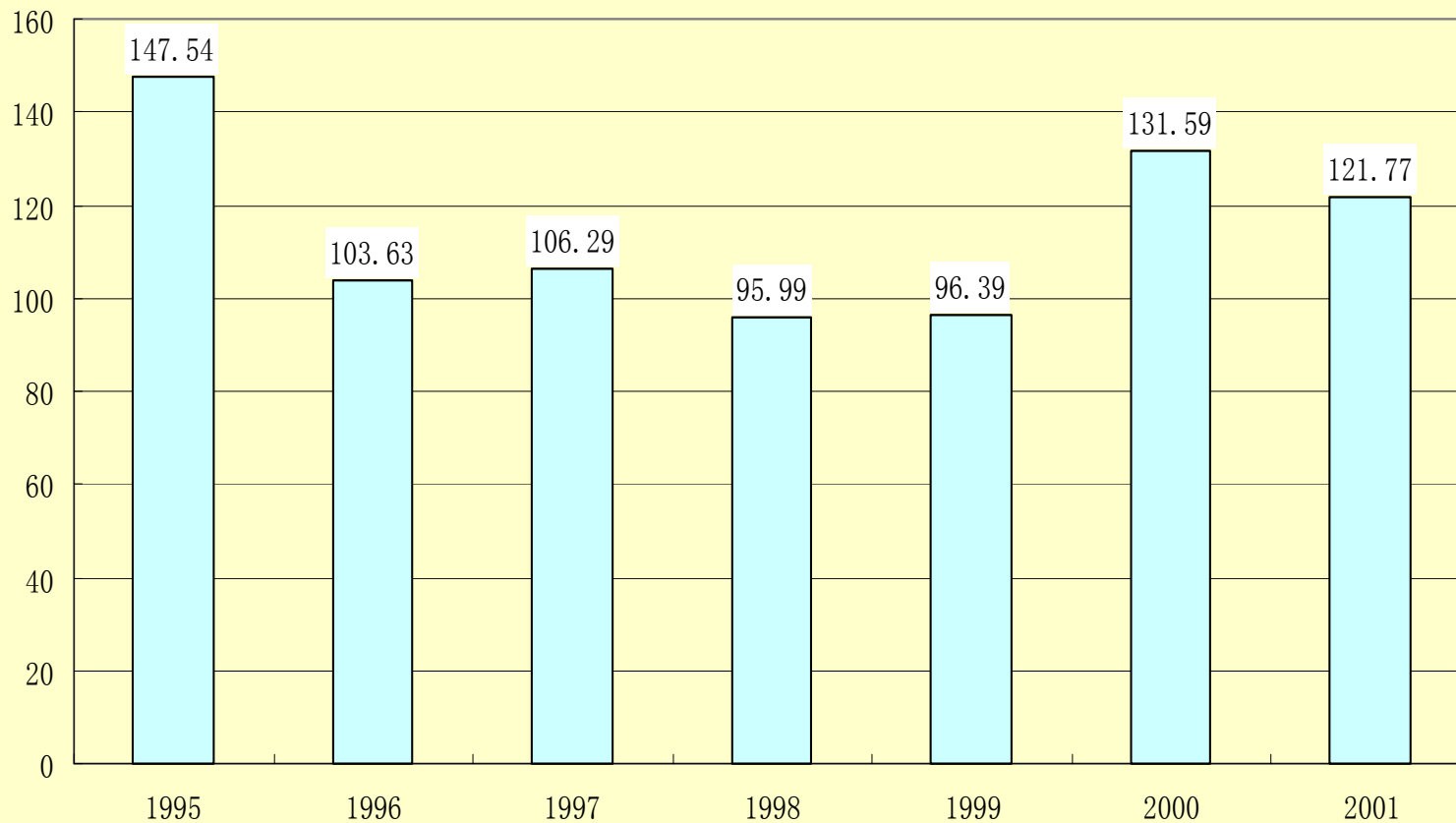


Figure 8 SiMn export in recent years

Unit: 10000 t

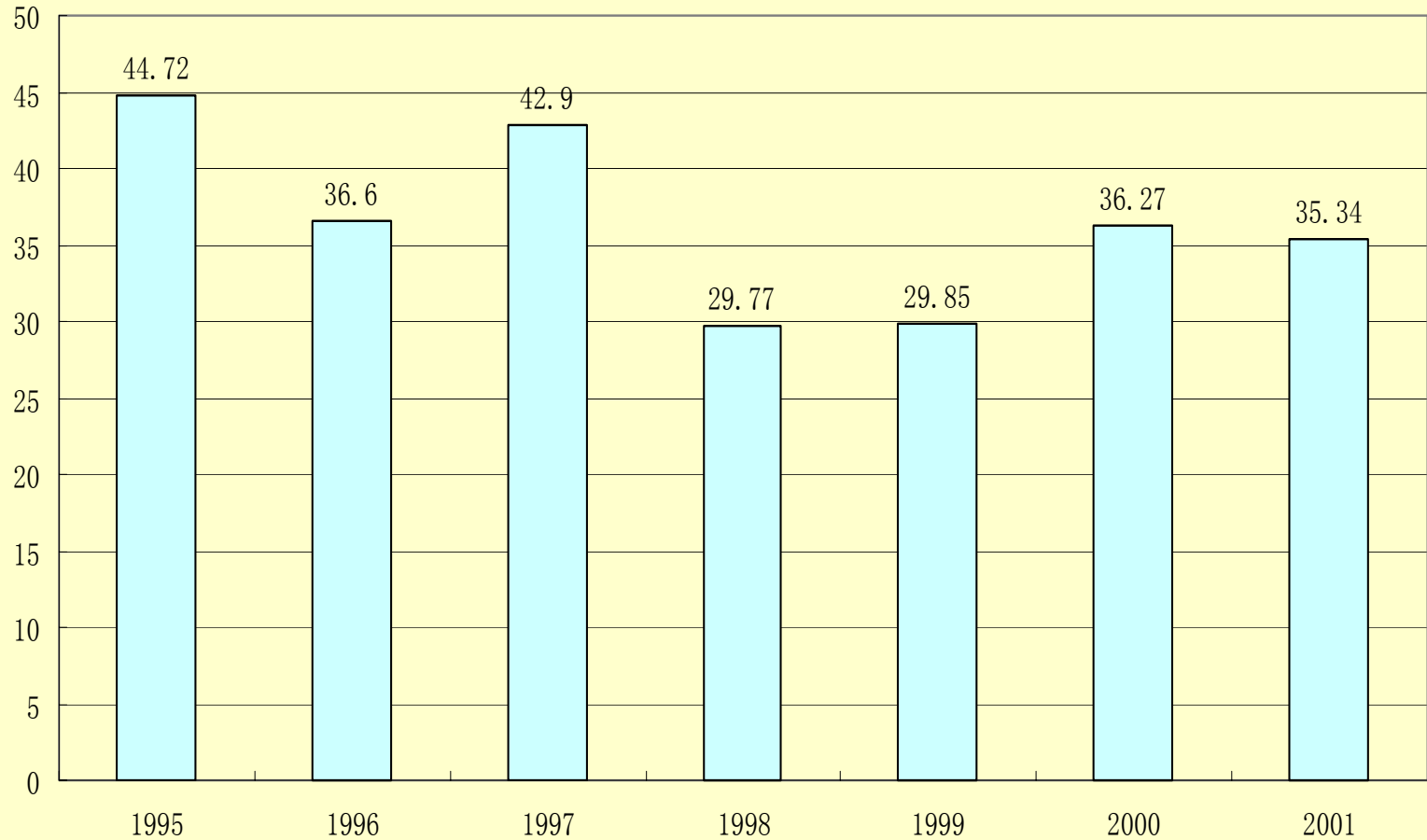


Figure 9 HC FeMn export in recent years

Unit: 10000 t

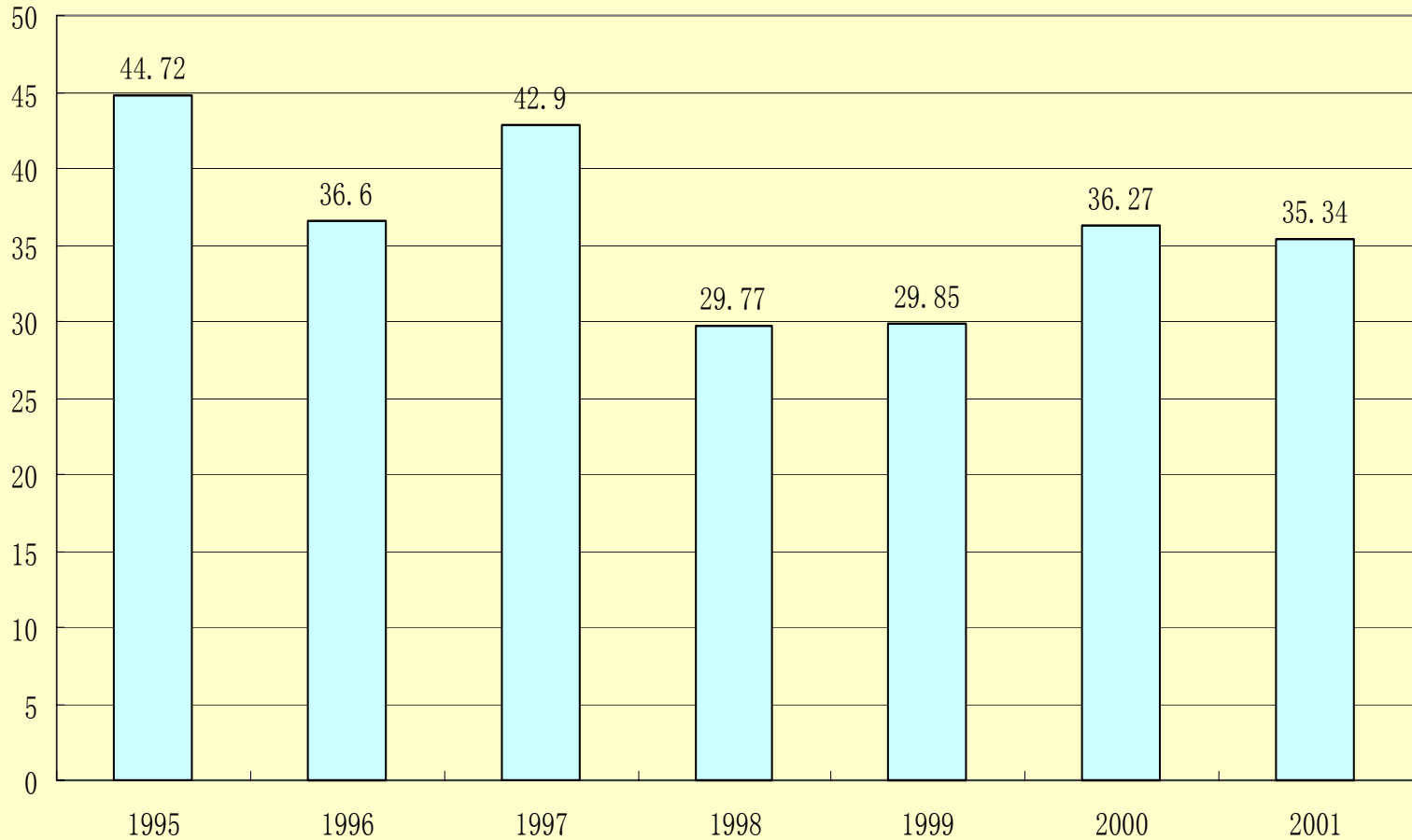
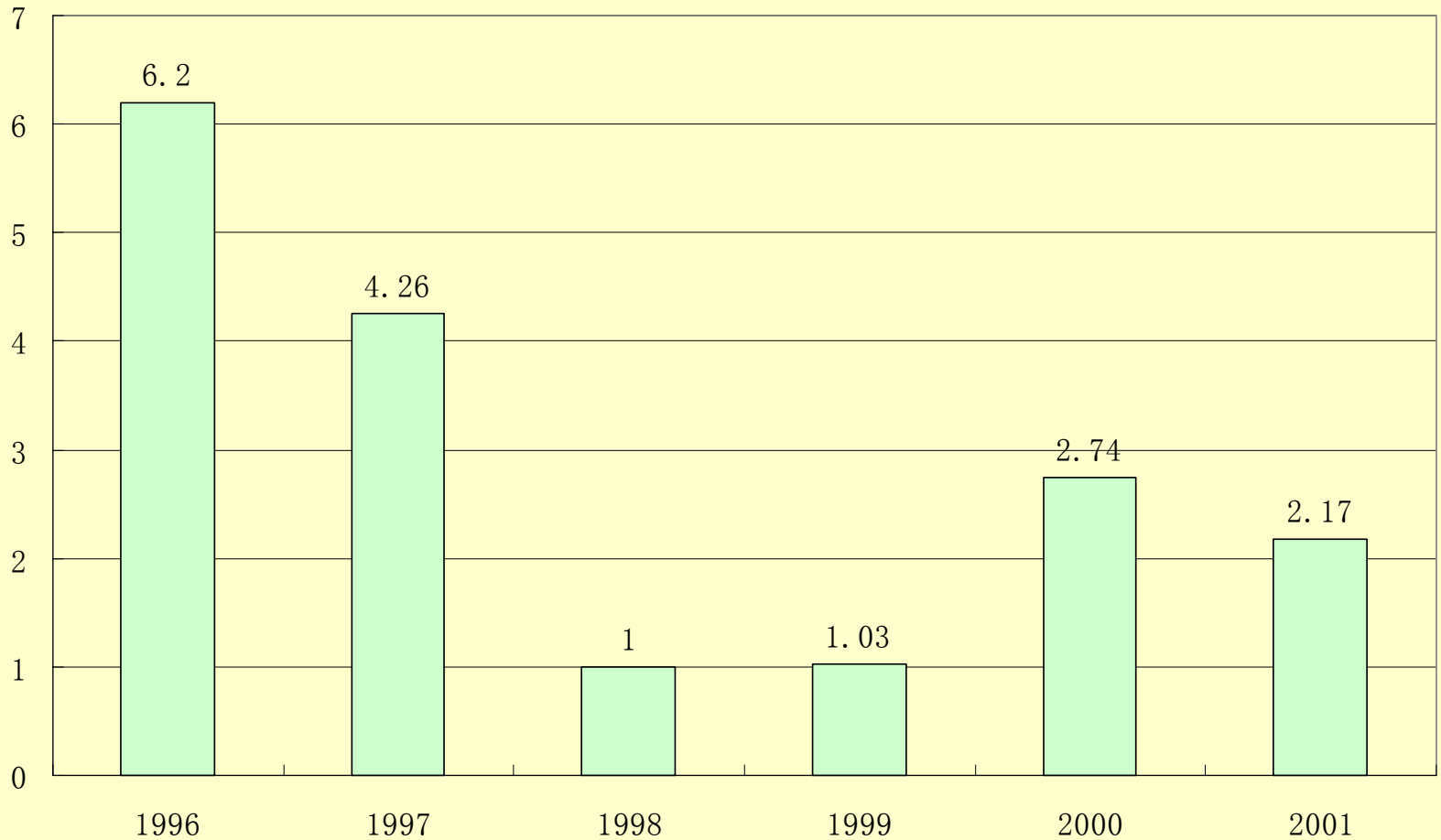


Figure 10 MC FeMn export in recent years

Unit: 10000 t



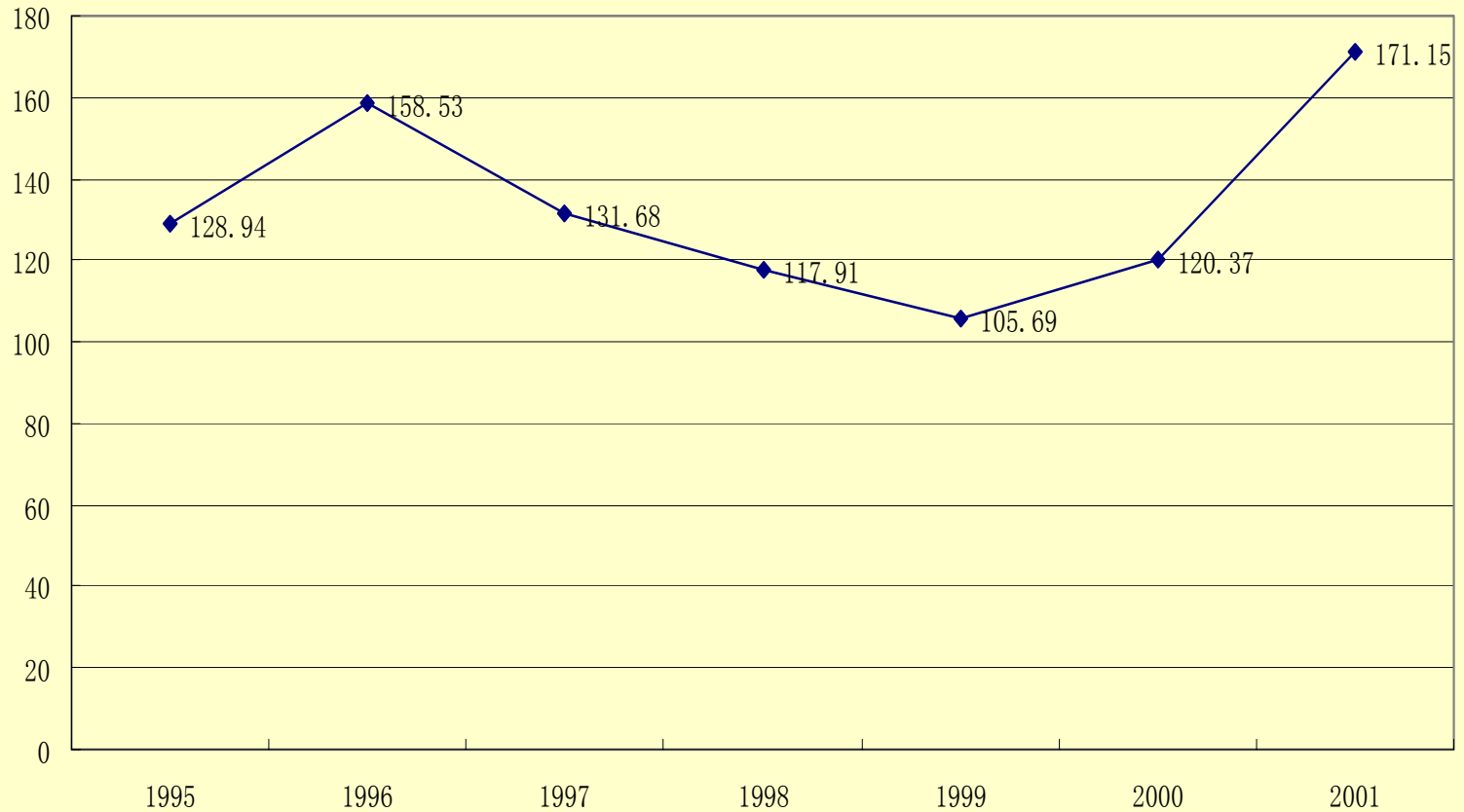
1.4 Manganese ore import in recent years

Each year China imports high grade Mn ore since 80's.

- Mn Ore import is 1,583 kt in 1996 and 1,711.5 kt in 2001. The import is shown in Figure 11.**
- The import resource countries are Australia, Gabon, Gana, Burma, India and etc.**

Figure 11 Mn Ore import in recent years

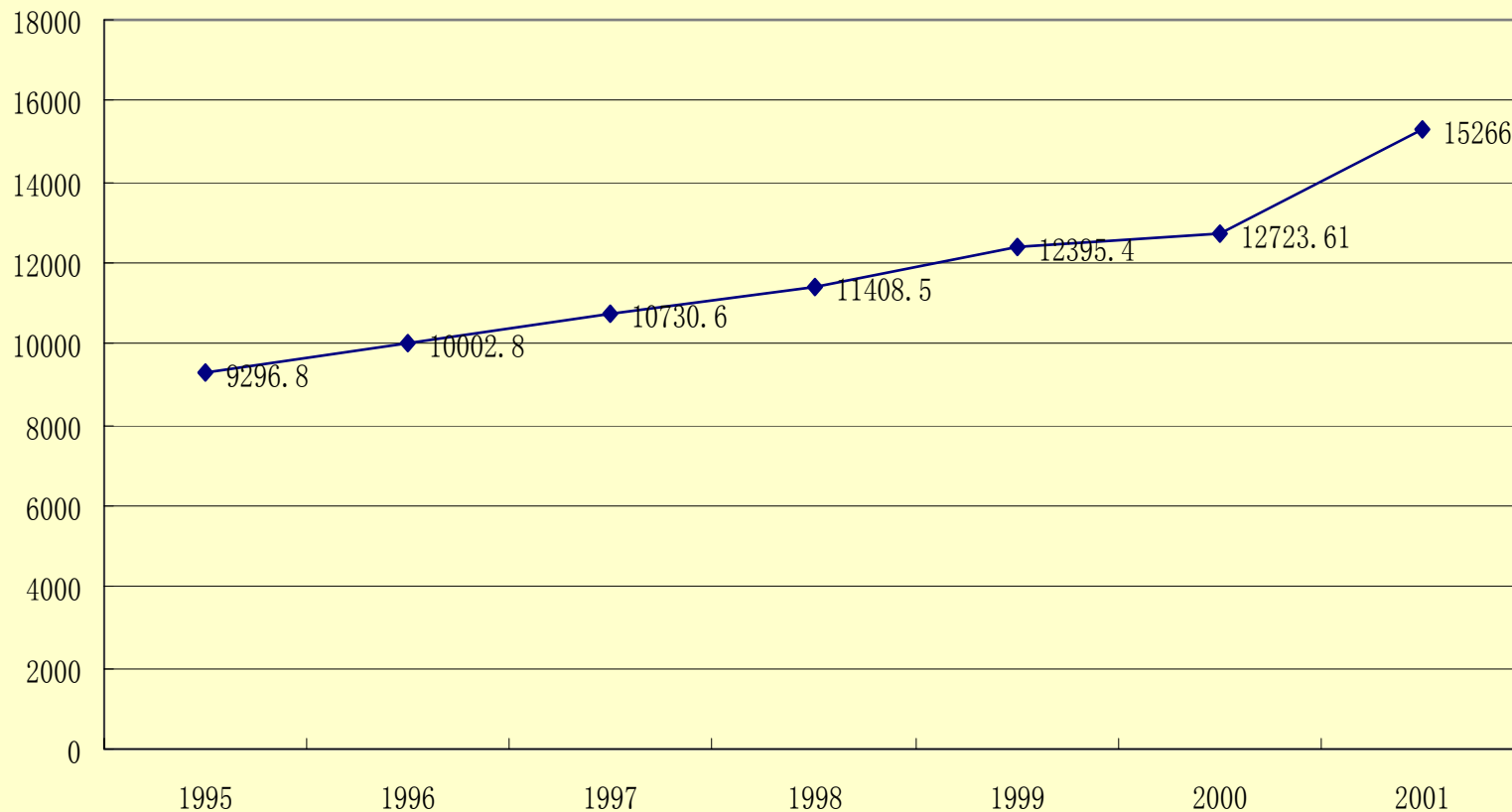
Unit: 10000 t



2 、 FeMn market in China

- **2.1 Crude steel production in China in recent years**
- **Chinese iron and steel industry develops rapidly in recent years. China ranks number one country of steel making in the world in 1996. The crude steel production in China in recent years is shown in Figure 10.**
- **The production of crude steel making in China grows rapidly. It provides a huge domestic market.**

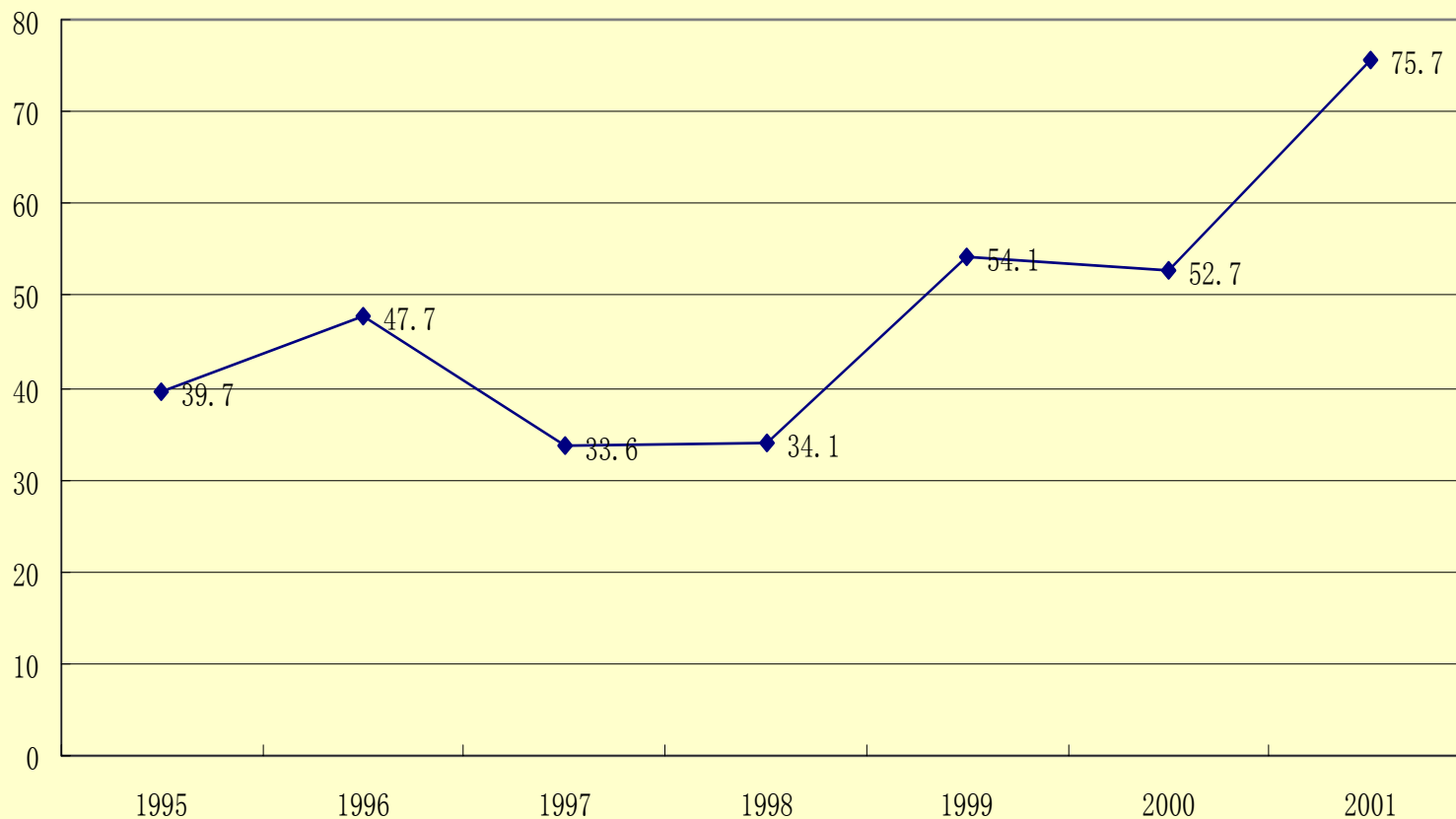
**Figure 12 Production of crude steel in
China in recent years**
unit: 10000 t



2.2 Apparent consumption of SiMn in Chinese market in recent years

- Figure 13, Figure 14 and Figure 15 show the apparent consumption of SiMn, HC FeMn and MC FeMn in Chinese market in recent years respectively.**

**Figure 13 Apparent consumption of SiMn
in recent years**
Unit: 10000 t



**Figure 14 Apparent consumption of HC
FeMn in recent years**
Unit: 10000 t

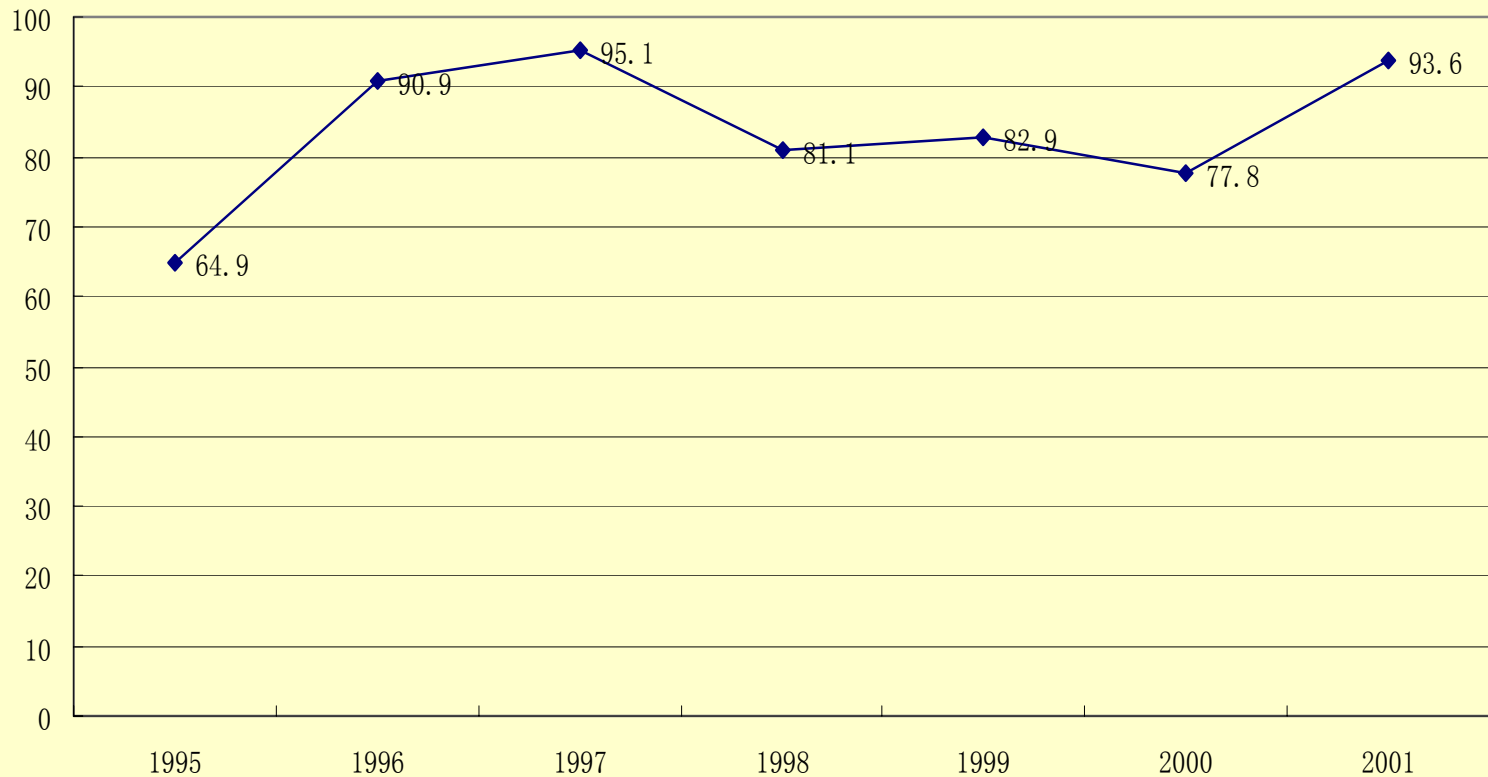
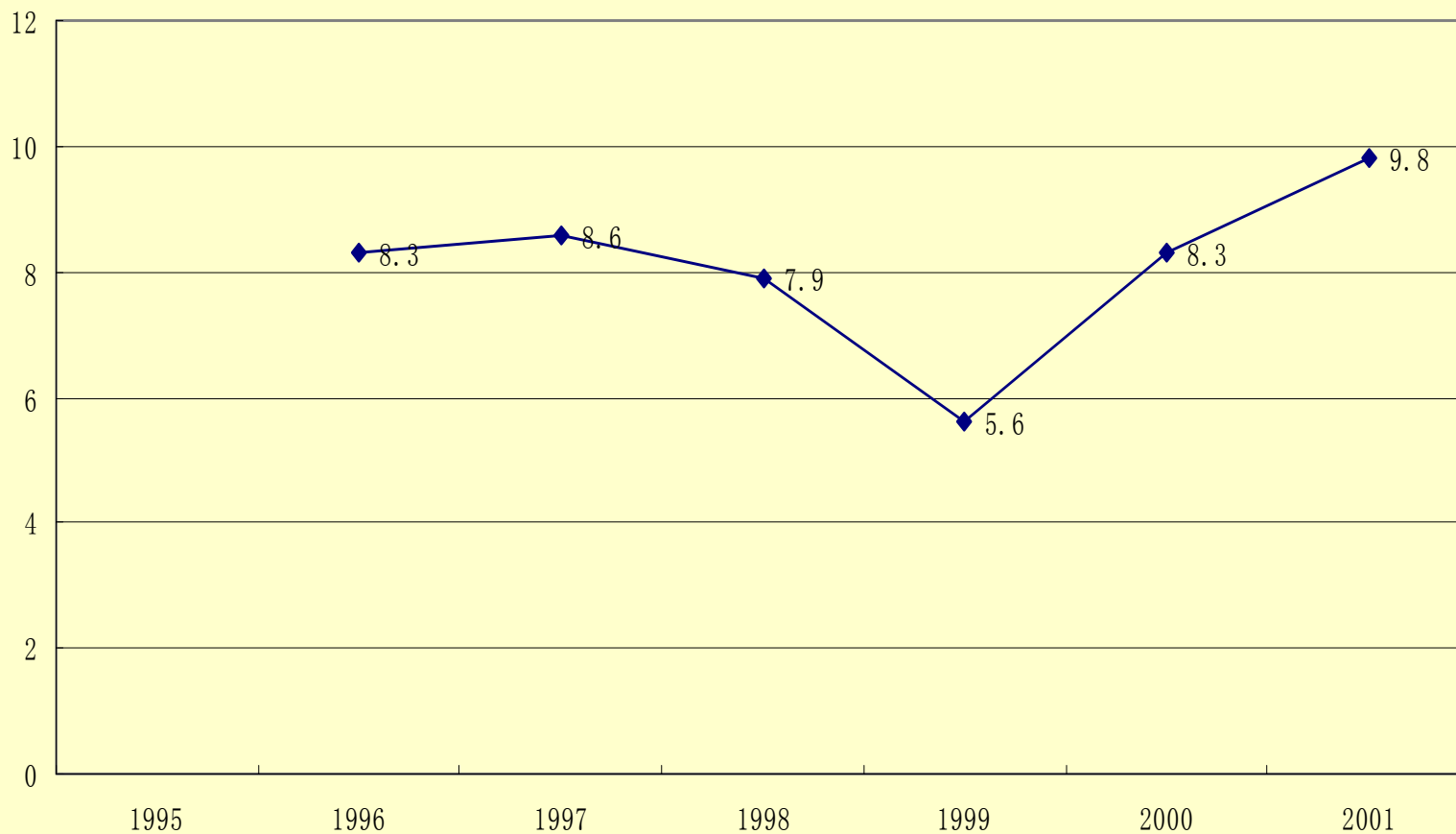


Figure 15 Apparent consumption of MC FeMn in recent years

Unit: 10000 t



2.3 Review on the domestic market in China in 2001

- • Generally, the domestic of ferroalloys market was weak. The supply of FeSi, FeCr exceeded the demand. The price of these ferroalloys slipped down.**
- • The demand for FeMn grew up in 2001. FeMn is in short supply. The quotation was better than other ferroalloy'.**

Because increased SiMn consumption the price continued its stable up-trend. The price was increased 5%-8%.

HC FeMn output was reduced because Xiangtan Mine reduced its HC FeMn production. HC FeMn price grew up in 2001. Price of BF FeMn was increased 8%-10%, price of EF FeMn grew up 6%-8%.

Though price of MC FeMn slipped down little in the first half year the price recovered and grew. The price went up 2%-4% higher than that in the last year.

3 、 Outlook of FeMn market in 2002

- **3.1.1 International market trend in the first quarter**
 - • **SiMn: The supply tended to little short. The price went up in Europe market. The price slipped down in US market.**
 - • **HC FeMn Europe market: The spot price in Europe market slipped down. The price in US market slipped down a little.**
 - • **MC FeMn: The demand in US market dropped the price slipped. The price in Europe continued to drop.**

3.2 Prediction of FeMn production in China in 2002

- • Power supply in the south west was short in the first quarter. Some key producers cut their output. The total output of ferroalloys was 4.7% less than that in the last year. However, the production got recovered. It is anticipated that the total output will be increased.**
- • The output of SiMn, HC FeMn and MC FeMn will be increased**

3.3 Prediction of FeMn export

- Ferroalloys export in the first quarter of 2002 was 286.7 kt, 4.8% less than that in the last year. It is anticipated that the total export in 2002 will be increased slightly.**
- SiMn , HC FeMn and MC FeMn export in the first quarter of 2002 was 134.3 kt . 10.67% more than that in the last year. It is predicated that the total export of FeMn will be increased 10%, to the level of 2000.**

3.4 Domestic demand for FeMn in 2002

- • The crude steel output in the first quarter of 2002 was 41,300 kt, 20% more than that in 2001. It is anticipated that the annual output will be 160,000 kt in 2002.
- • The demand for ferroalloys will be increased with the output growth of crude steel and other industrial products.
- • The demand of SiMn, HC FeMn and MC FeMn in domestic market tend toward to balance the supply. It is anticipated that the prices would be stable for certain period.

3.5 To restructure ferroalloy industry and to regulate the market

- • **The industry started its restructure in 1999. The initial result was successful. 740 kt of production capacity of backward facilities was disposed. Among it 236 kt of FeMn capacity was disposed.**
- • **Chinese ferroalloy industry will continue its restructure. The backward production facilities will be disposed. New production capacity will not be allowed in order to control the overall output.**
- • **China Ferroalloys Industry Association will prosecute its administration of self-discipline, especially in sale and production.**
- • **SiMn export will be regulated through inspecting price and administration in order to regulate export order and to reduce trade clash.**