

# 2013 Annual Report of China's Paper Industry

## China Paper Association

### I. Production and Consumption of Paper & Board

#### 1. The General Situation of 2013

According to the survey made by China Paper Association (CPA), in 2013, there were about 3,400 paper & board manufacturers. The total production and consumption of paper & board were 101.10 million tons and 97.82 million tons, decreased by 1.37% and 2.65% compared to the previous year respectively; paper & board per capita consumption was 72 kg. From 2004 to 2013, the average annual growth rate of paper & board production was 8.26%, and the average annual growth rate of paper & board consumption was 6.74%. As shown in Fig. 1.

The production and consumption of the main paper & board grades in 2013 were as follows: The production of newsprint was 3.60 million tons, accounted for 3.56% of the total production and decreased by 5.26% compared to 2012; its consumption was 3.62 million tons, accounted for 3.70% of the total consumption and decreased by 7.89% compared to 2012. The production of uncoated printing & writing papers was 17.20 million tons, accounted for 17.01% and decreased by 1.71%; its consumption was

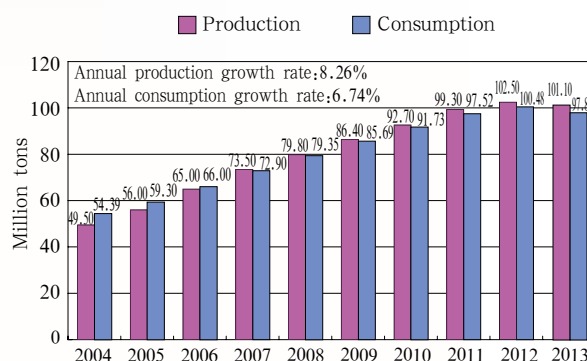


Fig. 1 Total Production and Consumption of Paper & Board (2004—2013)

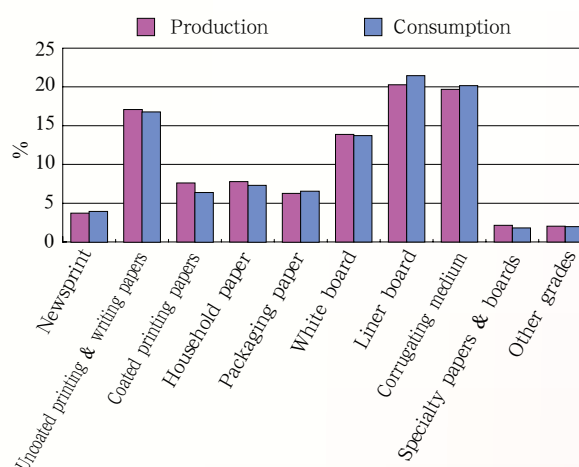


Fig. 2 Shares of Production and Consumption of Main Paper & Board Grades in the Industry's Gross in 2013

Table 1 Production and Consumption of Main Paper & Board Grades in 2013

Grades	Production			Consumption		
	2012 /million tons	2013 /million tons	Change /%	2012 /million tons	2013 /million tons	Change /%
Total Amount	102.50	101.10	-1.37	100.48	97.82	-2.65
1. Newsprint	3.80	3.60	-5.26	3.93	3.62	-7.89
2. Uncoated printing & writing papers	17.50	17.20	-1.71	16.84	16.27	-3.38
3. Coated printing papers	7.80	7.70	-1.28	6.38	6.23	-2.35
Coated art paper	6.95	6.85	-1.44	5.81	5.77	-0.69
4. Household paper	7.80	7.95	1.92	7.31	7.34	0.41
5. Packaging paper	6.40	6.35	-0.78	6.55	6.50	-0.76
6. White boards	13.90	13.60	-2.16	13.79	13.10	-5.00
Coated white board	13.40	13.10	-2.24	13.29	12.59	-5.27
7. Liner board	20.80	20.40	-1.92	21.57	21.06	-2.36
8. Corrugating medium	20.20	20.15	-0.25	20.27	20.13	-0.69
9. Specialty papers & boards	2.20	2.30	4.55	1.83	1.88	2.73
10. Other papers & boards	2.10	1.85	-11.90	2.01	1.69	-15.92

16.27 million tons, accounted for 16.63% and decreased by 3.38%. The production of coated printing papers was 7.70 million tons, accounted for 7.62% and decreased by 1.28%; its consumption was 6.23 million tons, accounted for 6.37% and decreased by 2.35%; of which the production of coated art paper was 6.85 million tons, accounted for 6.78% of the total and decreased by 1.44%, its consumption was 5.77 million tons, accounted for 5.90% of the total and decreased by 0.69%. The production of household paper was 7.95 million tons, accounted for 7.86% and increased by 1.92%; its consumption was 7.34 million tons, accounted for 7.50% and increased by 0.41%. The production of packaging paper was 6.35 million tons, accounted for 6.28% and decreased by 0.78%; its consumption was 6.50 million tons, accounted for 6.64% and decreased by 0.76%. The production of white board was 13.60 million tons, accounted for 13.45% and decreased by 2.16%; its consumption was 13.10 million tons, accounted for 13.39% and decreased by 5.00%; of which the production of coated white board was 13.10 million tons, accounted for 12.96% and decreased by 2.24%, its consumption was 12.59 million tons, accounted for 12.87% and decreased by 5.27%. The production of liner board was 20.40 million tons, accounted for 20.18% and decreased by 1.92%; its consumption was 21.06 million tons, accounted for 21.53% and decreased by 2.36%. The production of corrugating medium was 20.15 million tons, accounted for 19.93% and decreased by 0.25%; its consumption was 20.13 million tons, accounted for 20.58% and decreased by 0.69%. The production of specialty papers & boards was 2.30 million tons, accounted for 2.27%, increased by 4.55%; its consumption was 1.88 million tons, accounted for 1.92% and increased by 2.73%. As shown in Table 1 and Fig. 2.

## 2. The Production and Consumption of Main Paper & Board Grades from 2004 to 2013

### (1) Newsprint

In 2013, the production was 3.60 million tons, decreased by 5.26%. Its consumption was 3.62 million tons, decreased

by 7.89% compared to 2012. The average annual growth rates of production and consumption were 2.05% and 1.74% respectively from 2004 to 2013. As shown in Fig. 3.

### (2) Uncoated Printing & Writing Papers

In 2013, the production was 17.20 million tons, decreased by 1.71%. Its consumption was 16.27 million tons, decreased by 3.38% compared to 2012. The average annual growth rates of production and consumption were 5.98% and 5.04% respectively from 2004 to 2013. As

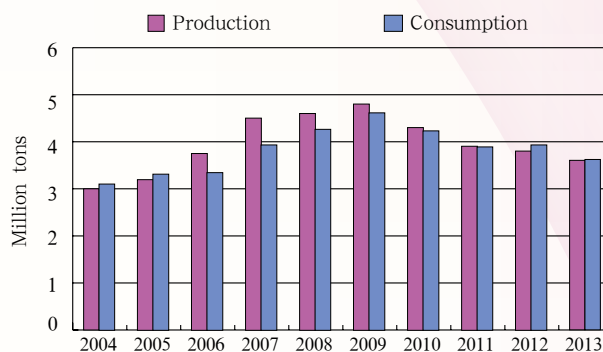


Fig. 3 Production and Consumption of Newsprint (2004—2013)

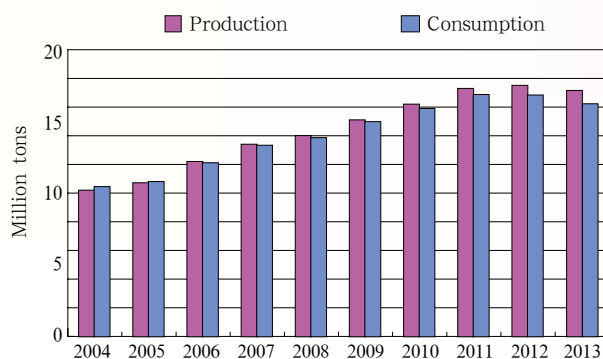


Fig. 4 Production and Consumption of Uncoated Printing & Writing Papers (2004—2013)

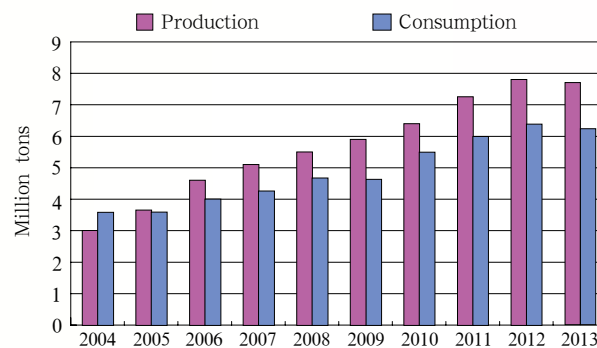


Fig. 5 Production and Consumption of Coated Printing Papers (2004—2013)

shown in Fig. 4.

### (3) Coated Printing Papers

In 2013, the production was 7.70 million tons, decreased by 1.28%. Its consumption was 6.23 million tons, decreased by 2.35% compared to 2012. The average annual growth rates of production and consumption were 11.04% and 6.35% respectively from 2004 to 2013. As shown in Fig. 5.

Of which, the production of coated art paper was 6.85 million tons, decreased by 1.44%. Its consumption was 5.77 million tons, decreased by 0.69%. The average annual growth rates of production and consumption were 11.85% and 8.63% respectively from 2004 to 2013. As shown in Fig. 6.

### (4) Household Paper

In 2013, the production was 7.95 million tons, increased by 1.92%. Its consumption was 7.34 million tons, increased by 0.41% compared to 2012. The average annual growth rates of production and consumption were 8.42% and 8.82% respectively from 2004 to 2013. As shown in Fig. 7.

### (5) Packaging Paper

In 2013, the production was 6.35 million tons, decreased by 0.78%. Its consumption was 6.50 million tons, decreased by 0.76% compared to 2012. The average annual growth rates of production and consumption were 3.40% and 3.05% respectively from 2004 to 2013. As shown in Fig. 8.

### (6) White Boards

In 2013, the production was 13.60 million tons, decreased by 2.16%. Its consumption was 13.10 million tons, decreased by 5.00% compared to 2012. The average annual growth rates of production and consumption were 8.18% and 6.05% respectively from 2004 to 2013. As shown in Fig. 9.

Of which, the production of coated white board was 13.10 million tons, decreased by 2.24%. Its consumption was 12.59 million tons, decreased by 5.27% compared to

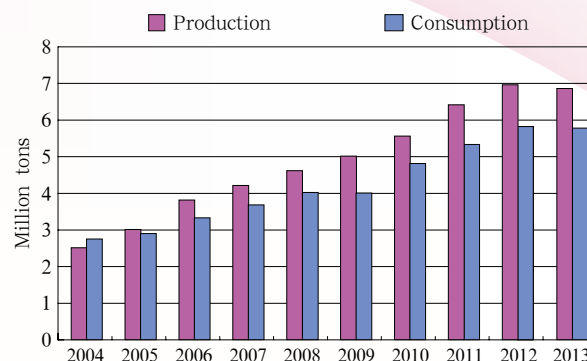


Fig. 6 Production and Consumption of Coated Art Paper (2004—2013)

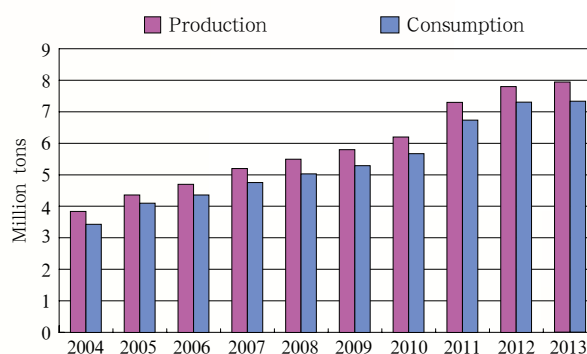


Fig. 7 Production and Consumption of Household Paper (2004—2013)

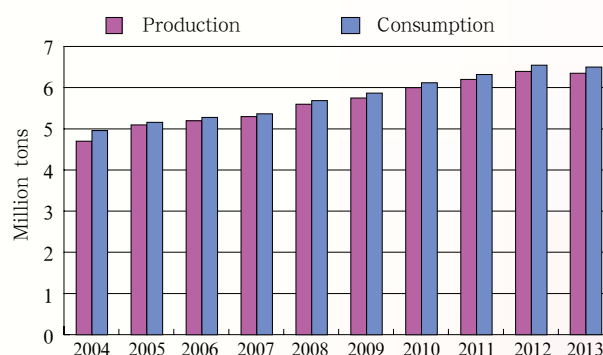


Fig. 8 Production and Consumption of Packaging Paper (2004—2013)

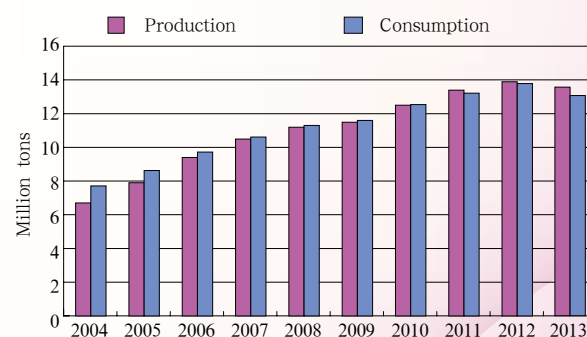


Fig. 9 Production and Consumption of White Boards (2004—2013)

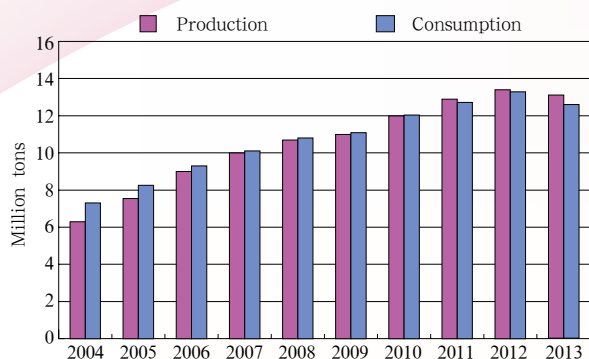


Fig. 10 Production and Consumption of Coated White Board (2004—2013)

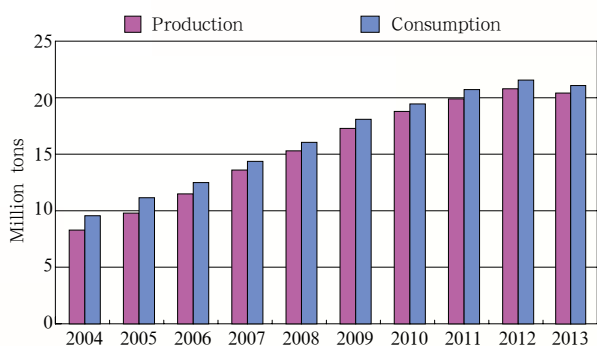


Fig. 11 Production and Consumption of Liner Board (2004—2013)

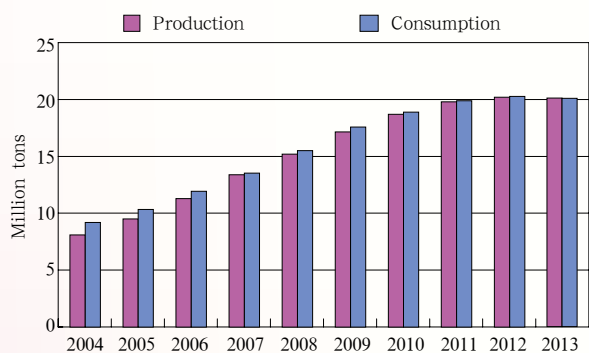


Fig. 12 Production and Consumption of Corrugating Medium (2004—2013)

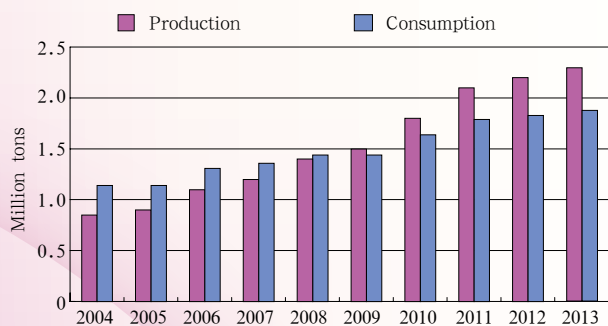


Fig. 13 Production and Consumption of Specialty Papers & Boards (2004—2013)

2012. The average annual growth rates of production and consumption were 8.47% and 6.23% respectively from 2004 to 2013. As shown in Fig. 10.

#### (7) Liner Board

In 2013, the production was 20.40 million tons, decreased by 1.92%. Its consumption was 21.06 million tons, decreased by 2.36% compared to 2012. The average annual growth rates of production and consumption were 10.51% and 9.17% respectively from 2004 to 2013. As shown in Fig. 11.

#### (8) Corrugating Medium

In 2013, the production was 20.15 million tons, decreased by 0.25%. Its consumption was 20.13 million tons, decreased by 0.69% compared to 2012. The average annual growth rates of production and consumption were 10.66% and 9.08% respectively from 2004 to 2013. As shown in Fig. 12.

#### (9) Specialty Papers & Boards

In 2013, the production was 2.30 million tons, increased by 4.55%. Its consumption was 1.88 million tons, increased by 2.73%. The average annual growth rates of production and consumption were 11.70% and 5.72% respectively from 2004 to 2013. As shown in Fig. 13.

## II. Major Production and Economic Indicators

According to the statistics released by the National Bureau of Statistics, in 2013, there were 2,934 paper mills whose scales were above the statistical threshold. The core business income was RMB 757.5 billion, increased by 5.91% compared to 2012. The growth rate of industrial added value was 5.40%. The products inventory was RMB 29.8 billion, decreased by 4.33% compared to 2012. The total pre-tax profits was RMB 61.7 billion, increased by 8.97% compared to 2012, of which total profits was RMB 37.4 billion and increased by 6.95% compared to 2012. The total asset was RMB 901.5 billion, increased by 8.02%

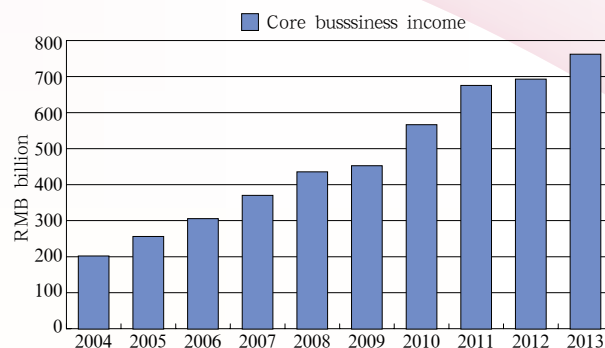
compared to 2012. The asset-liability ratio was 58.20%, decreased 0.62 percentage points. The total liability was RMB 524.7 billion, increased by 4.83% compared to 2012. 401 mills accounting for 13.67% of total 2,934 mills were running with deficit.

The major economic indicators from 2004 to 2013 were shown in Fig.14 and Fig.15.

### III. Ownership Structure and Scale Structure of Paper and Board Enterprises

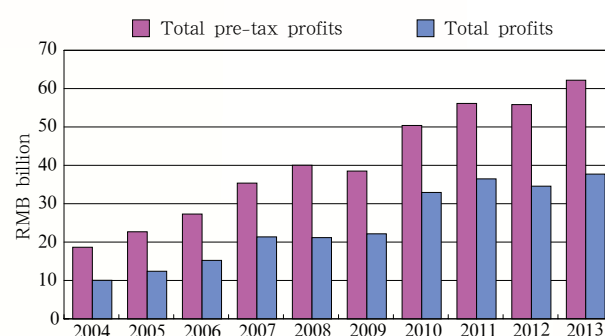
According to the industrial statistics of the paper enterprises whose scales were above the statistical threshold released by National Bureau of Statistics, in 2013, 73 paper mills were state-owned or state-owned holding, accounted for 2.49% of the total mills; 353 paper mills were "three types of foreign-investment", accounted for 12.03%; 2508 paper mills were collectively-owned or other ownerships, accounted for 85.48%. The core business income of state-owned or state-owned holding paper mills accounted for 11.73% of the industry's total. The core business income of "three types of foreign-investment" paper mills accounted for 26.93%. The core business income of collectively-owned or other ownerships accounted for 61.34%. The total pre-tax profits of state-owned or state-owned holding paper mills accounted for 7.21% of the industry's total. The total pre-tax profits of "three types of foreign-investment" paper mills accounted for 26.66%. The total pre-tax profits of collectively-owned or other ownerships paper mills accounted for 66.13%. In which, the total profits of state-owned or state-owned holding paper mills accounted for 3.68% of the industry's total; the total profits of "three types of foreign-investment" paper mills accounted for 27.42%; the total profits of collectively-owned or other ownerships paper mills accounted for 68.90%. As shown in Fig. 16.

The industry's total 2,934 paper enterprises whose scales were above the statistical threshold in 2013 could be categorized as large, medium and small size according to China's standard, 526 paper enterprises belonged to



Note: The datas from 2007 to 2010 were from CPA.

Fig. 14 Core Business Income (2004—2013)



Note: The datas from 2007 to 2010 were from CPA.

Fig.15 Total Pre-Tax Profits and Total Profits (2004—2013)

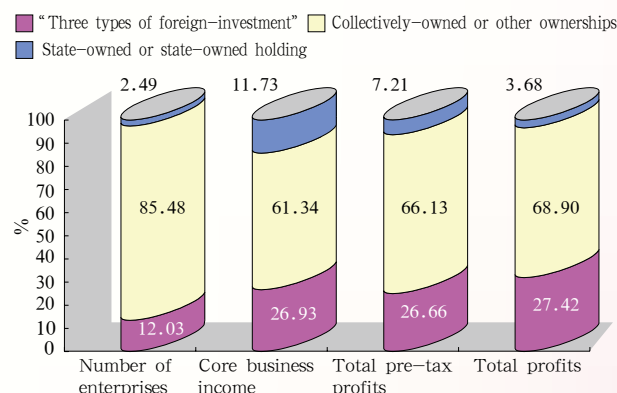


Fig.16 Ownership Structure and Scale Structure of Paper Enterprises

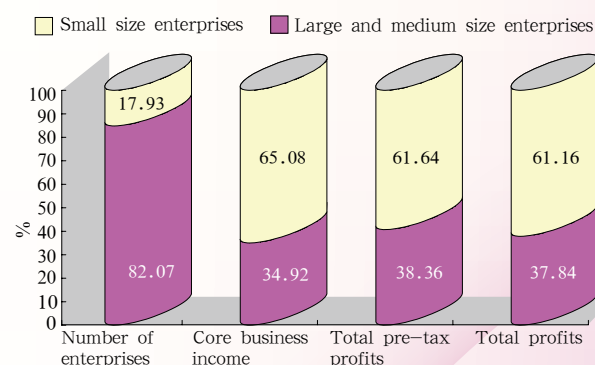


Fig.17 The Main Economic Index of Paper & Board Enterprises



large and medium size, accounted for 17.93% of the total paper & board mills; 2,408 paper enterprises belonged to small size, accounted for 82.07%. The paper & board core business income of large and medium size paper enterprises accounted for 65.08% of the industry's total, and small size accounted for 34.92%; the pre-tax profits of large and medium size paper enterprises accounted for 61.64% and small size accounted for 38.36%; and the total profits of large and medium size paper enterprises accounted for 61.16% and small size accounted for 37.84%. As shown in Fig. 17.

The paper enterprises with paper & board production above 1 million tons in 2013 included Nine Dragons Paper 11.09 million tons, Lee & Man Paper 4.83 million tons, Shandong Chenming Paper Group 4.21 million tons, Shandong Sun Paper 3.10 million tons, Shandong Huatai Group 2.89 million tons, Anhui Shanying Paper Co., Ltd. 2.43 million tons, Gold East Paper (Jiangsu) 2.02 million tons, China Paper Corporation 1.91 million tons, Ningbo Zhonghua Paper (including Asia Pulp & Paper) 1.63 million tons, Fujian Liansheng Paper 1.38 million tons, Longchen Paper (China) Co., Ltd. 1.36 million tons, Dongguan Jianhui Paper Co., Ltd. 1.30 million tons, Shandong Sunshine Paper Group Co., Ltd. 1.09 million tons, Hainan Jinhai Pulp & Paper Co., Ltd. 1.08 million tons, Shandong Bohui Paper 1.06 million tons. As shown in attached table.

The enterprises with pulp production above 1 million tons in 2013 included Shandong Chenming Paper Group 1.74 million

tons, Shandong Asia Pacific SSYMB Pulp & Paper Co., Ltd. 1.70 million tons, Hainan Jinhai Pulp & Paper 1.36 million tons.

## IV. Production and Consumption of Pulp

### 1. The Production of Pulp

According to CPA's survey, the total pulp production was 76.51 million tons in 2013, decreased by 2.75% compared with the previous year. In which, wood pulp was 8.82 million tons, increased by 8.89%; pulp from wastepaper was 59.40 million tons, decreased by 0.72%; non-wood pulp production was 8.29 million tons, decreased by 22.81%. As shown in Table 2.

### 2. The Consumption of Pulp

In 2013, the total pulp consumption was 91.47 million tons, decreased by 2.15%. The consumption of wood pulp was 23.78 million tons, and the share of wood pulp in total pulp consumption was 26%; in which, imported wood pulp accounted for 16%, domestic wood pulp accounted for 10%. The consumption of pulp from wastepaper was 59.40 million tons, and its share in total pulp consumption was 65%; in which, the pulps from imported and domestic wastepaper accounted for 26% and 39% respectively. The consumption of non-wood pulp was 8.29 million tons, and its share in total pulp consumption was 9%; in which, wheat & rice straw pulps accounted for 4.4%, bamboo pulp accounted for 1.4%, reed pulp accounted for 1.4%, bagasse

**Table 2 The Pulp Production in 2004—2013**

		Million tons									
Grades	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total amount		37.23	44.41	51.96	59.24	64.15	67.33	73.18	77.23	78.67	76.51
1. Wood pulp		2.38	3.71	5.26	6.05	6.79	5.60	7.16	8.23	8.10	8.82
2. Pulp from waste paper		23.05	28.10	33.80	40.17	44.39	49.97	53.05	56.60	59.83	59.40
3. Non—wood pulps		11.80	12.60	12.90	13.02	12.97	11.76	12.97	12.40	10.74	8.29
Reed pulp		1.20	1.38	1.44	1.44	1.50	1.44	1.56	1.58	1.43	1.26
Bagasse pulp		0.40	0.63	0.74	0.90	0.97	0.98	1.17	1.21	0.90	0.97
Bamboo pulp		0.70	0.86	0.95	1.20	1.46	1.61	1.94	1.92	1.75	1.37
Wheat & rice straw pulps		9.00	9.29	9.08	8.49	8.08	6.76	7.19	6.60	5.92	4.01
Other pulps		0.50	0.44	0.69	0.99	0.97	0.97	1.11	1.09	0.74	0.68

Table 3 Total Pulp Consumption in 2013

Million tons					
Pulp grades	2012	Share/%	2013	Share/%	Change/%
<b>Total amount</b>	<b>93.48</b>	<b>100</b>	<b>91.47</b>	<b>100</b>	<b>-2.15</b>
<b>Wood pulp</b>	22.91	25	23.78	26	3.80
Imported wood pulp	14.89* <sup>1</sup>	16	15.05* <sup>2</sup>	16	1.07
<b>Pulp from wastepaper</b>	59.83	64	59.40	65	-0.72
Pulp from imported wastepaper	24.05	26	23.79	26	-1.08
<b>Non-wood pulp</b>	10.74	11	8.29	9	-22.81

Note: \*1 the import of wood pulp in 2012 was 16.47 million tons, deduct the dissolving pulp of 1.58 million tons, and the actual consumption was 14.89 million tons;

\*2 the import of wood pulp in 2013 was 16.85 million tons, deduct the dissolving pulp of 1.80 million tons, and the actual consumption was 15.05 million tons.

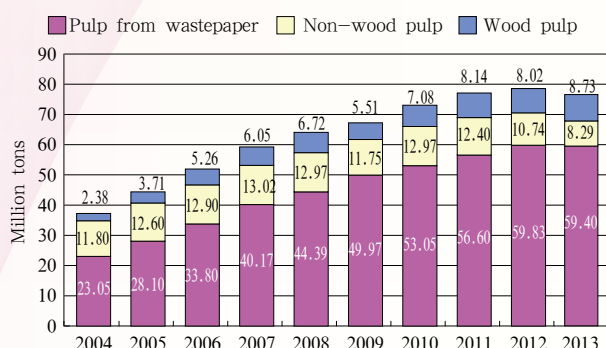


Fig. 18 Consumption of Domestic Pulp (2004-2013)

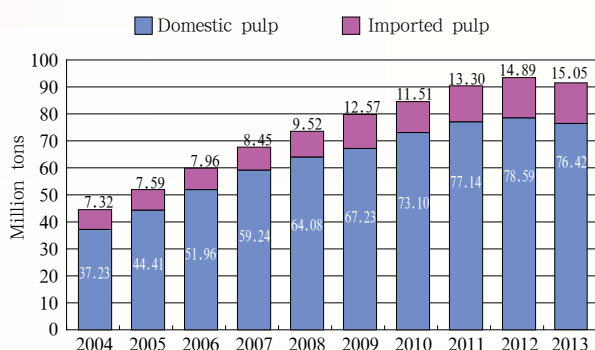


Fig. 19 Total Consumption of Pulp (2004-2013)

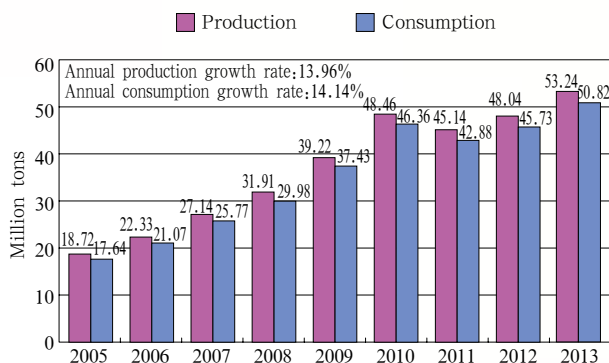


Fig. 20 Production and Consumption of Converted Paper Products (2005-2013)

pulp accounted for 1.1%, other non - wood pulps accounted for 0.7%. As shown in Table 3, Fig. 18 and Fig. 19.

## V. Production and Consumption of Converted Paper Products

### 1. Production and Consumption of Converted Paper Products

According to the statistics from National Bureau of Statistics, there were 4,218 converted paper products enterprises whose scales were above the statistical threshold in 2013. Their production was 53.24 million tons, increased by 10.82% compared to 2012; their consumption was 50.82 million tons, increased by 11.13%; the import amount was 130,000 tons and the export amount was 2.55 million tons. The average annual growth rates of production and consumption were 13.96% and 14.14% respectively from 2005 to 2013. As shown in Fig. 20.

### 2. Ownership Structure and Scale Structure of Converted Paper Products Enterprises

In 2013, there were 4,218 converted paper products enterprises whose scales were above the statistical threshold, in which, 38 enterprises were state-owned or state-owned holding, accounted for 0.90% of the total mills; 742 enterprises were "three types of foreign-investment", accounted for 17.59%; 3,438 enterprises were collectively-

owned or other ownerships, accounted for 81.51%. The core business income of state-owned or state-owned holding enterprises accounted for 0.63% of the industry's total. The core business income of "three types of foreign-investment" enterprises accounted for 25.73%. The core business income of collectively-owned or other ownerships accounted for 73.64%. The total pre-tax profits of state-owned or state-owned holding enterprises accounted for 0.72% of the industry's total. The total pre-tax profits of "three types of foreign-investment" enterprises accounted for 30.39%. The total pre-tax profits of collectively-owned or other ownerships enterprises accounted for 68.89%. The total profits of state-owned or state-owned holding enterprises, "three types of foreign-investment" enterprises and collectively-owned or other ownerships enterprises accounted for 0.68%, 30.74% and 68.58% respectively. As shown in Fig. 21.

The industry's total 4,218 converted paper products enterprises whose scales were above the statistical threshold in 2013 could be categorized as large, medium and small size according to China's standard, 480 enterprises belonged to large and medium size, accounted for 11.38% of the total converted paper products enterprises; 3,738 paper enterprises belonged to small size and accounted for 88.62%. The core business income of large and medium size converted paper products enterprises accounted for 33.96% of the industry's total, and small size accounted for 66.04%; the pre-tax profits of large and medium size converted paper products enterprises accounted for 40.41% and small size accounted for 59.59%; And the total profits of large size and medium size converted paper products enterprises accounted for 41.08% and small size accounted for 58.92%. As shown in Fig. 22.

## VI. Import and Export of Paper & Board, Pulp, Wastepaper and Converted Paper Products

### 1. Import of Paper & Board, Pulp, Wastepaper and Converted Paper Products

In 2013, the import amount of paper & board was 2.83 million tons and decreased by 9.00% compared to 2012. The import amount of pulp was 16.85 million tons, increased by 2.31% compared to 2012. The import amount of wastepaper was 29.24 million tons, decreased by 2.76%. The import amount of converted paper products was 130,000 tons, decreased by 7.14%.

In 2013, the total import amount of paper & board, pulp, wastepaper, converted paper products was 49.05 million tons, decreased by 1.49%; their total value was USD 21.7 billion, decreased by 1.36%. The average price of imported paper & board was USD 1,274.06 per ton, increased by 4.59%. The average price of imported pulp was USD 674.84 per ton, increased by 0.03%. The average price of imported wastepaper was USD 202.83 per ton, decreased by 2.75%. As shown in Table 4.

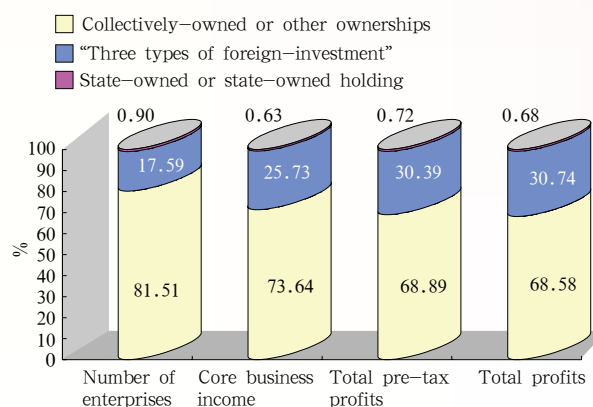


Fig. 21 Ownership Structure and Scale Structure of Converted Paper Products Enterprises

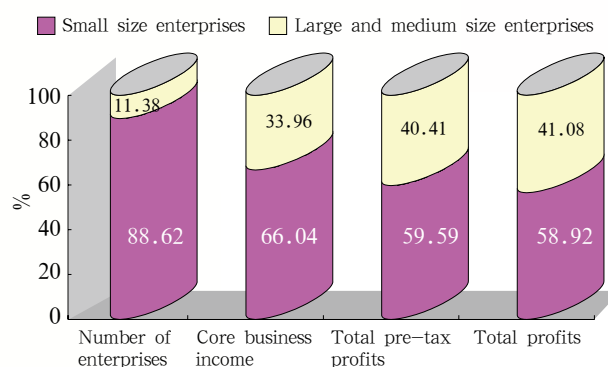


Fig. 22 The Main Economic Index of Converted Paper Products Enterprises



**Table 4 Imports of Pulp, Wastepaper, Paper & Board and  
Converted Paper Products in 2013**

Grades	Import		
	2012 /10,000 tons	2013 /10,000 tons	Change /%
I. Pulp	1647	1685	2.31
II. Wastepaper	3007	2924	-2.76
III. Paper & board	311	283	-9.00
1. Newsprint	13	11	-15.38
2. Uncoated printing & writing papers	35	28	-20.00
3. Coated printing papers	35	32	-8.57
Coated art paper	27	24	-11.11
4. Packaging paper	20	20	0
5. Liner board	84	83	-1.19
6. White board	72	66	-8.33
Coated white board	72	65	-9.72
7. Household paper	4	3	-25.00
8. Corrugating medium	14	7	-50.00
9. Specialty papers & boards	28	27	-3.57
10. Other papers & boards	6	6	0
IV. Paper products	14	13	-7.14
<b>Total amount</b>	<b>4979</b>	<b>4905</b>	<b>-1.49</b>

Data source: General Administration of Customs.

## 2. Export of Paper & Board, Pulp, Wastepaper and Converted Paper Products

In 2013, the export amount of paper & board was 6.11 million tons and increased by 19.10% compared to 2012. The export amount of pulp was 83,100 tons, increased by 4.01% compared to 2012. The export amount of wastepaper was 1,000 tons, decreased by 58.33%. The export amount of converted paper products was 2.55 million tons, increased by 4.08%.

In 2013, the total export amount of paper & board, pulp, wastepaper, converted paper products was 8,744.1 thousand tons, increased by 14.12%; their total value was USD 16.1 billion, increased by 16.67%. The average price of exported paper & board was USD 1,251.65 per ton, increased by 2.06%. The average price of exported pulp was USD 1,273.72 per ton, decreased by 19.84%. The average price of exported wastepaper was USD 452.82 per ton, increased by 35.51%. As shown in Table 5.

**Table 5 Exports of Pulp, Wastepaper, Paper & Board and  
Converted Paper Products in 2013**

Grades	Export		
	2012 /10,000 tons	2013 /10,000 tons	Change /%
I. Pulp	7.99	8.31	4.01
II. Wastepaper	0.24	0.10	-58.33
III. Paper & board	513	611	19.10
1. Newsprint	0	9	
2. Uncoated printing & writing papers	101	121	19.80
3. Coated printing papers	177	179	1.13
Coated art paper	141	132	-6.38
4. Packaging paper	5	5	0
5. Liner board	7	17	142.86
6. White board	83	116	39.76
Coated white board	83	116	39.76
7. Household paper	53	64	20.75
8. Corrugating medium	7	9	28.57
9. Specialty papers & boards	65	69	6.15
10. Other papers & boards	15	22	46.67
IV. Paper products	245	255	4.08
<b>Total amount</b>	<b>766.23</b>	<b>874.41</b>	<b>14.12</b>

Data source: General Administration of Customs.

## 3. Import and Export Shares of Major Paper & Board Grades

The import and export shares of major paper & board grades are shown in Fig.23 and Fig.24.

## 4. Import and Export of Major Paper Grades from 2004 to 2013

(1) Newsprint: its import exceeded the export and the net import amount was 20,000 tons in 2013, as shown in Fig. 25.

(2) Uncoated printing & writing papers: its export exceeded the import and the net export amount was 930,000 tons in 2013, as shown in Fig. 26.

(3) Coated printing papers: its export exceeded the import and the net export amount was 1.47 million tons in 2013, as shown in Fig. 27; in which, the export of coated art paper exceeded the import and the net export amount

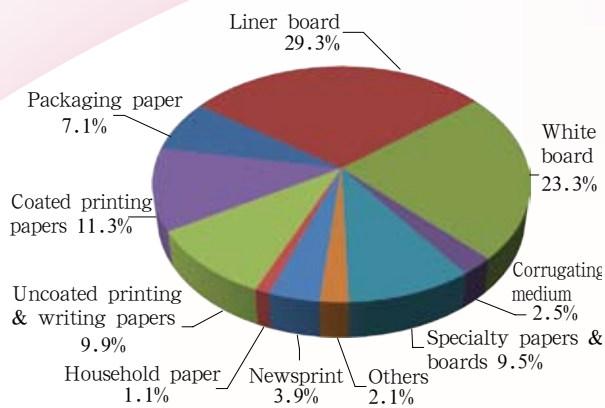


Fig. 23 The Shares of Imported Paper & Board Grades in 2013

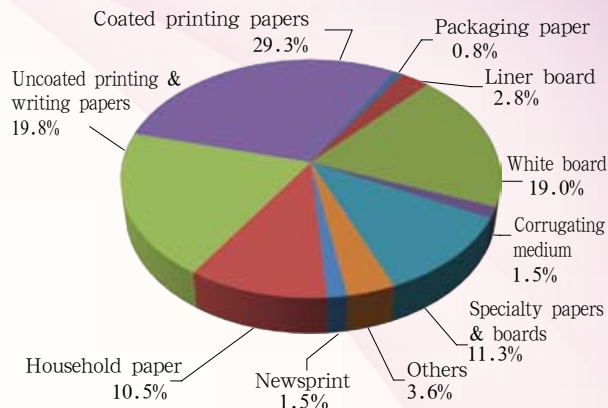


Fig. 24 The Shares of Exported Paper & Board Grades in 2013

was 1.08 million tons, as shown in Fig. 28.

(4) Household paper: its export exceeded the import and the net export amount was 610,000 tons in 2013, as shown in Fig. 29.

(5) Packaging paper: its import exceeded the export and the net import amount was 150,000 tons in 2013, as shown in Fig. 30.

(6) White board: its export exceeded the import and the net export amount was 500,000 tons in 2013, as shown in Fig. 31; in which, the export of coated white board exceeded import and the net export amount was 510,000 tons, as shown in Fig. 32.

(7) Liner board: the import exceeded the export and the net import amount was 660,000 tons in 2013, as shown in Fig. 33.

(8) Corrugating medium: its export exceeded the import and the net export amount was 20,000 tons in 2013, as shown in Fig. 34.

(9) Specialty papers & boards: its export exceeded the import and the net export amount was 420,000 tons in 2013, as shown in Fig. 35.

## 5. Import and Export of Converted Paper Products from 2005 to 2012

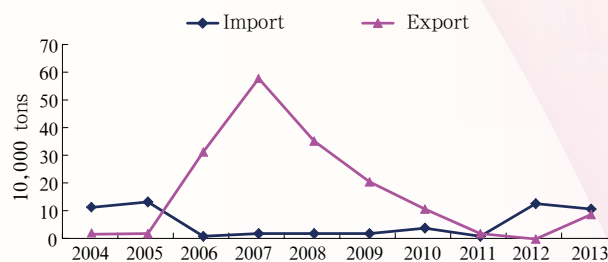


Fig. 25 Import and Export of Newsprint (2004—2013)

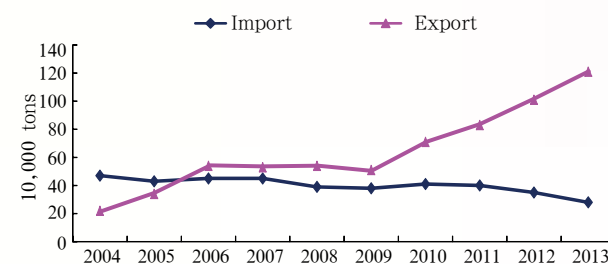


Fig. 26 Import and Export of Uncoated Printing & Writing Papers (2004—2013)

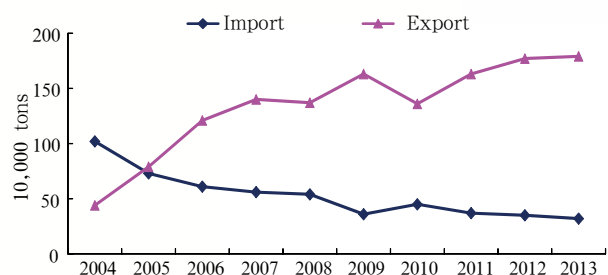


Fig. 27 Import and Export of Coated Printing Papers (2004—2013)

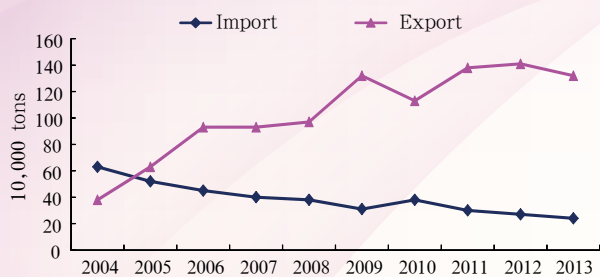


Fig. 28 Import and Export of Coated Art Paper  
(2004—2013)

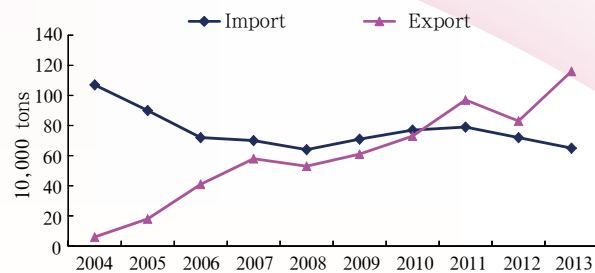


Fig. 32 Import and Export of Coated White Board  
(2004—2013)

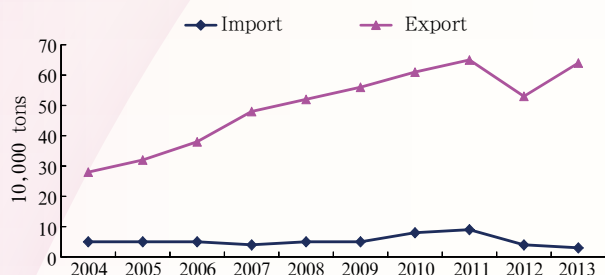


Fig. 29 Import and Export of Household Paper  
(2004—2013)

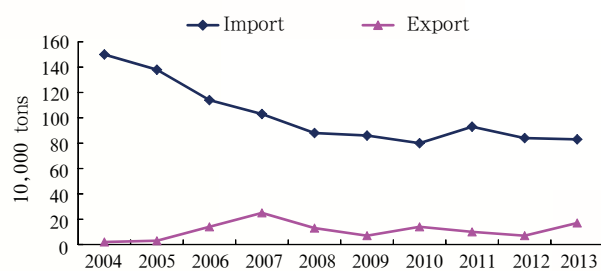


Fig. 33 Import and Export of Liner Board  
(2004—2013)

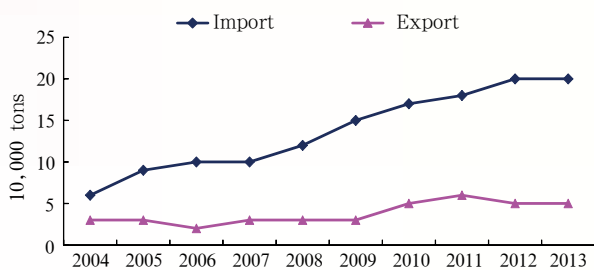


Fig. 30 Import and Export of Packaging Paper  
(2004—2013)

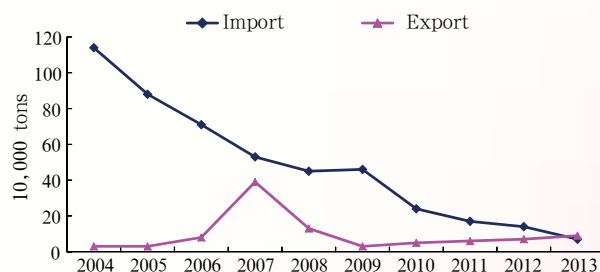


Fig. 34 Import and Export of Corrugating Medium  
(2004—2013)

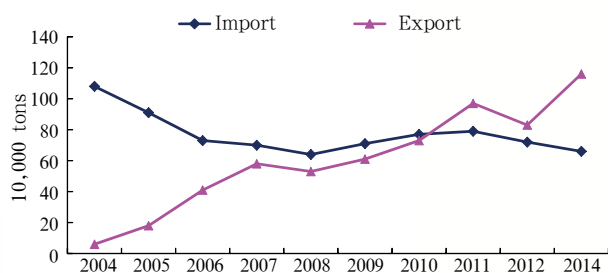


Fig. 31 Import and Export of White Board  
(2004—2013)

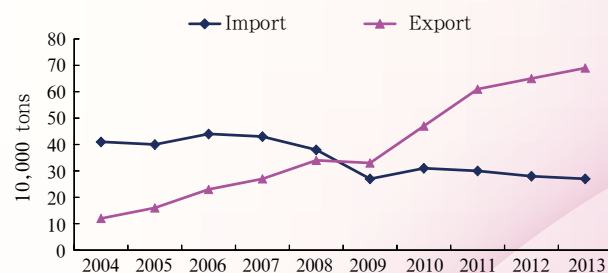


Fig. 35 Import and Export of Specialty Papers & Boards  
(2004—2013)

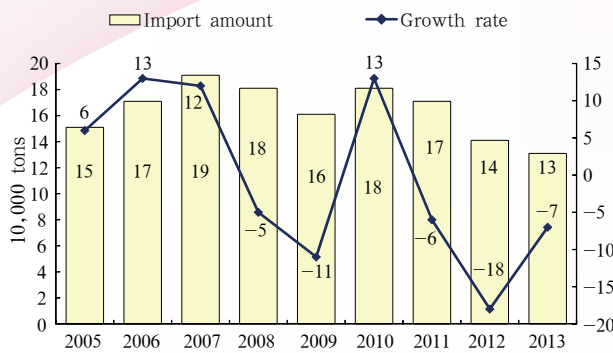


Fig. 36 Import of Covered Paper Products  
(2005–2013)

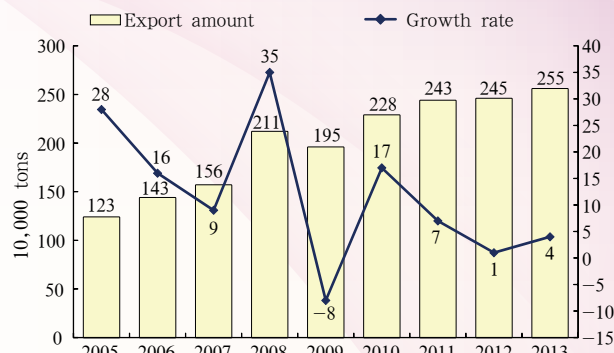


Fig. 37 Export of Covered Paper Products  
(2005–2013)

(1) The import amount of converted paper products was 130,000 tons in 2013, decreased by 7% compared to 2012. As shown in Fig. 36.

(2) The export amount of converted paper products was 2.55 million tons, increased by 4% compared to 2012. As shown in Fig. 37.

**Table 6 Production Distribution of China's Paper Industry in 2013**

	2012		2013	
	Production /million tons	Share /%	Production /million tons	Share /%
Total production	102.50	100.0	101.10	100.0
1. Eastern	77.28	75.4	77.73	76.9
2. Central	18.87	18.4	17.06	16.9
3. Western	6.35	6.2	6.31	6.2

Data source: CPA.

## VII. Production Distribution and Centralization

According to the survey of CPA, in 2013, the total paper & board production of 12 provinces (regions, cities) in eastern China accounted for 76.9% of the industry's gross, increased 1.5 percentage points compared to 2012; the total production of the 9 provinces (regions) in central China accounted for 16.9%, decreased 1.5 percentage points; and the total production of the 10 provinces (regions, cities) in western China accounted for 6.2%, unchanged from the previous year. As shown in Table 6 and Fig. 38.

There were 16 provinces (regions, cities) where the paper & board production exceeded 1 million tons in 2013, they were Shandong, Guangdong, Zhejiang, Jiangsu, Henan, Fujian, Hebei, Hunan, Guangxi, Chongqing, Tianjin, Sichuan, Anhui, Hubei, Jiangxi and Hainan, their total production reached 96.53 million tons, accounted for 95.48% of industry's gross, as shown in Table 7, Fig. 39.

**Table 7 Provinces with Paper & Board Production Over 1 Million Tons in 2013**

Province (regions, cities)	2012 /million tons	2013 /million tons	Change/‰
Shandong	17.10	17.30	1.17
Guangdong	15.79	16.41	3.93
Zhejiang	15.36	15.61	1.63
Jiangsu	12.06	12.10	0.33
Henan	7.80	7.00	-10.26
Fujian	5.39	5.25	-2.60
Hebei	4.24	3.44	-18.87
Hunan	3.55	3.20	-9.86
Guangxi	2.58	2.75	6.59
Chongqing	1.71	2.40	40.35
Tianjin	1.96	2.20	12.24
Sichuan	2.32	2.02	-12.93
Anhui	2.13	1.95	-8.45
Hubei	2.24	1.90	-15.18
Jiangxi	1.55	1.60	3.23
Hainan	1.14	1.40	22.81
<b>Total amount</b>	<b>96.92</b>	<b>96.53</b>	<b>-0.40</b>

Data source: CPA.

Attached Table Top 30 Paper Enterprises Ranked by Production in 2013

Rank	Enterprises	Production		
		2012 /10,000 tons	2013 /10,000 tons	Change/%
1	Nine Dragons Paper Co., Ltd.	1045.00	1109.00	6.12
2	Lee & Man Paper Manufacturing Limit Ltd.	414.13	482.71	16.56
3	Shandong Chenming Paper Group Co., Ltd.	397.73	421.20	5.90
4	Shandong Sun Paper	268.78	309.92	15.31
5	Shandong Huatai Group Co., Ltd.	270.00	288.60	6.89
6	Anhui Shanying Paper Co., Ltd.	230.96	243.03	5.23
7	Gold East Paper (Jiangsu) Co., Ltd.	204.00	201.95	- 1.00
8	China National Paper Industry Investment Corp.	195.00	191.00	- 2.05
9	Ningbo Zhonghua Paper Co., Ltd. (including Ningbo Asia Pulp & Paper)	156.00	163.00	4.49
10	Fujian Liansheng Paper	87.73	138.20	57.53
11	Longchen Paper (China) Holding Co., Ltd.	111.00	136.00	22.52
12	Dongguan Jianhui Paper Co., Ltd.	57.94	130.23	124.77
13	Shandong Sunshine Paper Group Co., Ltd.	106.75	108.60	1.73
14	Hainan Jinhai Pulp & Paper Co., Ltd.	102.28	108.00	5.59
15	Shandong Bohui Paper Co., Ltd.	109.76	106.25	- 3.20
16	Zhejiang Jingxing Paper Co., Ltd.	92.55	98.84	6.80
17	UPM-Kymmene (China) Paper Co., Ltd.	90.00	88.50	- 1.67
18	Henan Yingde Industrial Investment Co., Ltd.	75.92	83.62	10.14
19	Shandong Tralin Paper Co., Ltd.	73.57	80.79	9.81
20	Henan Jianghe Paper Co., Ltd.	64.58	74.85	15.90
21	Dongguan Jinzhou Paper Co., Ltd.	41.49	74.51	79.59
22	Shandong Guihe Xianxing Paper Co., Ltd.	65.65	68.93	5.00
23	Xinxiang Xinya Paper Group Co., Ltd.	66.20	66.21	0.02
24	Gold Huasheng Paper (Suzhou Ind'l Park) Co., Ltd.	64.96	64.00	- 1.48
25	Shandong Huajin Group Co., Ltd.	68.30	61.36	- 10.16
26	Guangzhou Paper Group Co., Ltd.	51.87	60.93	17.47
27	Dahe Paper Co., Ltd.	58.65	60.92	3.87
28	Hengan (China) Paper Co., Ltd.	30.96	60.78	96.32
29	Gold Hongye Paper Group Co., Ltd.	42.85	54.00	26.02
30	Jiangsu Changfeng Technology Group Co., Ltd.	45.82	52.00	13.49

Note: based on the collected data.

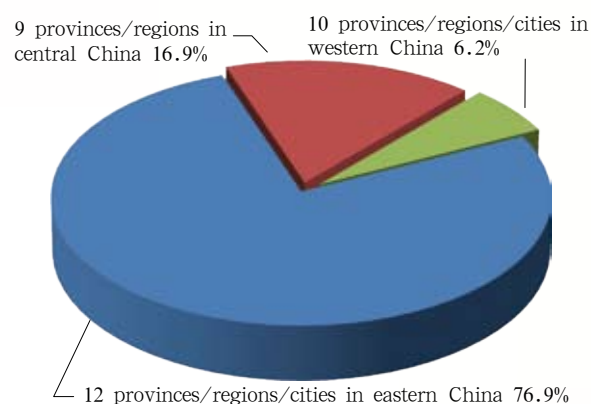


Fig. 38 Regional Layout of China's Paper Industry in 2012

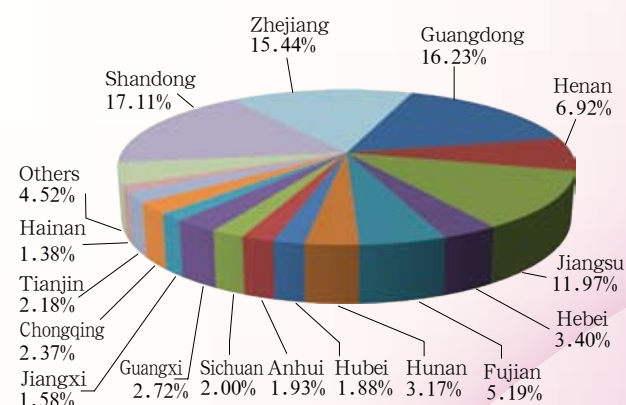


Fig. 39 The Proportion Shares of Major Provinces, Regions or Cities in 2012



## VIII. Environmental Protection

According to the statistics of the Ministry of State Environmental Protection in 2012, the water consumption of pulping & papermaking and paper converting enterprises (the number of surveyed enterprises was 5,235, decreased 636 compared with the previous year) was 12.130 billion tons; of which fresh water consumption was 4.078 billion tons and accounted for 8.64% of the Nation's total industrial fresh water consumption of 47.212 billion tons. The reused water was 8.051 billion tons and water recycling rate was 66.37%, increased 1.77 percentage points compared to 2011. Fresh water consumption per RMB 10,000 output values (current price) was 57.2 tons, decreased by 15.1% (i.e. 10.2 tons) compared to 2011. The effluent discharge from paper industry was 3.427 billion tons in 2012, accounted for 16.9% of the nation's total industrial effluent discharge (20.336 billion tons) and decreased 1.1 percentage points. The COD discharge from pulp and paper industry was 623,000 tons and decreased 119,000 tons compared to 2011, accounted for 20.5% of the nation's total industrial COD discharge (3,039,000 tons) and decreased 2.5 percentage points. The COD discharge intensity for RMB 10,000 output values (current price) of pulp and paper industry was 9 kg, decreased by 18.2%. The ammonia nitrogen in discharged effluent was 21,000 tons, accounted for 8.7% of the nation's total industrial ammonia nitrogen emission (242,000 tons) and decreased 0.8 percentage points. The ammonia nitrogen discharge intensity for RMB 10,000 output values (current price) of pulp and paper industry was 0.3 kg, decreased by 25.0%. The annual operating cost for wastewater treatment facilities of paper industry was RMB 6.04 billion, decreased by 1.0% (i.e. RMB 60 million) compared to previous year (as shown in Fig. 40).

In 2012, the SO<sub>2</sub> emission from paper and converted paper products industries was 497,000 tons, decreased by 8.5% (i.e. 46,000 tons) compared to 2011. The nitrogen oxide emission was 207,000 tons, decreased by 6.3% (i.e. 14,000 tons). The discharged smoke and dust was 167,000 tons, decreased by 19.3% (i.e. 40,000 tons) compared to 2011. The annual operation cost for exhaust gas treatment facilities was RMB 1.63 billion, decreased by 34.0% (i.e. RMB 0.84 billion) compared to previous year.

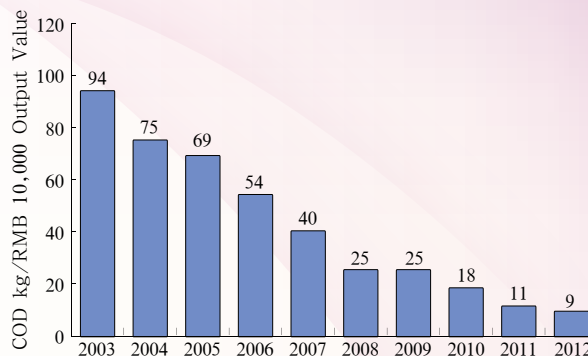


Fig. 40 COD Discharge Intensity of RMB 10,000 Output Value (2003—2012)

## IX. Summary

In 2013, China's paper industry has been in the transformation period from growth stage to mature stage, and is in the process of adjusting structure, transforming and upgrading, and looking for a new balance. Nowadays the main characteristics of China's paper industry which remains steady and is improved economic operation include adjusting the structure; supporting development in some areas while limiting growth in others; improving quality and efficiency; continuously developing with difficulty. The whole industry is adjusting to the right direction, but there still exists some problems such as weak paper market, sluggish growth, the investment increasement need to be regulated and controlled reasonably.

On the journey of China's paper industry from lager to stronger, it is very tough mission to resolve the shortage of resources, to ease the environmental constraints stress, and to enhance the developmental vitality and potential. China's paper industry has entered into the accelerating integration phase, which requires the entire industry to run with reform, keep pace with innovation, further strengthen our confidence, base at present, have a long-term in mind, plan for the future, and promote the stable and sustainable development of the industry, to meet the trend of world economy and China's economic development and industrial transformation and upgrading, accelerate the construction of green paper industry with scientific and technological innovation, resource-saving and environment-friendly. ▮