



# Global Market



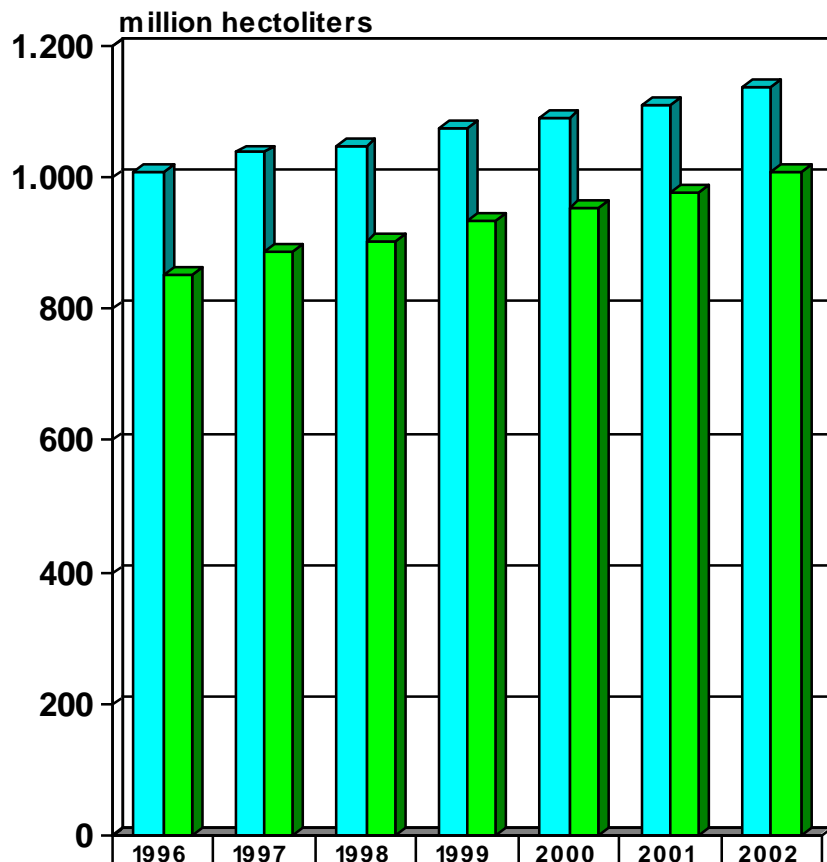


# Beverage





# Global Beer Market: Liquid Volume



Total Volume	1.007	1.039	1.047	1.075	1.091	1.112	1.140
Packaged Volume	852	887	904	935	955	979	1.010

## 😊 Growth Rate

1996-1998	Total	2% per year
	Packaged	3% per year
1998-2002	Total	2% per year
	Packaged	3% per year

😊 North America and Europe are projecting low growth (1% per year or less) while Latin America and Asia Pacific are projecting much faster growth (2 to 4+% per year)

😊 Packaged beer represents 83% of the total liquid volume in 1999

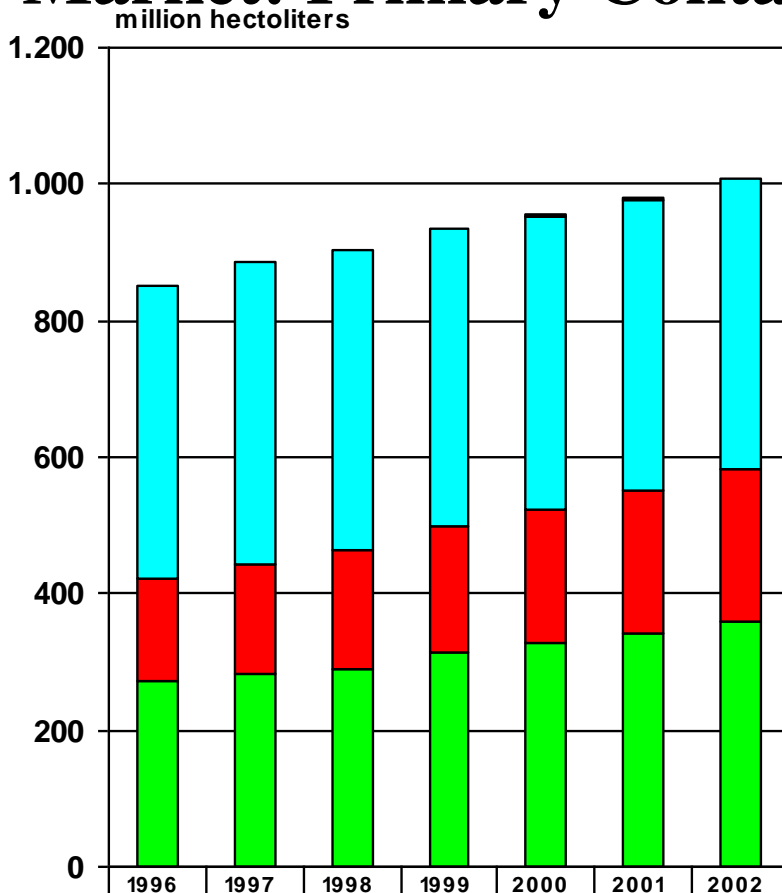
Source: Global Total Beer HL





# Global

## Beer Market: Primary Container Trends



- ☺ NR Glass Bottles are projected to grow the fastest - growing from 18% (1996) of the total packaged volume to 22% (2002)
- ☺ Returnable Glass Bottles remain the largest beer primary container, although their share is projected to drop from 51% (1996) to 42% (2002)
- ☺ Cans are, and will continue to be, the second largest beer primary container at 36% (2002)

NR PET Bottle	0	0	0	1	1	2	3
Ret. Glass Bottle	430	444	438	436	432	424	425
NR Glass Bottle	150	161	177	186	195	210	224
Cans	272	282	289	313	327	342	359

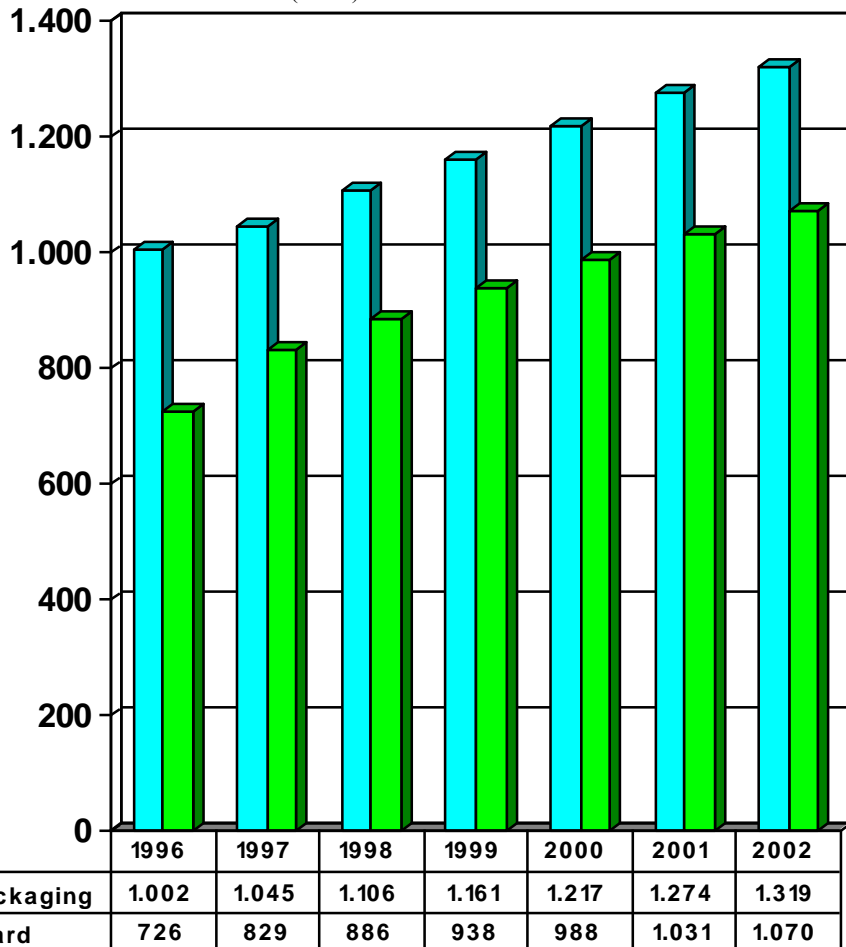
Source: Global Total Beer HL





# Global Beer Multiple Packaging

Gross Short Tons (000's)



- ☺ Paperboard's share of global beer packaging is projected to hold steady at 81% between 1999 and 2002, and there is limited upside potential beyond this
- ☺ Other beer packaging substrates (corrugated, Hi-Cone and shrink film) are also projected to hold share
- ☺ All regions are projecting that paperboard will either hold or increase its share of the beverage packaging market

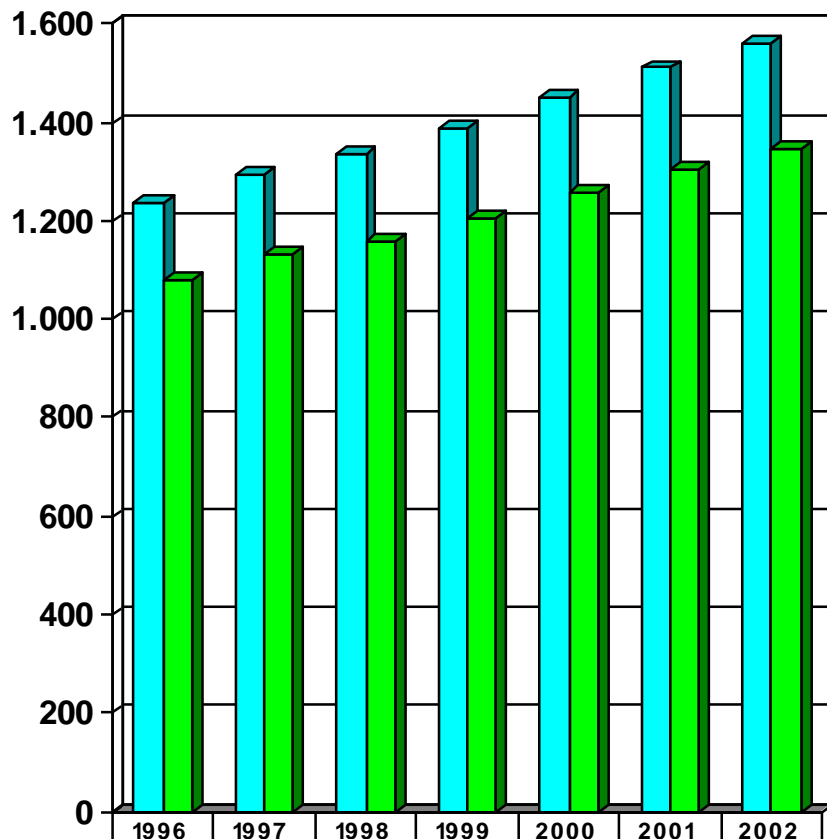
Source: Global Total





# Global Soft Drink Market: Liquid Volume

million hectoliters



Total Volume	1.235	1.295	1.334	1.388	1.449	1.510	1.559
Packaged Volume	1.078	1.131	1.157	1.203	1.255	1.302	1.343

- ☺ Growth Rate
  - 1996-1998 Total 4% per year
  - 1996-1998 Packaged 4% per year
  - 1998-2002 Total 4% per year
  - 1998-2002 Packaged 4% per year

☺ Total Volume  
 Asia-Pacific is projected to continue its explosive growth (8% per year) while North America and Latin America each project 3+% growth. Europe is the slowest growing region at 2% per year

☺ Packaged Volume  
 Asia-Pacific's packaged soft drink volume will continue to grow 9% per year while the other three regions will experience growth between 2-3% per year

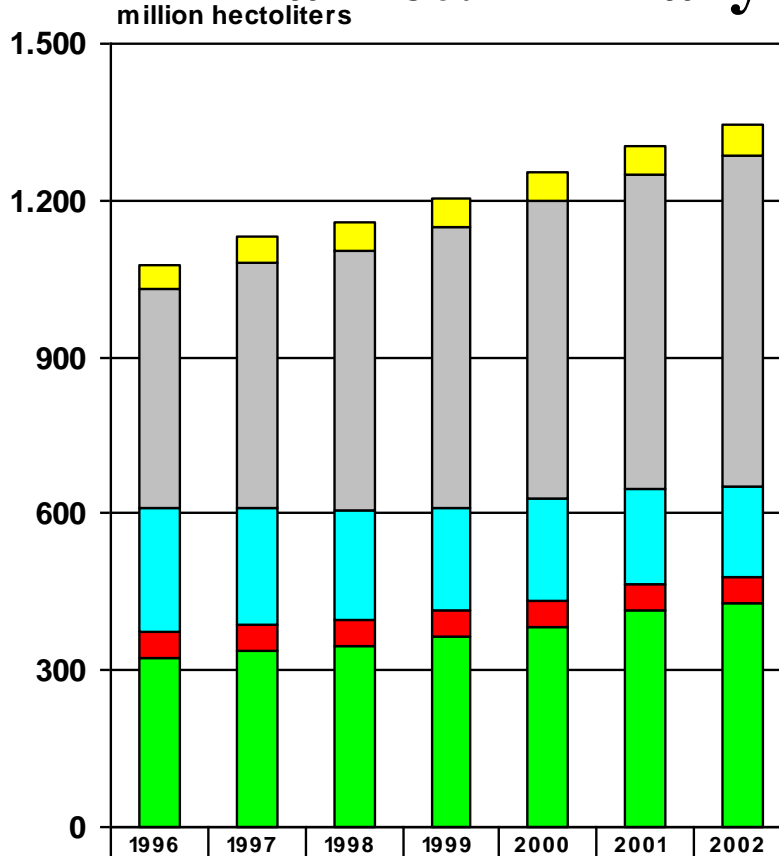
Source: Global Total Soft Drink HL





# Global

## Soft Drink Market: Primary Container Trends



- ☺ NR (Non-Returnable) PET is projected to remain the largest primary container for soft drink by liquid volume, growing in share from 39% (1996) to 47% (2002). Small bottle NR PET (less than 1 Liter) is the driving factor behind this growth.
- ☺ Cans are the second largest primary container and they are projected to have a share of 32% in 2002 from 30% today
- ☺ Glass Bottles (Returnable & NR) continue to lose share as a soft drink primary container

Ret. PET Bottle	49	53	55	55	56	55	56
NR PET Bottle	417	467	494	535	570	598	634
Ret. Glass Bottle	238	224	210	200	195	186	174
NR Glass Bottle	50	50	48	49	49	50	51
Cans	323	337	348	364	384	413	428

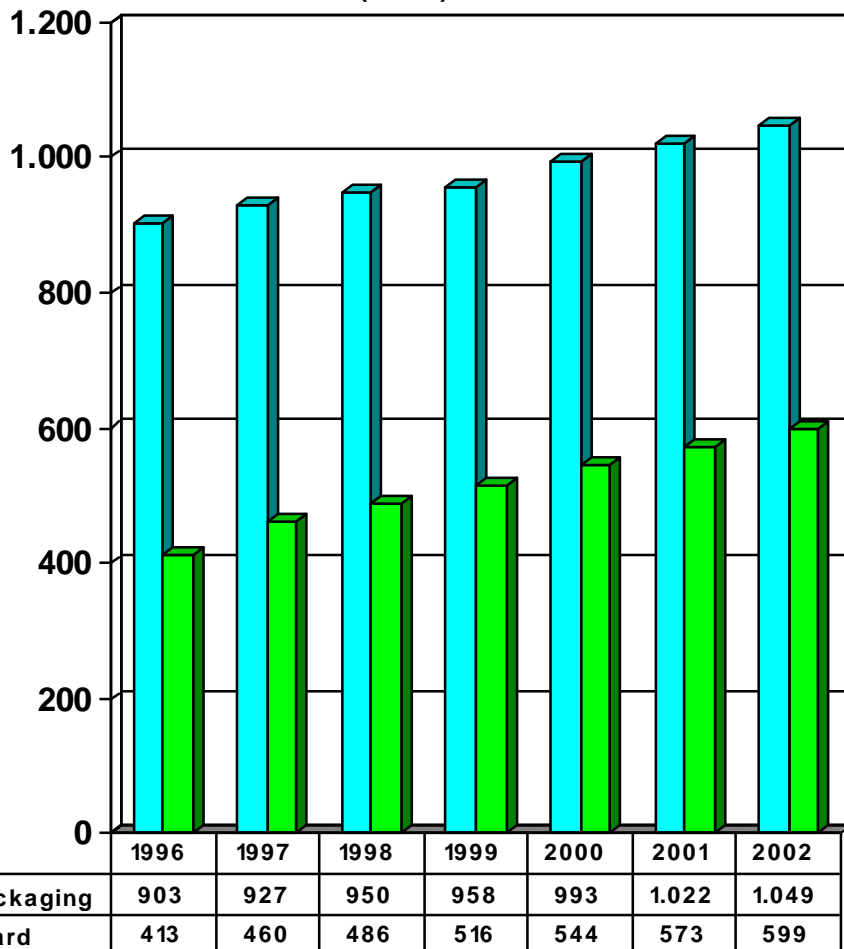
Source: Global Total Soft Drink HL





# Global Soft Drink Multiple Packaging

Gross Short Tons (000's)



- ☺ Paperboard is projected to move from 54% (1999) to 57% (2002) of global soft drink multiple packaging tonnage
- ☺ Hi-Cone, the second largest packaging substrate, is projected to lose share during the 1999 to 2002 time frame (30% to 23%), while shrink film will gain share from 11% to 13%
- ☺ Paperboard will gain share in North America and Latin America, but will lose share in Europe (to shrink film) and Asia Pacific (to corrugated and shrink film)

Source: Global Total



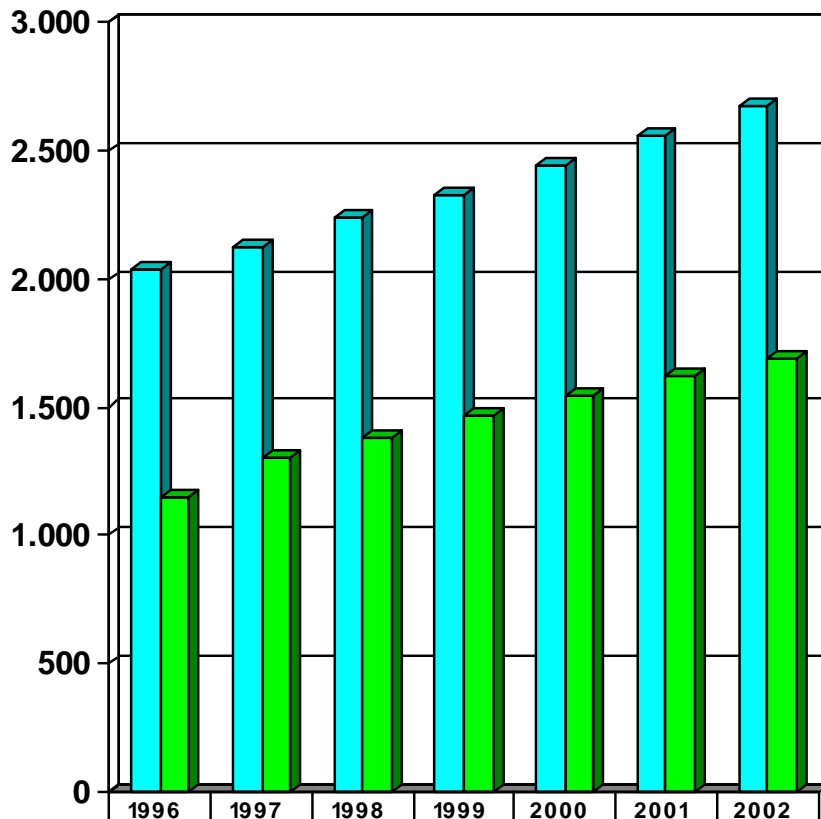




# Global Beverage Packaging Market

## Paperboard Trends

Gross Short Tons (000's)



■ Total Packaging	2.033	2.123	2.238	2.327	2.445	2.561	2.671
■ Paperboard	1.146	1.298	1.382	1.465	1.546	1.622	1.690

☺ Paperboard is projected to maintain a 63% share of the global beverage packaging market between 1999 and 2002

☺ The only region projecting a market share decline for paperboard is Asia-Pacific. Corrugated and Hi-Cone are projected to gain the share lost by paperboard in Asia Pacific. All other regions are projecting an increase in paperboard's market share.

☺ Shrink film is projected to continue gaining share of the global beverage packaging market. Shrink film will grow from 15% in 1999 to 17% in 2002. Shrink film will gain share in North America and Latin America

☺ Hi-Cone will continue to lose share of the beverage packaging market

Source: Paperboard Tons- Total





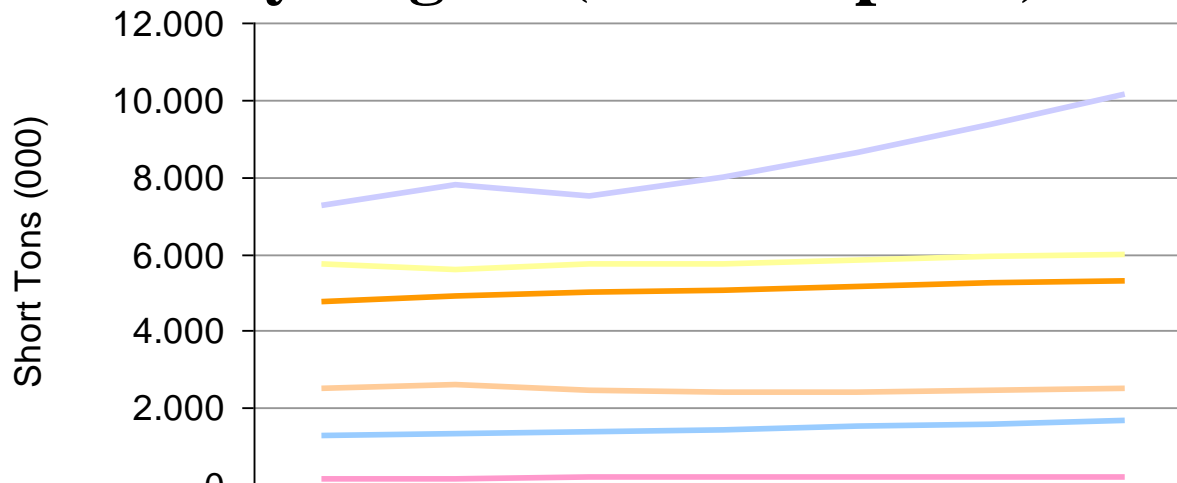
# Folding Carton





# World Folding Carton Market

## Market Size by Region (Consumption)



	1996	1997	1998	1999	2000	2001	2002	ACGR 1999-2002	Tons
<b>USA (1)</b>	5.707	5.599	5.713	5.727	5.812	5.927	5.977	1.4%	250
<b>Western Europe (2)</b>	4.736	4.906	4.980	5.062	5.148	5.226	5.314	1.6%	253
<b>Asia (3)</b>	7.232	7.766	7.481	8.003	8.642	9.343	10.121	8.1%	2,118
<b>Japan (3)</b>	2.519	2.606	2.452	2.393	2.418	2.454	2.491	1.4%	98
<b>Australia (4)</b>	166	171	174	178	181	185	189	2.0%	11
<b>Latin America (5)</b>	1.260	1.309	1.381	1.439	1.526	1.579	1.646	4.6%	207
<b>Total</b>	<b>21.620</b>	<b>22.357</b>	<b>22.181</b>	<b>22.802</b>	<b>23.726</b>	<b>24.714</b>	<b>25.739</b>	4.1%	2,937

Sources:

(1) 1996-1998 AFPA; Forecast NAOM Marketing

(2) CDC Ltd., UK (European Consultant)

(3) RISI (Resource Information System, Inc.)

(4) BIS Shrapnel, Australian Consultants

(5) Latin America Sales



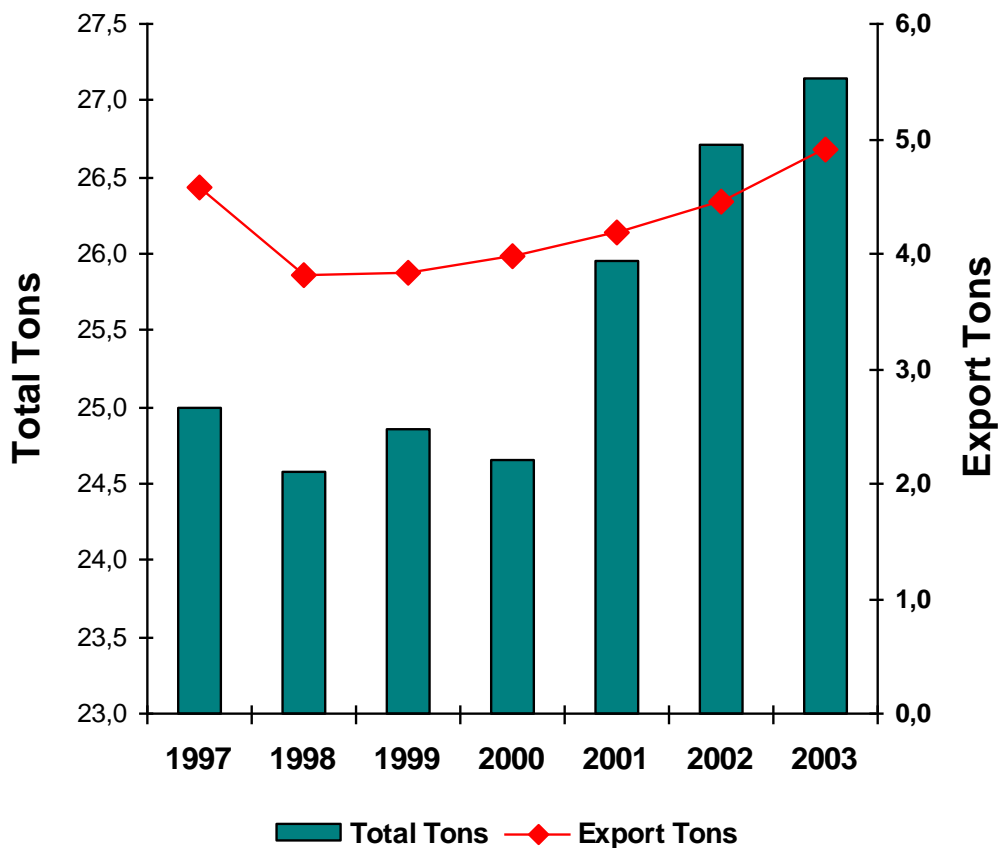


# Containerboard





# Liner Market Data



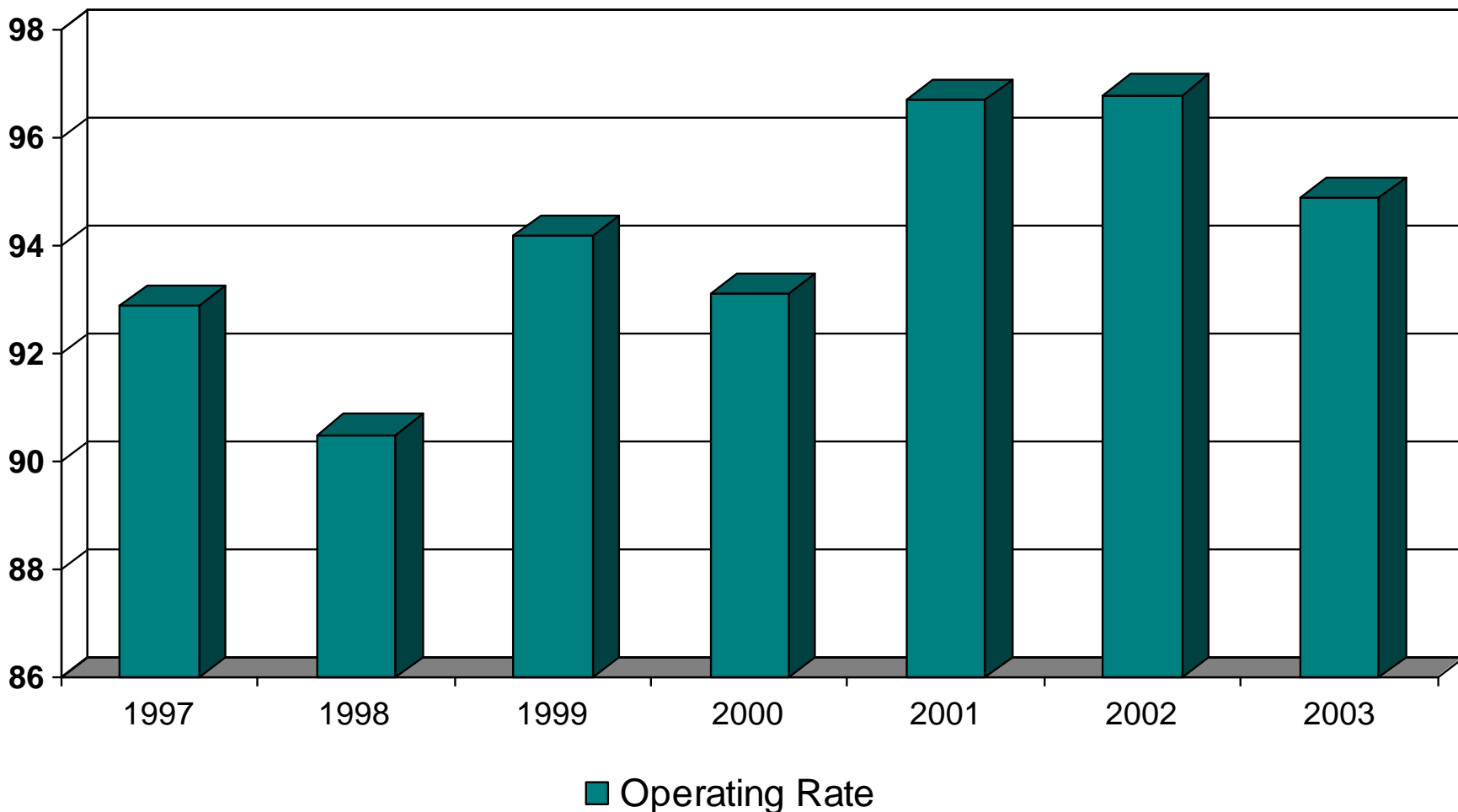
- ◆ Growth in South and West
- ◆ Dominated by large integrated companies
- ◆ Widespread consolidation
- ◆ Overcapacity; Industry inventory critical





# Linerboard

## Industry Capacity Utilization

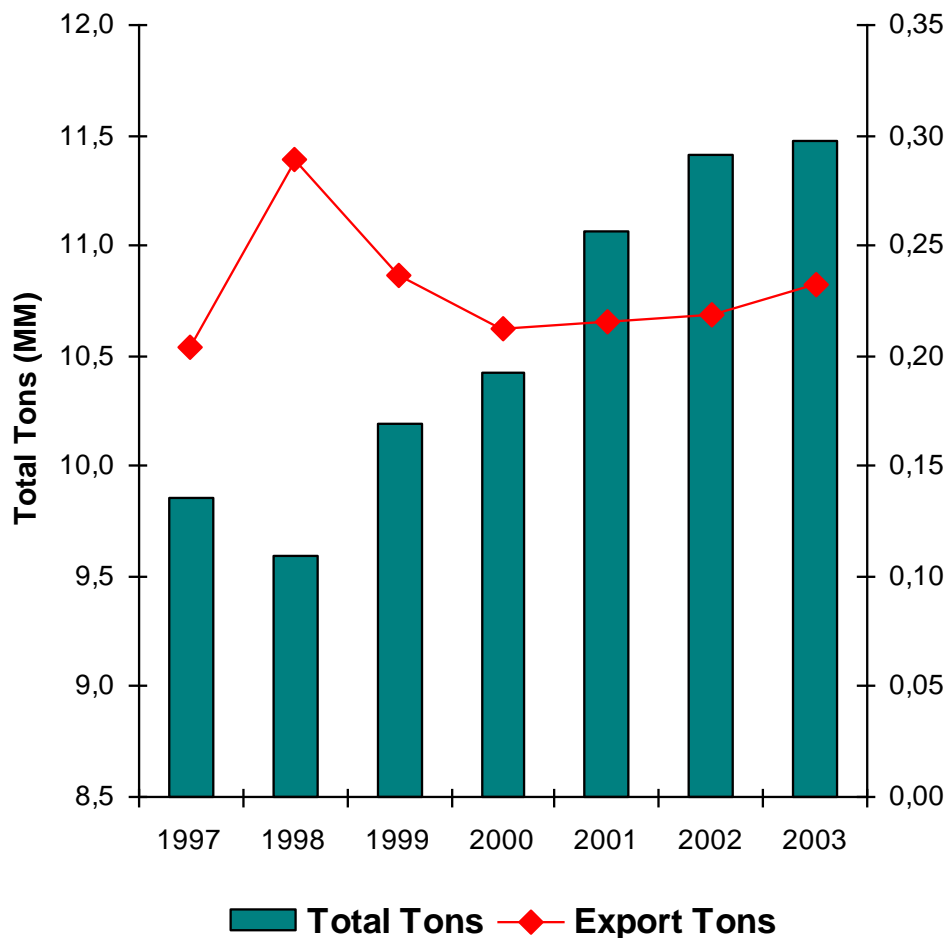


Source: RISI





# Medium Market Data



- ◆ Growth in South and West
- ◆ Dominated by large integrated companies
- ◆ Widespread consolidation
- ◆ Overcapacity; Industry inventory critical





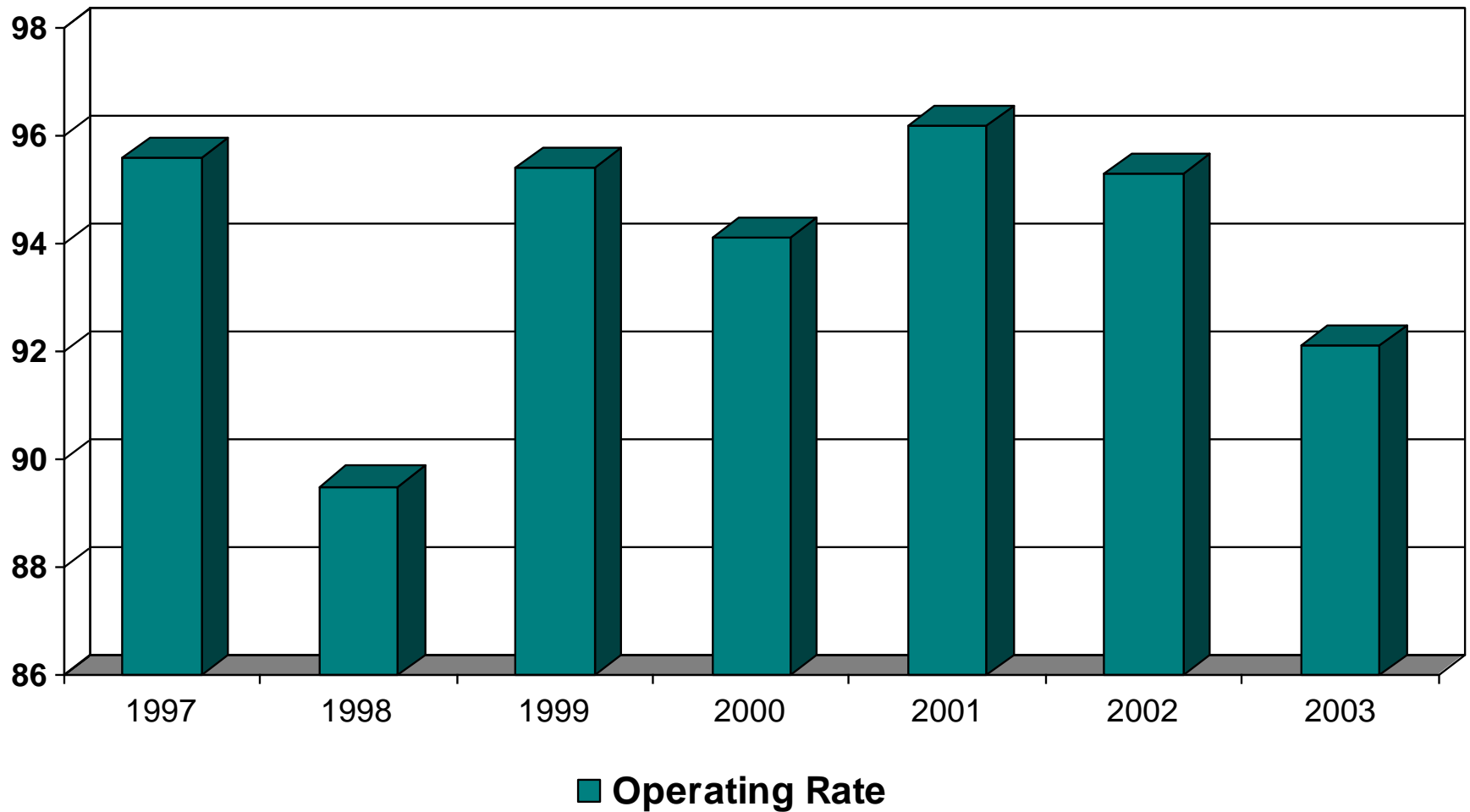
# Containerboard







# Medium Industry Capacity Utilization



Source: RISI





# Bags





# Bag Industry Capacity Utilization

