

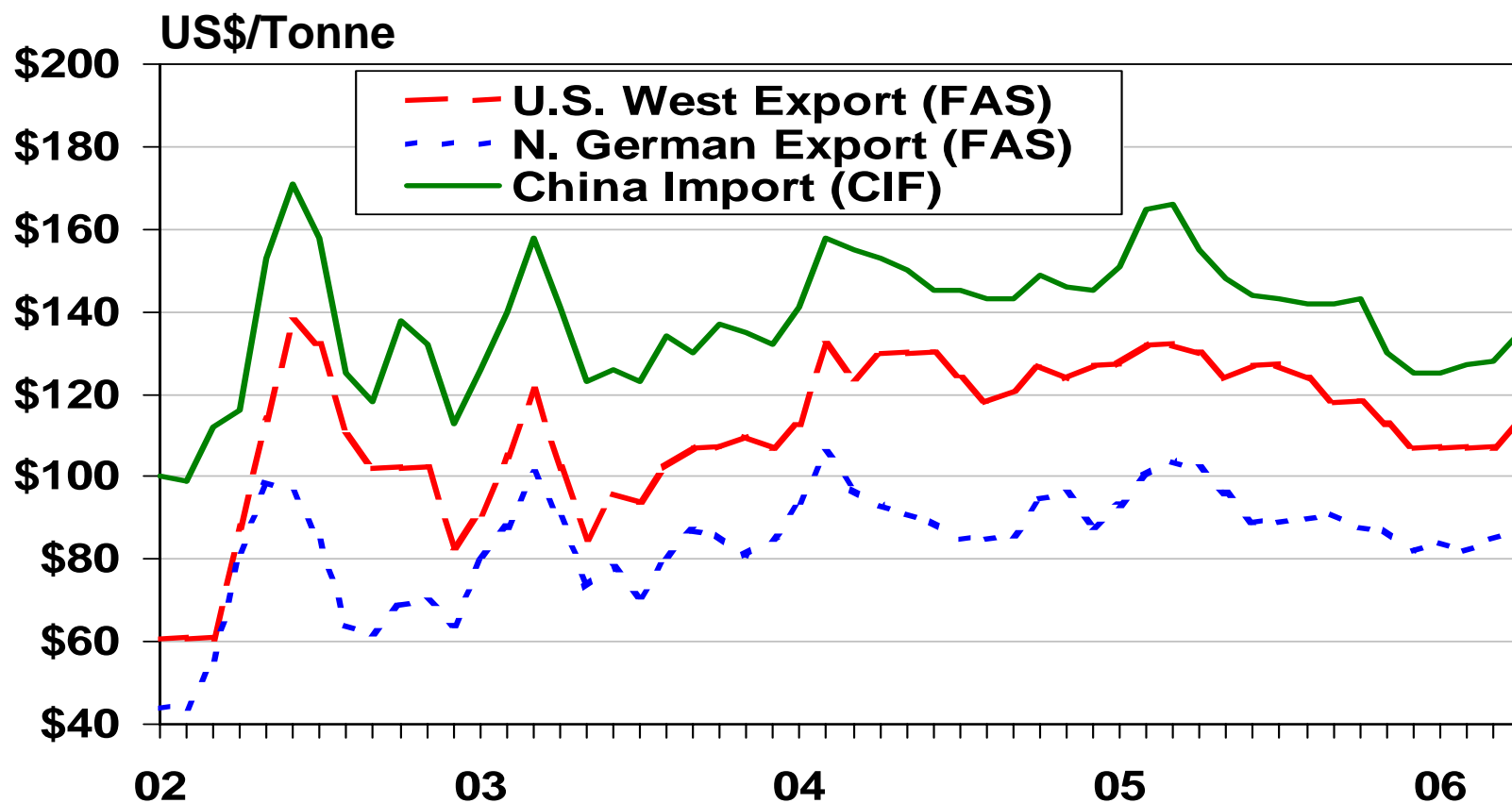
Recovered Paper: More Market Stability or Another Leap Forward?

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Senior Economist

May 23, 2006



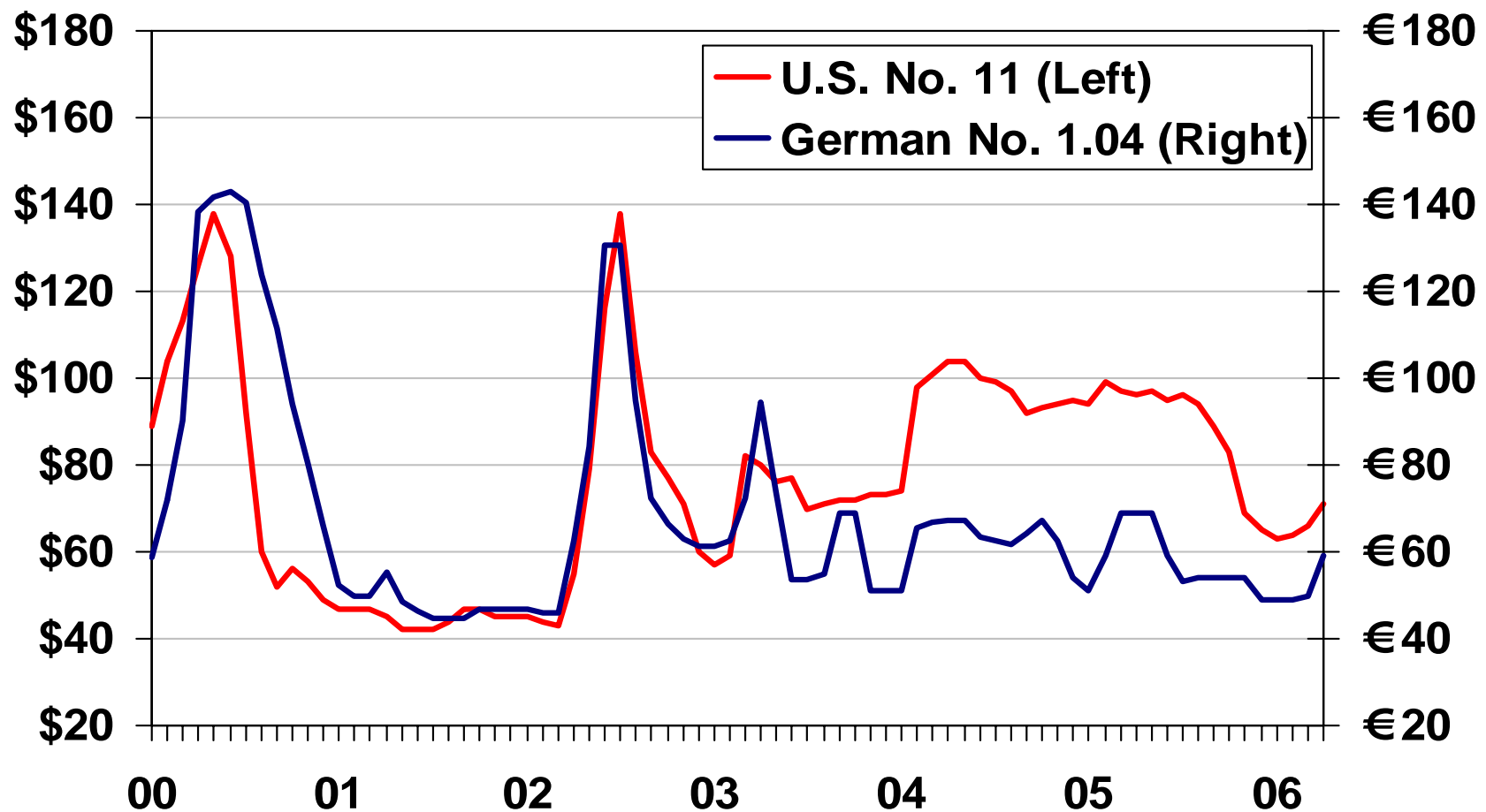
A Global Commodity: Monthly Corrugated Prices at the Dock and Delivered to China



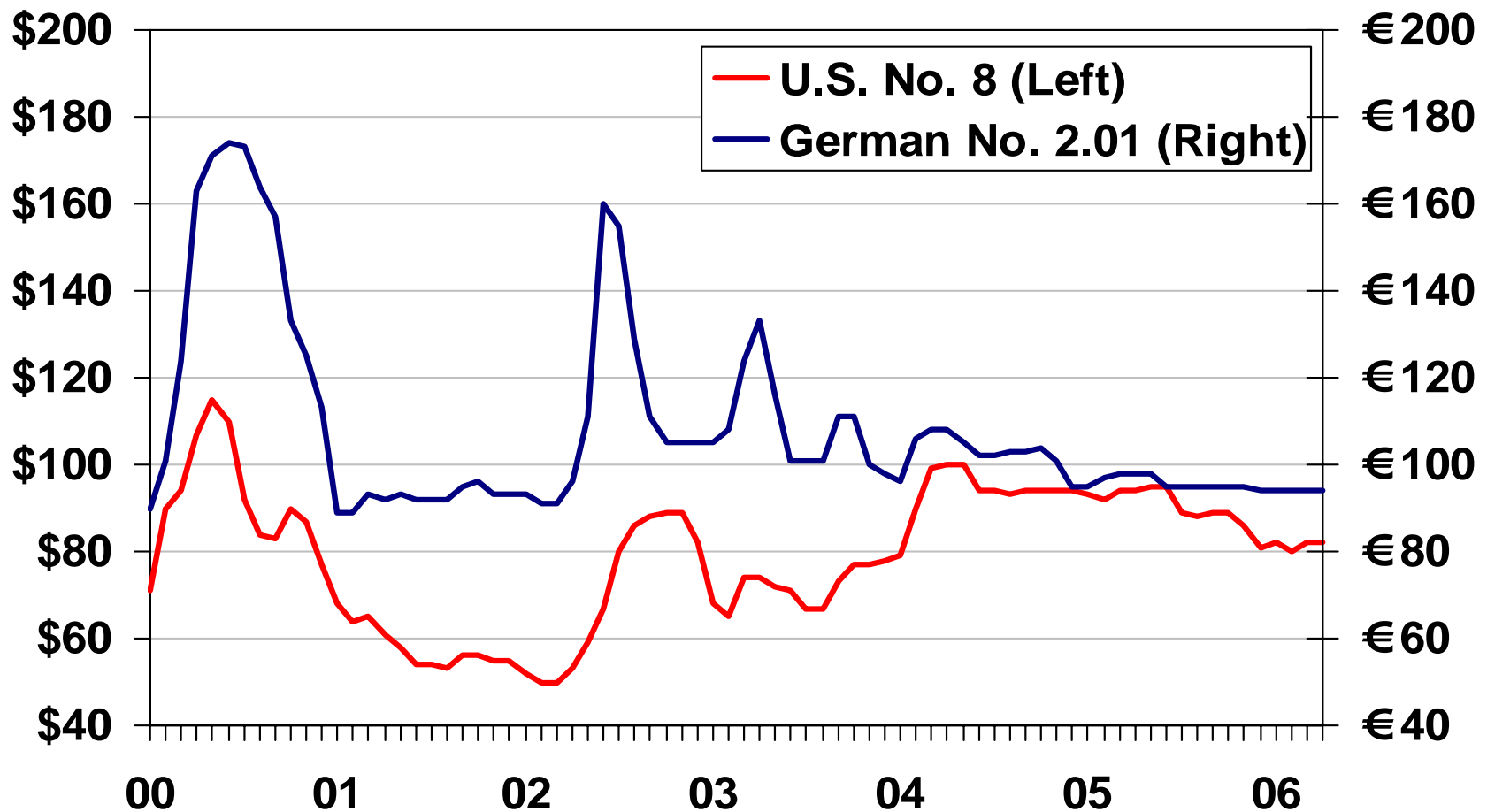
Strong Export Demand Has Led to Just Small Price Gains

- ▶ China's Demand Growth Offset by Weak Demand and Capacity Closures Elsewhere
- ▶ In the Rest of Asia, Import Demand has Been Declining Steadily
- ▶ Overcapacity and Low Operating Rates in China Tempered the Gains in Prices
- ▶ China Has Intensified Its Sourcing Efforts in Japan and Europe, Limiting the Price Gains as well

U.S. Corrugated Prices Close the Gap with Germany by Slipping to a Three-Year Low



The Price Gap Widens for Newspapers as U.S. Prices Move Lower

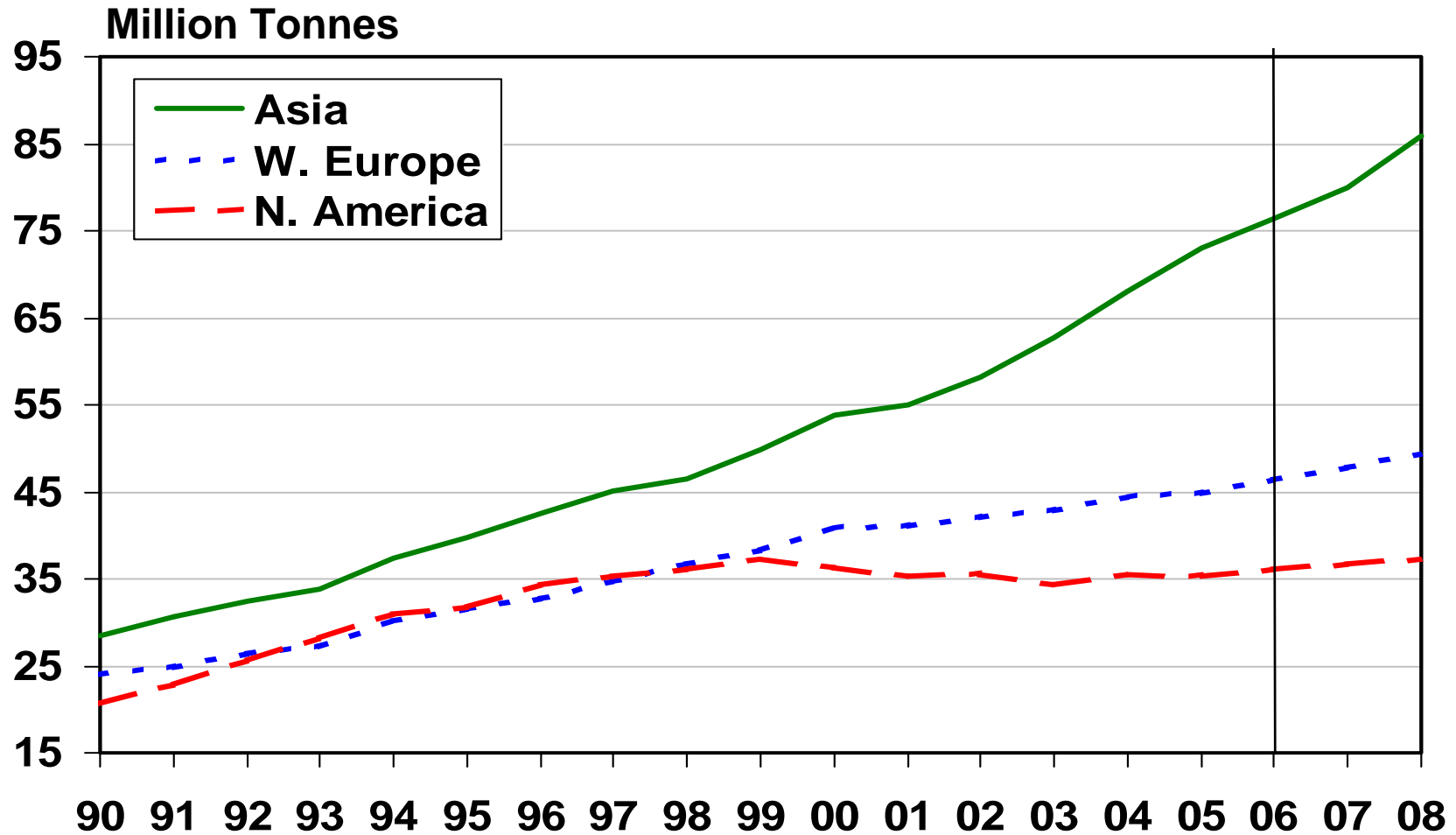


Outlook for Recovered Paper Demand: 2007–2008

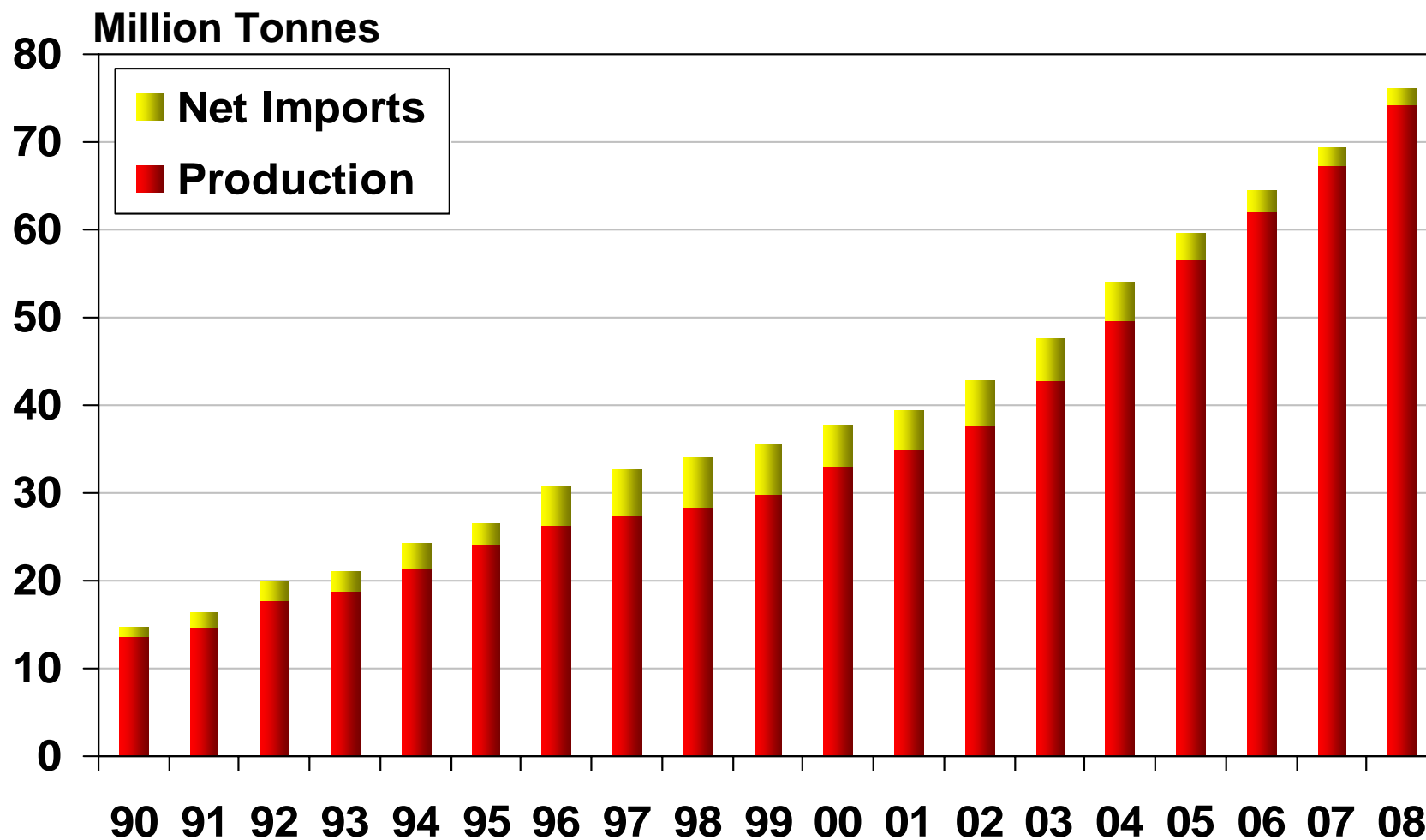
- ▶ World Recovered Paper Demand Growing Rapidly
 - General rise in paper and paperboard output
 - Massive investment in recovered paper-based capacity in China
 - Large increases in European capacity

- ▶ World Recovered Paper Usage Predicted to Grow by 18 Million Tonnes in 2007–2008
 - With half of the increase occurring in Asia

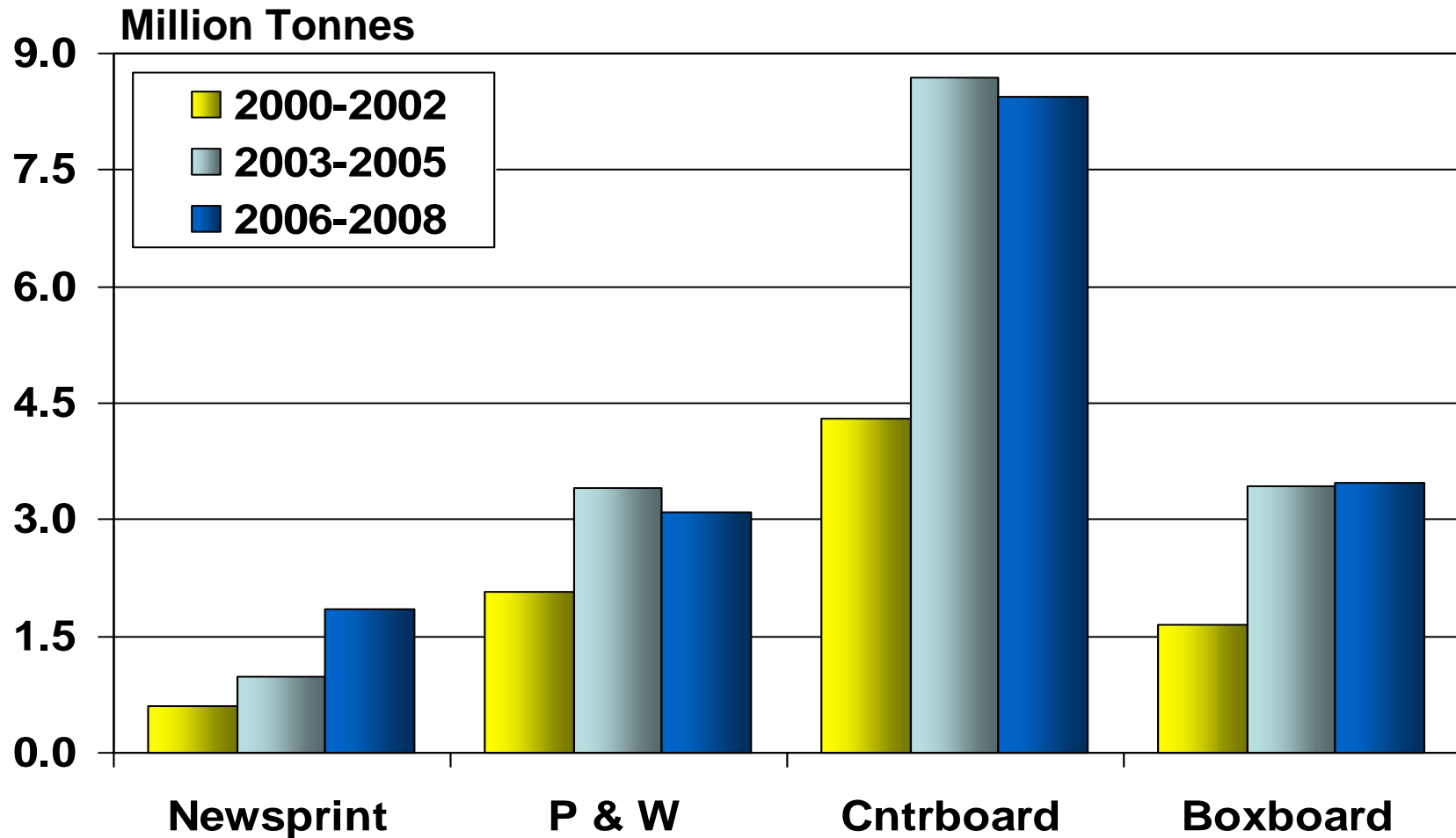
Asia Will Contribute Most Heavily to Growth in World Recovered Paper Consumption



Economic Boom Is Driving China's Demand for Paper and Paperboard



Unparalleled Growth in Chinese Capacity for Major Paper & Paperboard Grades



Major Announced Chinese Newsprint Capacity Expansions (000 Tonnes)

<u>Company</u>	<u>Capacity</u>	<u>Startup</u>
Shandong Huatai (PM 11) *	200	Q1:2006
Guangzhou Paper (PM 1)	175	Q2:2006
Jilin Chenming (PM 12) *	90	Q3:2006
Shanddong Chenming	400	Q4:2006
Shanddong Huatai (PM 12) *	200	Q1:2007
Guangzhou Paper (PM 9)	300	2008

* These machines can also produce P&W paper. We have allocated 50% of announced capacity to newsprint; however, actual production will fluctuate with market conditions.

Major Announced Chinese Containerboard Capacity Expansions

(000 Tonnes)

<u>Company</u>	<u>Capacity</u>	<u>Startup</u>
Lee & Man (PM 7)	400	Q1:2006
Nine Dragons (PM 10)	200	Q1:2006
Hop Fung	150	Q1:2006
Jian Paper Packet	250	Q1:2006
Yuen Foong Yu	150	Q2:2006
Fujian Qingshan	250	Q3:2006
Zhangjiagang Huaxing	150	Q3:2006
Shanying Paper	300	Q4:2006
Yuen Foong Yu	250	Q4:2006
Jian Paper Packet	250	Q4:2006
Lee & Man (PM 8)	430	Q4:2006

Major Announced Chinese Containerboard Capacity Expansions (000 Tonnes)

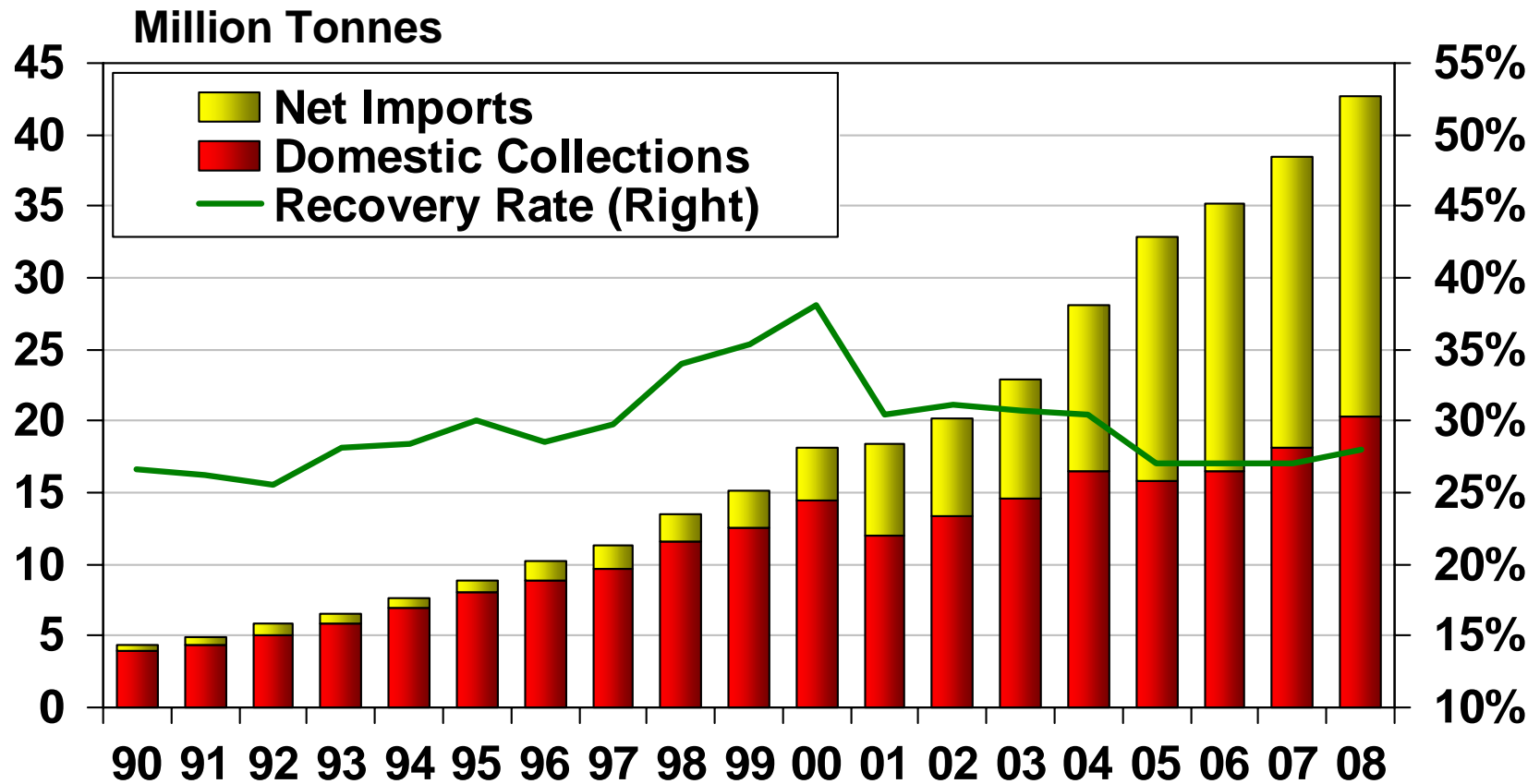
<u>Company</u>	<u>Capacity</u>	<u>Startup</u>
Zhejiang Jingxing	300	Q1:2007
Zhejiang Huaxing	250	Q1:2007
Lee & Man (PM 9)	430	Q3:2007
Lee & Man (PM 10)	300	Q3:2007
Nine Dragons (PM 12)	400	Q3:2007
Nine Dragons (PM 13)	400	Q3:2007
Nine Dragons (PM 14)	350	Q3:2007
Nine Dragons (PM 15)	350	Q3:2007
Nine Dragons (PM 8 – Revamp)	50	Q3:2007
Lee & Man (PM 11)	300	Q4:2007
Wuxi Long Chen	400	2007

Major Announced Chinese Boxboard Capacity Expansions (000 Tonnes)

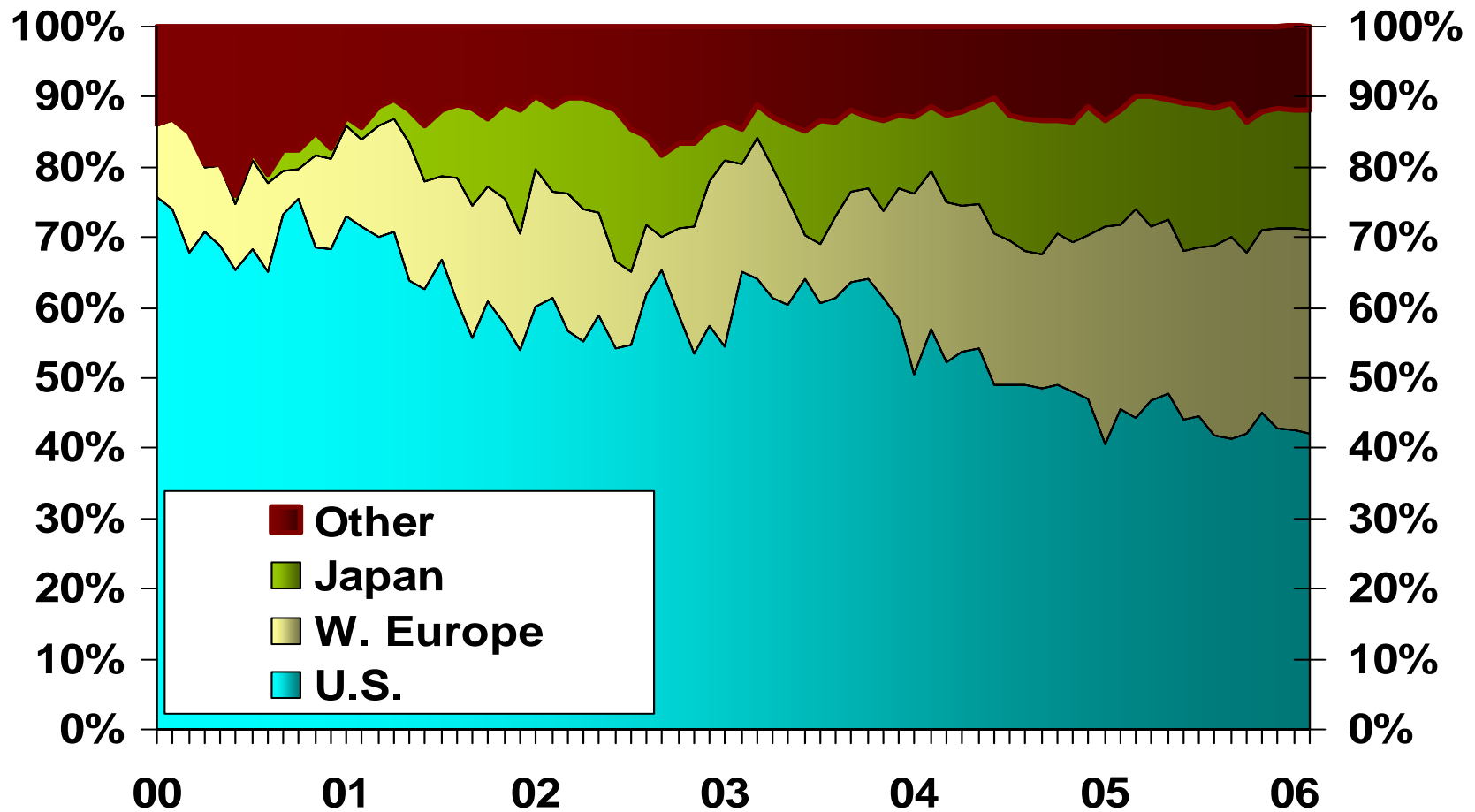
<u>Company</u>	<u>Capacity</u>	<u>Startup</u>
Hangzhou Yongli	50	Q2:2006
Zhuhai Hongta Renheng	50	Q2:2006
Foshan Huafeng	300	Q3:2006
Yongtai Paper	200	Q4:2006
Ningxia Meili *	300	Q4:2006
Nine Dragons	500	Q1:2007
Int'l Paper/Sun Paper	300	Q4:2007

* Status of this project is unclear.

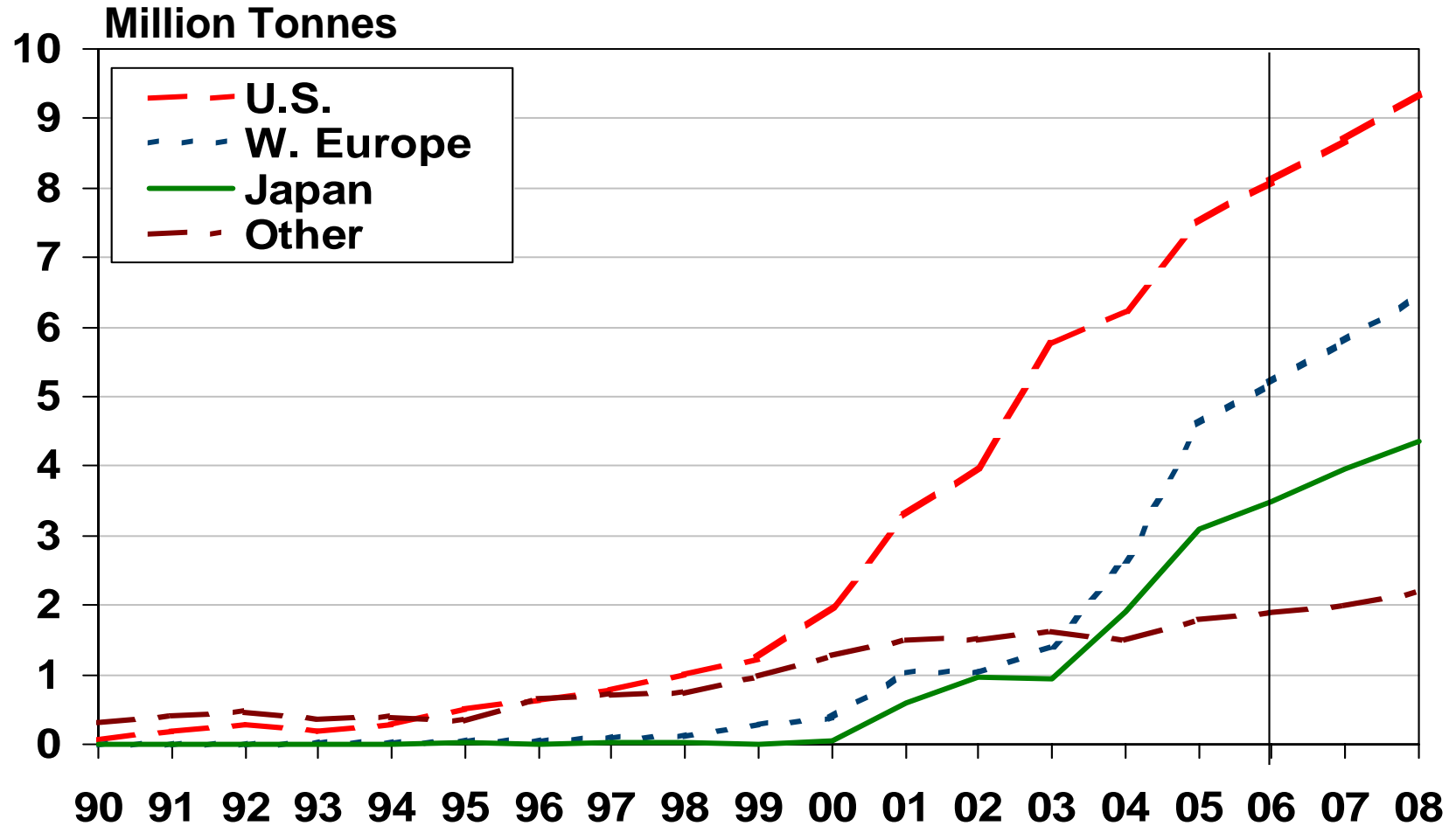
China Recovered Paper Demand



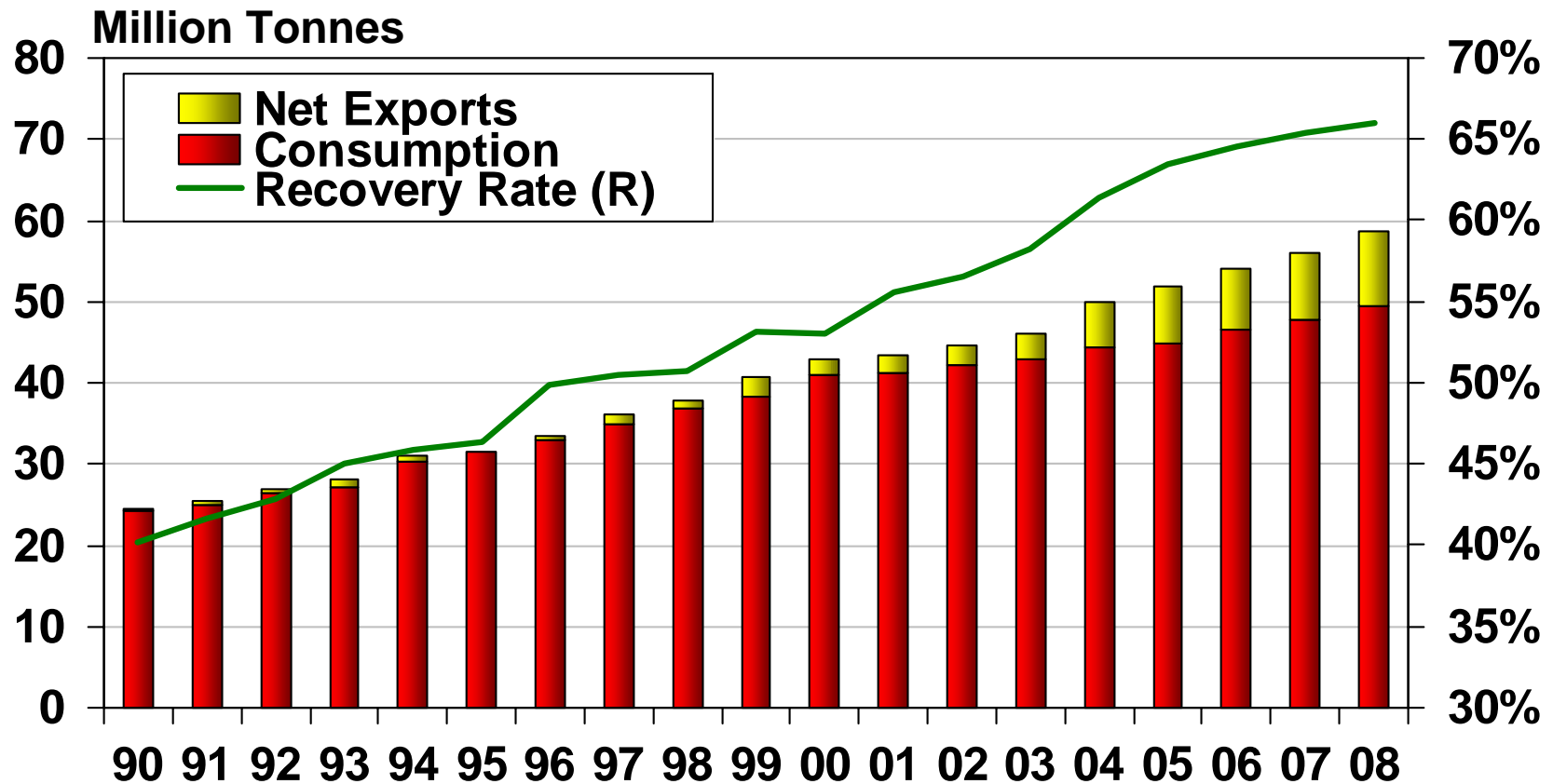
Monthly Chinese Recovered Paper Imports: Major Sources by Share



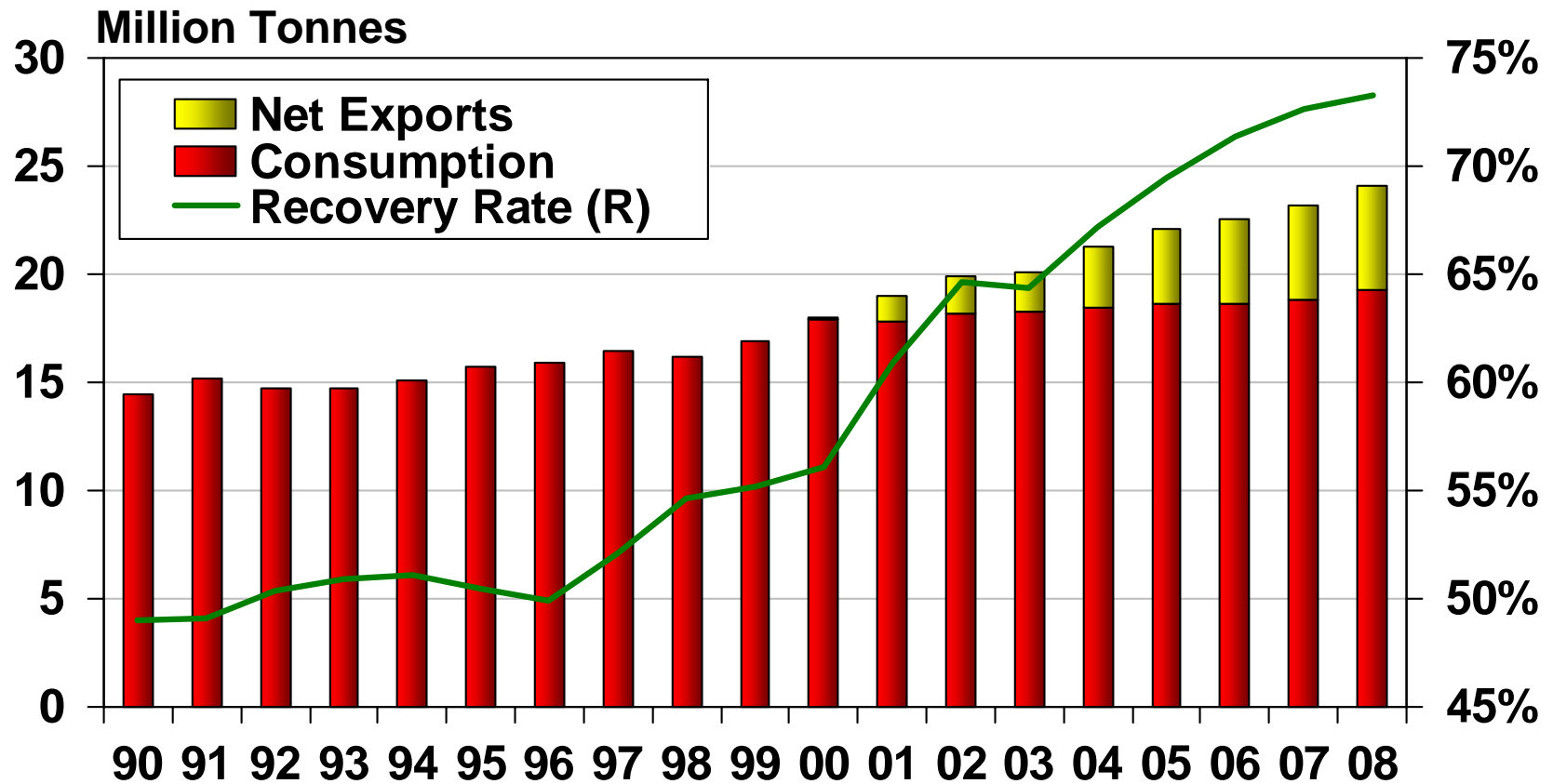
Chinese Recovered Paper Imports: Major Supply Sources



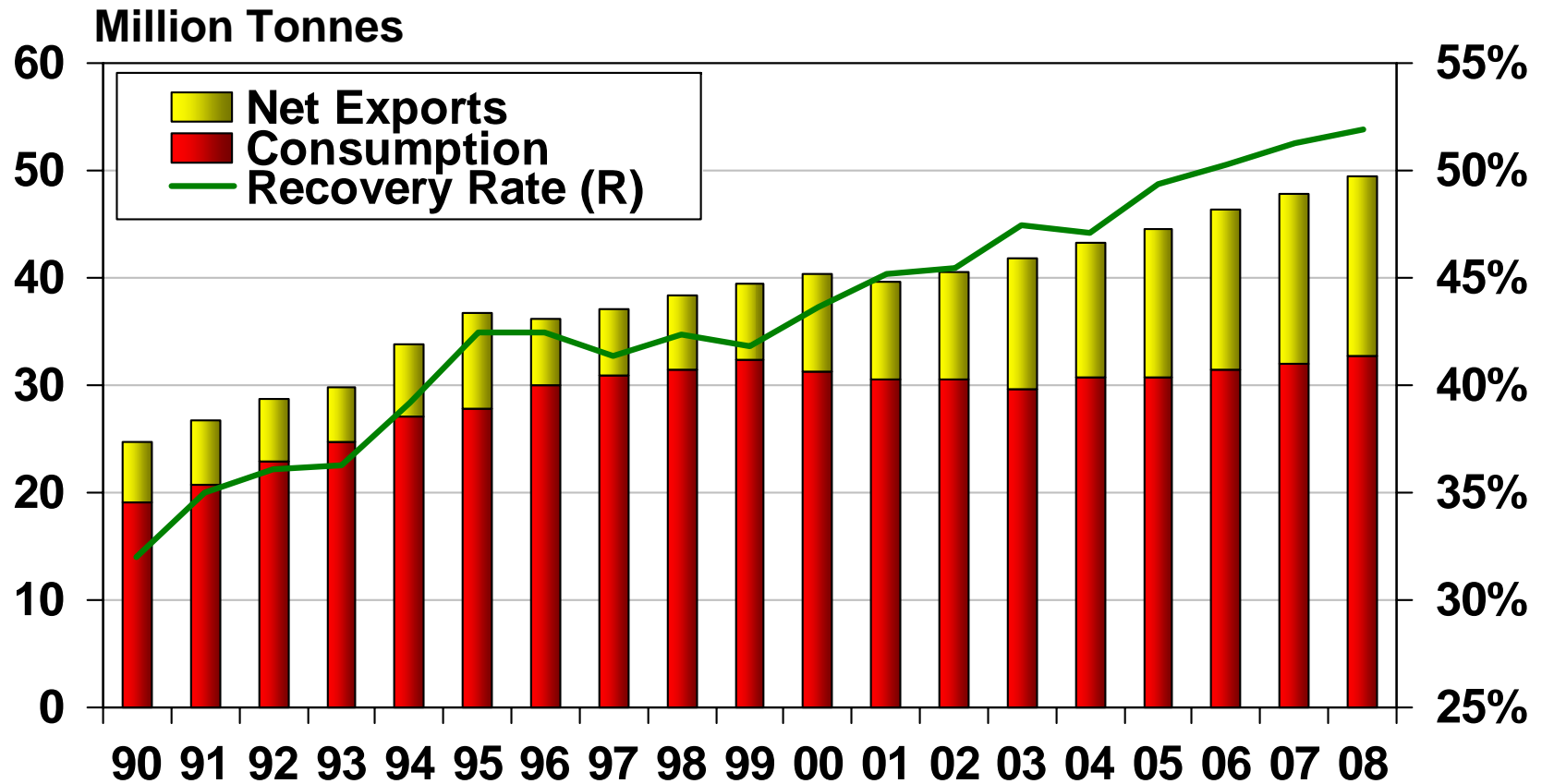
Western European Supplies Increasing, But Domestic Demand on the Rise



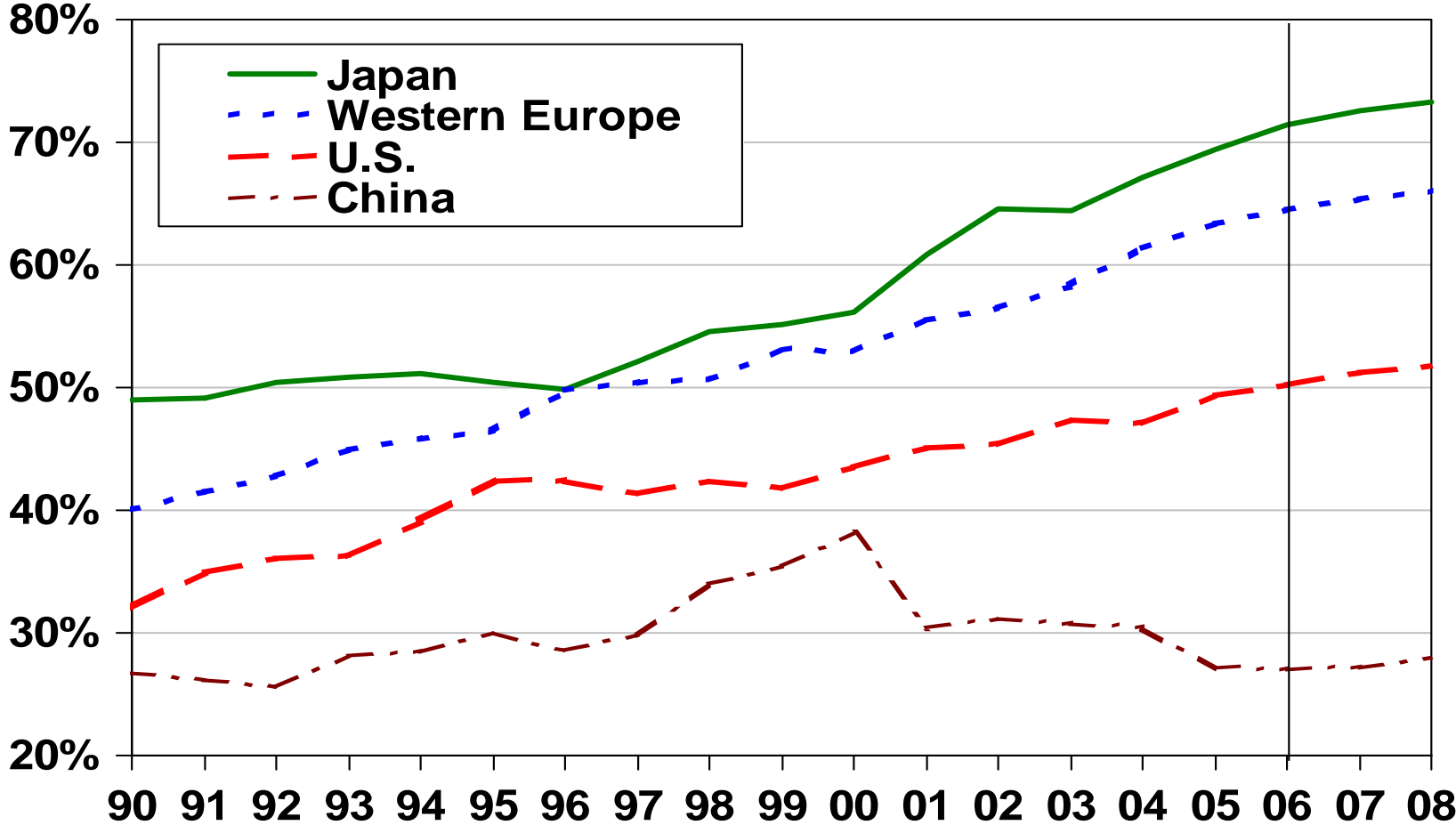
A Dramatic Shift in Japanese Recovered Paper Trade



Exports Account for Lion's Share of Demand Growth in the U.S.



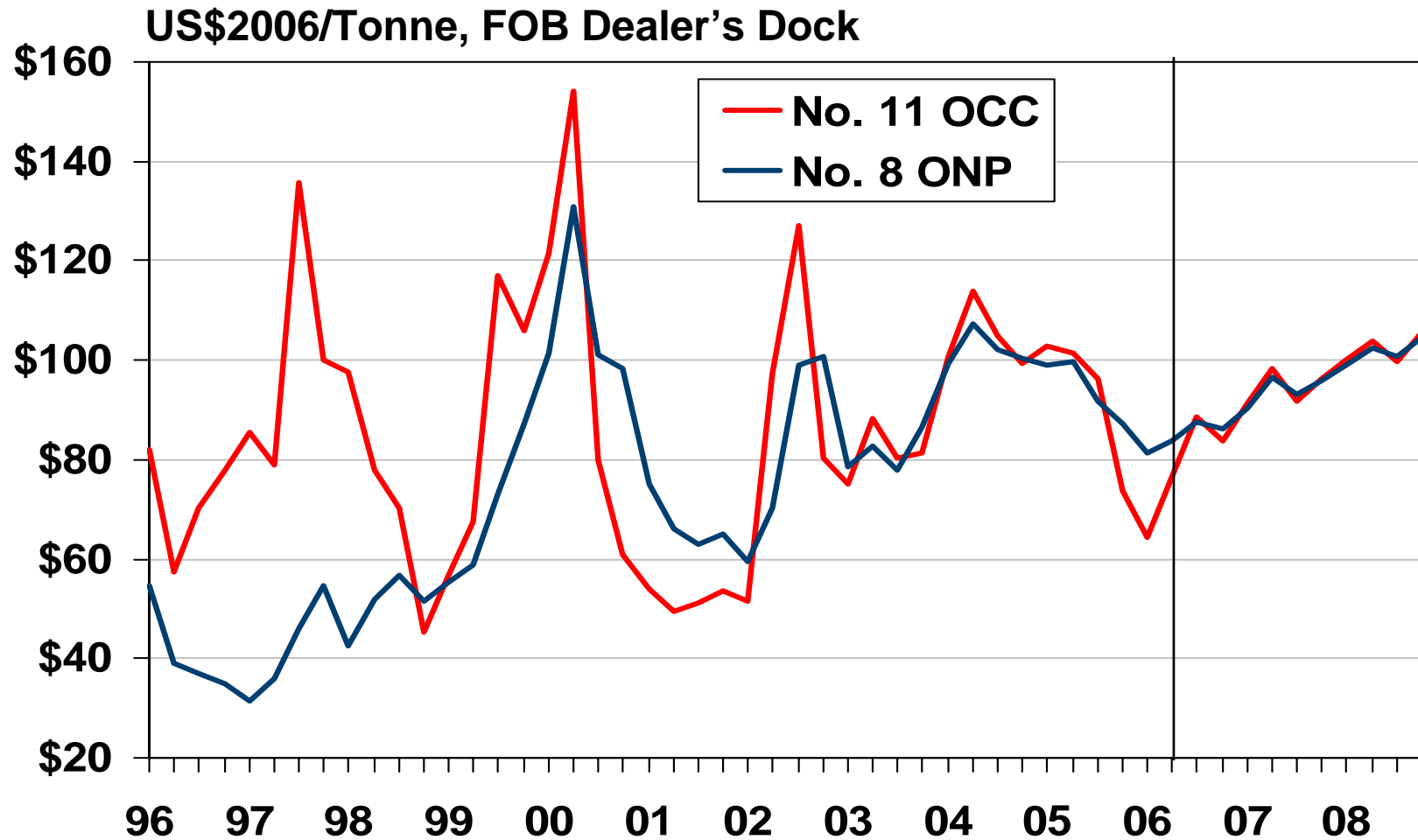
Paper Recovery Rates



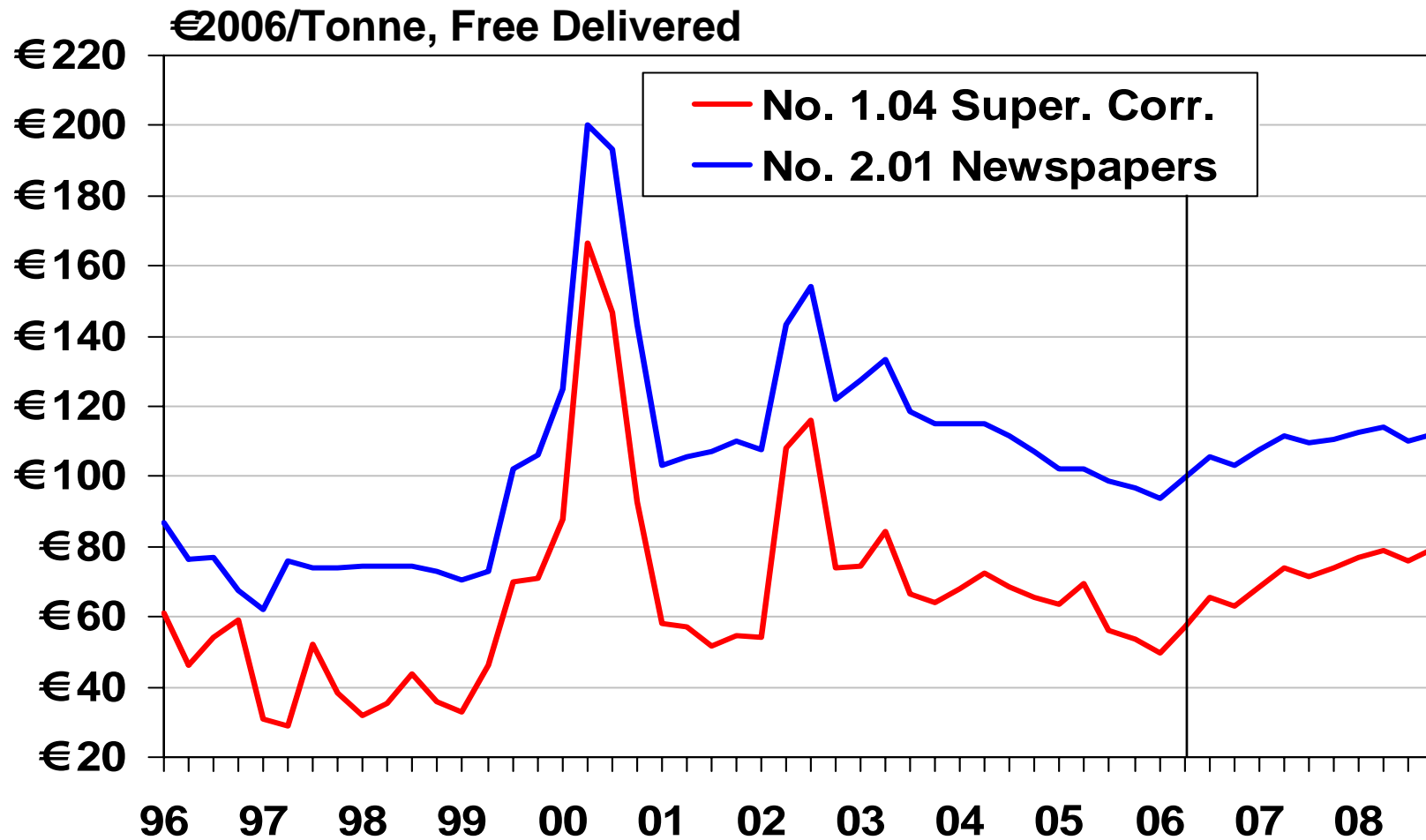
Prices for Most Grades Expected to Climb Through Mid-Year 2006

- ▶ Critical to the Price Rally for Corrugated Will Be...
 - An inventory cycle in China
 - Still high levels of paperboard production and strong true consumption
- ▶ High Grade Prices May Also Stage a Brief Rally
 - Supported by stronger paper demand and a brief run-up in wood pulp costs
- ▶ Old Newspaper Prices May Climb by Mid-Year 2006
 - Before moving lower later in the year
- ▶ The Forecast Downturn in Paper and Paperboard Demand Will Accelerate in 2007
 - We still expect periods of strong recovered paper pricing brought about by robust inventory buying

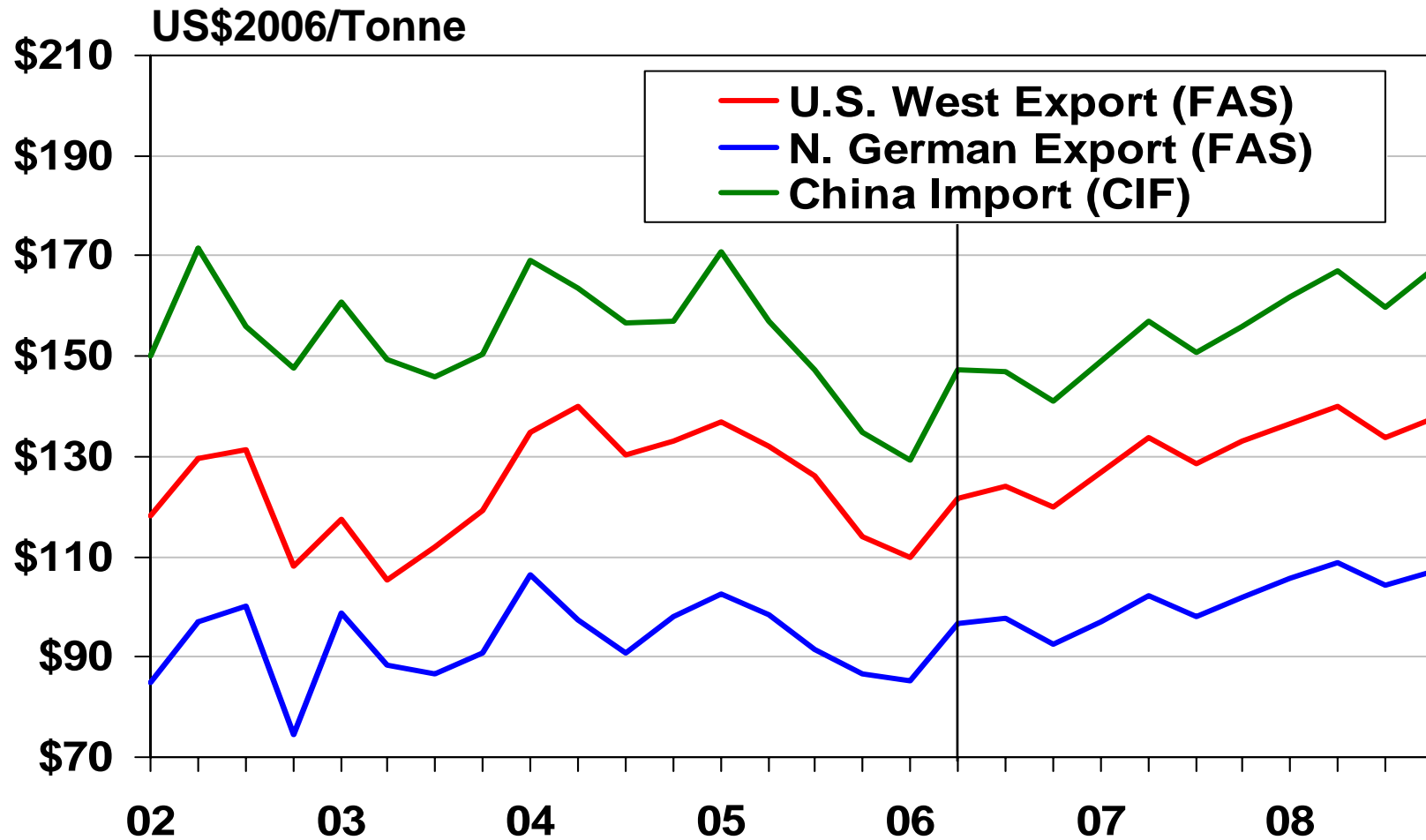
Prices for Selected Recovered Paper Grades in the U.S. Market



Prices for Selected Recovered Paper Grades in the German Market



Corrugated Prices at the Dock and Delivered to China



Recovered Paper: More Market Stability or Another Leap Forward?

- ▶ World Recovered Paper Demand Growing Rapidly, Except in the U.S. and Japan
- ▶ China Will Account for Over 40% of Growth in World Demand
- ▶ Exports Will Account for Most of the Demand Growth Elsewhere in the World
- ▶ Prices for Most Grades Expected to Climb Through Mid-Year 2006
- ▶ Forecast Risks Tied to Economic Performance