

Point 2: While shortage conditions are currently constrained to specific regions, many regions in the U.S. report a tightening in market conditions.

Fueled by residential construction, cement demand in most states remains strong. In addition, many producers currently hold very lean inventories. These factors, coupled with the curtailment in import flows, have raised the likelihood of shortages. Regions with the strongest demand for cement and the highest reliance on imports are at greatest risk of developing shortages.

Strong demand, coupled with domestic capacity constraints, has increased the cement industry's dependence on imports as a vital source of supply. Domestic capacity is 85 million tons of cement per year. Cement consumption totaled 107.5 million tons in 2003 and has averaged more than 106 million tons during the past three years. Imports compensate for the shortfall between domestic capacity and consumption and are viewed as "swing supply." As capacity utilization rates rise, cement companies rely more heavily on imports as a supplemental source of supply.

Selected Import Share by Geographic Region		
Import Area	Import Share	Supply Condition
New England	34.5%	Tight Supplies
Mid-Atlantic	21.0%	Tight Supplies in New York
South Atlantic	33.1%	Tight Supplies
Gulf Coast	27.5%	Tight Supplies
West Texas	17.1%	
Pacific	32.9%	Tight Supplies
Canadian Border	16.5%	
Great Lakes	15.7%	

In addition, the regional cement shortages coincide with the areas in which cement import flows has been most constrained. When compared to tonnage volumes in the prior six month period dramatic declines are noted in New England (down 37%), South Atlantic (down 21.2%), and West Texas customs districts (down 12.1%).

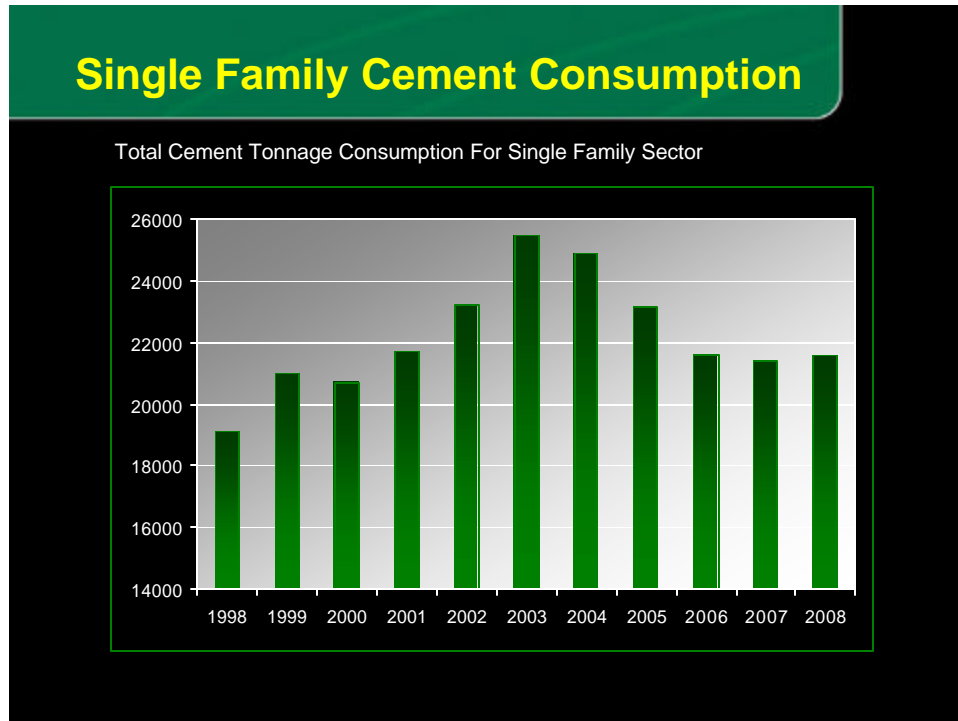
Shortages in one region can ripple through to other regions.

Point 3: Rising interest rates may reduce demand.

Strong cement demand is currently being fueled by robust residential construction. Rising interest rates could reduce single-family building starts later this year from current record high levels.

Recent increases in mortgage rates reflect increased demand on capital markets and larger inflation premiums associated with the improving overall economy. PCA

anticipates that the Federal Reserve Board will raise interest rates at its August 10th meeting, at the latest. A second Federal Reserve rate hike is assumed in November. If we are correct in this assessment, an added boost to mortgage rates will materialize later this year – taking additional strength out of residential construction activity. (See chart.)



With rising interest rates, consumer new home affordability will erode – taking the edge off extremely robust residential construction activity. Supporting this view, mortgage interest rates have increased from a low of 5.5% earlier this year to 6.3% currently. Residential starts were down 2% and new home sales were down 12% in the latest data reports.

Point 4: Rising interest rates may ease demand to a greater extent in shortage-affected areas.

Many of the states currently experiencing strong growth in cement consumption have a high dependence on residential construction. These markets perform well during times of low mortgage rates – such as now. Conversely, these markets may also experience stronger cooling in cement demand as interest rates rise.

Florida, hard hit by cement shortages, ships nearly half of its cement to the residential market. (See chart.) This suggests that as interest rates increase, residential cement demand may fall off.

Shortage Affected Areas Residential Cement as a Share of Total Cement (2003)

State	Share
Florida	47.8%
Georgia	38.7%
Nevada	35.8%
Virginia	33.8%
Tennessee	33.6%
North Carolina	33.3%
Maryland	30.2%
Kentucky	30.0%
South Carolina	26.6%
Louisiana	25.2%
Alabama	24.5%
Mississippi	23.9%
California	23.4%
Rhode Island	22.8%
Connecticut	22.0%
Massachusetts	21.6%
New York	19.1%
West Virginia	14.2%

Point 5: Nonresidential and public construction are forecast to improve, but may not offset the decline in residential construction.

Only a modest recovery in nonresidential activity is expected to materialize during 2004 due to the long lags that generally exist between an improvement in overall economic activity and a recovery in nonresidential construction. High vacancy rates, for example, permeate the office building construction sector. Slow growth in office employment suggests that the high vacancy rates will decline slowly. Historically, it takes 12-15 months between a decline in vacancy rates and a turnaround in office construction. High vacancy rates and long lag conditions also exist with industrial construction. Neither of these sectors is expected to result in significant cement demand during 2004. Indeed, only the retail and public utility sectors show promise of adding cement demand during 2004.

Public construction activity accounts for roughly 50% of cement consumption. Furthermore, roughly 90% of all public construction activity is put in place by state and local governments. The recent recession and anemic growth period that followed resulted in a prolonged period of layoffs. Fewer workers means a smaller tax base for state governments. State revenue collections declined, leading to massive state deficits. Public construction suffered. Coincident with the recent recovery in labor markets, state revenue collections have only just begun to turn upward. Because state spending on public construction generally has a one-year lag time, only a modest improvement in public spending can be expected for 2004.

All told, the 2004 construction market will be characterized by a mixture of market sectors facing both decline and recovery – with the prospect of reduced construction activity overall in the second half of the year.

Point 6: Availability of ships to bring in imports remains uncertain.

The ability to import cement depends on the availability of ships to carry cement from the producing country to the U.S. as well as surplus cement capacity in Asia, Europe, and Latin America.

China's tremendous economic growth has increased demand on international markets for steel scrap, basic metals, wheat, cotton, and a host of other dry bulk products. To meet these multi-product demands, seaborne freight flows to China have increased dramatically over a relatively short period of time. Tight ship availability and strong freight demand originating from China have increased freight rates by 200% from January 2003 to April 2004. The increase in freight rates reflects a shortage in seaborne capacity to handle newly emerging international demands.

Point 7: Some believe that slower Chinese economic growth is near, providing the potential for more ship availability.

Analysts differ on the outlook for China's continued strong requirement for ships.

There is little question that China's current economic growth has considerable momentum. At issue is the ability of the Chinese government to slow down a potentially overheated economy. Some analysts suggest efforts to slowdown strong growth conditions will have only a marginal impact on growth. Others suggest that China's policy efforts, including monetary and potential exchange rate adjustments will push real GDP growth rates from roughly 10% to 7% by the end of 2004. Most analysts agree, however, that the 7% GDP growth rate is at the low end of the spectrum if the transition process to a privatization of the Chinese economy capable of absorbing displaced workers at state-owned enterprises can be achieved.

If a 7% real GDP growth target is realized, this implies a decline in net export activity. Such a development could ease ship availability. Furthermore, the Chinese government recently raised the capital requirements on investment projects – potentially reducing material imports into the country. Greater ship availability, if it materializes, could increase cement imports and ease U.S. cement shortages.

Point 8: Recent evidence heightens the prospect of shortage relief.

Easing ship constraints may have already begun to unfold. Some cement importers suggest a slight easing in freight rates and ship availability has recently materialized.

Furthermore, recent import flows solidify the notion that cement shortage conditions may be a temporary phenomenon. On a regional, port-by-port basis, a disruption in import flows has clearly materialized during the past six months. Nationally, imports are at their highest levels in nearly two years—imports have been averaging a 26.0 million ton seasonally adjusted annual rate during 2004.. However even higher cement import levels are required to alleviate the tight market.

Nevertheless, recent successes in import increases coupled with additional easing in ship availability offer the prospect that higher import levels may materialize by later this year.

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