August 9, 2013

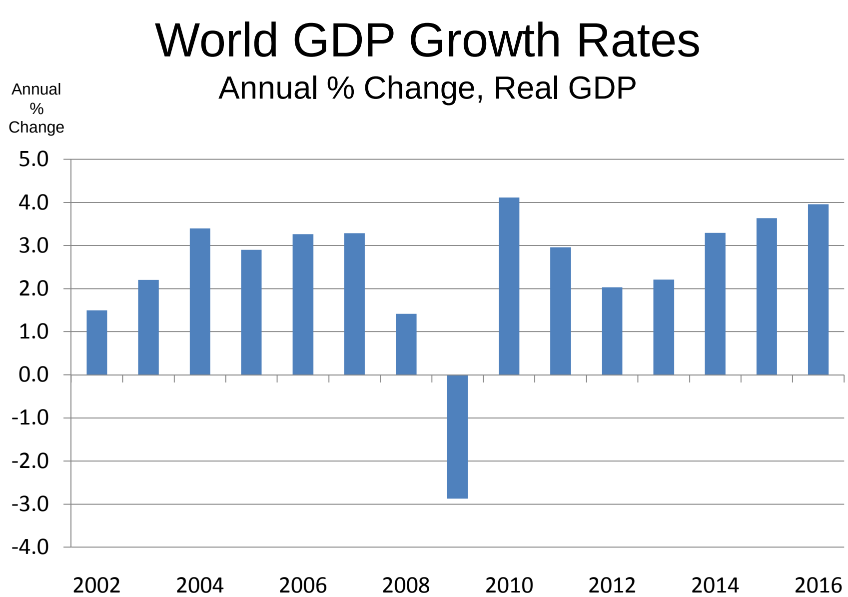
World Cement Consumption

Overview

Continued troubles facing some economies in Europe, coupled with a slowdown in the Chinese economy, are expected to cap 2013 growth near 2012 levels. Compared to world economic growth of 2.0% in 2012, PCA expects real world GDP will grow by 2.2% in 2013 and 3.3% in 2014. These real GDP growth rates are expected to average much lower than the average annual growth rates achieved during the ten years preceding the great recession.

By 2015, the United States recovery is expected to strengthen and distressed European economies are expected to record marginal economic growth. The gradual strengthening among industrialized economies is expected to improve the export outlook among transitional and emerging economies – strengthening their economic growth prospects. By 2016, synchronized world economic growth is expected to re-emerge.

World cement consumption is expected to record sustained growth during 2013-2016. Growth is expected to be characterized by weaker economic conditions in China and many of the industrialized economies' cement markets. World cement consumption is expected to grow 3.6% in 2013, 4.0% in 2014, and remain near 4.0% growth during 2015-2016.

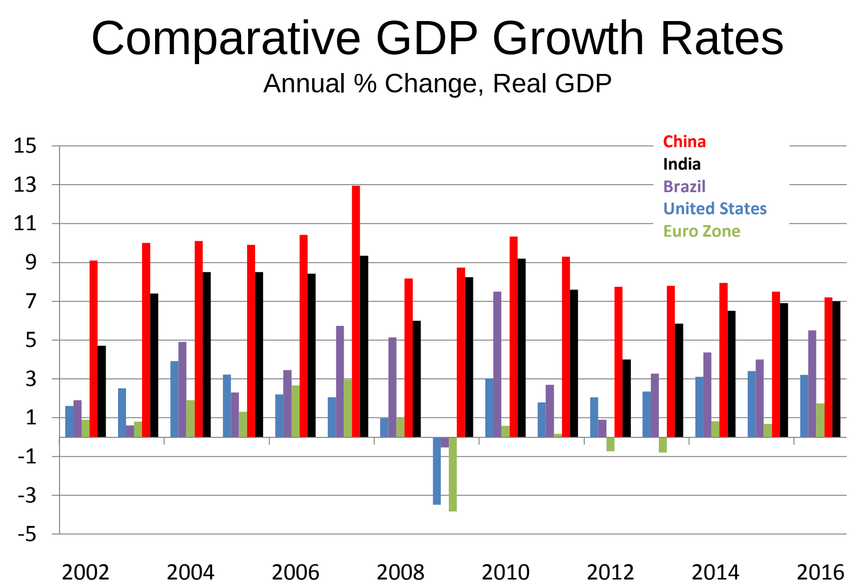


Global Economic Outlook

PCA does not conduct international growth forecasts internally. World economic growth rates are reached by averaging the results of credible, publically available projections. According to the latest survey of forecasts by the World Bank, United Nations, the Organization for Economic Co-Operation and Development (OECD), as well as major banks and consulting firms, world economic growth is expected to accelerate slightly from 2.0%in 2012 to 2.2% in 2013.

PCA's current world economic forecast reflects weaker growth compared to our last forecast. Four key factors account for this adjustment, including: 1) greater economic distress associated with European sovereign debt adjustments; 2) slow job creation among developed countries; 3) slower export opportunities for emerging and transitional economies due to slower growth among industrial economies; and 4) the lagged response of tight monetary policy on economic growth among emerging economies in reaction to high commodity prices and inflation. The third and fourth factors are critical ingredients in China's growth rate slowdown.

Gradual economic recoveries are expected to characterize developed economies. The United States' economic recovery is gaining strength and real GDP growth is expected to accelerate from 2.4% in 2013 to an average of more than 3.0% during the remainder of the forecast horizon. Hampered by the sovereign debt issues, Euro Zone economies are weak and regional growth is expected remain meager throughout the forecast horizon. Overall, developed economies annual economic growth is expected to average less than 2% growth during 2013-2015.



Near-term world economic growth is expected to be fueled by conditions among emerging and transitional economies – particularly in Latin America and Asia. Among these countries, internal demand is relatively robust, although, in some instances, tight monetary policy actions have moderated this demand. Exports are expected to continue to grow, but they are likely to do so at a reduced pace due to weaker than expected conditions among the developed economies. While there is generally less exposure to the direct impact of the debt crisis among developing economies, indirect impacts include slower export opportunities and the potential of reduced credit availability.

Slower world growth conditions are expected to unfold compared to PCA's previous forecast due to slower economic growth among developed economies and moderating growth among emerging and transitional economies.

World Growth Outlook by Region

North America

United States: PCA is optimistic regarding the United States' economic outlook and expects real GDP growth in excess of 3% will soon materialize on a sustained basis. Sub-trend economic growth has generally characterized the economy for the better part of six years – an extraordinarily long period of time and implying huge pent-up demand has been generated and may be waiting on the sidelines for its release. The underlying economic fundamentals suggest that the timing of this release may be on the near-term horizon. Consumers are gradually gaining strength. Private debt, for example, has been in decline as a share of disposable income since 2005 and the cost to *service* this debt has approached an 18 year low. Furthermore, private businesses are flush with cash. Finally, banks are healthy again. Depository institutions have raised hundreds of billions in new capital, putting important benchmark ratios near all-time highs. Continued improvement in the *underlying* fundamentals and the gradual release of huge amounts of pent-up demand form the basis of our United States' economic growth outlook.

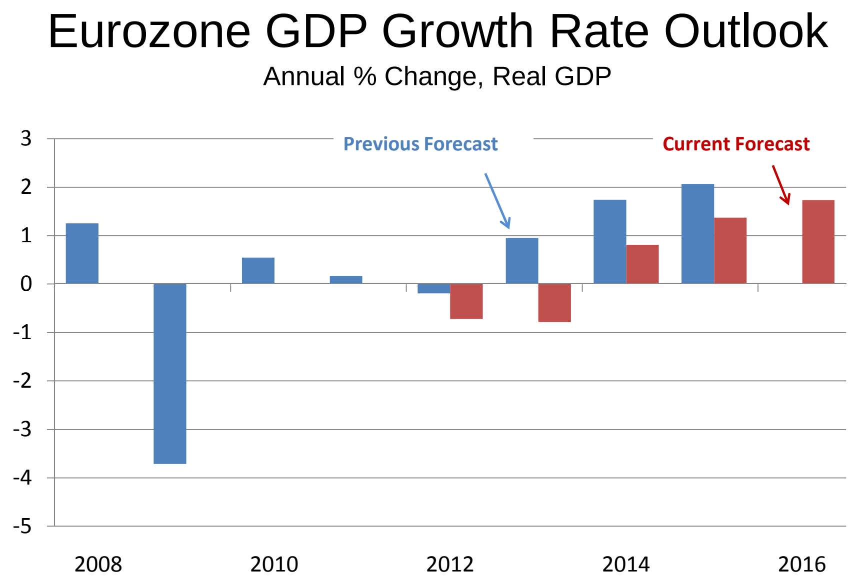
Canada: Private fixed investment and consumption carried the Canadian economy in 2012 as it achieved a modest 2.0% growth rate in GDP. Fixed investment, a strong driver of the economy, is expected to decelerate in 2013 due to weaker export growth. The ailing export sector could potentially affect internal consumption prospects as well. Home lending standards have been tightened -- restricting access to consumer credit, the source of much of the growth in this sector of the economy. As such, the housing market is expected to remain a drag on the economy throughout 2013. Government spending is projected to remain steady and act as a marginal contributor to growth. GDP growth is expected to accelerate in 2014 and beyond due to strengthening Canada's external sector.

Mexico: Real GDP growth is expected to exceed 3% during 2013, despite a modest slowdown in domestic and external demand drivers. As the United States and global economy gradually gains strength, Mexico's manufacturing and energy sectors are expected to strengthen. These gains are expected to reinforce both a strengthening in investment and job creation, thereby generating stronger internal demand drivers. By mid-2014 and beyond, Mexico is expected to grow at a rate near 4% annually.

Europe

West Europe: PCA has reduced its already weak outlook for Euro Zone growth. Stronger economic growth for the Euro Zone, above 2%, is not expected to materialize during the forecast horizon. The outlook is characterized by severe government austerity measures and tight credit availability. Greece, Spain, Italy and France are all expected to record negative growth during 2013. Germany is expected to achieve very meager growth. Meager growth is expected to embrace most of the Euro Zone economies during 2014-2015 – but this growth is expected to be less than 1% annually.

East Europe: East Europe economic growth is expected to reach slightly more than 2% in 2013 and accelerate to more than 3% in 2014 and beyond. As a result of slower world growth, only modest increases in commodity prices are expected – thereby moderating growth among resource-rich countries in Eastern Europe such as Russia. Furthermore, Euro Zone troubles imply a significant reduction in export opportunities among East European countries. Persistent high unemployment,



ongoing fiscal consolidation measures, and, in some cases, currency weakness undermine domestic demand fundamentals. As the Euro Zone and world economy strengthens, East European economies are expected to see accelerated growth.

South America

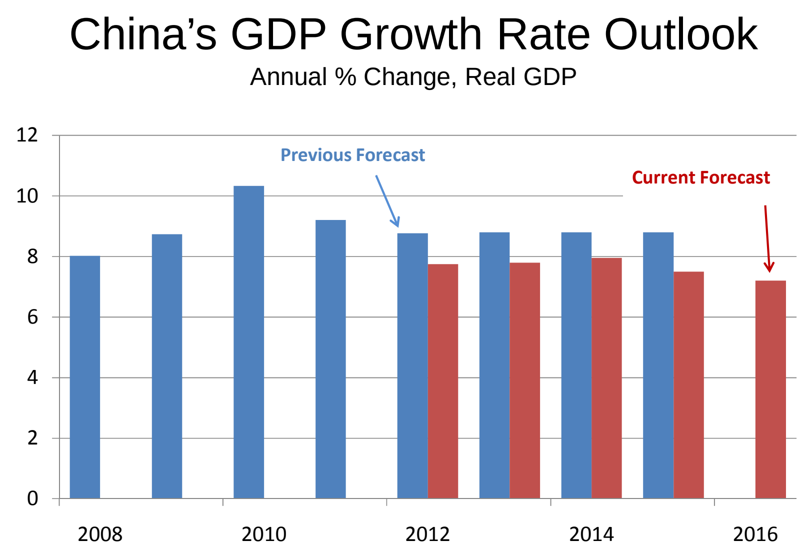
Latin America: The slowdown in economic growth among developed countries and China has curbed growth in South American exports – particularly in Brazil. In response, the government of Brazil and Central Bank have taken a very proactive approach in helping support the domestic economy with interest rate cuts (even in a high inflation environment) and new tax cuts designed to help boost and protect local businesses. Real GDP is expected to accelerate from 0.9% in 2012 to more than 3% in 2013. With the FIFA World Cup only a year and a half away, the Olympics four years away, major investments will continue to be made in the areas of infrastructure, telecommunications, and energy leading to continued growth for years to come – all supporting relatively strong/moderate growth in Brazil.

Strong growth conditions are also expected to be maintained in Chile, Columbia, Peru and Uruguay. This growth is supported by strong inflow of foreign direct investments and robust domestic demand which is supported by export revenues and favorable financing conditions. Chile's vigorous economic recovery, which was fuelled by high copper prices and post-earthquake reconstruction, has lost some momentum as the effects of the international slowdown feed through to domestic activity. Growth is projected to pick up once again in 2014 as confidence improves and the global economy normalizes.

Asia

Asia: China dominates the region and has led the regional recovery. China's strong growth has spread to many other emerging economies in Asia, particularly export-dependent countries that trade heavily with China such as Hong Kong, Indonesia, Singapore, and Taiwan. In the ASEAN region overall, the widespread increase in regional demand for exports has spurred an autonomous demand-driven recovery, particularly in private investment.

China's economic growth has been moderating since 2011 as higher interest rates and tighter credit to the private sector slowed investment in housing and foreign trade weakened – resulting in a slowdown in real GDP growth, but from very robust levels. In 2013, real GDP is set to slow to 7.7%, roughly in-line with 2012 growth. While these growth rates are impressive, they lie well below an average of 10% real GDP growth that materialized 2000-2011. A significant risk to world growth is whether the combination of softer domestic demand and weaker exports will lead to a more significant economic growth slowdown for China.



Economic growth in India has moderated with further easing expected in 2013. Even with this easing in growth, the Indian economy is strong. The growth rate slowdown comes against the backdrop of a weakening global economy – reducing export growth. Near-term, Indian growth will be increasingly reliant on domestic demand.

World Cement Outlook

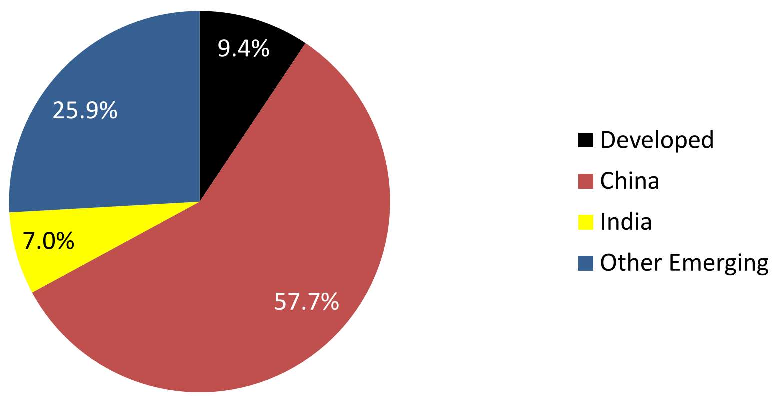
World cement consumption grew an estimated 4.2% in 2012 from 3.6 billion metric tons in 2011 to 3.7 billion metric tons. Growth was achieved by demand among developing and transitional economies in Asia. These gains were partially offset by moderate declines in consumption among developed economies.

Since its cyclical peak in 2006, cement consumption among developed economies has declined by roughly 119 million metric tons. Cement consumption among developed economies is expected to remain flat in 2013. This reflects roughly a 4.8 million metric ton decline in consumption among Euro-Zone countries, flat conditions among other Europe, and modest gains in North America. PCA expects 2012 and 2013 will represent the trough point of the cycle at a little more than 280 million metric tons – a level roughly 29% below its peak in 2006 of 401 million metric tons.

Ongoing distress is expected to characterize the housing and nonresidential sectors among several Euro Zone economies. Slow economic growth and fragile labor markets in these markets are expected to delay the recovery in construction. While the near-term growth conditions expected for the United States' market can hardly be considered robust, growth is quite strong in comparison to its European counterparts and is expected to accelerate in 2014 and beyond. The prospects for substantive volume growth in cement consumption among developed economies may not materialize until late 2014-2015.

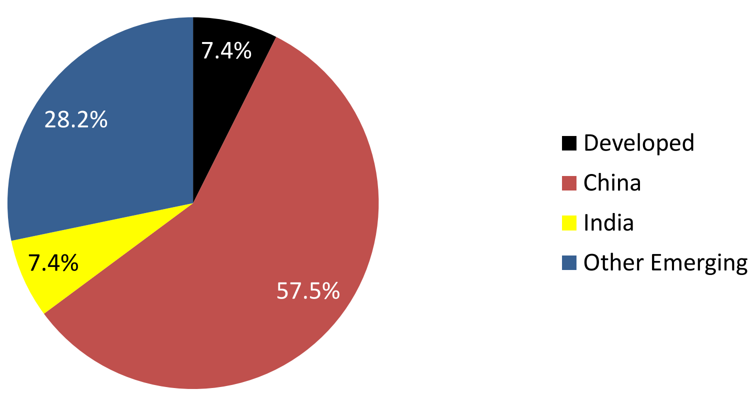
Composition of World Cement Consumption

2010 = 3,313 Million Metric Tons



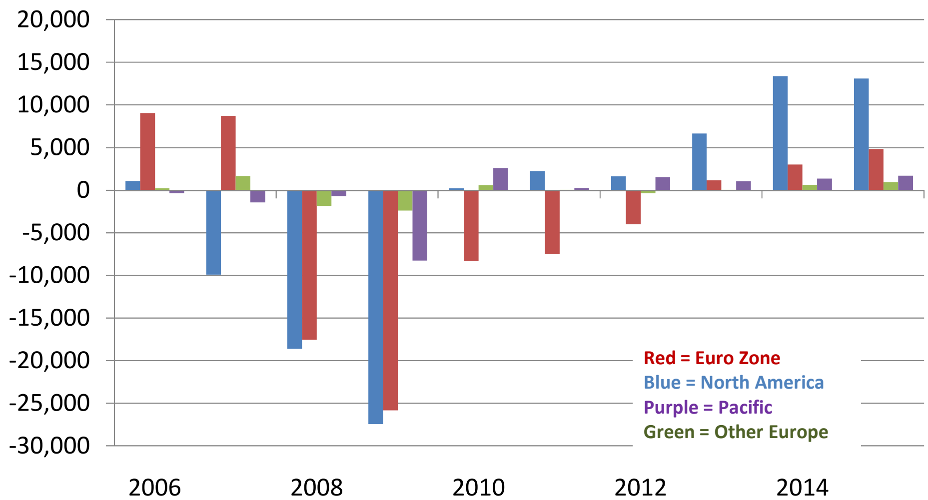
Composition of World Cement Consumption

2015 = 4,193 Million Metric Tons



Volume Changes in Cement Consumption Among Developed Economies

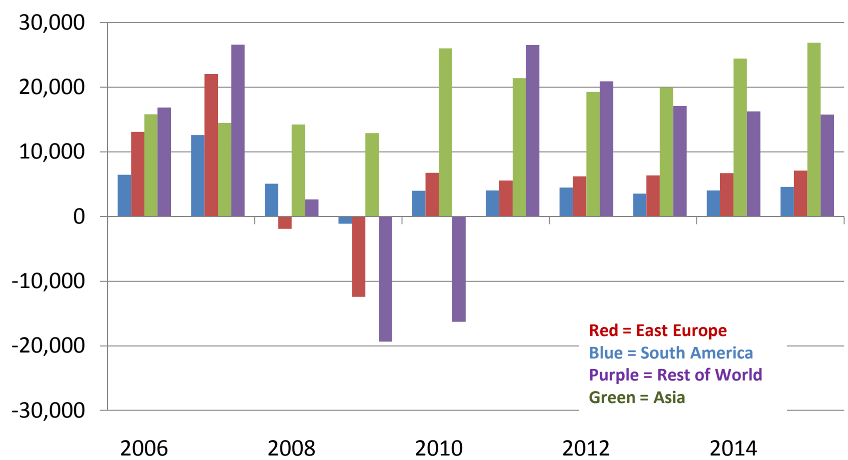
Annual Volume Change, 000 Metric Tons



Volume Changes in Cement Consumption Among Emerging Economies

(Excluding China)

Annual Volume Change, 000 Metric Tons



Cement consumption among emerging and transitional economies grew by an estimated 4.8% in 2012, or roughly 158 million metric tons. China and India accounted for the bulk of these gains. Cement consumption among developed economies declined 5.2% in 2010, or by roughly 8.0 million metric tons. Declines in Europe accounted for the volume declines.

World cement consumption is expected to record sustained growth during 2013-2016, but at a less robust pace than previously expected. While much attention is given to the fragile economic conditions among the developed economies, these countries account for only ten percent of global cement consumption. The Chinese cement market accounts for more than 59% of world consumption. India accounts for another 7% of world cement consumption. Combined, these markets dominate world cement consumption trends.

Despite the global economic slowdown, relatively strong, albeit decelerating, growth in India and China, is expected to account for more than two thirds of world cement consumption, and is expected to mask harsh conditions that are expected to characterize many of the industrialized economies' cement markets. World cement consumption is expected to grow 3.6% in 2013, 4.0% in 2014, and remain near 4.0% growth during 2015-2016.

World Growth Implications for Cement's Competitive Position in the U.S. Market

Concrete competes against other building materials such as asphalt, steel and wood. Concrete's competitive position is determined in part by the relative price of concrete versus other construction materials. The prices of these building materials are partially shaped by global economic supply and demand conditions. For example, asphalt's key factor input is oil, which is subject to ***international*** changes in demand. Concrete, in comparison, is not as vulnerable to the unfolding changes in world growth dynamics as other competing materials Concrete's key factor input is limestone, which is harvested ***locally*** and not subject to the new world growth dynamics[1].

World economic activity experienced several impediments in 2012. These setbacks, including deteriorating economic growth in Europe and a slowdown in activity in China, are expected to continue to bear influence into 2014. Growth in the United States is expected to be modest. As a result, concrete's competitive position in the near term is expected to be somewhat less favorable than PCA's previous assessment.

The price of major competing construction materials are expected to decrease in the near term as world trade volume falls off. This drop in demand is not structural. PCA assesses that the global recovery has been delayed, and could possibly be pushed back further. However, PCA holds to expectations that synchronized world economic growth will push competing commodity prices upward during the middle and backend of the forecast horizon.

Commodity Prices Outlook

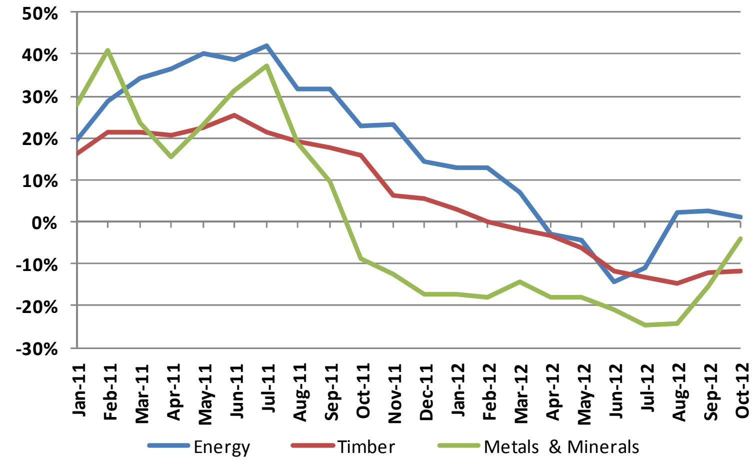
Commodity prices have been steadily declining alongside the deceleration in world GDP growth. PCA expects commodity prices will continue the trend of price declines through 2013. The impact of global economic activity among the major materials – lumber, steel, and asphalt (oil) – is expected to be mixed. According to the IMF, weak growth in advanced economies and sharp slowdowns in many emerging

[1] Various industry surveys indicate that cement kilns are largely fueled by coal and coke with oil based products accounting for slightly more than 1% of kiln fuel requirements. Arguably, coal and coke prices will follow oil's lead in price escalation. At this point, it is important to recognize that even though some characterize cement production as "energy intensive", this is not reflected in the industry's cost structure. According to industry surveys, energy costs account for roughly 10% of total cement costs

economies are contributing to declines in metal prices. The global slowdown is expected to moderate increases in lumber prices, steel, and asphalt. As global growth accelerates, concrete's competitive position is expected to be enhanced.

Global Commodity Prices Related to Construction Materials

(year-over-year percent change)



Source: World Bank Commodity Price Data (Pink Sheet)

The near-term outlook (2013-2014). PCA assumes that global demand for basic materials like oil, steel, and lumber will grow at a reduced pace as the European debt crisis and inflation cooling in China continue. Uncertain United States' fiscal policy could also contribute to near-term downward price pressures for these commodities.

The combined effects of the European debt crisis and China's inflation targeting measures on the United States' building materials market will result in a slightly slower price acceleration scenario than previously forecast. This price deceleration can potentially weaken the competitive position for concrete versus other materials in the building market. By 2014, with the exception of a still sluggish European Union, world growth is expected to grow unabated by policy uncertainty and the need for fiscal restraint in China.

The medium-term outlook (2015-2017). All major world regions are expected to be on a economic path of growth or recovery. Europe's economic growth, however, is assumed to be slowed by austerity measures put in place from the debt crisis. China's potentially weaker domestic demand from tighter monetary policy measures will be offset by strong export growth from a resumption of synchronized world growth. Domestic steel, asphalt, and lumber materials are expected to experience a more rapid price acceleration leading to a more favorable competitive environment for concrete.

The long-term outlook (beyond 2017). During this period, the world economy continues to find its stride. European growth, no longer suffering from the effects of the debt crisis, will add more demand to an already crowded global market. Prices for construction materials more exposed to foreign markets continue to accelerate adding more strength to an already strong competitive position for concrete.

World Growth Implications for the Dry Bulk Shipping Market

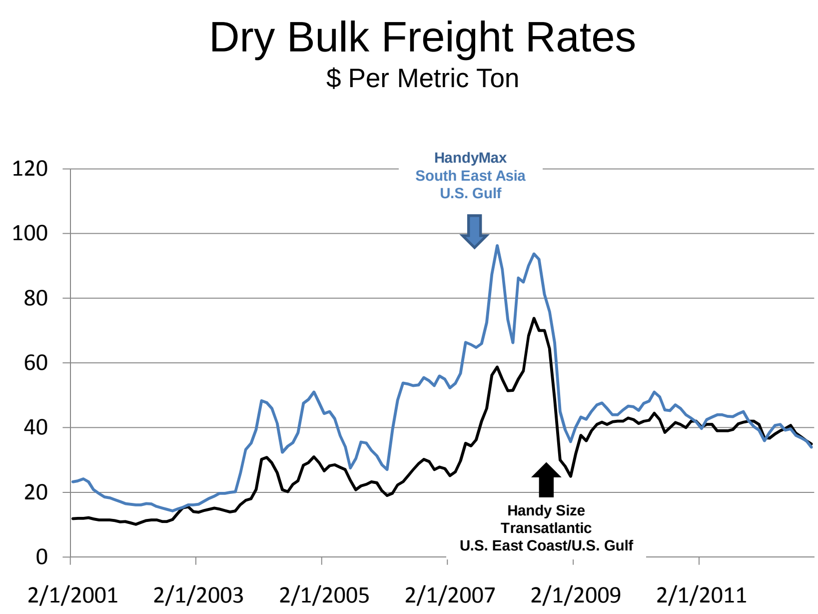
Decisions regarding the re-opening of temporarily shut down plants in the United States are expected to be made during the next several years. The re-opening decisions are likely to be based on prevailing and expected future demand in the regional markets they serve, regulatory compliance costs, and the comparative costs regarding permanent shut down versus staying open. A shut down decision does not imply an abandonment of any regional market. Rather, it implies a reassessment regarding how the specific market will be sourced, which may include increased reliance on foreign sourcing.

Even if all temporarily idled plants are re-opened, the combination of expected future cement consumption and domestic capacity levels suggests that capacity utilization rates will eventually ramp-up and reach near maximums. Further consumption growth will require foreign supplements to domestic supply – namely imports. Import volume is expected to accelerate during 2016 and beyond.

A critical ingredient required to support a foreign sourcing strategy is the availability of ships. Current and future dry-bulk freight rates serve as a good indicator of ship availability for cement imports.

Dry bulk freight rates accelerated sharply during 2005-2007. Strong world growth conditions, accented by 10% economic growth in China, characterized this period. World dry bulk transit demand exceeded supply. Cement shortages in the United States materialized due to the lack of available ships. With freight rates at historic highs, record levels of investment in dry bulk capacity materialized and planned retirements were postponed.

With the slowdown in world growth conditions, dry bulk trade stalled. In the context of excess capacity, freight rates declined – reversing most gains that materialized during 2005-2007. Fleet retirements accelerated. Due to the long lead times for ship construction, capacity continued to accelerate – reflecting a net 125% increase in dry bulk deadweight tons (DWT) capacity during 2005-2012.



Glut supply conditions currently characterize the dry bulk shipping market and, arguably, the glut is worsening. At the end of 2012 the dry bulk fleet comprised approximately 672.8 million DWT capacity or 9,275 ships, including Handysize, Handymax, Panamax and Capesize vessels. By June 30, 2013, the dry bulk fleet had grown to 694.4 million DWT, a net increase of 3.2%, or 9,451 ships. The dry bulk fleet grew by approximately 22 million DWT and by 176 vessels.

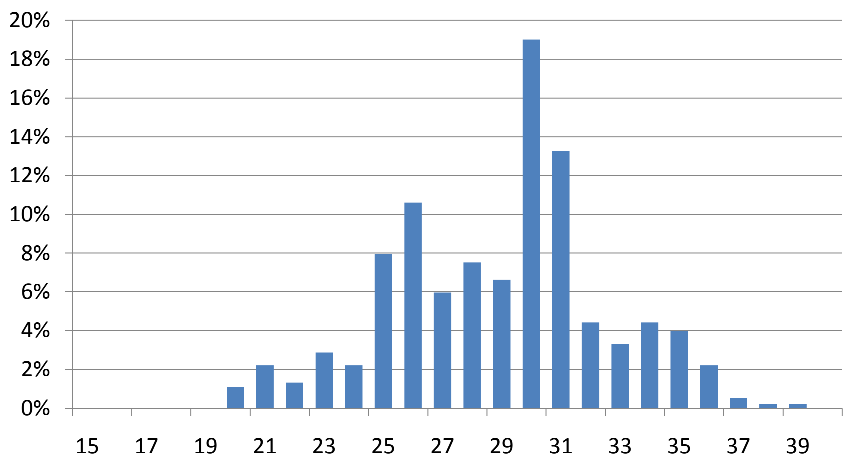
Due to economies of scale, shipbuilding has centered on building larger ships. Most of the dry-bulk fleet expansion that has occurred during the last five years has been targeted at the larger ship sizes including: Capesize (100,000 or more DWT) and Panamax (60,000 to 99,000 DWT) segments of the dry-bulk shipping market. These are not the work horses that carry most cement internationally. Nevertheless, new deliveries of Capesize and Panamax ships has enabled some spill-over relief in other dry-bulk shipping sectors.

During the next three years, planned deliveries add another 110 million DWT to the fleet, or an additional 15% expansion of the fleet. It is likely that some of these planned deliveries will be cancelled. PCA assumes that 10% of planned deliveries for 2014 will be cancelled, 15% of 2015 and 20% of 2016's planned deliveries.

Ship demolitions will partially limit the fleet's net expansion. The typical life of a dry-bulk carrier is between 25-30 years. The average age of the dry bulk fleet dropped from 26.5 years in 2006 to 10.5 years in 2012, and nearly half of the fleet is less than 10 years old. This implies that the net demolitions going forward will be somewhat muted. PCA assumes a 2% fleet scrap rate going forward. This rate is consistent with historical averages, but given current conditions may be high.

Age Distribution of Dry-Bulk Demolitions

Percent of Tonnage Sold for Demolition, 2011



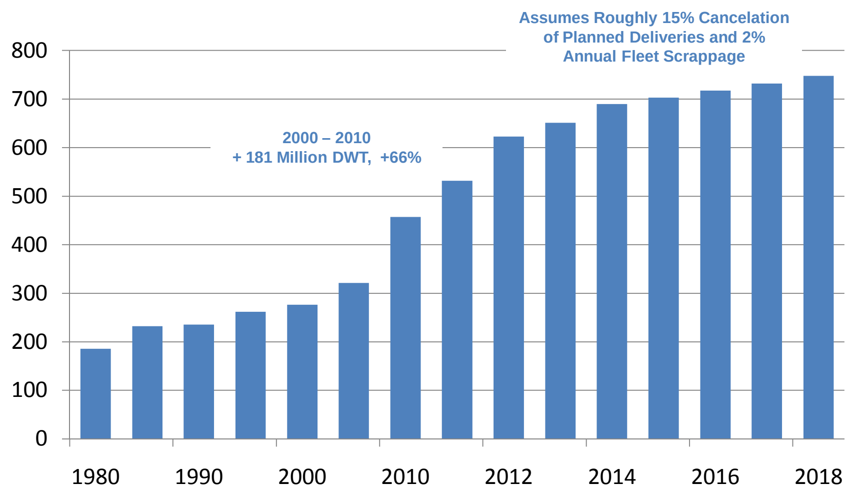
48% of the Dry-Bulk Fleet is Less than 10 years old

PCA estimates future dry-bulk fleet size by combining assumptions regarding fleet expansion and demolitions. All totaled, the dry-bulk fleet is expected to expand from 674 million DWT at the end of 2012 to nearly 790 million DWT at the end of 2018.

The average length of haul has shown a trend toward longer hauls. Long haul voyages take longer to complete from the source port to designated port – thereby reducing the number of turns a dry-bulk carrier can make. The greater the proportion of long hauls, the lower the effective capacity of the dry bulk fleet. PCA assumes no change in the average length of haul.

World Dry-Bulk Fleet

Annual, Millions DWT



Demand growth is unlikely to eat away the existing supply glut in the near term. The dry-bulk carrier market is dominated by five major commodities including iron ore and coking coal (33% of total tonnage), steam coal (20%), grain (10%) and bauxite and phosphorous rock (3%). The remaining share represents a diverse group of commodities, including cement.

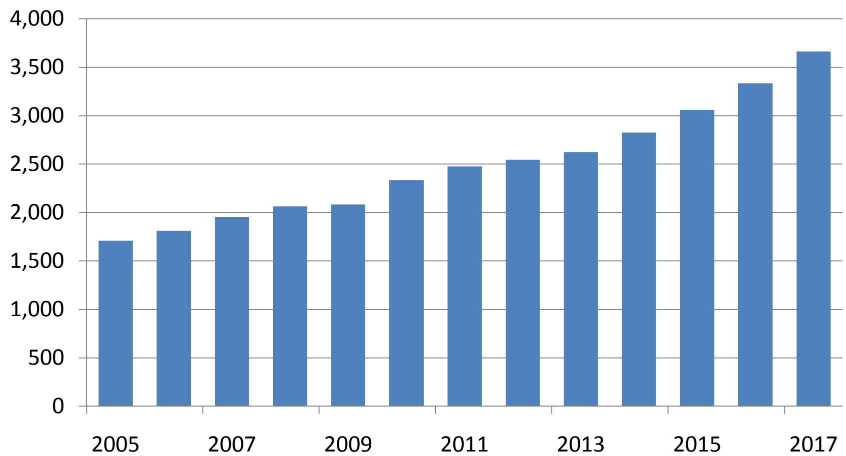
Demand for dry-bulk transport is determined by the composition and rate of world growth. Growth among emerging economies suggests an ongoing need for materials, such as iron ore, steam coal, and grain. Of particular importance is China's industrial growth. Changes in Chinese steel production, for example, can constitute significant changes in the dynamics of demand facing dry-bulk carriers. China accounts for more than 30% of world steel production. Iron ore and coking coal, used in the production of steel, account for 33% of the total dry-bulk market. Industrial production also adds to energy consumption and, hence, the need for steam coal trade.

PCA calculated the relationship between millions of dry bulk tons loaded worldwide to nominal world economic activity. By using the average five year ratio between these two and our current world GDP projection, an estimate of world dry-bulk demand was calculated. According our estimates, world dry-bulk trade is expected to grow slowly through mid-2014 before a more dramatic acceleration in trade materializes. The acceleration in trade coincides with a return of synchronized world growth conditions.

Freight rates currently stand slightly more than half their past peak levels – reflecting a 49% peak-to-trough decline. Based on our foregoing assessment of dry-bulk demand and supply, glut conditions are expected to worsen in 2013 and plague the industry through 2015. Freight rates, as a result, are expected to remain flat into 2014 before a gradual strengthening materializes in 2015. More rapid annual gains are expected in 2016 through 2017. From current levels, freight rates are expected to rise between 20% to 25% by 2018. Based on this analysis, freight rates never reach past cyclical peak levels.

World Dry-Bulk Shipping Projection

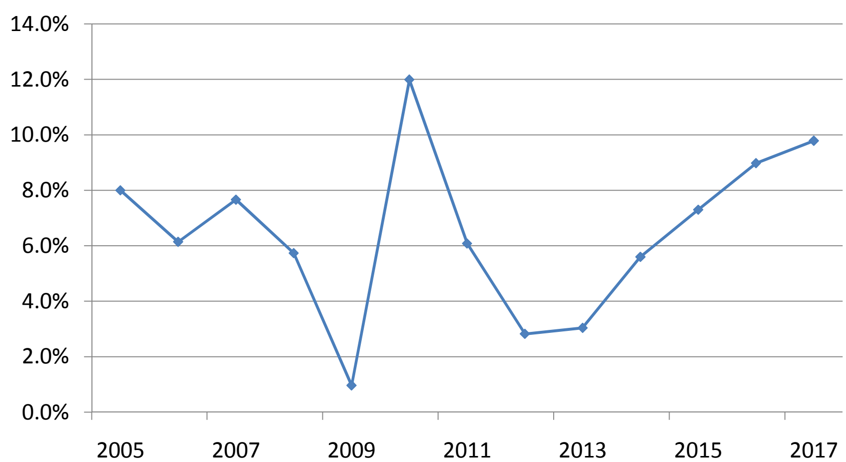
Annual, Millions DWT



History: UNCTAD, Review of Maritime Transport, 2012,
PCA Projections

World Dry-Bulk Shipping Projection

Annual Growth Rate, Millions of Dry-Bulk Tons Loaded



History: UNCTAD, Review of Maritime Transport, 2012,
PCA Projections

Portland Cement Association

Market Intelligence

International Forecast Tables

August 9, 2013

PCA INTERNATIONAL OUTLOOK: Economic Growth

Real GDP, Annual Growth rates

		2010	2011	2012	2013	2014	2015	2016
World		4.11	2.96	2.03	2.21	3.29	3.77	3.96
North America		3.88	2.76	2.59	2.41	3.16	3.73	3.93
	Canada	3.20	2.60	1.80	1.55	2.55	3.60	2.80
	United States	3.03	1.79	2.05	2.35	3.10	3.40	3.20
	Mexico	5.43	3.90	3.93	3.33	3.83	4.20	5.80
South America		5.20	5.43	3.48	3.12	4.63	4.33	5.30
	Argentina	9.20	8.90	1.93	3.13	3.93	4.45	5.30
	Brazil	7.50	2.70	0.90	3.27	4.37	4.00	5.50
	Chile	5.40	5.93	5.60	4.87	4.50	4.75	5.20
	Venezuela	-1.30	4.20	5.50	1.20	5.70	4.10	5.20
Euro Zone		0.57	0.16	-0.72	-0.79	0.81	1.37	1.73
	France	1.53	1.67	0.50	-0.10	1.00	1.50	1.60
	Germany	3.73	3.03	1.40	0.37	1.70	1.70	1.60
	Italy	1.30	0.60	-1.30	-0.97	0.65	1.10	1.10
	Netherlands	1.63	1.30	-0.10	-0.03	1.05	2.30	2.80
	Spain	-0.17	0.47	-0.67	-1.03	0.65	1.10	1.30
	Greece	-4.60	-6.10	-4.17	-2.97	-0.20	0.50	2.00
Other Europe		3.39	2.22	0.82	1.13	1.70	2.03	2.10
	Sweden	5.80	3.80	1.20	1.15	2.20	1.90	1.70
	United Kingdom	1.63	0.95	0.25	0.75	1.55	2.00	2.20
	Switzerland	2.73	1.90	1.00	1.50	1.35	2.20	2.40
Eastern Europe		4.33	3.99	0.90	1.64	2.86	4.40	4.43
	Czech Republic	2.38	1.90	-1.20	-0.15	1.65	3.20	3.20
	Hungary	1.18	1.65	-1.70	-0.15	1.15	2.10	2.70
	Poland	3.30	1.35	-0.55	-0.45	1.60	3.80	4.00
	Russian Federation	4.07	4.35	3.30	3.15	3.85	5.30	5.40
	Turkey	8.78	8.60	2.55	4.00	4.85	6.40	5.60
Oceania		2.20	2.08	3.10	2.65	2.85	3.00	2.75
	Australia	2.53	2.40	3.10	2.90	3.15	3.00	3.10
	New Zealand	1.88	1.75	3.10	2.40	2.55	3.00	2.40
Asia		8.13	4.26	4.11	4.37	4.96	4.92	4.81
	China	10.33	9.30	7.75	7.80	7.95	7.50	7.20
	India	9.20	7.60	4.00	5.85	6.50	6.90	7.00
	Japan	4.18	-0.55	2.00	1.50	1.70	1.50	1.40
	Malaysia	7.20	5.10	5.60	5.05	5.90	5.80	5.00
	Philippines	7.40	3.90	6.60	6.35	6.05	6.30	5.90
	Singapore	11.87	5.20	1.30	1.50	4.20	3.10	3.10
	South Korea	6.20	3.65	2.00	2.65	3.95	4.20	4.00
	Taiwan	8.97	4.05	1.30	2.95	4.10	4.30	4.00
	Thailand	7.80	0.10	6.45	5.70	4.30	4.70	5.70

Projections represent a raw average of growth projections obtained from IMF, United Nations, OECD, World Bank

PCA INTERNATIONAL CEMENT OUTLOOK: Developed Economies

Thousand Metric Tons

	2010	2011	2012	2013	2014	2015	2016
World	**3,313,090**	**3,586,750**	**3,737,200**	**3,870,583**	**4,026,694**	**4,192,934**	**4,367,697**
- Percent Change	10.3%	8.3%	4.2%	3.6%	4.0%	4.1%	4.2%
- Share of World	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
- Volume Change	309,930	273,660	150,450	133,383	156,111	166,240	174,763
- Share of Growth	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Developed Economies							
Total	285,769	289,955	282,149	284,394	295,096	310,444	329,396
- Percent Change	-3.3%	1.5%	-2.7%	0.8%	3.8%	5.2%	6.1%
- Share of World	8.6%	8.1%	7.5%	7.3%	7.3%	7.4%	7.5%
- Volume Change	-9,704	4,187	-7,806	2,245	10,702	15,348	18,952
- Share of Growth	-3.1%	1.5%	-5.2%	1.7%	6.9%	9.2%	10.8%
North America	111,009	113,675	121,679	127,688	136,271	146,859	158,864
- Percent Change	0.0%	2.4%	7.0%	4.9%	6.7%	7.8%	8.2%
- Share of World	3.4%	3.2%	3.3%	3.3%	3.4%	3.5%	3.6%
- Volume Change	16	2,667	8,004	6,009	8,583	10,589	12,005
- Share of Growth	0.0%	1.0%	5.3%	4.5%	5.5%	6.4%	6.9%
Euro Zone	107,630	107,810	91,600	86,836	87,661	90,974	95,954
- Percent Change	-7.2%	0.2%	-15.0%	-5.2%	0.9%	3.8%	5.5%
- Share of World	3.2%	3.0%	2.5%	2.2%	2.2%	2.2%	2.2%
- Volume Change	-8,340	180	-16,210	-4,764	825	3,313	4,980
- Share of Growth	-2.7%	0.1%	-10.8%	-3.6%	0.5%	2.0%	2.8%
Other Europe	12,630	13,670	12,950	13,268	13,605	13,989	14,469
- Percent Change	1.4%	8.2%	-5.3%	2.5%	2.5%	2.8%	3.4%
- Share of World	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%
- Volume Change	170	1,040	-720	318	337	384	480
- Share of Growth	0.1%	0.4%	-0.5%	0.2%	0.2%	0.2%	0.3%
Developed Pacific	54,500	54,800	55,920	56,602	57,559	58,621	60,108
- Percent Change	-2.8%	0.6%	2.0%	1.2%	1.7%	1.8%	2.5%
- Share of World	1.6%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%
- Volume Change	-1,550	300	1,120	682	957	1,062	1,487
- Share of Growth	-0.5%	0.1%	0.7%	0.5%	0.6%	0.6%	0.9%

PCA INTERNATIONAL CEMENT OUTLOOK: Emerging Economies

Thousand Metric Tons

	2010	2011	2012	2013	2014	2015	2016
World	**3,313,090**	**3,586,750**	**3,737,200**	**3,870,583**	**4,026,694**	**4,192,934**	**4,367,697**
- Percent Change	**10.3%**	**8.3%**	**4.2%**	**3.6%**	**4.0%**	**4.1%**	**4.2%**
- Volume Change	**309,930**	**273,660**	**150,450**	**133,383**	**156,111**	**166,240**	**174,763**
Emerging and Transitional Economies							
Total	3,027,322	3,296,795	3,455,051	3,586,189	3,731,598	3,882,490	4,038,301
- Percent Change	11.8%	8.9%	4.8%	3.8%	4.1%	4.0%	4.0%
- Share of World	91.4%	91.9%	92.5%	92.7%	92.7%	92.6%	92.5%
- Volume Change	319,634	269,473	158,256	131,138	145,409	150,892	155,811
- Share of Growth	103.1%	98.5%	105.2%	98.3%	93.1%	90.8%	89.2%
Total Excluding China	1,177,322	1,246,795	1,295,051	1,354,162	1,408,625	1,473,518	1,540,355
- Percent Change	6.3%	5.9%	3.9%	4.6%	4.0%	4.6%	4.5%
- Share of World	35.5%	34.8%	34.7%	35.0%	35.0%	35.1%	35.3%
- Volume Change	69,634	69,473	48,256	59,111	54,462	64,893	66,837
- Share of Growth	22.5%	25.4%	32.1%	44.3%	34.9%	39.0%	38.2%
South America	90,460	99,350	103,740	108,237	113,165	118,242	123,368
- Percent Change	11.1%	9.8%	4.4%	4.3%	4.6%	4.5%	4.3%
- Share of World	2.7%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
- Volume Change	9,032	8,890	4,390	4,497	4,928	5,077	5,126
- Share of Growth	2.9%	3.2%	2.9%	3.4%	3.2%	3.1%	2.9%
Eastern Europe	120,637	137,840	141,750	146,837	154,735	162,182	169,718
- Percent Change	9.9%	14.3%	2.8%	3.6%	5.4%	4.8%	4.6%
- Share of World	3.6%	3.8%	3.8%	3.8%	3.8%	3.9%	3.9%
- Volume Change	10,837	17,203	3,910	5,087	7,898	7,447	7,536
- Share of Growth	3.5%	6.3%	2.6%	3.8%	5.1%	4.5%	4.3%
China	1,850,000	2,050,000	2,160,000	2,232,027	2,322,973	2,408,972	2,497,946
- Percent Change	15.6%	10.8%	5.4%	3.3%	4.1%	3.7%	3.7%
- Share of World	55.8%	57.2%	57.8%	57.7%	57.7%	57.5%	57.2%
- Volume Change	250,000	200,000	110,000	72,027	90,947	85,999	88,974
- Share of Growth	80.7%	73.1%	73.1%	54.0%	58.3%	51.7%	50.9%
Asia No China No Japan	339,250	360,340	369,630	386,586	406,470	426,671	447,660
- Percent Change	8.5%	6.2%	2.6%	4.6%	5.1%	5.0%	4.9%
- Share of World	10.2%	10.0%	9.9%	10.0%	10.1%	10.2%	10.2%
- Volume Change	26,660	21,090	9,290	16,956	19,884	20,201	20,989
- Share of Growth	8.6%	7.7%	6.2%	12.7%	12.7%	12.2%	12.0%
Other World	626,974	649,265	679,931	712,503	734,256	766,423	799,609
- Percent Change	3.8%	3.6%	4.7%	4.8%	3.1%	4.4%	4.3%
- Share of World	18.9%	18.1%	18.2%	18.4%	18.2%	18.3%	18.3%
- Volume Change	23,104	22,290	30,666	32,572	21,752	32,168	33,185
- Share of Growth	7.5%	8.1%	20.4%	24.4%	13.9%	19.4%	19.0%