

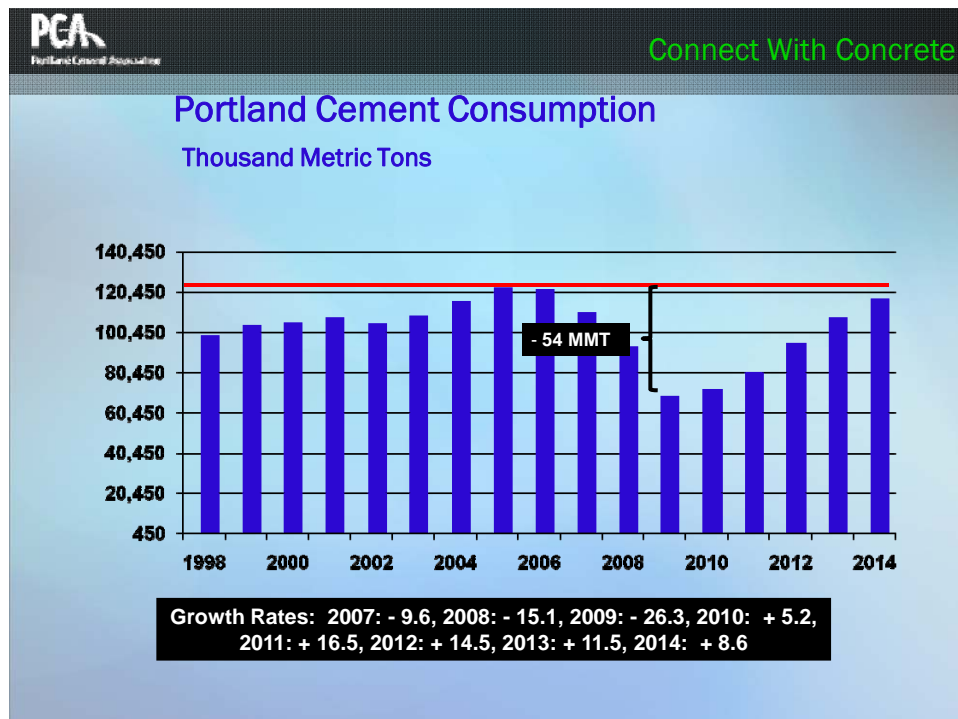
November 10, 2009

Fall Forecast Report: 2009

Overview

PCA expects 2009 will represent this recession's trough for United States' total cement consumption – reflecting a 26.6% decline (portland cement – 26.3%) from weak 2008 levels. The cyclical downturn in total cement consumption, measured peak-to-trough, represents a 54 million metric ton decline from 2005 peak levels – the worst volume decline in history. This downturn has coincided with a period of aggressive expansion and modernization. Large market imbalances have materialized, resulting in a contraction of import supply, excess inventory accumulation, low utilization rates, extended maintenance downtime, sporadic furloughs, and plant shutdowns. Unfortunately, the gains in cement consumption expected for next year are expected to be meager and probably back-ended. This implies current harsh conditions facing the industry will persist through 2010 and beyond. Utilization rates are not expected to reach 80% until 2012.

While recent economic news regarding third quarter real GDP growth of 3.5% may suggest a technical end of the recession, the conditions facing residential and nonresidential construction are likely to remain critically weak for another year or more.



The residential sector has largely run its course as a significant contributor to construction declines. The expectation of a slow reduction in home inventories suggests that this sector will likely be a neutral contributor to cement consumption growth rates through mid-2010. Whatever gains materialize in the meantime will be meager. Despite the stabilization in residential construction, nonresidential construction is expected to exert a significant drag on construction activity during 2010. By 2011, the nonresidential drag on growth is expected to become milder and is expected to become a contributor to growth by the end of 2011. Substantial gains are expected to materialize in nonresidential construction in 2012 and beyond. These gains in nonresidential construction activity are expected to coincide with gains in nonresidential cement intensities – amplifying gains in cement consumption.

Given the weak outlook for private sector construction, any near-term turn in overall construction activity and cement consumption will be dictated by public construction. While attention is focused on the timing and magnitude of the potential positive impacts on construction arising from American Recovery and Reinvestment Act (ARRA), keep in mind that more than 90% of all highway and street spending is put-in-place by state and local governments. State fiscal conditions impact discretionary public construction spending and the harsh economic environment facing state and local governments may result in a double-digit decline in discretionary highway/street spending during 2009, followed by another large decline in 2010. The harsh fiscal picture facing state and local governments will partially sterilize the ARRA impacts for street and highway construction. The extent to which this materializes could pose significant risks to PCA's cement projections.

Furthermore, ARRA highway spending, at least initially, is likely to be dominated by highway preservation activities such as resurfacing. While some benefit will be accrued to cement consumption, as a whole, these projects are likely to carry low cement intensities – further muting the potential near-term stimulatory benefit to cement consumption.

Finally, bureaucratic delays have hindered the release of ARRA highway funds. Through September, highway outlays represented a meager 8.9% of total apportionments. These represent levels that were expected to be achieved in June-July by PCA. Outlays, however, are accelerating on a month over month basis. Allowing for lags between outlays and cement usage during the stages of construction suggests that very little second half stimulatory impact from ARRA will materialize during 2009. Delays in the release of ARRA monies imply that some of the outlays that were previously expected to materialize in 2009 will likely materialize later – boosting the potential stimulatory impact of ARRA in 2010-2011.

Taken together, PCA does not expect a sustained and significant improvement in construction activity or cement consumption to materialize until the second half of 2010. By that time, the economy is expected to be creating jobs and ensuring a sustained recovery. Substantial percentage gains in cement consumption are expected to materialize during 2011-2014.

Economic Outlook

In this uncertain economic environment, PCA's macroeconomic forecast has performed very well. As a result, little change has been incorporated into the fall macroeconomic forecast. The economy remains weak but is nearing a turning point – not just in terms of real GDP growth but also in the macroeconomic fundamentals that drive construction activity. PCA believes that a recovery is in place but anemic economic growth will persist during the next several quarters.

This conclusion is reinforced by a sector-by-sector assessment of the economy. Consider the following:

Consumer spending accounts for roughly 70% of overall economic activity. Near-term consumer spending activity will be determined by income growth, confidence, consumer deleveraging of debt, access to credit, and changes in wealth. Each of these factors suggests continued softness in consumer spending during 2009, followed by a gradual improvement in 2010.

PCA dismisses the 3.4% gain in consumer spending recorded in the preliminary third quarter GDP report. The government program “cash-for-clunkers,” in our view, artificially exaggerated auto sales and overall consumer spending. Durable goods consumption (autos) increased 22% during the quarter. This sector had recorded five declines during the past six quarters. The exaggerated durable goods sales pace recorded during the third quarter is likely to be followed by a payback period adversely impacting auto sales and durable goods consumption in the fourth quarter.

The point is consumer spending growth achieved in the third quarter was achieved by government policy actions – not by consumer fundamentals. Underlying consumer fundamentals will determine the sustainable growth pattern for this sector.

Unfortunately, the near-term fundamentals surrounding the consumer are not strong. Income growth, for example, is weak. More than 7 million jobs have already been lost since the recession began. Unemployment has skyrocketed and exceeds 10%. Weak labor market conditions have moderated income growth. Indeed, third quarter disposable income declined during the quarter (-3.4%). Income growth will remain in a weakened state for another year (a significant income recovery is expected to lag a recovery in employment levels).

Furthermore, the massive declines in home prices and equities reduced consumer wealth holdings by an estimated \$15 trillion since the recession began. Wealth impacts consumers’ ability and willingness to spend. Restoration of the wealth lost during the past 18 months will take a long time. While sustained gains in home prices are not expected to materialize until late 2010/early 2011, home prices declines appear to be moderating. Stock market gains have also materialized. Rather than acting as a strong negative to consumer spending, changes in wealth are now becoming a neutral influence. These modest gains in wealth will probably remain a neutral influence on consumer spending until late 2010 when both home prices and equities improve in synchronized fashion.

Consumer sentiment reached record lows earlier this year. Changes in consumer attitudes are largely determined by the economic conditions facing them, namely changes in unemployment, inflation, interest rates, and wealth. Of these, the threat of job losses has weighed heavily on consumer attitudes. As job losses become smaller and the threat of future job loss subsides, consumer sentiment will recover gradually. As sustained job gains materialize in the second half of 2010, consumer confidence is expected to show more accelerated gains. Until then, despite continued modest gains, consumer buying attitudes will remain a relative negative-to-neutral influence on consumer spending.

High consumer debt burdens are declining. This phenomenon is occurring as consumers increase savings and pay down debt (deleveraging) – all at the expense of current spending activity. Economists refer to this as the “paradox of thrift.” Longer term, the reduction in debt will improve consumer balance sheets and enable a better spending response once job creation

materializes. Unfortunately, the increased savings rate depresses near-term consumption. The shift toward higher savings may signal a psychological consumer recognition that past attitudes accepting high-leverage spending habits are unsustainable. Given the importance of consumer spending to the entire economy, this aspect of consumer behavior significantly hinders the robustness of a consumer spending recovery.

Taken together, the consumer spending recovery envisioned by PCA is expected to be more gradual and less robust than projections by consensus economists. Job losses, slow income growth, shifts toward savings, slow wealth rebuilding, and low confidence all weigh against near-term significant improvement in consumer spending. While the fundamentals are improving, the pace of improvement is expected to be slow and given the importance of this sector, it will exert a moderating influence on real GDP growth through mid-2010.

Investment spending growth is expected to remain hindered by tight credit conditions, low expected returns on investment (ROI), low utilization and occupancy rates, along with weak business sentiment. Declines in business investment are expected to remain a large drag on overall investment activity in the economy through the remainder of the year and become a more neutral influence during the first half of 2010. In contrast, declines in residential fixed investment have stopped. The expected slow burn-off of excessive home inventories, however, will delay any near-term significant support to overall growth. At best, this sector will act as a neutral influence on overall investment activity through the first half of 2010. These assessments suggest that the non-inventory portion of investment activity will remain a drag on overall economic growth through the first half of 2010.

Inventory changes are also part of the investment sector. Inventory building adds to overall economic growth. During the third quarter, inventory rebuilding added nearly 1% to overall economic growth. Much of this rebuilding was associated with the “cash-for-clunkers” program. Accelerated auto sales cut bloated inventories and prompted an increase in production. In our view, this restocking, however, represented an extraordinary event tied to government policy.

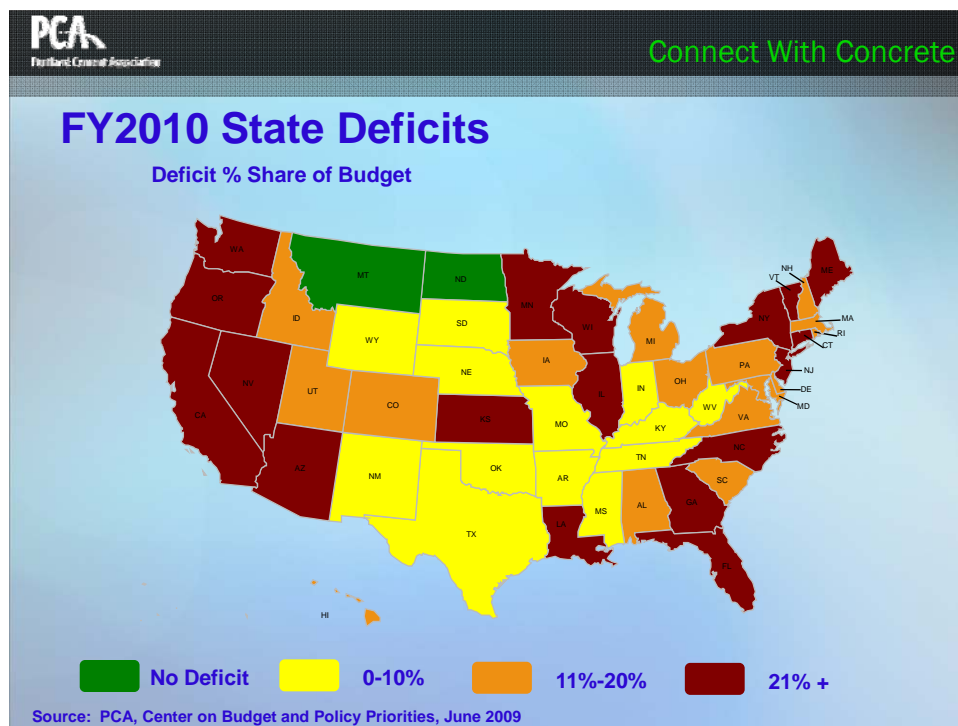
On a broader, economy-wide basis, PCA expects restocking will materialize during the fourth quarter and into 2010 adding to overall economic growth. The gains attributed to real GDP growth, however, are likely to be more modest than those experienced during the third quarter. Inventory levels have been slashed aggressively. Even though inventories have been cut, sales activity has declined as well. Despite the reduction in inventory volume, inventory-to-sales ratios remain elevated. Total business inventory-to-sales ratios are roughly 10% over pre-recession norms. This characteristic holds true for manufacturers and wholesalers. Retailers, in contrast, are now holding lower inventory-to-sales ratio than pre-recession norms (due to the cash-for-clunker program). Unfortunately, sales remain weak. Re-stocking retail shelves in anticipation of a more brisk sales pace remains a risky bet. Moreover, even if retailers re-stock, it will take time to trim inventory excesses at the wholesale and manufacturing levels. Broad based inventory increases will eventually add to overall economic growth – but PCA believes that significant inventory rebuilding will be delayed and more modest increases are more likely to materialize well into 2010.

Net export growth typically accounts for a rather small component of overall GDP. Net exports may improve because consumer spending, including imported goods, is depressed. This improvement reflects demand weakness present in the United States’ economy and does not represent improved fundamentals. The economic weakness is global. 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 decline 1.6% during 2009, followed by modest, stimulus-induced growth of 1.2% in 2010. Stronger growth rates, averaging 2.5% growth, are expected to materialize during 2011-2012. Until then, net exports will not provide much help to the United States' economic growth.

Public sector spending growth, according to the consensus of economists, is a key factor in concluding growth in the second half of 2009 and 2010 will materialize. This growth outlook is predicated on ARRA spending. Unfortunately, the public sector's growth performance is not solely dictated by ARRA. State and local fiscal conditions play an important role in determining the public sectors' near-term growth path. Indeed, roughly 61% of all government spending is performed at the state and local level. State and fiscal conditions are deteriorating rapidly. Huge deficits and fiscal distress will continue to characterize state and local governments as long as the labor market remains weak. According to the Center on Budget and Policy Priorities, 33 states are in severe deficit position for fiscal 2010, compared to 21 for fiscal 2009.

While state finances will begin improving with the onset of job creation, it will take several quarters of healing before state and local fiscal conditions can generate growth in construction spending. Marginal gains and spending levels are expected to characterize fiscal 2011 budgets. Significant gains in state and local construction spending are not expected to materialize until the fiscal 2012 budget.



Labor Markets

Data suggests that labor market conditions are improving at a pace slightly better than PCA projections. PCA expects job losses will stop in the first quarter, followed by a saddle point quarter characterized by minor monthly losses/gains essentially leaving quarterly job losses at

zero. When all is totaled, more than 7.8 million jobs are expected to be lost during the recession that began in December 2007.

Job gains are expected to materialize early in the third quarter followed by successive strengthening in labor markets. This period of strengthening yields between 350,000 to 500,000 net jobs created in 2010. Roughly three million net jobs are expected to be created in 2011 and 2012. While these net job gains may seem optimistic to some, PCA projections for year-end employment in 2012 remains below December 2007 levels (onset of the recession).

The process leading to job creation involves a modest gain in aggregate economic demand, followed by inventory draws, which lead to increased durable goods orders, in-turn leading to increased production activity. Assuming productivity gains have largely run their course, the production increases will force an increase in work hours, overtime and temporary hiring. The sustenance of these pressures will eventually lead to net job creation. Once the threshold of job creation is reached, consumer spending and investment spending will add momentum into 2011 and beyond.

The job creation process has already begun. Modest increases in demand have already materialized, as evidenced by the preliminary third quarter GDP report showing growth of 3.5%. While most of this increase can be dismissed as exaggerated due to policy actions, not all of it can be dismissed. Inventories are expected to be drawn down by \$100 billion during 2009. Industrial production has recorded marginal gains that are expected to be sustained. Second quarter productivity gains of 6.6% were followed by 9.5% productivity gains during the third quarter. It is likely that further productivity gains will be marginal in the quarters ahead. While the job creation process is underway, extended work hours, overtime, and temporary hiring have yet to materialize. PCA estimates that these conditions should emerge in the first quarter of 2010. The entire process is expected to take another six months to unfold before net job creation materializes.

While this scenario represents PCA's baseline, there is a problem with this scenario.

The entire process leading to job creation is based on modest and sustained increases in demand. It can be argued that the gains in demand realized during the past quarter are policy induced – resulting from the impacts from ARRA, cash for clunkers, and housing incentives. Furthermore, White House economists suggest the stimulus' impact on economic activity will wane in 2010. Once these artificial demand factors wear off, there is concern whether there will be enough private sector momentum in the economy to sustain the job creation process. If not, the job creation process could be stalled, increasing the likelihood of a double-dip recession.

In PCA's judgment, the delays in getting stimulus spending will spread stronger than expected stimulatory impact into 2010 – providing a long enough bridge until job creation materializes enabling the recovery process to be sustained. This is not an easy judgment. The first round of stimulus may take us only three quarters of the way through the job recovery process. A second round of stimulus may be required to continue the recovery process and buy time to initiate private sector momentum. The form of the second stimulus may include increases in state aid, entitlement spending and others. Absent a second stimulus, the timing of the job and, hence, construction recovery could be pushed back.

Ease In Lending Standards

Business and consumer access to capital is a critical ingredient to ensure sustained, strong economic growth. The subprime crisis and resulting bank charge-offs reduced capital available for lending and restricted access to capital due to bank aversion toward risk. The critical issue facing the economy is not the level of capital available, but rather access to the capital by business and consumers. Limited access to capital has arisen due to banks' aversion toward risk and increases in risk associated with a weak economy. It is likely that banks' aversion toward risk will diminish only after charge-offs for loans show a sustained pattern of decline. Unfortunately, loan charge-offs are expected to accelerate as unemployment increases. PCA expects an easing in lending standards will begin to materialize roughly six to nine months after labor markets stabilize. Stabilization in the labor markets implies less risk in borrowers' ability to pay back loans, but also should lead to a reduction in loan charge-offs and, hence, risk aversion.

The easing of credit standards is not expected to materialize in a synchronized fashion across all sectors of the economy. Lender risk varies with the borrower. Easing in lending standards is expected to materialize first in the residential sector. By late 2010/early 2011, PCA expects declining home prices will have run its course and modest home price increases will begin to emerge. Rising home values, coupled with stabilization of the labor markets, suggest a significant reduction in lending risks.

The ease in lending standards for nonresidential loans is expected to lag residential by one to two quarters. The improvement process for fundamentals in nonresidential is longer than residential. Improvement in nonresidential economic fundamentals begins with stabilization in the labor markets, but these gains must then be translated into higher occupancy rates, lower vacancy rates, and firmer leasing rates. This additional translation takes time. Furthermore, PCA expects nonresidential property prices will continue to decline through late 2011. These factors, coupled with the existing credit issues surrounding nonresidential loans, suggest a longer recovery will materialize for nonresidential loans.

Residential Cement Outlook

Since its 2005 peak, residential cement consumption has declined by nearly 30 million metric tons – accounting for roughly 55% of the total decline in cement consumption. While PCA expects 2009 will reflect the trough point for residential cement consumption, estimates regarding the timing and magnitude of a residential turnaround remain conservative compared to most construction analysts.

Half of total residential cement consumption is attributed to new single family construction. New single family sales activity will continue to be adversely impacted by tight credit conditions, rising unemployment, consumer uncertainty, and stiff price competition from bank-owned foreclosed properties. These conditions are expected to remain in place, at a gradually diminishing rate, through the first half of 2010. Continuation of these conditions suggest a slow improvement in the sales pace.

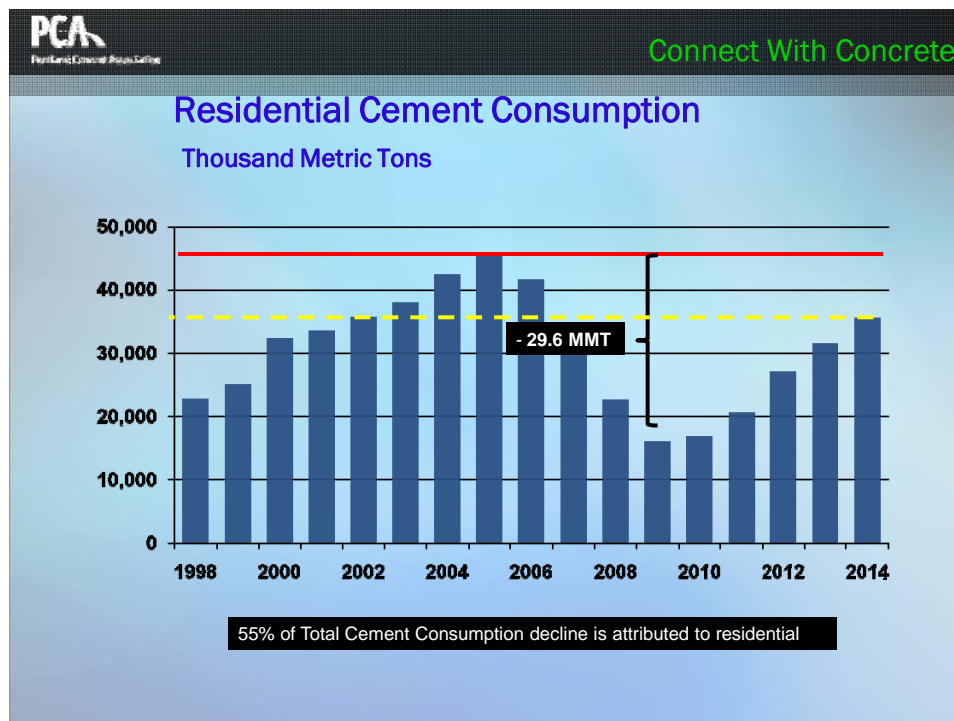
PCA assumes that homebuilders will not accelerate starts activity until the months' supply of new homes on the market approaches five months (ten year average). This assumption is critical. If homebuilding activity accelerates at six months' supply, estimated inventory excesses are smaller and a pickup in starts activity could occur sooner than mid-2010.

Currently, home inventory stands at 8.4 months' supply and declined from January 2009 peak levels of 10.2 months' supply – reflecting a 585,000 home burn-off in inventory. Keep in mind, these inventory improvements have materialized in the context of a voluntary and government imposed foreclosure moratoriums. Some estimate foreclosure proceedings have not even begun for 15% to 20% of all mortgages seriously delinquent. This suggests the potential of large shadow inventories which could underestimate the true inventory level. The existence of large shadow inventories may exist due to foreclosure moratoriums, but could be amplified by would-be home sellers waiting for the market to stabilize. As months' supply works its way down and price declines cease, an unexpected amount of these would-be buyers could bring their homes to market – slowing the rate at which the five months' supply trigger point is reached.

Roughly 4% of mortgages are seriously delinquent. Foreclosure rates have averaged 3.5% during the past six months. PCA expects this rate will increase to 6% through the first quarter of 2010. The higher foreclosure rate reflects PCA's expectation that unemployment will increase and resets for toxic option adjustable mortgages will begin to emerge – further increasing the amount of home inventory required to be burned off before the five month trigger point is reached.

Assumptions made regarding foreclosure rates play a critical role in determining the timing of a single family recovery. Keep in mind, foreclosure activity is not only increases in the amount of inventory but also the amount of bank owned properties for sale. This aspect suggests accelerated price competition against new homes from existing homes since banks are likely to dramatically discount foreclosed properties. The new home sales pace, as a result, is likely to recover more slowly in a higher foreclosure rate environment.

A significant burn-off in new home inventory is required under any assumption. This burn-off will be tempered by PCA's expectation that gains in new home sales will reflect a gradual



improvement in the selling rate. With the improvement in labor market conditions, foreclosure activity and lending standards, the selling rate and inventory conditions could improve sharply – but, on a national basis, probably not until mid-2010. Keep in mind, conditions regarding sales, foreclosure, and inventory conditions can vary widely among regions.

PCA's outlook regarding the new home selling pace is roughly in-line with consensus forecasts. Assumptions regarding foreclosures appear to account for the slower improvement in inventories and more modest projections for single family construction for 2010.

Multifamily construction contains two segments including: condominiums and units for rent. Both sectors are weak. During the housing boom, condominium sales represented roughly 45% of total multifamily activity. Recent data suggests that rental units account for 15% of multifamily activity. The fundamentals facing the condominium market are severely adverse and similar to those facing the single family market. Bloated inventories face the condominium markets. A slow recovery in the sales pace suggests that excess inventories will take even longer to pare down than single family inventories. The potential of large shadow inventories amplify this assessment. A recovery in this sector is not expected to materialize until 2011.

The fundamentals facing the multifamily rental sector are somewhat different. Economic distress has slowed household formation – a key driver in rental demand. Vacancy rates have increased. The expected ROI on new apartment complexes has declined with the onset of harsh economic conditions. Furthermore, tight lending standards and reduced access to commercial credit is expected to play a key role in prolonging a recovery in this sector.

Residential improvements account for a significant amount of cement consumption according to PCA's apparent use estimates. During the housing boom, residential improvements accounted for roughly 25% of total residential cement usage – averaging more than 10 million tons annually. Cement consumption arising from residential improvements is largely determined by three key factors including; the stock of housing, access to credit markets, and home prices – suggesting a homeowners return on investment. The recession has slowed down household formation and home sales – slowing the growth in the stock of homes at least through 2010. In addition, home equity lines of credit, a key source of home improvement funding, have been slashed. Finally, home prices have declined significantly during the past two years – diminishing the expected returns to homeowners from investments in their homes. Home improvement activity is expected to recover roughly one year after home prices turnaround and credit conditions ease – or the second half of 2011.

Nonresidential Cement Outlook

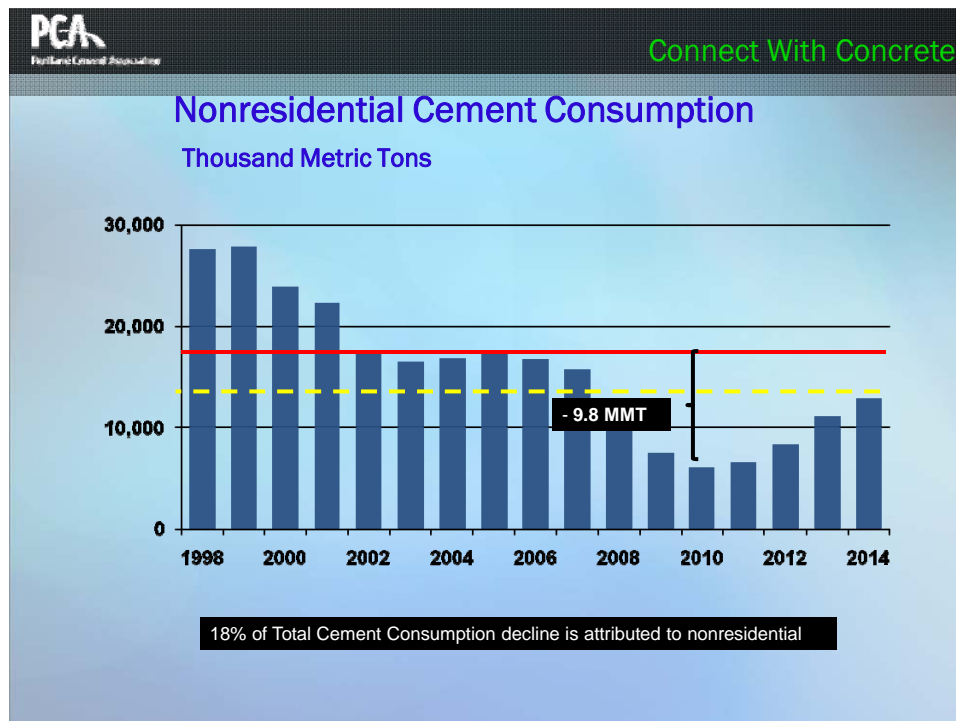
Nonresidential construction is expected to continue its sharp decline during 2010. According to contract awards data, new contracts, an advance indicator for commercial construction, are down 60% year-to-date compared to weak 2008 levels. This decline reflects depressed expected returns on investment (ROI) for commercial properties as well as the difficulties in securing financing. These conditions are expected to remain in place through the first half of 2010. Once job growth materializes, the fundamentals facing nonresidential consumption will **begin** to improve.

Consider the fundamentals facing office construction as an example of similar dynamics facing other nonresidential sectors. Since the start of the recession, the economy has shed 7.3 million jobs. Of these, office worker job losses total 2.3 million – accounting for roughly one third of total job losses. As job losses continue, occupancy rates will decline and vacancy rates will

increase – peaking during the first half of 2010. Higher vacancy rates will result in increased competition among office landlords resulting in lower leasing rates. Lower leasing rates coupled with lower occupancy rates result in lower expected ROIs.

Large inventory excesses in office space must be burned off. PCA estimates full office occupancy equivalent to 33 million jobs – suggesting a current 4.5 million job shortfall, or a 17.2% vacancy rate. As job losses continue, vacancy rates will increase, eventually reaching 18.5% during the first half of 2010. As job creation gains traction in 2010, vacancy rates will begin to improve. Leasing rate improvement is expected to lag the improvement in vacancy rates. Vacancy and leasing rates are not expected to improve to levels sufficient to generate high enough ROIs until the second half of 2011. As a result, PCA expects office construction activity will decline nearly 30% in 2009 and another 25% in 2010. Second half 2011 gains are expected to offset first half 2011 losses. Thereafter, sustained gains in office employment are expected to improve vacancy rates, leasing rates and overall expected ROIs. Keep in mind, the anticipated recovery in office construction activity is expected to materialize in the context of much more favorable credit and lending conditions.

Depending on the type of commercial construction, the lags between when the improvement in fundamentals begin and when accelerated construction activity materializes is typically 6-24 months. These lags reflect the historical averages of recession recoveries since 1970. If these historical lags hold for this recession, PCA macroeconomic projections suggest the nonresidential recovery will begin in the second/third quarter 2011 led by retail. The office construction recovery begins in the third/fourth quarter of 2011. Industrial construction recovers last, beginning in first/second quarter of 2012.



Arguably, past lags between improvement in nonresidential fundamentals and improvement in construction activity will not reflect the likely realities of this economic downturn. In comparison to past downturns this recession has been exceptionally harsh. While difficult to quantify, it is likely that huge excess inventory in commercial property has been generated and must be burned-off. The speed of this burn-off will be partially determined by the speed and magnitude of job creation. PCA's job outlook suggests roughly three million net new jobs created in 2011 and 2012. Some consider this projection optimistic. If so, the recovery in nonresidential construction could be delayed beyond PCA's pessimistic scenario.

Furthermore, the nonresidential recovery could be hindered by credit issues specific to commercial real estate. According to various reports, roughly 60% of commercial real estate's \$3 trillion in loans have been financed by five year balloon mortgages. Many of these mortgages were re-financed in 2005-2006 – making balloon payments due in 2010-2011. This refinancing will be difficult in light of depressed commercial real estate revenues due to depressed vacancy and leasing rates. In addition, roughly 21% of all commercial loans were financed via commercial mortgage backed securities – which no longer exist as a refinancing option. Finally, 2005-2006 represented a period of strong commercial real estate prices. Commercial real estate prices have declined 35% during the past year. The combination of these financial issues suggest the potential of a dramatic acceleration in defaults – adding to the perceived lending risks by banks for commercial property. Sustained tight credit conditions specific to the commercial real estate sector could delay the recovery and magnitude of recovery in nonresidential construction.

Public Cement Outlook

Given the weak outlook for private sector construction activity, public construction activity will play an extremely important role in determining the industry's near-term outlook. Among the public construction projects, highway construction plays the most important role for cement consumption. The near-term highway construction outlook is expected to be dominated by two competing influences, namely ARRA stimulus spending and deteriorating state fiscal balances. Unfortunately, PCA has become more pessimistic compared to previous forecasts with regard to the net stimulatory impact of public construction for cement consumption in 2010. PCA's current forecast incorporates larger state deficits and a strong sterilization of ARRA arising from state and local spending.

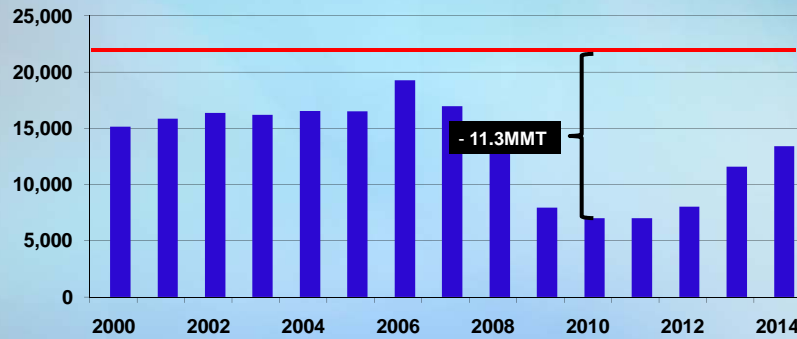
Discretionary State Highway Spending

State and local fiscal conditions play an important role in determining the public sectors' near-term growth path. Indeed, roughly 61% of all government spending and more than 90% of highway and street spending is performed at the state and local level. State and fiscal conditions are deteriorating rapidly. Huge deficits and fiscal distress will continue to characterize state and local governments as long as the labor market remains weak. PCA expects state and local fiscal conditions will worsen in 2010, compared to already harsh 2009 conditions. According to the Center on Budget and Policy Priorities, 33 states are in severe deficit position for fiscal 2010, compared to 21 for fiscal 2009.

While state finances will begin improving with the onset of job creation, it will take several quarters of healing before state and local fiscal conditions can generate growth in construction spending. Marginal gains in discretionary construction spending levels are expected to characterize fiscal 2011 budgets. Significant gains in state and local construction spending are

Discretionary Highway & Street Cement Consumption

Thousand Metric Tons



expected to materialize in the fiscal 2012-2014 budgets. Even with these increases, PCA's projections do not reach past cyclical peaks in terms of real discretionary state and local construction activity.

Stabilization and recovery in state fiscal conditions are not expected to begin until fiscal 2011. In the meantime, state fiscal conditions are expected to act as a continued drag on public construction activity and cement consumption. According to PCA estimates, the harsh economic environment facing state and local governments resulted in a 25% decline in discretionary highway/street cement consumption during 2008 followed by a 38% decline in 2009. Thus far, the state fiscal crisis has resulted in a peak-to-trough decline of 59% in discretionary state and local cement consumption. Despite already low volume levels, PCA expects another 12% decline in 2010. Clearly, the harsh fiscal picture facing state and local governments will partially sterilize the ARRA impacts for street and highway construction. PCA's forecast includes pessimistic assumptions regarding the extent to which this materializes and state and local fiscal pressures sterilize ARRA spending. These assumptions could pose significant risks to PCA's cement projections.

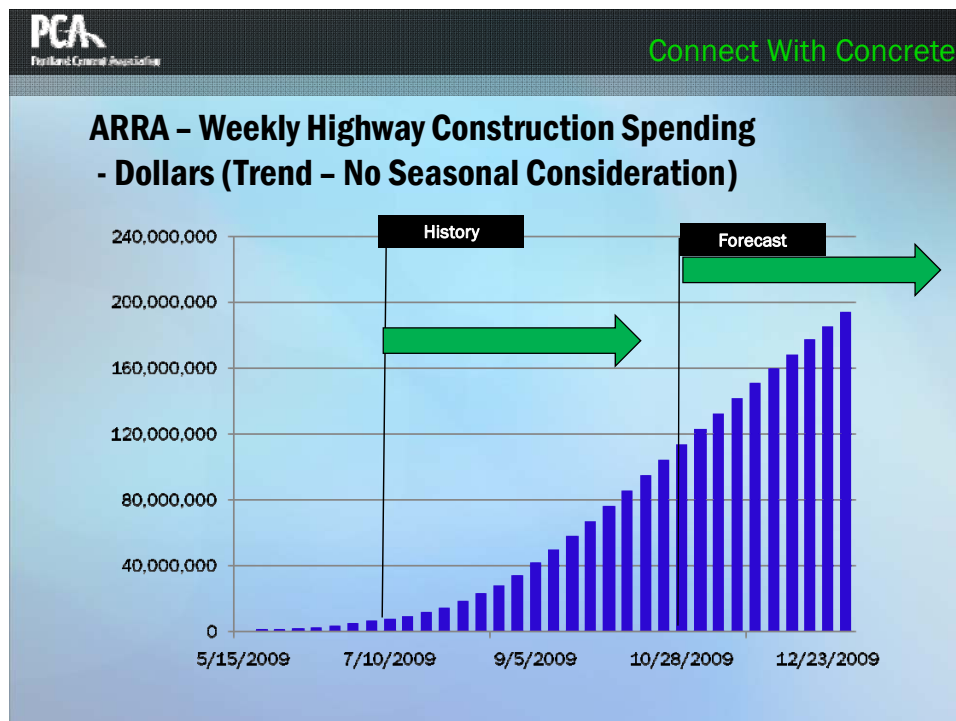
Stimulus Highway Spending

Bureaucratic delays have hindered the release of ARRA highway funds. Through September, highway outlays represent a meager 8.9% of total apportionments. These represent levels that were expected to be achieved in June-July by PCA. Allowing for lags between outlays and cement usage during the stages of construction suggests that very little second half stimulatory impact from ARRA will materialize during 2009.

Earlier this year, many held high expectations regarding the potential positive impact on cement consumption arising from ARRA spending. While PCA cautioned that the massive economic stimulus program would take time for the policy's impact to be realized in construction markets, initial projects would likely carry low cement intensities and that weak state fiscal conditions would undermine the stimulus' positive impacts – we underestimated the degrees. Due to delays in the release of monies, there is a growing perception within the cement industry that the stimulus will have no impact on 2010-2011 cement consumption. PCA disagrees and views this as a timing issue – not a complete dismissal of ARRA's potential impact. The ARRA monies have not gone away – they are just slow in being released. Even using very conservative cement intensities, more than five million tons of ARRA highway cement consumption should materialize in 2010 and 2011.

While ARRA monies have been slowly released, the pace is accelerating. September outlays increased 47% over accelerated August levels. PCA expects the pace of paperwork will continue to accelerate during the fall and through the winter. This suggests the potential of increased ARRA construction activity will materialize in the spring. Given lags, a significant acceleration in ARRA driven cement consumption could materialize in the third quarter and beyond. ARRA highway spending, at least initially, is likely to be dominated by highway preservation activities such as resurfacing. While some benefit will be accrued to cement consumption, as a whole, these projects are likely to carry low cement intensities – muting the initial 2010 potential stimulatory benefit to cement consumption. By late 2010, acceleration in the pace of outlays is expected to be met with higher cement intensities resulting in a stronger, back-ended 2010 ARRA impact on cement consumption.

The potential 2010-2011 stimulatory impacts of ARRA could be magnified further by pricing conditions. The harsh economic environment has dramatically increased competition among contractors for public projects. While projects may typically get 3-6 bids for highway work from



contractors, the number of bids coming into state DOTs for projects are a multiple of typical bid levels. As a result, the bids are reportedly coming in well below expected levels. This implies that state DOTs could use these savings to let more projects. This has the potential of increasing the effectiveness of the stimulus and potentially the amount of cement consumed by stimulus projects. These savings, however, could be used to support other general fund spending priorities.

Summary

PCA expects 2009 will represent this recession's trough for United States' cement consumption – reflecting a 26.6% decline from weak 2008 levels. The cyclical downturn in cement consumption, measured peak-to-trough, represents a 54 million metric ton decline from 2005 peak levels – the worst volume decline in history. This downturn has coincided with a period of aggressive expansion and modernization. Large market imbalances, as a result, have materialized resulting in a contraction in import supply, excess inventory accumulation, low utilization rates, extended maintenance downtime, sporadic furloughs and plant shutdowns. Unfortunately, the gains in cement consumption expected for next year are expected to be meager and probably back-ended. This implies current harsh conditions facing the industry will persist through 2010 and beyond. Utilization rates are not expected to reach 80% until 2012.

The key forecast assessments are as follows:

- Real GDP is expected to decline 2.7% in 2009 and grow at a pace of 2.1% in 2010. Growth in 2010 is back-ended.
- First half 2010 economic growth is expected to be extremely anemic. The risks of the recovery faltering during the first half of 2010 will be extremely high – potentially leading to a double-dip recession. Such risks magnify the potential need of secondary stimulus actions.
- Unemployment is expected to peak at 10.4% during the first quarter of 2010. This reflects a cessation of job losses at the end of the first quarter 2010, followed by a one quarter saddle point – neither creating or losing jobs. Sustained job gains are expected to materialize in the second half of 2010 and beyond.
- The ease-in-lending standards is expected to materialize more slowly than many expect. Accelerated default rates are likely to moderate the pace in which banks lose their aversion toward risk. Lending conditions facing residential are expected to ease first, followed by nonresidential some six months later.
- The residential sector has largely run its course as a significant contributor to cement consumption declines. The expectation of a slow reduction in home inventories suggests that this sector will likely be a neutral contributor to cement consumption growth rates through mid-2010. Thereafter, the residential sector is likely to become a strong contributor to growth in cement consumption.
- Nonresidential cement consumption is expected to be a significant drag on cement consumption during 2009 and 2010. Weak underlying fundamentals and declining nonresidential cement intensities support this conclusion. By 2011 the drag on growth is

expected to become milder and becomes a contributor to growth in cement consumption by 2012.

- State deficits are expected to be larger than previously forecast and will act as a larger drag on public construction activity during 2009-2010 – sterilizing ARRA spending impacts to a greater extent than previously expected.
- Bureaucratic delays have significantly diminished the level of ARRA outlays. Given lags, the anticipated significant positive impact arising from ARRA on cement consumption is not expected to materialize until the second half of 2010.

Taken together, these assessments suggest a 26.3% decline in Portland cement consumption during 2009, followed by a 5.2% gain in 2010. Stronger gains are anticipated for 2011 and beyond.

PCA

Portland Cement Association

THE Monitor

Forecast Report

Contact : > Ed Sullivan, Chief Economist 847.972.9006 > esullivan@cement.org

U.S. Forecast Tables

Fall 2009

Economic Forecast

	2008	2009	2010	2011	2012	2013	2014
General Economic Factors							
- Real GDP Growth (%)	1.0%	-2.7%	2.1%	3.0%	3.2%	2.7%	2.5%
- Unemployment Rate (%)	5.8%	9.2%	10.0%	8.1%	6.4%	5.8%	5.6%
- Employment	135,074	130,497	131,040	134,115	136,965	139,665	142,315
- Change in Employment	-3,004	-4,577	543	3,075	2,850	2,700	2,650
- Inflation Rate (%)	3.8%	-0.8%	1.5%	2.2%	3.0%	3.4%	3.1%
- Consumer Sentiment Index (Average)	45.0	58.9	73.4	92.0	99.8	106.8	111.8
- Total Housing Starts (000)	899	548	627	930	1,249	1,478	1,594
- Oil Price, WTI Per Barrel	\$99.57	\$60.41	\$75.27	\$90.37	\$106.91	\$121.52	\$133.50
- Note: Oil Rig Count	1,877.5	1,150.0	1,170.2	1,309.0	1,629.3	1,723.8	1,835.3
Key Interest Rates							
- Mortgage Rate - 30 Yr Fixed (%)	6.04	5.19	5.50	5.79	6.21	7.35	7.10
- Federal Funds Rate	1.86	0.13	0.33	1.63	3.29	5.73	5.40
- Three Year Treasury (%)	2.24	1.43	1.58	3.38	4.29	6.73	6.83
- BAA Bond (%)	7.45	7.30	6.41	6.50	6.65	8.88	8.63
- Implied Corporate Risk Premium	5.21	5.88	4.84	3.13	2.36	2.15	1.80
Key Single Family Factors							
- Single Family Starts (000)	617	426	512	790	1,004	1,188	1,267
- Average New Home Sq Footage	2,425	2,410	2,395	2,397	2,399	2,405	2,413
- Total Single Family Sq Footage (Million)	1,496	1,027	1,226	1,894	2,409	2,858	3,056
- Average Cement Tons Per Start	19.3	17.5	17.6	18.1	18.1	18.4	18.4
- Mortgage Rate - 30 Yr Fixed	6.04	5.19	5.50	5.79	6.21	7.35	7.10
- Median Home Price (000)	\$199.0	\$170.0	\$171.2	\$175.5	\$181.1	\$186.8	\$194.0
- Home Appreciation Rate	-14.8%	-14.6%	0.7%	2.5%	3.2%	3.1%	3.9%
- Average Monthly Payment	\$1,198	\$933	\$972	\$1,029	\$1,110	\$1,286	\$1,326
- Home Affordability Index (1999=100)	94.5	88.1	92.4	95.3	101.5	119.5	114.0
Key Multi-Family Factors							
- Multi-Family Starts (000)	282	122	115	140	245	290	327
- Average New Home Sq Footage	1,313	1,309	1,304	1,306	1,309	1,311	1,312
- Total Multi-Family Sq Footage (Million)	370	160	150	183	321	380	429
- Average Cement Tons Per Start	7.2	7.3	7.2	7.6	8.0	8.2	8.3
- Vacancy Rate (%)	10.0	10.6	10.8	10.3	9.4	8.5	8.5
- Mortgage to Rent Index (1999=100)	68.4	62.1	62.4	63.5	66.9	78.3	76.0
- Target Rental Population (20-29) Index	115	116	115	115	115	115	116
Key Nonresidential Factors							
- Capacity Utilization (%)	74.8	66.0	65.7	73.1	75.2	77.1	79.6
- Office Vacancy Rate (%)	13.9	18.1	18.7	17.1	15.7	15.1	13.5
- Office Worker Employment Index (1999=100)	106.6	100.9	99.7	101.3	103.6	105.4	108.0
General Cement Ratios							
- Cement Consumption (Per 000 Capita)	307.3	224.7	234.2	270.5	306.7	338.9	364.8
- Cement Tons Per Mil Construction	142.9	126.3	136.8	138.8	143.5	144.1	147.5

Contact: Ed Sullivan, Chief Economist, PCA, (847) 972-9006

Construction Put-in-Place ⁽¹⁾
(Billions 1996\$)

United States
Fall 2009

	2008	2009	2010	2011	2012	2013	2014
Total	654.3	545.8	530.0	608.9	673.9	748.5	794.1
Residential Buildings	230.6	163.6	179.2	256.4	299.7	349.0	376.4
New Housing Units	148.5	87.5	105.4	181.9	221.7	266.8	289.6
Single Family	120.1	66.7	85.5	157.7	194.3	235.4	257.2
Multi Family	28.4	20.8	19.9	24.2	27.4	31.4	32.4
Improvements	82.1	76.1	73.8	74.5	78.0	82.2	86.8
Nonresidential Buildings	176.1	143.4	111.3	107.6	118.8	136.8	148.2
Industrial	37.5	40.4	29.1	25.2	25.7	30.6	32.6
Office	35.1	23.5	16.7	16.2	18.6	24.2	26.4
Hotels, Motels	21.6	16.4	10.8	10.5	11.4	13.3	14.8
Hospitals, Institutions	17.6	19.1	18.9	19.2	19.9	20.6	21.2
Religious	4.1	3.9	3.7	3.6	3.9	3.9	4.1
Educational	10.7	8.3	7.3	8.1	8.8	9.2	9.6
Other Commercial	42.8	26.7	20.9	20.5	26.1	30.4	34.7
Miscellaneous	6.5	4.9	4.1	4.3	4.4	4.6	4.9
Public Utility & Other	58.5	59.8	54.5	54.5	58.5	60.2	61.4
Farm Nonresidential	4.8	3.6	3.3	3.5	3.7	3.9	4.1
Public Construction	184.3	175.3	181.7	186.9	193.3	198.5	203.9
Buildings ⁽¹⁾	76.3	70.3	71.8	73.4	75.6	77.8	79.2
Highways & Streets	46.2	45.2	50.2	52.9	55.6	57.1	60.0
Military/Public Security ⁽¹⁾	7.7	8.2	8.6	8.4	8.1	7.8	7.5
Conservation	3.3	3.6	3.8	4.0	3.9	3.8	3.9
Sewer Systems	16.1	15.7	15.4	15.7	16.1	16.7	17.1
Water Supply Systems	9.8	8.7	8.9	9.2	9.4	9.5	9.8
Miscellaneous	24.9	23.5	23.0	23.4	24.7	25.9	26.5
Percent Change							
Total	-7.7%	-16.6%	-2.9%	14.9%	10.7%	11.1%	6.1%
Residential Buildings	-25.1%	-29.1%	9.5%	43.1%	16.9%	16.5%	7.9%
New Housing Units	-32.7%	-41.1%	20.4%	72.6%	21.9%	20.3%	8.5%
Single Family	-36.8%	-44.5%	28.2%	84.4%	23.2%	21.1%	9.2%
Multi Family	-7.5%	-26.8%	-4.4%	21.7%	13.1%	14.7%	3.2%
Improvements	-5.7%	-7.4%	-3.0%	0.9%	4.7%	5.4%	5.7%
Nonresidential Buildings	7.9%	-18.5%	-22.4%	-3.3%	10.4%	15.2%	8.3%
Industrial	39.3%	7.8%	-28.1%	-13.3%	1.8%	19.1%	6.5%
Office	1.1%	-33.0%	-29.1%	-3.1%	14.8%	30.5%	8.9%
Hotels, Motels	23.1%	-24.0%	-34.6%	-2.0%	7.8%	17.1%	11.1%
Hospitals, Institutions	5.1%	8.5%	-1.3%	1.9%	3.7%	3.3%	2.6%
Religious	-10.1%	-4.7%	-6.7%	-3.0%	11.2%	-1.3%	6.0%
Educational	7.0%	-22.7%	-12.2%	11.6%	8.0%	4.5%	5.2%
Other Commercial	-7.4%	-37.4%	-21.9%	-1.9%	27.2%	16.8%	14.0%
Miscellaneous	1.9%	-24.8%	-17.5%	4.8%	4.0%	3.9%	5.3%
Public Utility & Other	10.6%	2.2%	-8.9%	0.0%	7.3%	3.0%	1.9%
Farm Nonresidential	7.8%	-24.2%	-9.0%	5.0%	7.0%	6.0%	5.0%
Public Construction	2.0%	-4.9%	3.6%	2.9%	3.4%	2.7%	2.7%
Buildings ⁽¹⁾	6.1%	-7.8%	2.1%	2.3%	3.0%	2.9%	1.7%
Highways & Streets	-3.3%	-2.0%	11.0%	5.4%	5.0%	2.7%	5.1%
Military/Public Security ⁽¹⁾	23.0%	6.0%	5.5%	-2.5%	-3.9%	-3.7%	-3.9%
Conservation	-5.2%	8.6%	4.7%	4.6%	-1.8%	-1.8%	2.6%
Sewer Systems	-2.8%	-2.6%	-1.8%	1.8%	2.5%	3.6%	2.6%
Water Supply Systems	-0.2%	-10.4%	1.7%	2.9%	2.2%	1.9%	2.5%
Miscellaneous	0.0%	-5.6%	-2.5%	1.7%	5.6%	4.9%	2.5%

⁽¹⁾ New Commerce Department reporting now reflects new classification.



Portland Cement Consumption
(000 Metric Tons)

United States
Fall 2009

	2008	2009	2010	2011	2012	2013	2014
Total	93,497	68,953	72,505	84,497	96,715	107,872	117,147
Residential Buildings	22,578	15,912	16,807	22,560	27,705	32,424	35,514
New Housing Units	13,935	8,338	9,838	15,383	20,168	24,209	26,889
Single Family	11,899	7,452	9,007	14,318	18,208	21,839	24,188
Multi Family	2,036	885	831	1,064	1,960	2,370	2,701
Improvements	8,643	7,575	6,969	7,178	7,537	8,215	8,626
Nonresidential Buildings	12,166	7,513	6,023	6,620	8,321	11,070	12,920
Industrial	772	649	420	408	457	708	905
Office	1,551	831	584	647	873	1,332	1,662
Hotels, Motels	724	440	290	306	363	545	636
Hospitals, Institutions	989	912	906	981	1,157	1,278	1,354
Religious	172	131	110	117	138	152	174
Educational	1,782	1,156	1,018	1,218	1,447	1,832	2,169
Other Commercial	4,633	2,407	1,880	2,048	2,867	4,139	4,858
Miscellaneous	1,542	986	813	894	1,019	1,082	1,164
Public Utility & Other	3,509	2,691	2,343	2,725	2,982	3,132	3,376
Farm Nonresidential	4,782	3,442	3,132	3,462	3,760	4,025	4,329
Oil & Gas Wells	3,716	2,091	2,208	2,618	3,259	3,448	3,671
Public Construction	46,747	37,304	41,993	46,512	50,689	53,775	57,337
Buildings	3,046	2,388	2,441	2,718	3,025	3,346	3,562
Highways & Streets	31,866	25,332	29,623	33,080	36,412	38,521	41,400
Military/Public Security	173	139	146	147	141	136	134
Conservation	1,366	1,262	1,325	1,425	1,498	1,566	1,627
Sewer Systems	3,764	3,141	3,161	3,375	3,490	3,667	3,882
Water Supply Systems	3,685	2,805	3,114	3,362	3,509	3,720	3,815
Miscellaneous	2,847	2,237	2,182	2,405	2,614	2,819	2,916
Percent Change							
Total	-15.1%	-26.3%	5.2%	16.5%	14.5%	11.5%	8.6%
Residential Buildings	-31.3%	-29.5%	5.6%	34.2%	22.8%	17.0%	9.5%
New Housing Units	-38.5%	-40.2%	18.0%	56.4%	31.1%	20.0%	11.1%
Single Family	-40.1%	-37.4%	20.9%	59.0%	27.2%	19.9%	10.8%
Multi Family	-27.2%	-56.5%	-6.1%	28.0%	84.2%	20.9%	14.0%
Improvements	-15.2%	-12.4%	-8.0%	3.0%	5.0%	9.0%	5.0%
Nonresidential Buildings	-22.7%	-38.2%	-19.8%	9.9%	25.7%	33.0%	16.7%
Industrial	-13.9%	-15.9%	-35.3%	-2.9%	12.0%	54.8%	27.8%
Office	-28.6%	-46.4%	-29.7%	10.7%	34.9%	52.7%	24.7%
Hotels, Motels	-14.7%	-39.2%	-34.0%	5.2%	18.9%	50.1%	16.5%
Hospitals, Institutions	-16.8%	-7.8%	-0.7%	8.3%	18.0%	10.5%	5.9%
Religious	-29.3%	-23.7%	-16.1%	6.2%	18.0%	9.9%	14.2%
Educational	-14.0%	-35.1%	-11.9%	19.6%	18.8%	26.6%	18.4%
Other Commercial	-29.1%	-48.0%	-21.9%	9.0%	39.9%	44.4%	17.4%
Miscellaneous	-13.5%	-36.1%	-17.6%	10.0%	13.9%	6.2%	7.6%
Public Utility & Other	57.1%	-23.3%	-12.9%	16.3%	9.4%	5.0%	7.8%
Farm Nonresidential	15.2%	-28.0%	-9.0%	10.5%	8.6%	7.0%	7.6%
Oil & Gas Wells	15.2%	-43.7%	5.6%	18.6%	24.5%	5.8%	6.5%
Public Construction	-10.0%	-20.2%	12.6%	10.8%	9.0%	6.1%	6.6%
Buildings	-17.6%	-21.6%	2.2%	11.3%	11.3%	10.6%	6.5%
Highways & Streets	-9.1%	-20.5%	16.9%	11.7%	10.1%	5.8%	7.5%
Military/Public Security	59.4%	-19.8%	5.5%	0.3%	-3.9%	-3.7%	-1.2%
Conservation	-7.7%	-7.6%	5.0%	7.6%	5.1%	4.6%	3.9%
Sewer Systems	-13.8%	-16.5%	0.6%	6.7%	3.4%	5.1%	5.9%
Water Supply Systems	-8.2%	-23.9%	11.0%	7.9%	4.4%	6.0%	2.5%
Miscellaneous	-11.4%	-21.4%	-2.5%	10.3%	8.7%	7.8%	3.5%

Contact: Ed Sullivan, Chief Economist, PCA, (847) 972-9006



U.S. Cement Consumption Forecast
(000 Metric Tons)

United States
Fall 2009

	2008	2009	2010	2011	2012	2013	2014
Total Cement Consumption	96,543	70,871	74,410	87,124	99,751	111,603	121,406
Portland Cement	93,497	68,953	72,505	84,497	96,715	107,872	117,147
Masonry Cement	3,046	1,918	1,905	2,627	3,036	3,731	4,259
- Portland Share of Total, (%)	96.8%	97.3%	97.4%	97.0%	97.0%	96.7%	96.5%
Cement and Clinker Imports	11,295	5,739	5,700	5,700	5,700	7,000	12,700
- Import Share, (%)	12.1%	8.3%	7.9%	6.7%	5.9%	6.5%	10.8%
Percent Change							
Total Cement Consumption	-15.6%	-26.6%	5.0%	17.1%	14.5%	11.9%	8.8%
Portland Cement	-15.1%	-26.3%	5.2%	16.5%	14.5%	11.5%	8.6%
Masonry Cement	-28.8%	-37.0%	-0.7%	37.9%	15.6%	22.9%	14.2%
Cement and Clinker Imports	-50.3%	-49.2%	-0.7%	0.0%	0.0%	22.8%	81.4%

Contact: Ed Sullivan, Chief Economist, PCA, (847) 972-9006