Vermeulens Cost Consultants

Toronto, Boston, Dallas

Beyond Estimation
Q3 Market Update

October 15, 2010

- *Risk of double-dip recession starts to fade.*

Market Watch

Since 2006, Vermeulens has been putting together papers and presentations on the state and direction of the construction market. Our guiding philosophy in forecasting is to assume that the inflation targets of the Federal Reserve and Canada's Central Bank will propel monetary policy and subsequently construction prices.

This approach led to the successful forecast of a future drop in prices during the 2007 and 2008 price peaks.

Previous recessions have been analyzed and have framed our positions on both the size and extent of the price drop-off we have seen in this recession.

Looking ahead we see a bumpy road for recovery and therefore buying opportunities for owners.

The current risk of a double-dip recession is real. Money supply and credit growth is stalling and calls for more easing from central banks such as the (albeit tardy) rescue package for sovereign debt in the Euro zone.

Deflation is the current concern in North America and aggressive easing, such as the Federal Reserve buying more assets, has begun with the fed rolling over its current stock of securities and plans to buy more in an ad hoc fashion depending on circumstances.

See Vermeulens blog http://vermeulens.posterous.com/ for more discussion on this and other topics.

- *Selling prices continue 14% below their peak in 2008.*

What Does This Mean For Construction

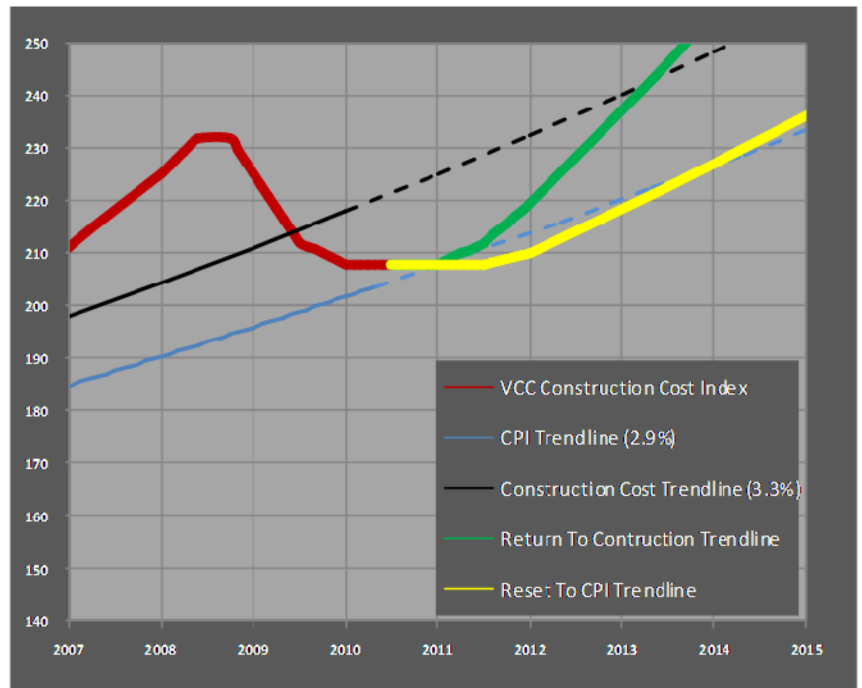
SINCE THE BEGINNING OF THE GLOBAL RECESSION construction selling prices for institutional projects have fallen by 14% from their peak in 2008. In some cases we have seen extremely competitive bidding and 'bids at cost' increasing this reduction to as much a 25%. Before we return to escalating pricing levels we need an increase in construction volume. Deflation is a current concern, however historical trends show that we are on track for a rebound in construction volumes.

- *Recent moves by the Fed will work to avoid a double-dip recession.*

Key Indicators

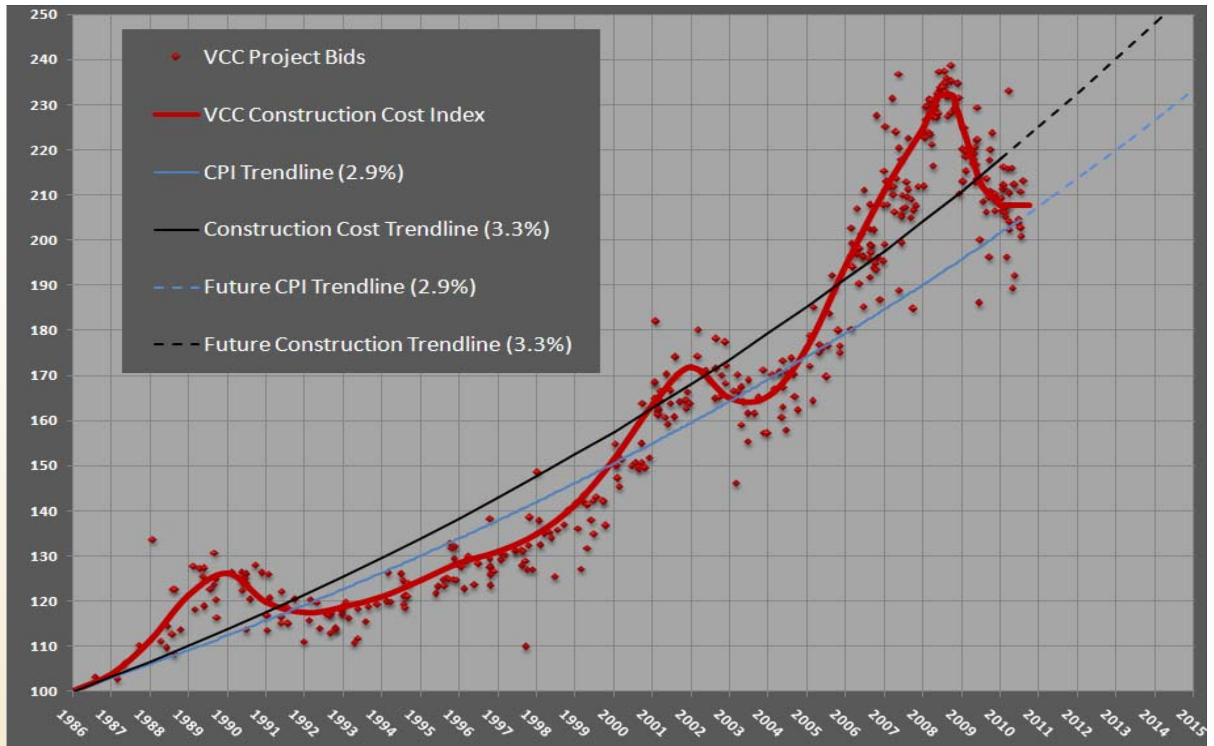
The table below and left looks at several of the key economic indicators that drive construction volume and subsequently construction costs. On balance, current indicators support stable construction costs. However, continuing slow growth indicates that institutional costs will follow the "Reset To CPI Trendline" scenario (depicted in the chart below and to the right) and that buying opportunities for owners will persist for some time. With the recent changes in monetary policy, nominal and real interest rates as well as financial and real estate assets will support an uptick in activity.

Indicator	Changed	Current	Forecast
CPI Inflation	*Very Low*	↑	↑
ICI Demand	*Low Stable*	↓	⇔
Nom Interest Rates	*Very Low*	↑	↑
Real Interest Rates	*Mid to High*	⇔	⇔
Gov Spending	*Turning*	↑	↓
Gov Deficits	*Turning Very Neg*	↓	↓
Financial Assets	*Turning*	⇔	⇔
Real Estate Assets	*Low Stable*	↓	⇔
Construction Prices	*Low Stable*	⇔	↑
Construction Employ	*Low*	↑	↑



- *Will a new lower trend line establish itself such as in the 1990's?*

Vermeulens Construction Cost Index



FOR THE PAST 25 YEARS construction costs have trended to a 3.3% annually compounded escalation rate. In 2008 construction costs reached a peak and have been trending downward ever since. Very similarly costs peaked in 1990, and 2001. The rate of escalation seen in construction costs are directly tied to the Federal Reserves goal of 2 - 3% annual inflation and the monetary policy used to achieve this goal. In general, construction costs have escalated approximately 15% faster than CPI due to lower inflation achieved in other sectors of the economy and the reduction in real interest rates obtained in the last 20 years.

The real question now is: Where are costs going? The chart above illustrates bid prices ('Vermeulens Project Bids') for institutional projects relative to the Vermeulens Cost Index and the 3.3% trend line (1986=100). From the peak in 2008 to current, construction costs have fallen by 14%. Will the trend line maintain itself at the 3.3% of the previous 20 years or will a new lower trend line establish itself such as in the 1990's?
The answer will depend on productivity growth in all sectors of the economy not just construction, and the level of real interest rates. *See Vermeulens blog http://vermeulens.posterous.com/ for more on this.*

- *The window for the best bargains will close with a rebound*

Comparing Recessions

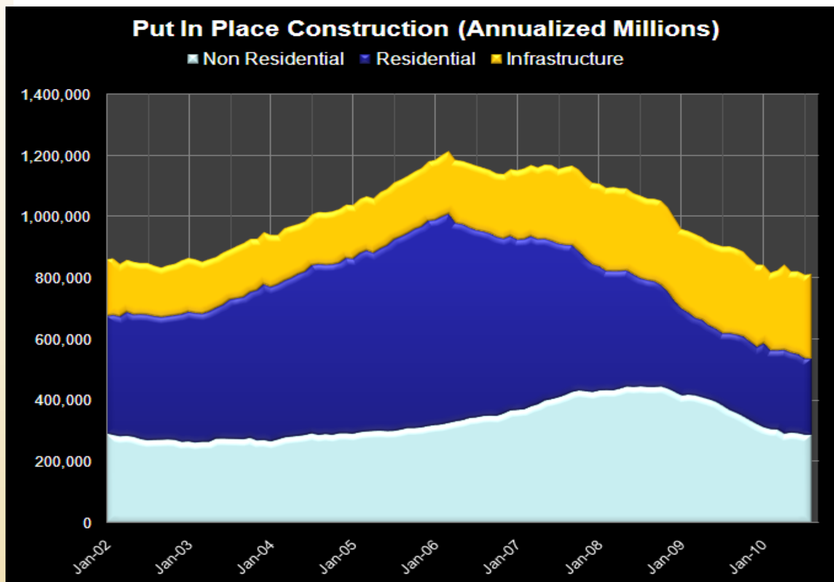
In the table below we examine key economic indicators and measure the duration for recovery in the previous three recessions. What this table shows is that our current recession has been deeper but appears to be recovering in a similar fashion to recessions of the past. If construction volume has bottomed (as it appears) and begins to gain steam in the coming quarters, prices should stabilize and cost escalation will follow.

		Timing of Rebound In Key Indicators			
Recession	Recession Start	Stock Market	GDP	Employment	Construction Put In Place
1981 - 1982	Q2 81	Q3 82	Q4 82	Q1 83	
1990 - 1991	Q4 90	Q4 91	Q2 91	Q1 92	Q2 93
2001 - 2003	Q1 01	Q2 01	Q4 01	Q2 03	Q2 03
2008 - 2009	**Q1 08**	**Q1 09**	**Q3 09**	**Q1 10**	***Q3 10***
Average Duration		4 Quarters	4 Quarters	7 Quarters	10 Quarters
Current Recession Duration		4 Quarters	6 Quarters	8 Quarters	*10 Quarters*

Construction Volume

- *Infrastructure and Residential spending are up 9% and 5% from their respective bottoms. Non Residential appears to have bottomed*

CONSTRUCTION VOLUME IS THE NUMBER ONE DRIVER OF CONSTRUCTION COSTS. As volumes increase and hence contractor bidding opportunities and backlogs grow, the margins included in a bid will grow. Conversely, current market condition with lower volumes are yielding lower prices. Put In Place Volume peaked in March 2006 (along with residential construction) and recently bottomed in July 2010. From peak to trough, construction volumes have decreased by 33%, despite the 300+ billion injected through federal stimulus funding. When examining Put In Place construction it is important to note that these figures typically lag construction starts by 12 to 24 months.



http://www.census.gov/const/www/c30index.html

Therefore, reduced spending in 2010 is a result of reduced starts in 2008 and 2009.

Residential volume peaked in March 2006 and bottomed in July of 2009. From that bottom residential construction has seen a 5% increase in volume. A portion of this is due to seasonal effects. McGraw Hill had predicted starts to grow by 32% and 16% for single family housing and multi family housing respectively in 2010. A rebound in residential starts seems inevitable as current levels are about half of what is required historically to satisfy long term household formation.

Non Residential construction volume (excluding infrastructure) peaked in October 2008 and appears to have bottomed; 36% below its peak. McGraw Hill had predicted starts growth of –4%, +1% and –14% for commercial, institutional and manufacturing respectively in 2010.

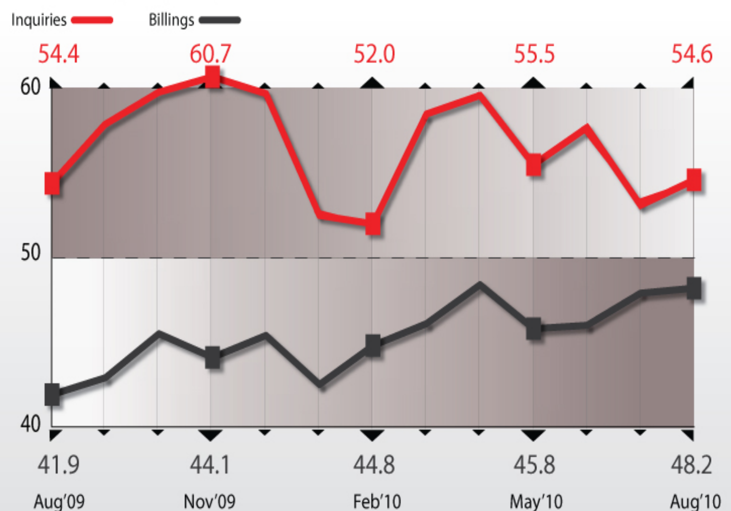
Infrastructure spending peaked in August 2009 and fell by 11% to its bottom in Feb 2010. Infrastructure spending has now rebounded by 9% from the February bottom. In general, Infrastructure spending has remained stable due to stimulus funding. The lag between starts and put in place construction in infrastructure is short and is a timely indicator of state and federal spending.

AIA Billings

- *Architectural Billings Continue to decline*

THE AIA INDEX continued its recent upward climb in August to 48.2, the highest score in four months. Billings at architecture firms are still declining, but are now doing so at a very slow pace. The ABI score has increased for each of the last three months and it seems likely that as a profession, firms should begin seeing growth in the near future. Inquiries into new projects remain strong, as they increased for the thirteenth consecutive month in August.

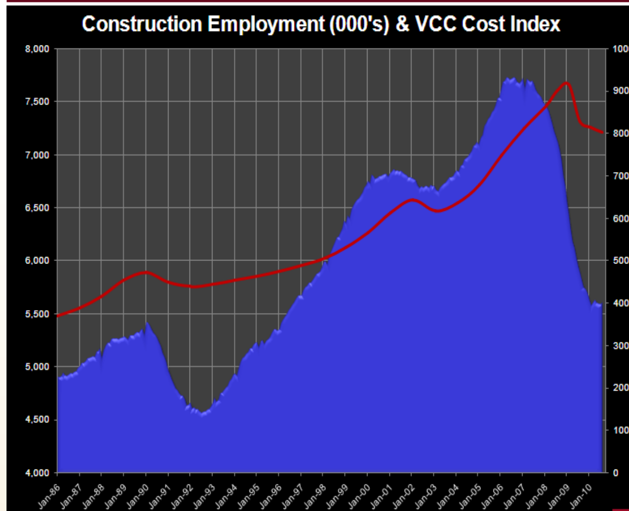
In general there is a 12 month to 24 month lag between an increase in AIA billings and increased construction starts. The reason for this lag is the design cycle. Therefore there is generally a minimum lag between construction costs and the AIA billing index of 12 months to 24 months.



http://www.aia.org/practicing/AIAB083478

Labor Market

- *Construction employment has fallen by 28% or 2.1M workers*



US bureau of labor statistics Series Id: CES2000000001

CONSTRUCTION EMPLOYMENT PEAKED understandably at the same time as construction put in place (March 2006). However, the sharp downward decline in employment did not occur until approximately 12 months later. From the peak, construction employment has fallen by 28% or by 2.1M workers.

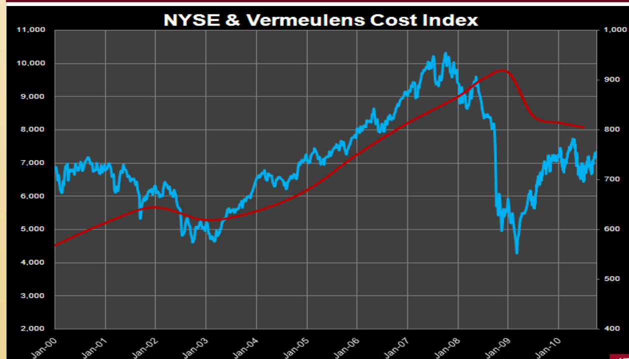
With such substantial layoffs the remaining workers are generally the most experienced and productive resulting in improved productivity and consequently lower costs to suppliers.

Improved productivity has offset annual labor wage increases. On average negotiated rates are set to increase by approximately 3% in 2010, which are lower than historical increases.

As we move back towards increased construction volume there is substantial capacity for the market to grow without labor shortages. However, the non-inflationary level of employment will reset to a lower amount as workers will leave the construction labor market.

Equities & Commodities

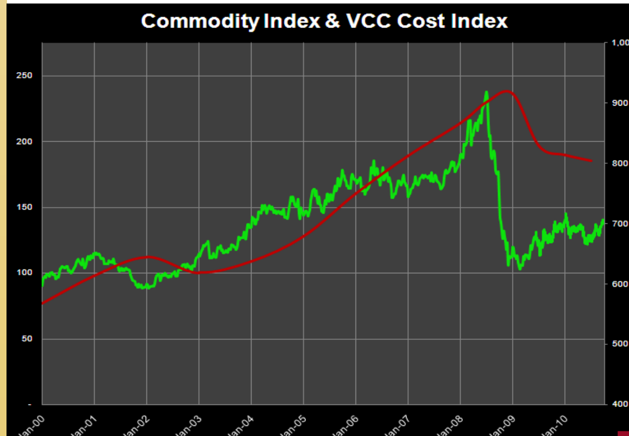
- *Equity markets have increased by 70% from the March 09 bottom but are well below their peak.*



http://finance.yahoo.com/q/hp?s=%5ENYA

THE NYSE IS A STRONG PREDICTOR of construction costs. The reason for the correlation is that improving equity markets provide capital and investment spending. From the peak in November 2007 the equity markets fell by 58% to their bottom in March 2009. Since that time equity markets have increased by 70%. Continued growth in the equity markets will require increased economic activity, low interest rates and growth in the jobs market. Continued growth will lead to increased construction volume and consequently support for construction prices.

- *Commodities have appreciated by 35% and may be approaching supply/demand equilibrium*

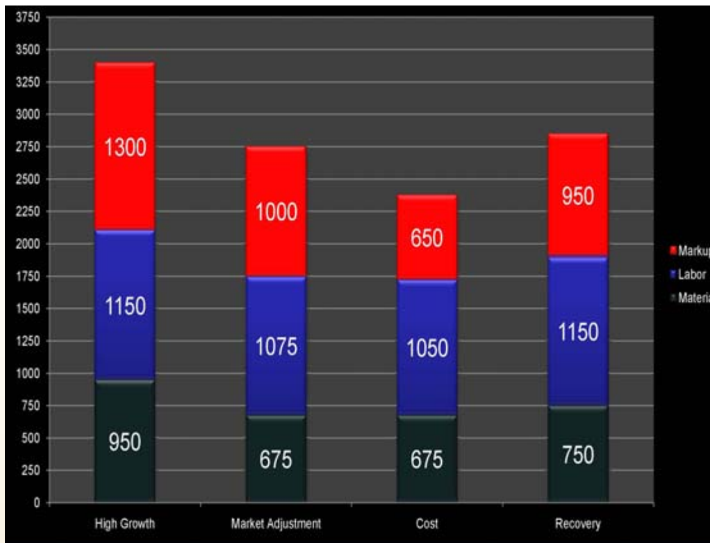


http://finance.yahoo.com/q/hp?s=%5EDJC

COMMODITY PRICES are an indicator but not necessarily a predictor of construction prices. These prices can lag or lead construction volumes in the North American market depending on world demand. The story on commodities will continue to be dictated by Asian demand, supply streams created by strong price levels and regulatory responses to energy supply and security issues. The energy story is particularly important as energy underpins all economic activity. Technical advances and peak oil will continue to do a dance for some time until significant "unconventional" supplies come on stream.

- *Selling prices are at their cost floor.*

Selling Prices



SELLING PRICES FOR STRUCTURAL STEEL and most building components can be separated into three categories: Markup, Labor, and Materials. The chart on the left illustrates the "selling price" of structural steel and how it will vary in different market conditions. As we move from High Growth markets to a period of Market Adjustment the largest movement is in markups. In a High Growth market, contractors will charge high overheads and profit. In a period of Market Adjustment they will forgo this markup where they can to win a project. Reductions in labor costs are found through productivity improvements and elimination of overtime. Material cost savings are found through the reduced pricing due to simple supply and demand. Just as the steel contractor can reduce pricing to win work so can the materials supplier. However, there is a **Cost Floor** to the these price movements. Attrition of supply will occur as bankruptcy, depreciation and wage erosion play out. In a dying industry or rapidly changing technology environment or a general economic collapse, even lower cost floors will be established. This has not been the case with construction historically. As volume grows and contractors rebuild their backlog they will be able to increase selling prices to reflect margins capable of supporting growth.

- *The risk of further banking crises and credit shortages should continue to decline*

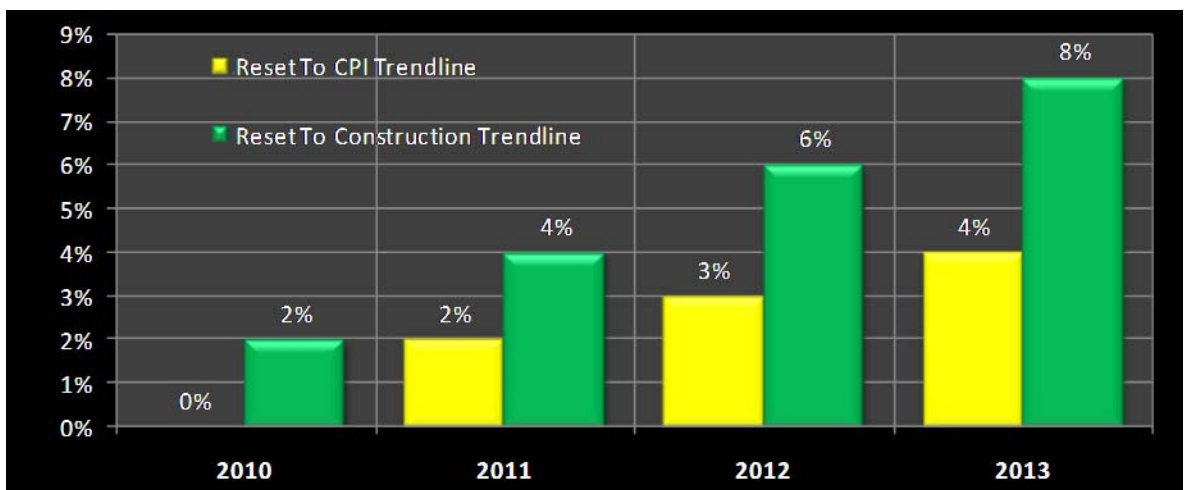
Central Bank and Lending Policy

On Aug. 10, the Fed's policy setting committee said it would invest the proceeds of expiring mortgage-related assets in Treasuries, a shift from its previous position of reducing the more than $2-trillion in assets that the Fed built up during its original quantitative easing campaign, an amount that is double what the central bank would typically keep on its balance sheet.

In Jackson Hole, Mr. Bernanke and his colleagues on the Federal Open Market Committee said that allowing the Fed's balance sheet to contract would have been inconsistent with clear evidence that the recovery was losing momentum. However, he said he still believed that the "preconditions" were in place for decent economic growth in 2011.

Further uncertainty was reduced with respect to international banking standards contained in Basel III..Financial institutions won't face higher capital standards until Jan. 1, 2013, a delay that is longer than many feared. This will help allow banks more freedom to lend in the early stages of recovery.

Forecast



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