

## **Cost Escalation Brief May 2010**

Some market factors for construction are turning positive. Industrial production is still below peak levels, but shows a 7 month upward trend. High unemployment is rampant but there is a recent drop in construction unemployment. The Architectural Billings Index is still showing a declining work volume but has increased for the third straight month. However, we may still expect further declines in construction investment projects dependant on tax receipts and diminished state and local government fund balances. There have been comments that the recession ended months ago, but the construction market recovery will lag the overall recovery and will take longer due to the severity of current conditions. Selling prices are still depressed and it will take time before contractors see a return to normal margins. It may be several years before the construction workforce returns to pre-recession levels.

### **Jobs / Unemployment**

In February 2010, construction unemployment reached a peak of 27 percent, a 10 year high. More than 2 million construction workers had lost their jobs. The most recent declines were heavily weighted to non-residential construction. A good sign, in both March and April, construction jobs were added. As of April, construction unemployment is now at 21.8%, although much of the recent improvement is due to normal seasonal fluctuation. At the current rate of job expansion, it is assumed it will take 3 to 4 years to return to normal. It is also assumed some of the jobs lost will never be regained.

Overall, U.S worker productivity has increased. Non-farm productivity increased at an annual rate of 3.6% during the 1<sup>st</sup> quarter. That is a considerable slow down from the 6.3% annual rate of increase in Q4'09. At the end of Q1'10, productivity has increased 6% from one year ago.

Construction labor productivity has increased. However, even a 6% increase in productivity, when factored on the current population of approx. 80% of the workforce (80% of the workforce at 106% output = 85% of the volume) means that only 85% of the volume of work can be put in place with the current workforce as compared to 2007 when employment was at a peak.

### **Construction Starts**

The value of construction starts for the period January-April 2010 was 11% higher than in the same PERIOD LAST YEAR, Reed Construction Data reported on Tuesday. April starts were 6.6% higher than March," a little short of the usual seasonal gain in April. So April has to be interpreted as approximately steady with March." However, when we look at just non-residential construction, April nonresidential building starts were 13% above March, about double the usual seasonal gain, and 31% higher than a year ago, but still 19% below the 2006 to 2008 average. The April starts gain was due to a big rebound in hospital starts after four weak months, plus smaller pickups in education and commercial buildings."

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Construction starts for all non-residential and non building projects declined ~23% in 2009. This will have a dramatic affect on volume of work put in place (construction spending) in both 2010 and 2011, keeping both the labor force and materials output depressed. **Construction Starts Projections for 2010 are for moderate declines in Educational and Office; a moderate increase in Healthcare; major declines in Hotels and Manufacturing; major increases in Highway and Public Works.**

## Construction Spending

Construction projects on average spend only 15-20% of total value in the year started. Long term projects spend most of their dollars in yr2 or even yr3 of the construction schedule. Therefore the exceptional drop in construction starts in 2009 will have significant impact on construction spending during 2010 and 2011.

<b>U.S. Nonresidential Construction Spending</b>							
(billions of U.S. current dollars)							
	Monthly Figures*		Annual Figures				
	(latest actual values)		Actual			Forecast	
	Feb-10	Mar-10	2007	2008	2009	2010	2011
Lodging	13.232	12.640	28.676	35.819	25.136	12.500	13.575
	-54.7%	-59.7%	59.5%	24.9%	-29.8%	-50.3%	8.6%
Office	42.109	41.478	65.195	70.078	55.630	40.018	40.550
	-34.1%	-34.1%	20.4%	7.5%	-20.6%	-28.1%	1.3%
Commercial (mainly retail)	44.477	43.650	89.233	85.097	58.295	43.330	45.913
	-36.7%	-36.8%	16.4%	-4.6%	-31.5%	-25.7%	6.0%
Health Care	40.199	41.574	43.725	47.581	46.725	42.123	47.575
	-16.1%	-13.1%	13.6%	8.8%	-1.8%	-9.8%	12.9%
Education	92.731	91.470	96.523	103.785	102.836	91.607	97.950
	0.0%	0.0%	13.4%	7.5%	-0.9%	-10.9%	6.9%
Religious	5.788	5.986	7.541	7.130	6.349	5.918	6.000
	-19.2%	-14.4%	-2.6%	-5.5%	-10.9%	-6.8%	1.4%
Public Safety	12.791	13.032	10.172	12.931	14.216	12.884	13.800
	-8.4%	-7.4%	30.4%	27.1%	9.9%	-9.4%	7.1%
Amusement/Recreation	15.086	15.071	21.172	21.486	18.695	15.207	17.375
	-25.2%	-25.0%	11.5%	1.5%	-13.0%	-18.7%	14.3%
Manufacturing	56.303	59.171	45.496	61.113	75.161	56.483	55.625
	-31.2%	-28.3%	29.6%	34.3%	23.0%	-24.9%	-1.5%
<b>Total</b>	<b>322.716</b>	<b>324.072</b>	<b>407.733</b>	<b>445.018</b>	<b>403.042</b>	<b>320.069</b>	<b>338.363</b>
	-26.6%	-27.0%	19.2%	9.1%	-9.4%	-20.6%	5.7%

\*Monthly figures are seasonally adjusted at annual rates (SAAR figures). Percents are vs same period previous year  
 Actuals: U.S. Census Bureau (Department of Commerce) (put-in-place investment figures).  
 Forecasts and table: Reed Construction Data.

Total Construction spending in 2009 declined 11%, following a 7% decline in 2008 and a 1.6% decline in 2007. However, total construction spending was dramatically affected by residential spending. We see here that Non-Residential Buildings spending declined 9.4% in 2009 after

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increases of 9.1% in 2008 and 19.2% in 2007. Unfortunately, non-residential spending will not escape the slowdown. The major decline in non-residential construction spending is expected to occur in 2010.

Federal figures released in January indicate that construction spending declined to a six-year low. In January, expectations were for approximately a 5% additional decline in construction spending in 2010 then slowly increasing to an annual 6% growth in 2011. **The Reed Construction Data forecast has recently been revised down to project an 8.8% drop in 2010** and then a 6.7% recovery in 2011. The downward revision is largely to recognize the recent unexpectedly large declines in spending for K-12 schools and multi family housing. State and local budget cutbacks are accelerating and will be very deep in the 2010-11 FY beginning in July. **Having a greater affect on our industry, non-residential spending is predicted to drop more than 20% in 2010.** It may be 2012/2013 before levels of construction spending increase back to the levels experienced in 2008 and earlier.

### **Construction Costs General**

The construction unemployment rate rose to 27% during this past winter. It was predicted to rise above 22% by the summer but recover slightly by year end. Current seasonal adjusted unemployment rate for construction is near 22%. Although there were recent improvements in construction employment, there were also recent increases in the overall unemployment rate. There may continue yet to be more job losses in construction and this should help continue downward pressure on construction wage rates. **AGC, in a January report, shows recently negotiated labor agreements average 2.8% for first year** and 3.2% for second year of multi-year agreements. First year wage agreement increases have decreased significantly from the 4.6% in 2008. **The last time the average first year increase was below 3% was 1996.** Construction labor is significantly under-utilized. Competition to reduce job costs is resulting in improved labor productivity and will help keep labor costs down. Reported productivity increases of approximately 6% balanced against wage increase of less than 3% means that overall labor cost may have fallen by 3+%.

**The Institute for Supply Management, in a survey released on April 30, reported that Prices paid has shown a dramatic increase over the last few months and is now at the highest it's been since Sept. 2008. Of items used in construction, copper, copper fittings, copper pipe, steel shapes, lumber aluminum and diesel fuel were reported up in price. New Orders and production show a 7 month expansion.**

Construction materials suppliers in January were shipping 20% less product than two years ago. Some production capacity has been shut down and the utilization rate of remaining capacity is still below normal. In some cases this has been causing downward price pressure. USG Corp., the U.S. largest distributor of drywall, eliminated 370 jobs during Q1'10. Drywall industry manufacturing production is at 50% of capacity. USG has sharply cut capacity, reducing drywall output down to the level of demand, and has therefore been able to raise prices.

An indicator of increasing construction starts is the volume of cement demand. Both the largest US cement producer and the top gravel supplier reported increases in volume in both March and April, their first reported increases since 2006. The Portland Cement Assoc. predicts cement

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demand will increase 5% this year following a 27% decrease last year. Some other predictions have cement demand up 8% this year. This may help support price increases.

Contractors' margins are extremely variable over market sectors. **Depressed margins for nonresidential building contractors will continue for most of 2010 until projects available for bid begins to rise.** Competition will cause project bids to stay low well into 2010 but expect costs to rise slightly by year-end.

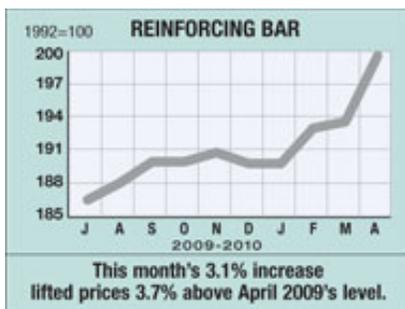
Several noted economists have voiced strong concern over the practice by some contractors to bid projects below cost. The typical scenario leads to an unsustainable business model, attempts to pass along low bid losses to lower tiered contractors and suppliers, and potential involvement of bonding companies in the likely event of failure.

Construction design capacity has shrunk 10% in the last two years based on the employment of architects and engineers. The design industry is still experiencing a rise in the underutilization of remaining employees. Design fees have edged down with further small cuts expected for most of 2010. While overall construction jobs increased in recent months, architectural and engineering jobs decreased in April, although only at half the monthly rate of decline over the past year. Still, this is not a good sign, since this is a precursor indicator to upcoming construction activity.

## Material Price Movement

ENR's 20-city average price for ready-mix concrete is 2% to 3% higher than this time last year. National average prices are \$95, \$100 and \$110 for 3000psi, 4000psi and 5000psi ready mix.

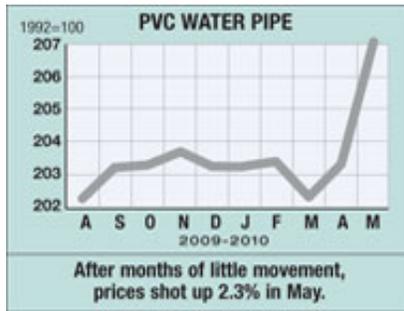
One of the pitfalls for cost estimators is the turnabout in materials cost trends from decline to increase in the last few months and the near certainty that this trend will strengthen and continue. The monthly materials cost price index from the Bureau of Labor statistics increased at over a 6% annual pace in the four months through February after ten months of no change.



Since mid '09, reinforcing bar prices have been back on the rise. Predictions are for an increase of 5% in 2010. ENR's 20-city average price for concrete reinforcing bar rebounded 3.1% in April, which accounts for most of the year-to-year gain of 3.7%. According to Global Insight, during the first quarter of this year, rebar prices rebounded 7.6% over the fourth quarter of last year. However, this year's first-quarter price was still 46% below 2008's peak.

Graphic from ENR 4-26-10, used by permission  
<http://enr.construction.com/economics/materials%5Ftrends/>

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PVC water and sewer pipe posted monthly price hikes averaging around 2% at the beginning of May. DIP prices posted year-to-year annual price increases ranging from 5.3% for 12-in.-dia pipe to 6.5% for 8-in.-dia pipe. Prices for copper water tubing have been surging. ENR's 20-city average price for 1/2-in. copper tube in April was 9.1% higher than a year ago. The producer price index for copper pipe in January was up 57% for the year.

Graphic from ENR 5-17-10, used by permission  
<http://enr.construction.com/economics/materials%5Ftrends/>

The AGC/Reed Construction Market Forecast predicts in 2010, overall composite materials cost price growth for construction materials will move from 0% at start 2010 to 8% by end 2010. Materials prices by the end of 2010 are expected to be rising faster than overall inflation.

The Producer Price Index for April indicates a weighted average 6% annual increase in the cost of materials for construction. The weighted average of all materials used for construction had fallen 2.3% over 12 months thru November. It was flat for the 3 month period Sept-Oct-Nov. and finally posted an increase in Nov. Several materials hit an apparent bottom price in the last few months.

Compared to March, the April data shows that diesel fuel was up 6.5 percent (not seasonally adjusted), steel mill products were up 5.2 percent, lumber and plywood were up 4.7 percent, copper and brass mill shapes were up 4.3 percent, aluminum mill shapes were up 3.6 percent and gypsum products were up 2.4 percent.

Materials average about 40% of the cost of a building. The primary factor keeping total costs down right now is high level of competition for little new work. While material costs have increased in recent months, the price asked for subcontract work and for finished buildings has continued to decline. This divergence is exacerbating the squeeze on contractor's margins.

## Structural Steel

Standard Structural Steel shapes are averaging \$860/ton to \$890/ton, up slightly in Q1'10 but still below same period '09.

Buyers are paying more for steel, but are still paying below list price. Even with that, steel prices in some cases are up approximately 30% from the low-point in December 2009. Hot-rolled sheet steel price in March is the highest it has been since November 2008. Wide flange beams in March were selling on average for \$675/ton, well below the mill list price of \$720 to \$765. Hollow structural sections (HSS) sold for an average \$724/ton transaction price in Q1'10, up 16% from \$623 in Q4'09, however still well below the list price of \$985/ton being asked by the steel mills.

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The following BLS-PPI table shows the Steel Mill Products Index. It reached a peak in August 2008, but by May 2009 had fallen 40% below that peak. Since June 2009 the index has increased nearly 30%, recovering almost half of the drop since the 2008 peak.

**BLS Producer Price Index – Commodities - Metals and Metal Products**

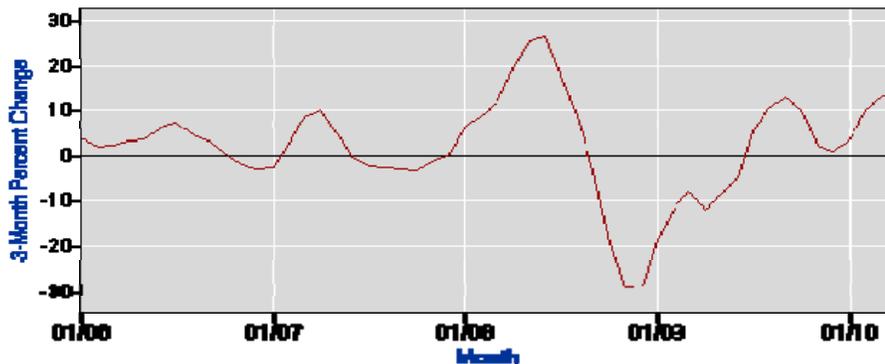
<b>Series Id:</b>	WPU1017												
<b>Group:</b>	Metals and metal products												
<b>Item:</b>	Steel mill products												
<b>Base Date:</b>	198200												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2006	163.5	163.5	163.8	165.2	167.5	173.2	179.8	181.7	185.3	187.3	180.0	179.0	174.1
2007	175.8	178.0	181.7	188.3	190.3	190.5	189.4	183.4	180.2	177.7	179.0	180.6	182.9
2008	183.2	186.6	196.9	209.7	229.9	246.0	251.8	257.0	251.8	231.4	213.6	189.3	220.6
2009	178.8	171.5	167.3	157.0	153.0	153.3	156.4	161.9	168.6	173.7	170.6	170.8	165.2
2010	172.1(P)	180.1(P)	186.2(P)	195.8(P)									

P : Preliminary. All indexes are subject to revision four months after original publication.

See table below for the percent change versus 3 months prior for iron and steel. It shows the increasing cost trend.

**3-Month Percent Change – Iron and Steel**

**Series Id:** WPU101  
 Not Seasonally Adjusted  
**Group:** Metals and metal products  
**Base Date:** 198200



Structural steel is very much dependant on recycled steel. Although not entirely, the price of scrap steel is predominantly set by supply/demand. Demand at the end of 2009 was low, although indicators pointed to increasing demand. We anticipated demand to pick up this year and can now see that is the case. Eventually, structural steel prices will come in line with scrap prices and cost of steel reaching the end user will be more expensive.

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<b>3-Month Percent Change</b>													
<b>Series Id:</b> WPU1012													
Not Seasonally Adjusted													
<b>Group:</b> Metals and metal products													
<b>Item:</b> Iron and steel scrap													
<b>Base Date:</b> 198200													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2006	2.9	1.3	3.2	15.9	10.9	13.2	7.1	-5.9	-7.7	-12.3	-6.5	-4.6	
2007	8.6	25.5	42.3	28.5	1.6	-14.9	-14.1	-1.7	4.7	6.7	1.4	2.0	
2008	19.6	29.6	25.9	41.6	45.4	43.9	14.6	2.7	-21.6	-54.4	-69.7	-54.4	
2009	-16.4	26.3	-0.1	-18.1	-3.7	9.5	39.0	38.3	38.9	15.3	-5.2	0.6	
2010	20.9(P)	34.3(P)	35.1(P)	25.1(P)									
P : Preliminary. All indexes are subject to revision four months after original publication. Data released May 18, 2010													

## The Baltic Dry Index

The Baltic Dry Index (BDI) provides an assessment of the price of moving major raw materials by sea. It indirectly measures global supply and demand for the commodities shipped aboard dry bulk carriers, such as building materials, coal, metallic ores, and grains. Because dry bulk primarily consists of materials that function as raw material inputs to the production of intermediate or finished goods, such as concrete, electricity, steel, and food, the index is also seen as an efficient economic indicator of future economic growth and production. **The BDI is termed a pure leading economic indicator because it predicts future economic activity and is not influenced by speculators.**

The January BDI was 3327 is up more than 2000 points from the Q1'09 bottom, but is still more than 8000 points below the Q2'08 peak. Previously, it took two years for the index to recover that great a gap. At the rate of increase over the last 12 months, it may take two more years for the index to recover to previous levels. **As demand increases, the BDI goes up. As the BDI increases, so effectively does the cost of raw materials. A rising BDI, as we have now, indicates an increase in future economic activity but also future rising prices for commodities and materials.**

**On May 17<sup>th</sup>, the BDI was 3922. It has gone up 900 points, nearly 30% since April 26. The index is at it's highest in the past 5 months.**

## Architectural Billings Index

After a rise in Q3'09, the **Architectural Billings Index (ABI)**, A leading indicator of U.S. nonresidential construction spending, dropped in November back under 43, to a level no higher than it was in Mar'09, and in fact also less than it was in Mar'08. **The ABI has remained below 50, indicating falling demand, since January 2008.** The index for Architecture firm billings has been in this vicinity since last summer and until recently had not yet shown any clear signs of approaching 50, an indicator of an increase in billings.

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**On April 21, the ABI rose to 46.1. After rising for the third consecutive month, on May 19<sup>th</sup>, it reached 48.5, the highest level since Jan. 2008. This may be approaching a level that indicates expansion in the construction sector.**

**Historically there is an approximate 9 to 12 month lag between architecture billings and construction spending for non-residential construction.**

**ENR Index**

**Building Cost Index History**

**HOW ENR BUILDS THE INDEX:** 68.38 hours of skilled labor at the 20-city average of bricklayers, carpenters and structural ironworkers rates, plus 25 cwt of standard structural steel shapes at the mill price prior to 1996 and the fabricated 20-city price from 1996, plus 1.128 tons of portland cement at the 20-city price, plus 1,088 board ft of 2 x 4 lumber at the 20-city price.

<b>ENR'S BUILDING COST INDEX HISTORY (1915-2009)</b>													
1913=100	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE
<b>2000</b>	3503	3523	3536	3534	3558	3553	3545	3546	3539	3547	3541	3548	3539
<b>2001</b>	3545	3536	3541	3541	3547	3572	3625	3605	3597	3602	3596	3577	3574
<b>2002</b>	3581	3581	3597	3583	3612	3624	3652	3648	3655	3651	3654	3640	3623
<b>2003</b>	3648	3655	3649	3652	3660	3677	3683	3712	3717	3745	3765	3757	3693
<b>2004</b>	3767	3802	3859	3908	3956	3996	4013	4027	4102	4129	4128	4123	3984
<b>2005</b>	4112	4116	4127	4168	4189	4195	4197	4210	4242	4265	4312	4329	4205
<b>2006</b>	4335	4337	4330	4335	4331	4340	4356	4359	4375	4431	4462	4441	4369
<b>2007</b>	4432	4432	4411	4416	4475	4471	4493	4512	4533	4535	4558	4556	4485
<b>2008</b>	4557	4556	4571	4574*	4599	4640	4723	4733	4827	4867	4847	4797	4691
<b>2009</b>	4782	4765	4767	4761	4773	4771	4762	4768	4764	4762	4757	4795	4769
<b>2010</b>	4800	4812	4811	4816	4858								

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The current May 2010 BCI index is 4858. The ENR BCI index is up only 1.3% year-to-date, however most of that change represents the period we refer to as the winter index, and cannot be used to extrapolate the annual growth rate.

Cost indices, specifically in this case the ENR-BCI, almost always show an expected slowdown in index growth during the winter months. The ENR BCI index is not seasonally adjusted. In half of all years the Nov 1-Mar 1 (winter index) actually shows a slightly negative index value, while the full year annual growth is always positive. In 12 out of the last 15 years, the Mar 1-Nov 1 (summer index) shows a rapid expansion in growth rate as compared to the previous winter index period.

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The rate of growth in the index from Mar 1-Nov 1 (summer), in 12 out of the last 15 years, exceeds the annual index growth rate by an average of 70%; for 8 of those years averaging 50% higher and in 4 of those years by 200% - 300%. The summer index growth rate not only climbs at a much faster pace than the winter index rate but also climbs faster than the overall annual index rate.

Do not base annual or short term projections for future cost on what you see occurring in the index during the Nov-Mar period. It will likely be grossly under-projected. In years of 4% annual escalation expect winter rate = minus 2% to 2% and summer rate = 6% to 7%.

Specific cities have widely varying rates of growth. Birmingham and Seattle have annual growth near +6%. Chicago, Boston and Minneapolis are +3.9%, +3.7% and +3.2%. Baltimore, Dallas and Philadelphia are all near +2%. On the other hand, Atlanta, Los Angeles, New York and San Francisco are all about -(minus)0.5%. Cincinnati is at -2.3% and Pittsburgh is at -4.4%.

ENR BCI is extremely useful for use in predicting cost of projects over time. By itself, it generally tends to understate the cost growth of projects, due to its limited shopping cart of labor and materials. For instance, it does not include cost movement of any major Mechanical or Electrical components, nor does it include cost movement for most building envelope of finishes. None-the-less, it is often relied upon as an indicator of cost movement over time.

## **Inflation / Deflation**

Annual deflation may have played itself out. Deflation reached a low of -2.10% in Jul'09 and was at -1.29% in Sept'09. For Oct'09 it was just below zero and **thru Q1'10 CPI Inflation has settled just ABOVE 2%**. Predictions are that although it may dip slightly, it will remain in the vicinity of 2% thru the remainder of 2010.

The longer-term inflation outlook is troubling. **Generally, it takes about 2 years for monetary stimulus to result in inflation. Once the effects of the "stimulus" package kick in we may experience inflation (perhaps even hyperinflation).** Although stimulus funded road and highway projects began quickly, stimulus funded projects involving buildings were delayed for a number of reasons. Many of those project funds will be spent in the remainder of 2010 and into 2011.

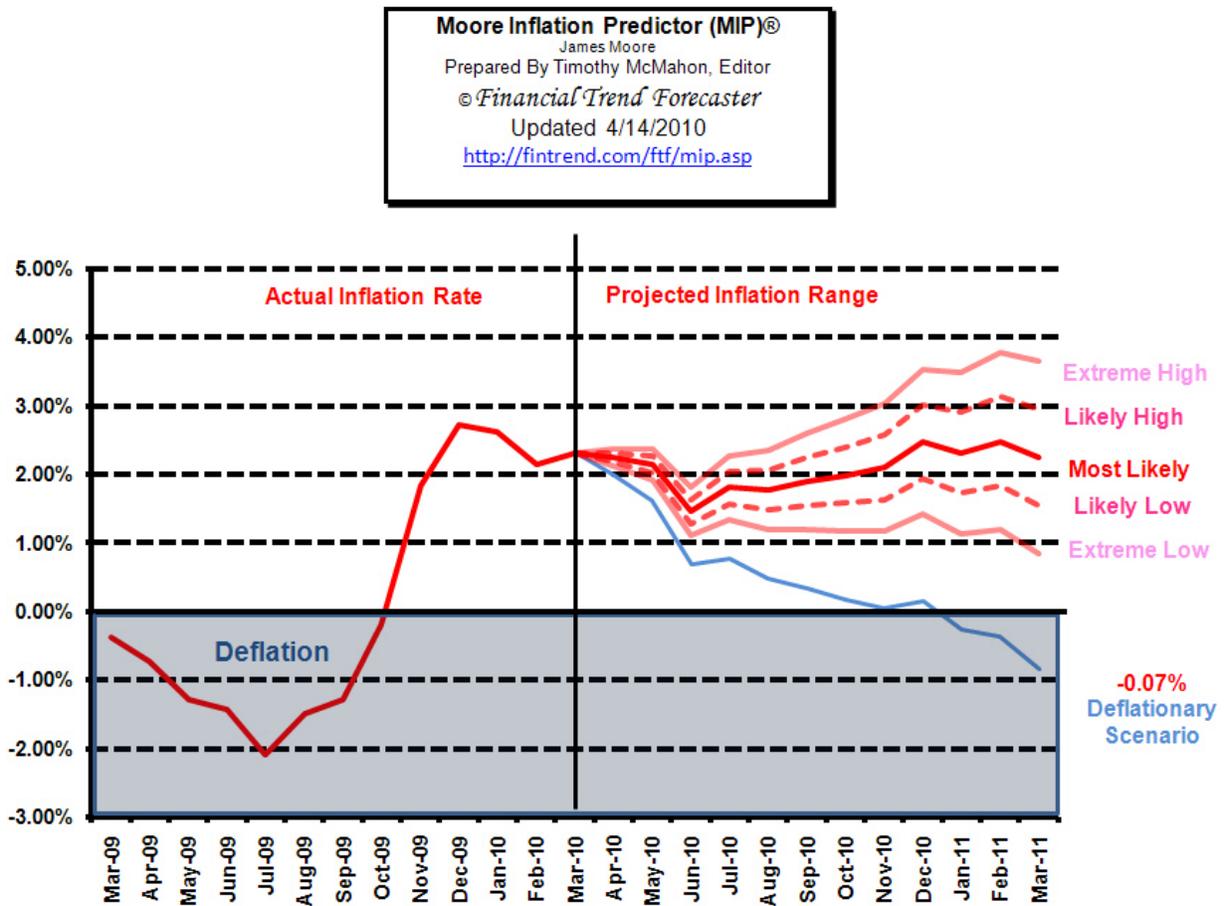
**The Moore Inflation Predictor graph shows the Mar'10 consumer inflation (CPI) rate is now plus 2.3%.** Being a mathematical projection, the MIP has no way to factor in the effects of massive monetary expansion, actions by China to remove "reserve status" from the U.S. dollar, natural disasters, stock market crashes, etc. until it starts showing up in the current numbers, so we must be alert for the influence of these type of events. Remember, it takes about 2 years for monetary stimulus to result in inflation, so we could begin seeing rapidly accelerating inflation just beyond the MIP's current window. However, I would add, BNY, Mellon projects that long term inflation should remain low for the next several years.

**Construction inflation, based on several decades of trend, is double consumer inflation.**

RS Means expects the inflation trend for construction materials prices will accelerate from the current 0% to 2% to over 5% by the end of 2010. Keep in mind construction price inflation is generally twice consumer inflation. AGC predicts construction materials cost inflation will reach

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8% by the end of 2010. Both predict labor cost inflation to hold at about 3%. Both RS Means and AGC predictions do take into account the affects of stimulus spending.



(MIP chart used by permission, Tim McMahon, Editor, Financial Trend Forecaster [www.fintrend.com](http://www.fintrend.com) )

## Some Signs Ahead

Last quarter we reported, manufacturing orders increased and are now nearly back to the year ago level. Orders have increased in eight of the last nine months. Increasing factory orders is essential to an economic expansion. Factory production has already increased nearly 5% with a similar gain expected by the end of 2010. Now we can report, **industrial production increased 1% in April and 6% over the year. Even more promising, industrial production of construction materials increased 2.8% in April, still only 2.9% over the year, but a huge increase in April.**

Industrial production is still well below peaks. However, increasing demand and the recent 7 month expansion in production as reported by the ISM would tend to be an indicator of price increases on the horizon. We may already be seeing those increases as reported in most recent material price increases. **Morgan Stanley projects metals prices may average 32 percent higher this year because of strengthening industrial production.**

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These comments from a recent report issued by BNY Mellon. **We continue to expect global expansion at about 4% GDP growth for 2010 and 2011; a double dip recession is unlikely; stimulative monetary policies are working to re-inflate economic activity and we believe they are not likely to cause a major upsurge in inflation;**

State and local spending is likely to remain sluggish for an extended period of time. **State tax receipts have just experienced the steepest decline ever recorded, and therefore many states face huge budget gaps and shortfalls. Expectations are that state tax receipt shortfalls will be just as big or even bigger in the 2011 fiscal year.** State sponsored construction will likely bear a large share of necessary cutbacks. This will have a significant downward emphasis on public construction.

China in 2009, has taken the lead as the worlds top exporter. The United States gets 20% of all its imports from China. If China experiences cost increases from world supply of raw materials, they must pass on that cost increase to all their major importers. The United States will not be immune to cost increases from other major countries in the world exchange of goods.

## **Selling Price**

Few inflation or material/labor cost predictors address the issue of bidders lowering margins to win work and hence lowering what is known as Selling Price. Selling price is the total price at which a contractor is willing to bid to win a project, even if that selling price eliminates all profit from the bid. Selling price is dramatically affected by economic conditions such as market volume and contractor booked revenue. When market volume is low, contractor's margin, or Selling Price, comes down. As business picks up, and once contractors have more work on the books, even if material prices stay low, contractors begin to increase their selling price.

In our Jan' 10 report I stated: [Project bids continue to come in under budget. **Current bid prices are coming in 10% to 20% below budgets. It is my opinion that major bid price movement for the next 6 to 12 months will still be more strongly influenced by selling price than by changes in material and labor costs.** Subcontractors bidding work with lower margins to secure an even flow of backlog will have a greater impact on project pricing than will the onset of increases in cost of materials.]

Now with Q1 results in hand we have proof that is exactly what is taking place. Construction contractors continue to be squeezed between rising materials costs and falling output prices according to a new analysis of materials costs conducted by the Associated General Contractors of America. See the following data reported this week by Ken Simonson, chief economist of the AGC.

Simonson noted that prices increased significantly for a range of construction components. From March to April diesel fuel, steel mill products, lumber and plywood, copper and brass mill shapes, aluminum mill shapes and gypsum products all increased in cost approx 3% to 6.5%.

Meanwhile, the producer price index for finished nonresidential buildings-reflecting what contractors would bid to construct a new building-was little changed for the month and down significantly from a year earlier. Prices for new office buildings fell 0.1 percent from March and 4.3

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percent from April 2009. The index for new industrial buildings was unchanged from a month ago but down 4.0 percent from the year before. The index for new warehouses was up 0.2 percent for the month but down 4.6 percent over 12 months, and the index for new schools was up 0.7 percent in one month but down 1.5 percent over 12 months.

"These trends suggest that anyone considering a construction project should break ground promptly, before materials costs are reflected in higher bids and while there are still abundant contractors to do the work," Simonson added. "Paying more to earn less is not a sustainable business model." "Contractors are not going to be able to sustain the low prices they have been charging for much longer."

The flow of projects coming to bid during this period will strongly influence this cost movement. If fewer projects come to bid, there will be a significant slow down in overall construction business and bids will remain low, strongly influenced by reduced margins. If we finally see an increase in the volume of projects coming to bid, the need to keep margins reduced will diminish and margins will return to normal.

**If a contractor has reduced margin and is currently bidding 15% below budget, a 5% material cost increase can be absorbed with a change to bidding 10% below budget.** Eventually, with a significant upturn in construction starts, sufficient work flow will support a return to full margins in bid proposals. However, this will eventually cause a condition which will need critical attention, to be addressed under the topic escalation.

## **Escalation - Normal**

**Normal cost escalation in 2008 was 5% to 7%. In 2009 normal escalation was zero. Normal escalation does not include the affects of selling price.**

Expectations for 2010 are that moderate inflation in material prices will continue to be offset by reduced margins. While we might see 8% material cost escalation by year end and 0-3% labor cost escalation for the year 2010, margin reductions of 10-20% will not completely evaporate. The net change in the bid environment might be a narrowing of margin reductions to between 5% and 15% below budgets.

**For preparation of budgets going forward, expect rising material prices from now thru year end. Carry current material prices, but you may choose to carry ZERO escalation in 2010 to account for material price increases that will be offset by continued margin reductions.**

For budgeting future projects, those which may not occur until 2011 or even 2012, we should expect selling prices (margins) will have by that time returned to normal and labor and materials escalation will be moderately impacted as outlined above.

**For future projects, those which may not occur until 2011 or even 2012, nominal escalation of 4-6% "above full margin bids" in 2010 should be carried.** Please keep in mind for 2011 and beyond, if pricing is being compared to "actual bids" in late2009/early2010, the future pricing should not only address the return to normal margins (+10% to +15% above 2009/2010

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actual bids) but also address the material and labor cost inflation (potential average increase of 4-6% annual).

## **Escalation – Addressing a Return to Full Margins**

This previous paragraph is a critical issue and needs repeating. **For future projects, nominal escalation of 5% “above full margin bids” in 2010 should be carried.**

I mentioned this under the topic selling price; [If a contractor has reduced margin and is currently bidding 15% below budget, a 5% material cost increase can be absorbed with a change to bidding 10% below budget. Eventually, with a significant upturn in construction starts, sufficient work flow will support a return to full margins in bid proposals.]

Sometime in the near future, attention needs to be directed to the baseline upon which future escalation is applied. For all of 2009 (including the later half of 2008 and should continue thru early 2010) project bids have been coming in at perhaps 10% to 20% under normal budget estimating. While we can account for some of that drop in very specific material cost reductions, for an entire project as a whole, there is no logical material/labor/productivity pricing that accounts for the dramatic low cost of bids during this period. Much of it is near entirely due to depressed margins. **At some time, perhaps not before predicted starts in 2011, margins will have returned to normal AND contractors will, out of necessity, need to include the normal cost of labor/material escalation.**

Standard escalation Index tables will not easily address the inflection points in this unusual time period. For instance, if ENR Index is used to escalate previous projects to a future point in time, they would completely miss the period of a 10% to 15% drop in actual costs due to reduced margins. They would not account for the need to account for the return to normal margins. The graphic on the following page illustrates this unusual period.

If a 2011 project is being compared to a project budget or final project cost with a baseline midpoint in 2007, a period of normal margin bids, that 2011 project may need only be escalated by the normal (approx 3% for 2007, 6% for 2008, perhaps -3% for 2009 and 4% for 2010) to be escalated fully to account for materials and labor growth into 2011.

If a 2011 project is being compared to a project budget or final project cost with a baseline midpoint at peak cost in mid to late 2008, a period of normal margin bids, that 2011 project may need only be escalated by the normal (-2% for end 2008, perhaps -3% for 2009 and 4% for 2010) to be escalated fully to account for materials and labor growth into 2011.

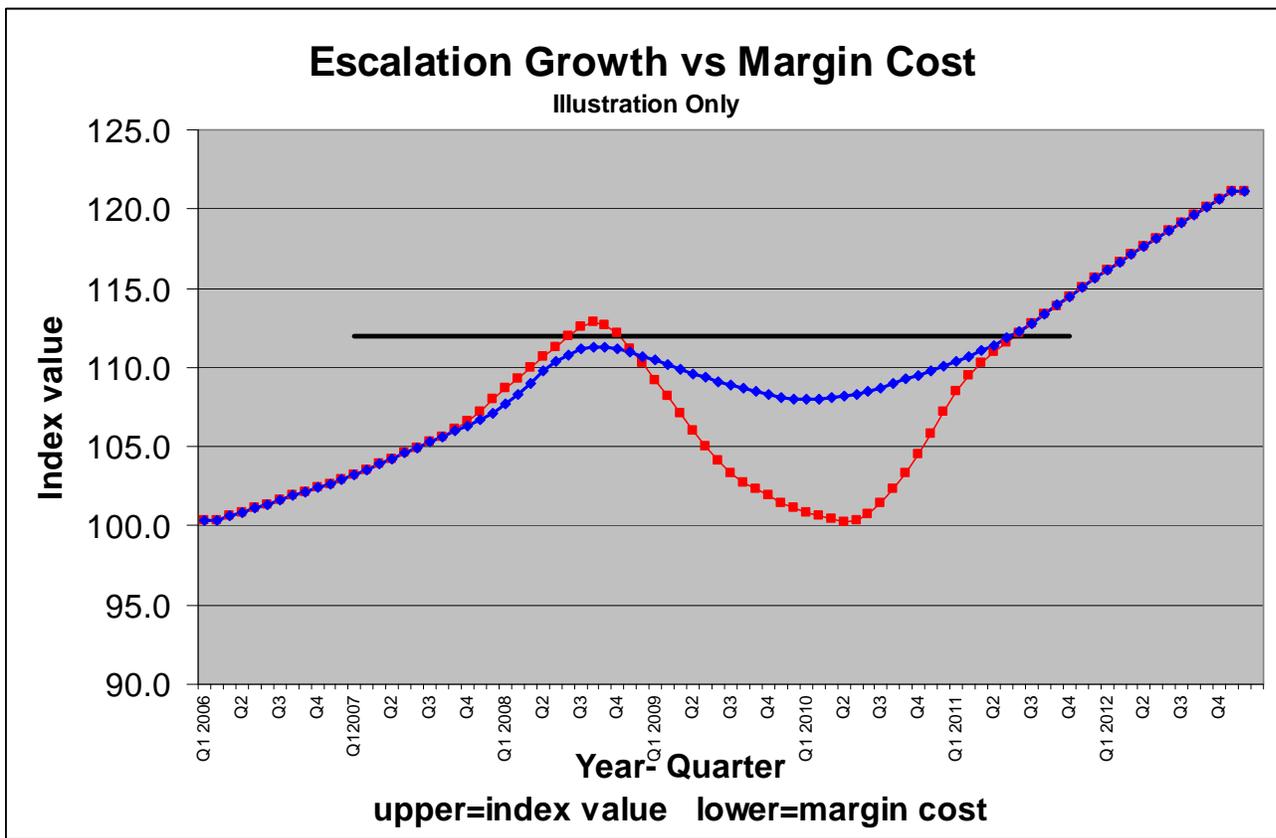
**If a 2011 project is being compared to a project budget or final project cost with a baseline midpoint at the deepest period of margin reduction, that 2011 project may need to be escalated 3-4% to account for materials and labor in 2010, PLUS an additional 10-15% to account for margins having returned to normal.**

This will be a period of conceptual project budget preparation unlike any we have ever experienced. The critical issue is consideration of project time-period being used as the baseline for

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a future projection. Any baseline project from the depressed margin pricing era will need special attention to reflect an accurate prediction of that project into future cost.

On the chart below we can see a rough illustration of actual costs (lower line) plotted over time against the index values (upper line). Whenever the margin cost varies from the escalation line, it signifies either an active (margin over real cost) or depressed market (margin under real cost). Over the period of extreme margin drop, any future projection escalated from a project with a midpoint centered on the deep margin drop would be escalated only from the upper line to the flat line. It would be understated by the cost difference from the margin drop up to the escalation line. Likewise any historical project being escalated to current time would be overstated by the difference between the two. We must remain diligent for this affect if we are to make accurate projections.



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Gilbane Building Company has offices in all regions of the country, with corporate offices located in Providence, Rhode Island. The information in this report is not specific to any one region.

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