

# 2005

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# Steel Price Outlook Lessons from the Playground

**“I want to suggest to you this afternoon that your first grade playground experience was a good preparation for your experiences as a construction professional during 2004.”**

I want to take you back in history for a moment. Not back to November of 2003 when steel prices began to rapidly increase, but back 20, 30, 40 or maybe even 50 years for some of us. I want you to close your eyes and remember that first day of first grade. You've been in your new classroom for over an hour, the bell rings, your teacher tells you that it's time for your very first recess and that she is going to take you outside and show you the playground. As you file outside a wonderland awaits you—slides, monkey bars, swings, a row of teeter-totters and a merry-go-round. Only your class is outside and there is plenty of opportunity for all of you to get on your favorite piece of equipment. Some of your classmates jump on the merry-go-round and start it slowly spinning. Others swing gently back and forth. You and your best friend, who is twice your size, hop on the teeter-totter and you are immediately lifted into the air where you sit patiently observing your new school and your classmates.

Then the bell rings and the playground is rapidly filled with 2nd, 3rd and 4th graders—the old pros of the playground. The quiet order, calm enjoyment and predictability you have been experiencing suddenly vanishes. The merry-go-round spins three times as fast. The swings are going so high they almost look like they descend in free fall. You can't even see the monkey bars for the kids hanging all over them. There is a continuous line climbing up the slide and a pileup at the bottom. And suddenly a 3rd grader leaps on your side of the teeter-totter launching your friend up into the air while you come crashing down.

I want to suggest to you this afternoon that your first grade playground experience was a good preparation for your experiences as a construction professional during 2004. The calm, quiet order and predictability of the price and availability of construction materials was transformed into a marketplace characterized by risk and volatility. Why? We probably could identify many reasons, but at the base of them all was that our domestic first grade playground was suddenly populated by the global construction community of 2nd, 3rd and 4th graders.

This new global reality does not just affect structural steel, but all construction materials. If we were to oversimplify our 2004 playground analogy—lumber products probably were the swing sets, cement the monkey bars, gypsum products the merry-go-round—we are still waiting to see who was on the slide. But in 2004 the steel industry probably best resembled that row of teeter-totters.

Twenty-eight percent of the steel consumed in the U.S. is utilized by the construction industry—roughly 30 million tons a year. During 2004 each type of steel (plate, sheet, roll, and hot rolled products) behaved differently. Construction materials such as piping, metal studs, tubing and sheet metal ductwork that are derived from sheet and roll products exhibited cost increases at the mill level exceeding 100% and extended delivery times. Bar products such as reinforcing steel saw slightly lower price increases but still faced some availability issues. Hot rolled structural sections, wide flange beams, which represent less than 4% of the overall market for steel in

the U.S. and only 15% of the steel used for construction remained readily available in 2004 but increased in cost by 60% at the mill level.

The issue is not what caused the volatility of the structural steel market in 2004, but if those conditions are still present as we enter 2005. To answer that question I'd like you to again visualize that teeter-totter. For many years mill prices for structural steel remained low and were held stable by the fact that small guy on the one end of the teeter-totter kept getting smaller through energy efficiency and increasing mill productivity (in 1980 a ton of steel required 12 man-hours to produce—today our most efficient mills average just ½ man-hour per ton). But in late 2003 foreign demand for scrap jumped on the teeter-totter and changed the balance point. Prices rapidly increased. But at the same time more kids jumped on the teeter-totter—the dollar decreased in the value, imports traditionally headed for the U.S. market sought out other global markets, global demand for construction materials increased, coke imports needed to fuel integrated mills were significantly reduced and shipping costs increased while the availability of shipping decreased.

The predictable equilibrium of the past was replaced by rapid price escalation from a typical mill price of \$380 per ton in November of 2003 to a high point of \$615 per ton in December of 2004. And that has impacted our projects... for every \$100 of increase in the average cost of all types of steel, project costs have increased about 3.5% or a net impact today in the range of 10%. If we

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look at just structural steel, mill material represents about 30% of the overall cost of the erected structural steel package, which in turn represents 10 to 12 percent of total project cost. The current 50% increase in the cost of mill material translates into a 15% increase of the steel package and a project cost impact of between 1 and 2 percent. Interestingly because of the amount of steel in every project and the level of increases experienced by other materials, the overall project price increase has generally been the same independent of what material is used for the framing system.

So as we enter the construction season of 2005, has the teeter-totter found a new balance point? Over the past 8 months we have reached a plateau of \$600 per ton. Contrary to news reports that speak of steel prices either increasing or decreasing by \$200 per ton, I believe that plateau for structural steel will continue to exist throughout 2005 with a variation of about \$50 a ton. Today the mill price for a typical section is below the plateau level at \$570 per ton.

Availability of structural shape (unlike other steel products) has not been and will not be an issue. Domestic consumption in 2004 was 4 million tons against an annual domestic production capacity of 6 million tons—a 50% growth cushion. Rapid delivery to your fabricator of choice can be achieved from either a mill or steel service center in a matter of days.

Yet at the same time we must recognize that the only predictable trend regarding construction material pricing in 2005 is that it will be unpredictable. Even as we have reached somewhat of balance point, that balance would be lost if several children were to jump on or off the teeter-totter simultaneously. I cannot tell you with a level of certainty whether that will happen. I am not a prophet and I work for a not-for-profit organization. And I am not an economist, but an engineer and a construction project manager...I am less concerned about projecting the future than learning how to manage it.

That is why I believe it is more important to ask how we, as construction professionals, are going to behave on the construction playground of 2005?

**Are you a first grader hoping that all of the older kids disappear and that the predictability of the playground will return?** Let me

tell you bluntly...it is not going to happen! The global marketplace and the volatility it brings to the price and availability of all construction materials is here to stay.

**Are you going to become the daredevil of the playground?** Standing back ready to jump on the teeter-totter as soon as structural steel prices drop, fighting your way to the front of the line to squeeze your way on to the monkey bars when cement improves in availability, running like mad so you can try to leap on board the spinning gypsum merry-go-round or trying to grab on to lumber prices in mid-air? If you try to be the daredevil and manage your construction projects by death defying feats you are going to get hurt.

**The construction playground of 2005 is different than the playground of 2003.** Success will require adapting to new realities rather than dreaming of a world that no longer exists or taking unnecessary risks. Construction material volatility is here to stay for all materials—some will exhibit volatility in price, some in availability and some in both. There will be moments of stability, there will be price decreases, there will be price increases...but there will not be long-term predictability. We must adapt to that reality.

I am convinced that if I went around this room I would find that the vast majority of you, successful general contractors, spent time back in grammar school as one of the playground monitors—you were the kid in the special vest that saw the big picture and brought order, sanity and discipline to the playground. I want to suggest that the skills you learned on the playground are the same ones that will serve you well as you deal with construction material volatility in 2005.

**You learned to organize teams to play together.** To be successful in today's volatile market you will need to organize project teams that fully integrate specialty contractors early into the team. Specialty contractors, like steel fabricators, mechanical contractors, and electrical contractors can bring current market information and identify cost saving approaches. Fabricators can bring producing mills and service centers to the table to discuss the special needs of your project. Steel specialty contractors bring those skills and value to your team but can only contribute them when they

are involved early in the project in a meaningful manner.

**On the playground you learned to identify and minimize risk.** Volatility brings with it risk. Who will assume that risk? Will it be the project owner? Will it be you as the general contractor? Or will it be the steel specialty contractor? The answer will vary by the particular project, but it must be answered before bids or GMPs are accepted. If you pass the risk to the fabricator you need to make sure all fabricators are clearly aware that they are assuming that risk and you must expect that the pricing of the steel package will increase to compensate the fabricator for assuming that risk.

**On the playground you learned to react quickly.** The rapid processing of bids and the issuance of a notice proceed along with the authorization of the early purchase of mill material with reimbursement to the fabricator minimizes the impact of price variations.

**On the playground you learned to listen to all the facts and be fair.** News reports you hear about steel are typically not an accurate picture of what is happening with respect to structural steel. Costs have increased for all types of construction. The only way to compare costs for comparative structural systems is to accurately evaluate costs on a current basis rather than rely on rumors, old rules of thumb or previous estimates.

**On the playground you learned to enjoy your role and grow in it.** It is the challenge facing every design and construction professional to grow in today's market by continuing to search for new practices to improve the overall productivity of the building industry.

Effective construction project management is not the art of knowing when to jump into the marketplace to purchase materials at a low point in price, but the science of knowing the proper process of managing projects during periods of variability in material costs and availability.

In 2005 you've graduated to 2nd grade—you don't need to dread being on the playground. This will be the year when wise construction professionals recognize the long-term pattern of volatility of all construction materials and learn to manage that volatility for their benefit and that of their projects.