

Why Are Refuse Collection Equipment Prices Higher This Year?

Prices of refuse collection equipment have been rising at an unprecedented rate in 2004. By October, prices in the industry were up by between 7% and 54%. (See Chart A.) Manufacturers point to the escalating cost of steel as the reason for the need to increase prices.

Steel is a major component of refuse collection vehicle bodies, commercial containers, roll-offs, compactors, loaders and other waste handling equipment. Steel makes up between 90 and 95% of the weight of a complete refuse collection vehicle body. That's 13,500 to 14,250 lbs. of steel in an average 15,000-pound body. Commercial front load, rear load and side load containers are almost entirely steel. Just about 2% of their weight may come from plastic lids or wheels. They weigh between 300 lbs. for a 1-yard container and 1,500 lbs. for an 8-yard container.

Depending in part on the efficiency of the manufacturer, a large percentage of the final selling price of waste handling equipment is based on the cost of the steel utilized in the production process. This includes the steel used in components such as hydraulic valves, pumps and cylinders. Manufacturers estimate that steel prices influence anywhere from 50 to 75% of the selling price of refuse collection equipment. And waste industry manufacturers are reporting that their cost of steel has increased as much as 164% from December 2003 through September 2004.

Record steel prices and tight supplies worldwide are having a drastic impact on manufacturers of everything that uses steel, from refuse handling equipment to consumer goods. Over the last year, prices for coil steel in the United States have increased by more than 125%. Since the low point of

\$225 per ton in third quarter 2001, U.S. coil steel prices have gone up 215% (See Chart B) to more than \$700 per ton. And after months of optimistic forecasts, industry analysts are now conceding that prices are unlikely to drop significantly soon.

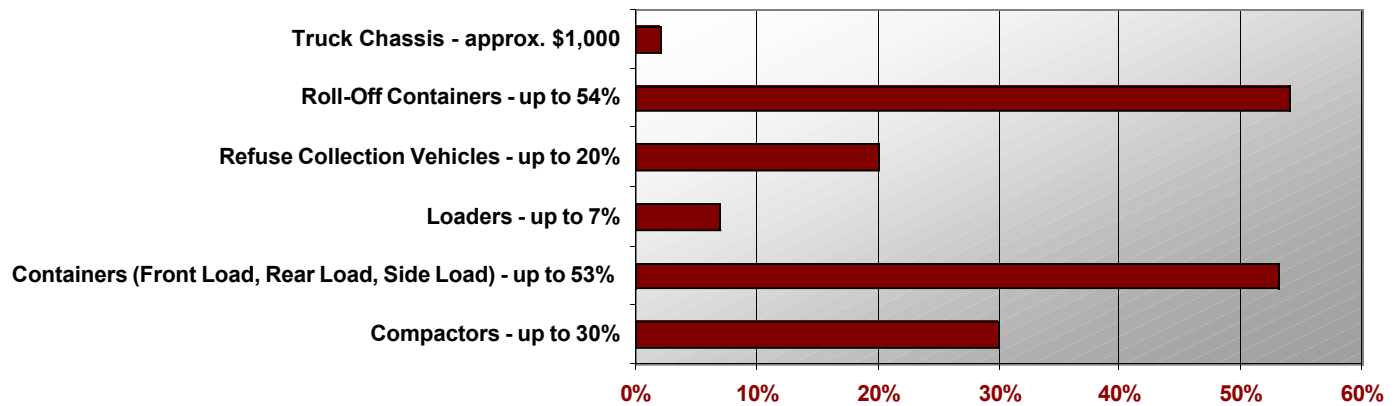
"The world's gone mad. I've never seen anything like this," Peter Fish, managing director of steel consulting firm Meps International, told *USA Today* earlier this year.

Availability of steel has also been an issue in 2004. "As steel producing companies are talking with increasing openness about shortages, the market is becoming ever more panicky," a Meps report states. "Even some customers on long-term deals have been persuaded to pay a non-contracted price increase on account of the surge in raw material costs."

Even contracts have not protected manufacturers from rising steel costs. Most report that their suppliers have told them that steel is not currently available at the contracted prices. As a result, they have had to pay the steelmakers' growing asking prices in order to get any steel for production. "It was either pay the price or do without the steel," one refuse industry manufacturer said.

Unable to completely absorb material costs that have more than doubled in less than a year, many manufacturers have been forced to pass at least a portion of the increased steel costs through to their customers, in the form of multiple rounds of price increases or surcharges. None have fully recovered their additional steel costs. In a July *Purchasing.com* survey, 70% of the steel buyers polled indicated that their companies have passed some increased costs to their customers in 2004, but only 27.5% said they had

CHART A

% Price Increase by Equipment Type

*Price increase data is based on averages collected from industry manufacturers of the equipment noted and reflects increases from December 2003 through September 2004.

passed 80 to 100% of the increases along. The majority had recouped an average of 60% of their steel price increases, while 20% say they have been successful in passing on less than 40% of the increases.

By raising prices only enough to offset some of their increased costs, waste industry manufacturers have dramatically reduced their profit margin. “We’re not making any more money; in fact we’re making much less, as all we’re doing is passing on a portion of costs,” a manufacturer explained. “We might be collecting a couple more dollars in cash, but our bank account is shrinking.”

“We were poised to have an excellent year, then we gave everything and then some back to the steel companies,” another manufacturer said.

Why Is Steel So Expensive?

The skyrocketing steel prices took almost everyone off guard. Prior to 2004, steel prices had been trending downward for more than a decade. In the U.S., there had been almost no price inflation in steel mill products over the last 20 years, according to the Steel Manufacturers Association. In 1998, importers began flooding the U.S. market with low-priced foreign steel, driving down U.S. prices and contributing to 32 bankruptcies in the domestic steel industry.

So what happened to change things so drastically? At the most basic level, it’s a classic example of supply and demand. China continues to emerge globally and is actively building its infrastructure, especially in advance of the 2008 Olympics, while at the same time, the economies of Europe and the U.S. have been improving, leading to soaring steel demand from multiple countries. Meanwhile, supply has been affected by limited raw materials, high production and transportation costs, and steelmaker consolidation. In the U.S., the weak dollar has also contributed to steel prices here being the highest in the world.

China: China is at the root of the current steel situation. China is going through its own Industrial Revolution and building its infrastructure—roads, pipelines, dams, sewer systems, electrical systems—at a pace on par with that of Japan or Germany after World War II. Its steel consumption has been voracious. According to data from the International Iron & Steel Institute (IISI), China is the largest consumer of steel and accounted for nearly 30% of the world’s steel consumption in 2003, using 232.4 million metric tons (mmt) of steel. That is double the country’s usage just five years earlier, and reflects a single-year increase of 46.8 mmt—more than the entire 2003 consumption of Canada and Mexico combined. By comparison, the total 2003 steel consumption in the United States was 100.5 mmt.

China is also the world’s largest producer of steel, accounting for almost 23% of all crude steel production, but in order to keep up with its construction demands, it also recently became the world’s largest importer of the metal, passing the U.S.

Improving Economies: At the same time China is demanding more steel, economies in Europe and North America have also been improving, leading to an increased need for steel in these countries.

Tight Material Supplies: What has been called “the most widespread shortage of steelmakers’ raw materials in the steel industry’s history” started in late 2003.

There are two ways to make steel. “Integrated” mills combine raw materials: iron ore, limestone and coke in a blast furnace or basic oxygen furnace to create new steel. “Mini mills” recycle scrap steel (such as old cars) by melting it and purifying it through electric arc furnaces into new steel. Both coke, which is made from coal, and scrap have been in short supply this year. China had previously been a major exporter of coke, but is now diverting much of its supply to its own

domestic steel industry, while importing millions of tons of additional supplies. U.S. coke output was depressed through the first half of 2004 due to a coal mine fire in West Virginia in 2003. Full production at that critical mine did not resume until June. The limited supplies of coke caused prices to increase upwards of 200%. This has led some integrated mills to turn to using scrap in their processes, putting a further squeeze on already stretched scrap supplies. Countries such as Russia, Ukraine, Venezuela and South Korea have limited their scrap exports, increasing demand for North American scrap. As a result, scrap prices have soared to a 30-year high, reaching more than \$275 per ton in July, compared to a recent low of around \$75 per ton in late 2001. (See Chart C)

High Transportation Costs: Shipping rates have also exploded this year, adding pricing pressure to imports of raw material and finished steel. Rates on some shipping routes quadrupled earlier in 2004. China is again a factor, as it

can take three to four weeks to unload a vessel at its ports, resulting in 20 to 25% of the world's shipping fleet being unavailable at any time, according to Wilfried von Bulow, vice chairman of steel trading and logistics firm Ferrostaal.

In the U.S., steel companies have been plagued with truck shortages and rising costs. The June issue of *Metal Center News* reported that shippers are being charged 5 to 25% increases in trucking freight rates this year.

High Energy Costs: Producing steel is an energy-intensive process. As energy expenses rise, the cost to produce steel increases, as well.

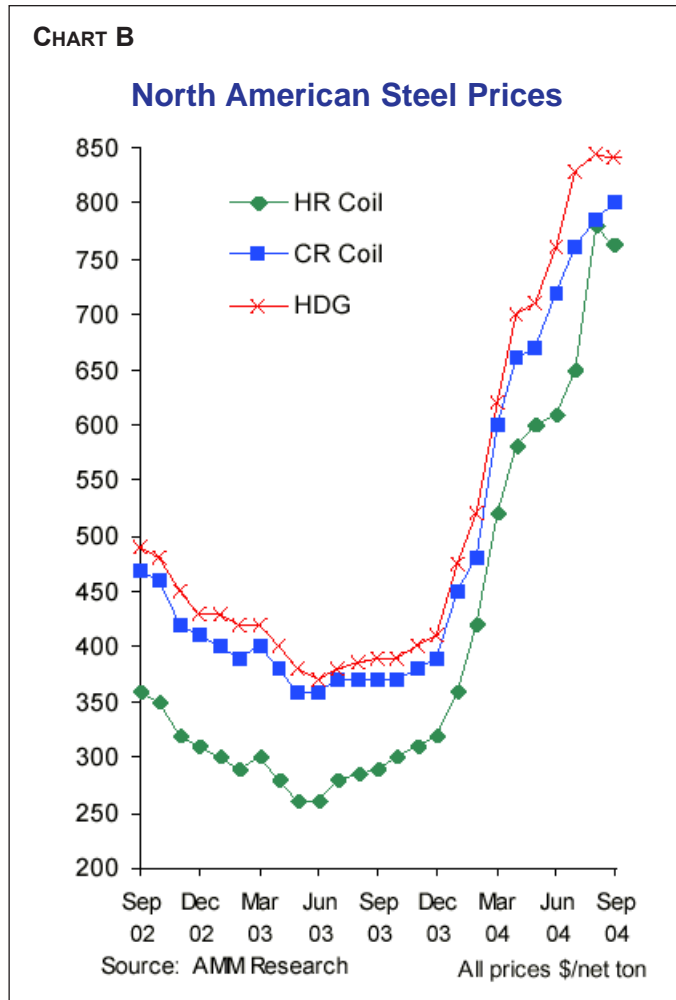
Consolidation: Since the rash of steel company bankruptcies in the 1990s, U.S. steel production has become consolidated with a smaller number of mills. This reduction in competition has apparently also resulted in new discipline among the remaining competitors. While in the past steelmakers would usually respond to higher market prices by adding

capacity, which would lead to surpluses, price undercutting and a rapid downturn in prices, they seem to be following a different strategy in 2004. "With the vast majority of flat product capacity held by just a few producers, North

American mills appear committed to adjusting output to match demand and maintain upward pressure on prices in an impressive show of discipline," states the July 2004 issue of *North American Steel Markets Monthly*. Additionally, with less competition, mills can pass along their higher costs, rather than trying to absorb them to maintain market share.

As a result of high prices and high demand, U.S. steelmakers are seeing record profits in 2004. One of the country's top steelmakers raised its quarterly profit forecast by 44% in September, sending its stock price to a 20-year high.

Weak U.S. Dollar: The U.S. dollar has weakened throughout the year, making all imports, including steel and its raw materials, more expensive.



How Have High Steel Prices Affected Manufacturers and Customers?

Dover Corp., Federal Signal Corp. and Oshkosh Truck are the parent companies of three of the refuse industry's biggest manufacturers: Heil Environmental, Leach Co./Wittke, and McNeilus Truck and Manufacturing. These conglomerates are also active in a wide range of other manufacturing industries. In October, they reported to financial analysts that unrecovered steel price increases would cost them each from \$3 to \$8 million in 2004.

In a June survey of the members of the Precision Metalforming Association (PMA), 64% of companies that use steel reported that their businesses had been critically or significantly disrupted by the steel market.

Even the massive auto industry is not immune. The U.S. auto industry purchases about 22 million tons of steel annually, according to the American Iron and Steel Institute. Just under 54% of the total weight of the average passenger car

in North America comes from steel — about 1,780 lbs., according to *Metal Center News*. General Motors Corp. says it is the world's largest steel consumer, but even GM has paid steel price increases and surcharges “under protest” this year, going so far as to sue one supplier to force it to honor previously contracted prices. That lawsuit was dismissed and is currently under appeal.

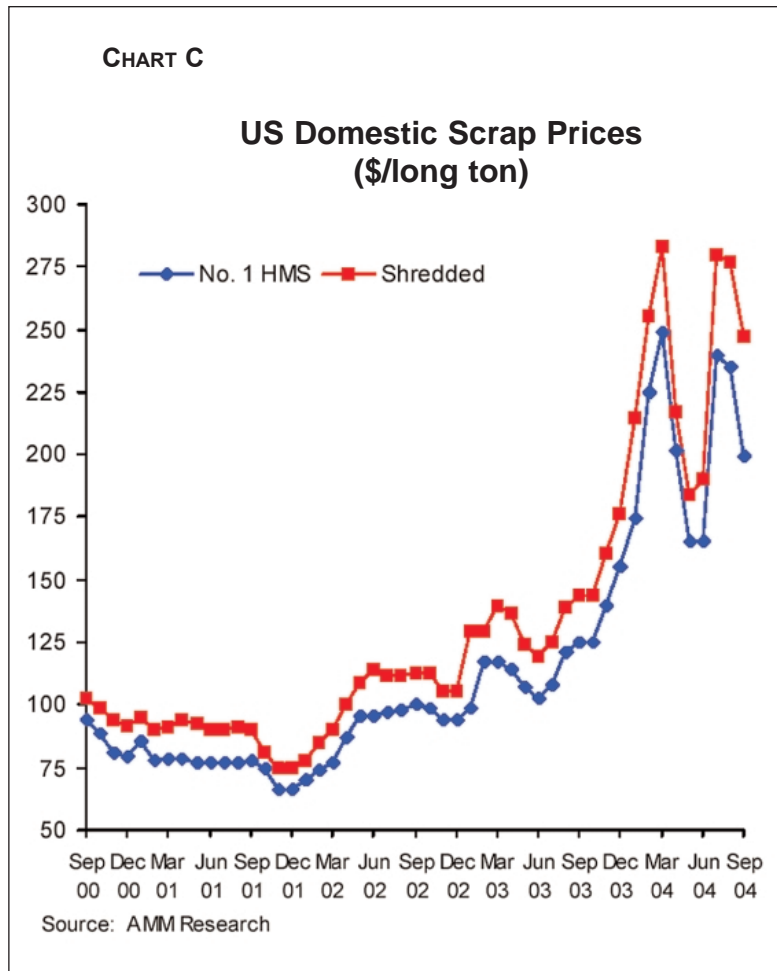
Under the current situation, bankruptcy is a risk for manufacturers and their customers. One of the first companies to fall was Federal Forge, Inc., a Michigan-based auto-spring supplier that filed for bankruptcy in March, blaming growing steel prices. Two other automotive suppliers followed suit, filing for Chapter 11 bankruptcy protection in September: Citation Corp., which has 17 plants with a total of 5,100 employees, and Internet Corp., which has operated since 1846. Both companies blamed rising steel costs in part for their problems. Internet reported that its steel expenses have risen 88% this year, costing the company \$24 million. Both Citation and Internet are among the top 100 automotive suppliers in North America, as ranked by *Automotive News*.

In the waste industry, Hi-Rise Recycling Companies, Inc., manufacturer of waste containers and compactors, filed for Chapter 11 bankruptcy in August. “Operational disruptions resulting from increased steel prices and selected supply shortages together with a heavy debt burden made it impossible for the company to pay all of its normal obligations and service the debt,” stated Dennis Donahue, president and CEO.

If steel prices do not drop, analysts expect additional bankruptcies, leaving customers in limbo.

What's Going to Happen in the Future?

As steel prices climbed throughout the year, analysts predicted that they wouldn't last from one fiscal quarter to the next. Now, most analysts and steel companies are forecasting that pricing may come down slightly in 2005, but to nowhere near 2003 levels. In many cases, steel prices in 2005 are still expected to be about double what they were in 2003. In fact, steelmakers worldwide are raising contract prices for 2005 by an average of 20%, according to *The Wall Street Journal*. The general consensus is that the industry is in for a “multi-year recovery”—that is, prices are expected to remain relatively high for years to come. This is due in part to continued demand from China, high raw material costs hampering new production capacity, and the time it takes to start new mines to increase the flow of raw material. Currently, analysts do



not anticipate that steel prices will ever return to the lows previously seen in the U.S.

This could have a serious impact on haulers, municipalities and other refuse industry customers. Many have been holding off on buying new equipment while they wait for prices to fall. But without a drop in the cost of steel, equipment manufacturers will not be able to afford to bring their prices back down to previous levels. There are no viable alternative metals to steel for most waste applications. And improving manufacturing efficiency will only go so far.

“Saving 10% on labor expenses in a year would be a great result of efficiency efforts,” one refuse industry manufacturer explained. “But that wouldn't get you anywhere near making up for a 164% increase in steel costs.”

And the increasing costs will continue to trickle down, from steelmakers to manufacturers, from equipment manufacturers to haulers, from haulers to homeowners and businesses.

“As a buyer, we have to absorb it in our costs and then pass it on to our customers,” said a national hauling company purchasing manager. “There's nothing we can do about it. We need the manufacturers to stay in business, because we need vendors to sell us equipment.”