Industry Chart Book for Corrugated and Solid Fiber Boxes Mfg. (NAICS 322211)

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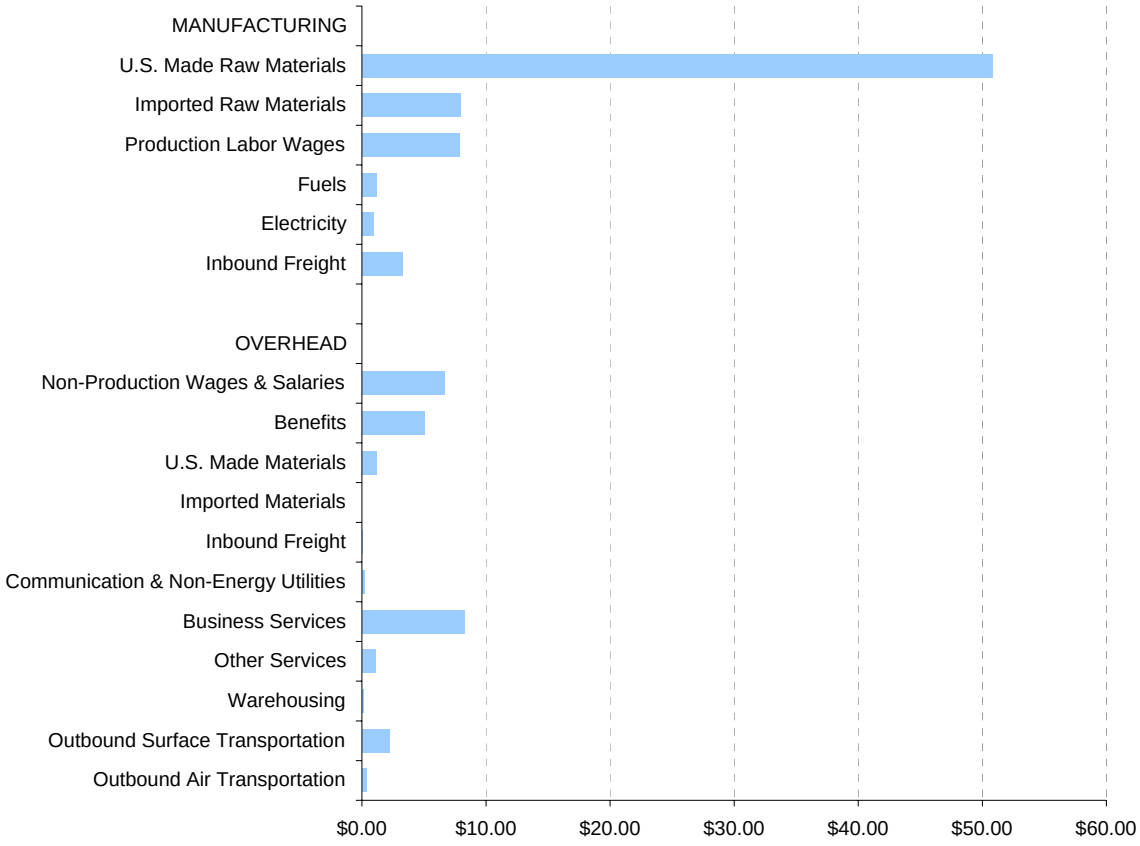
Basic IQ Charts

Chart 1: Breaking Down a Supplier's Invoice

Estimated Spending Levels in February 2006

(Per $100 of Product Billed on an Invoice)

Chart 1



Guidance

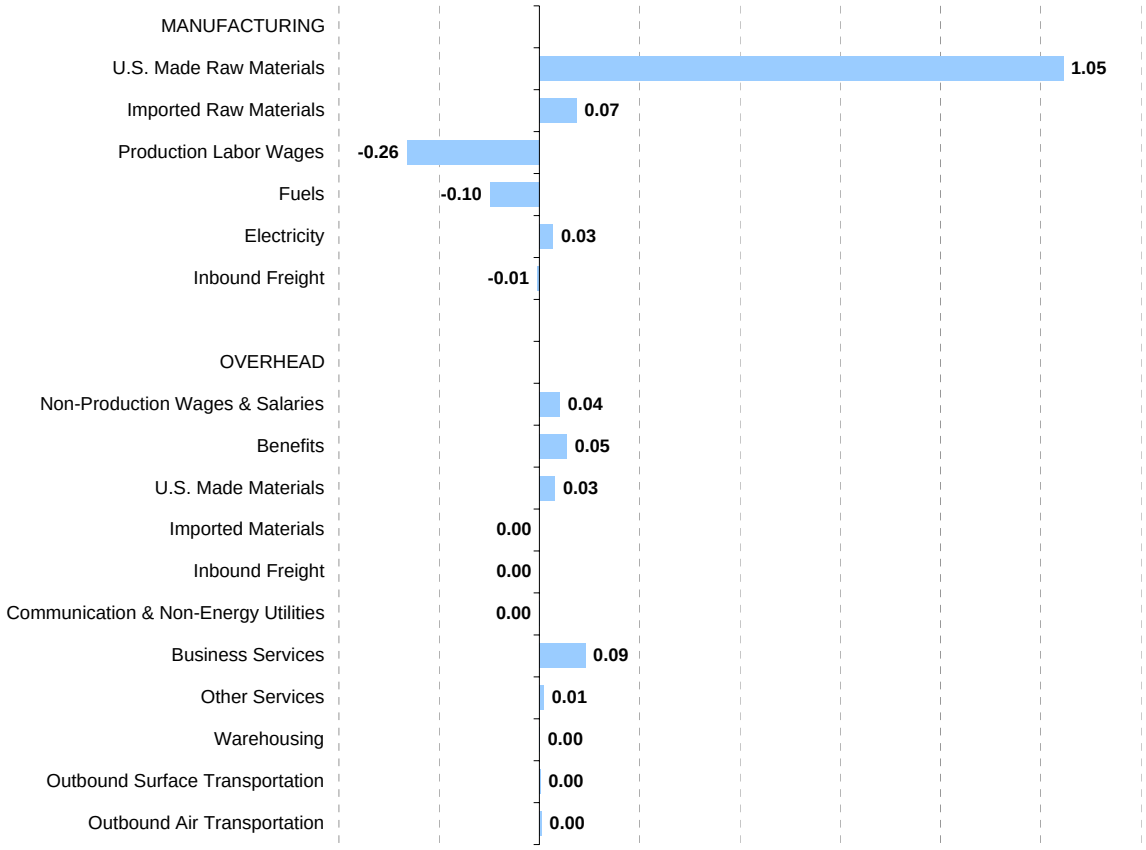
The chart above shows the LMIQ model's estimates of the industry's spending patterns. The estimates are derived by analyzing data from various government sources and then adjusting for inflation, productivity and other economic factors such as technology influences and product line shifts. Inflation-related spending adjustments are accomplished by using a wide array of proprietary cost indexes. (See Table 1 in our Basic IQ Trend Report for a list of these indexes.) The impact on spending of non-inflation factors is estimated by the LMIQ model's Margin Adjustment Module.

Basic IQ Charts

Chart 2: Inflation Reality Check

Chart 2

Percent Change in Per-Unit Costs (Weight Adjusted) for Quarter Ending in February 2006



Guidance

This chart shows escalation rates for given budget categories after adjusting for relative importance. The adjustment allows us to see how cost changes translate directly into upward pressure on industry prices (or enhanced discounting ability when costs are falling). To learn more about the relative importance of the budget categories shown above, see Table 2 in BasicIQ Trends.

Basic IQ Charts

Charts 3 and 4: Plotting the Relationship Between Industry Prices and Per-Unit Manufacturing Costs

Chart 3

Industry Prices vs. Manufacturing Costs

Index Levels: 2001=100

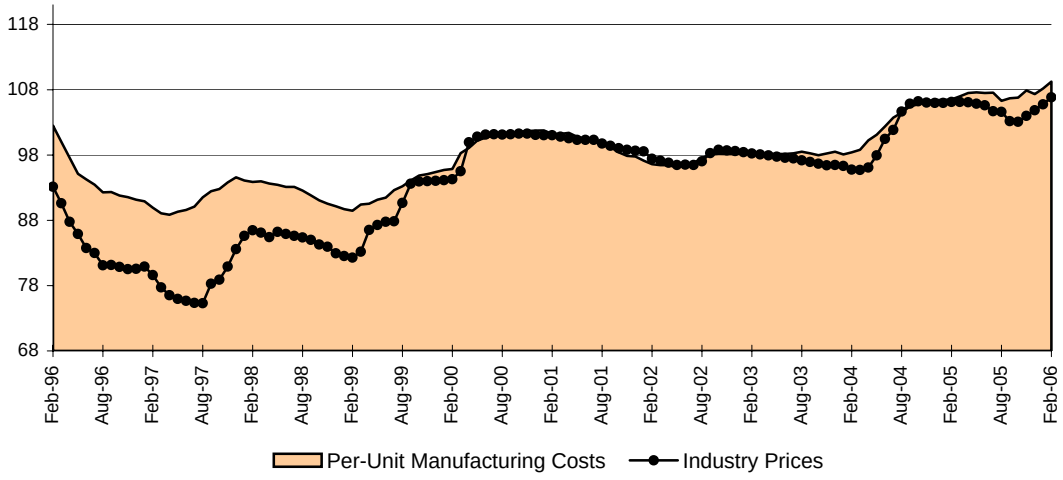
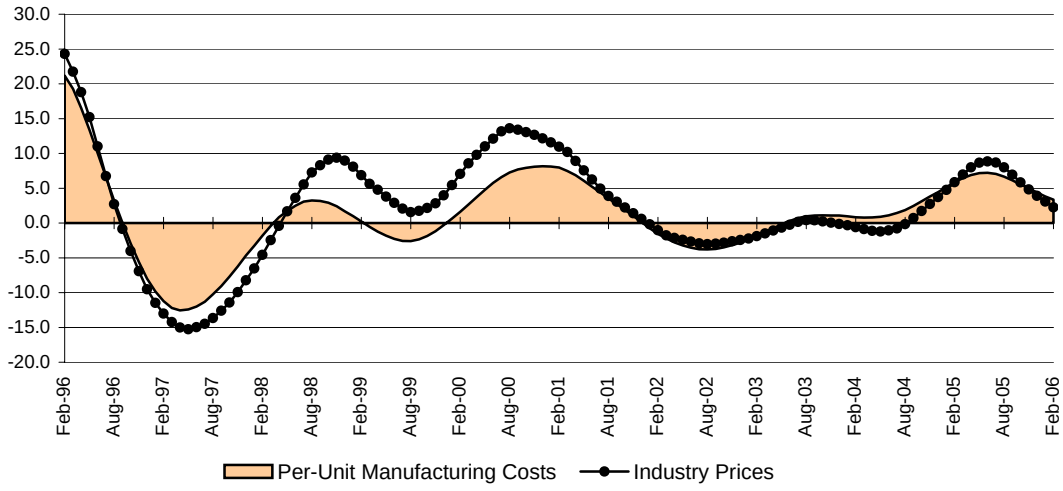


Chart 4

Industry Prices vs. Manufacturing Costs

Year-over-Year Percent Change



Guidance

Changes in manufacturing costs shape future changes in industry prices. As per-unit spending on production-sensitive items (such as raw materials, labor and energy) rise, manufacturers often are anxious to pass along price increases to buyers in order to preserve margins. If price hikes do not keep pace with cost increases, generally margins are falling. When costs fall, competitive pressures can force manufacturers to pass along savings to buyers in order to prevent market share losses. Of course, the exact relationship between industry prices and manufacturing costs can vary greatly. Contractual arrangements, inventory levels and market concentration can play key roles in how and when cost changes translate into industry prices.

Basic IQ Charts

Charts 5 and 6: Plotting the Relationship Between Industry Prices and Per-Unit Overhead Costs

Chart 5

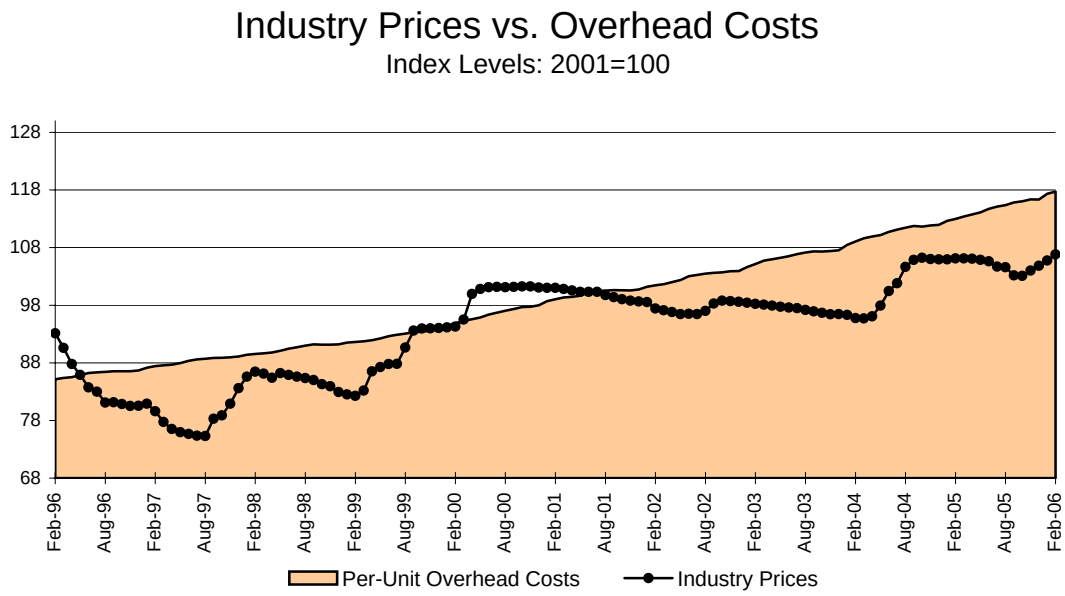
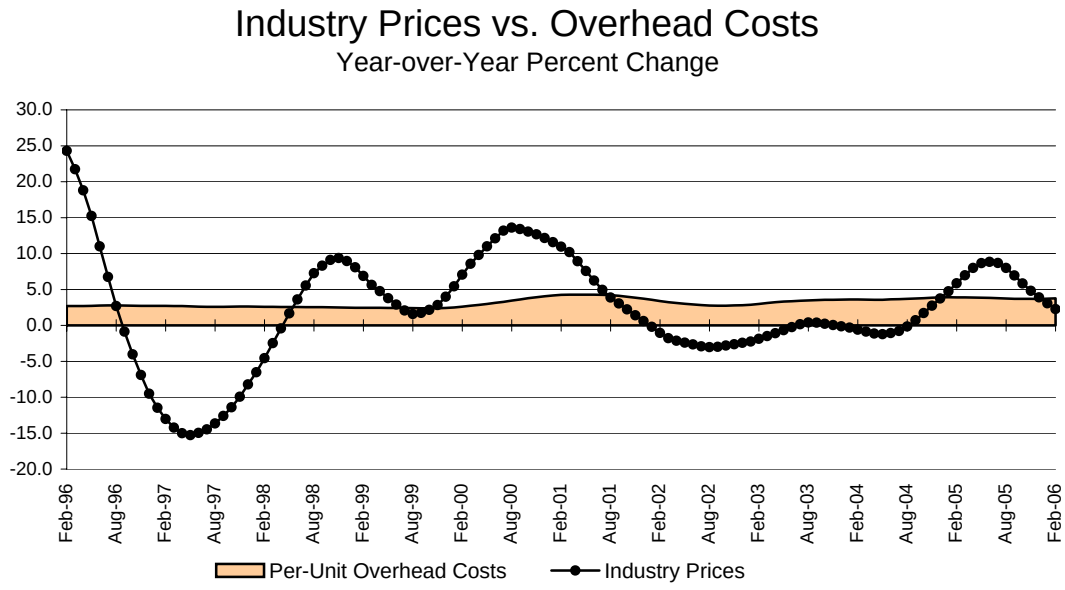


Chart 6



Guidance

The relationship between industry prices and overhead costs often is weak. While overhead conditions have a long-run influence over the prices that producers charge, in the short run, the impact may be negligible. In many industries, overhead costs rise at a steady pace. Furthermore, some industries can exert some control on the magnitude and timing of overhead cost hikes by making structural changes. Refer to Table 1 in BasicIQ Trends for more information about what types of expenditures are included in the LMIQ model's definition of overhead.

Basic IQ Charts

Charts 7 and 8: Plotting the Relationship Between Industry Prices and Total Per-Unit Costs

Chart 7

Industry Prices vs. Total Costs
Index Levels: 2001=100

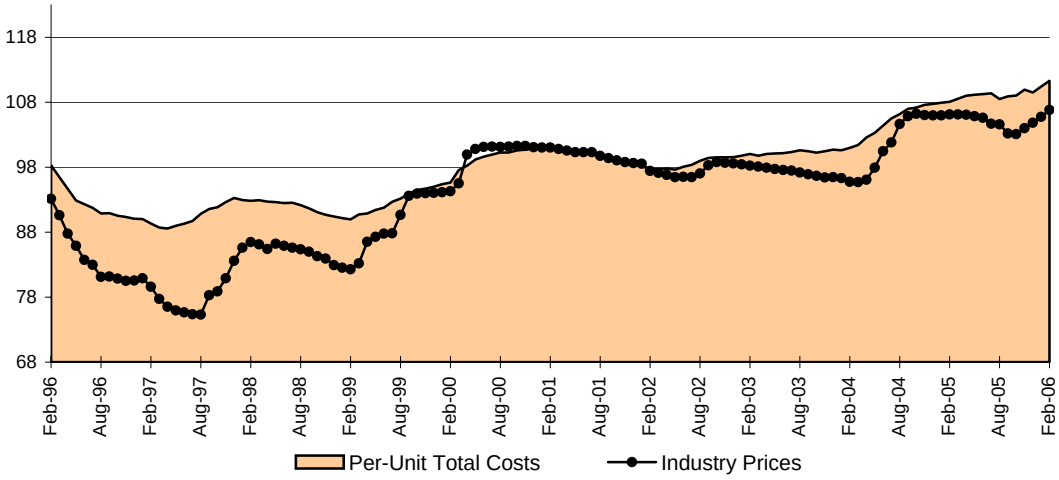
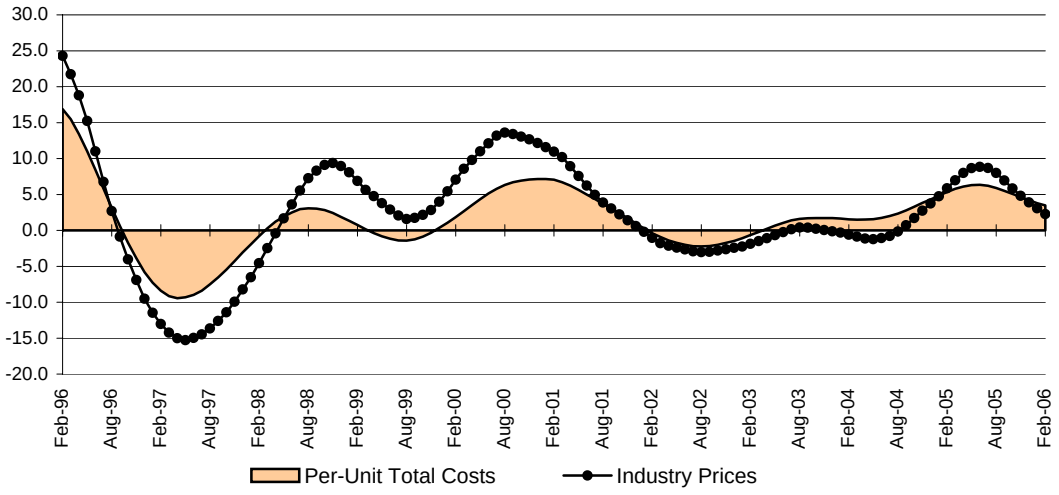


Chart 8

Industry Prices vs. Total Costs
Year-over-Year Percent Change



Guidance

In the LMIQ model, the strength of the relationship between total costs and industry prices often will depend on the relative importance of manufacturing costs. The greater the relative importance of manufacturing costs, the greater the likelihood that changes in industry prices will reflect changes in total costs. Note: total costs as defined in the LMIQ model exclude certain budget items such as taxes and spending on capital equipment. Refer to Table 1 in BasicIQ Trends for a full breakdown of the spending categories that make up total costs.

Basic IQ Charts

Charts 9 and 10: Current Industry Spending Habits in Historical Context

Chart 9

Manufacturing-Related Spending

Per $100 of Product Sold

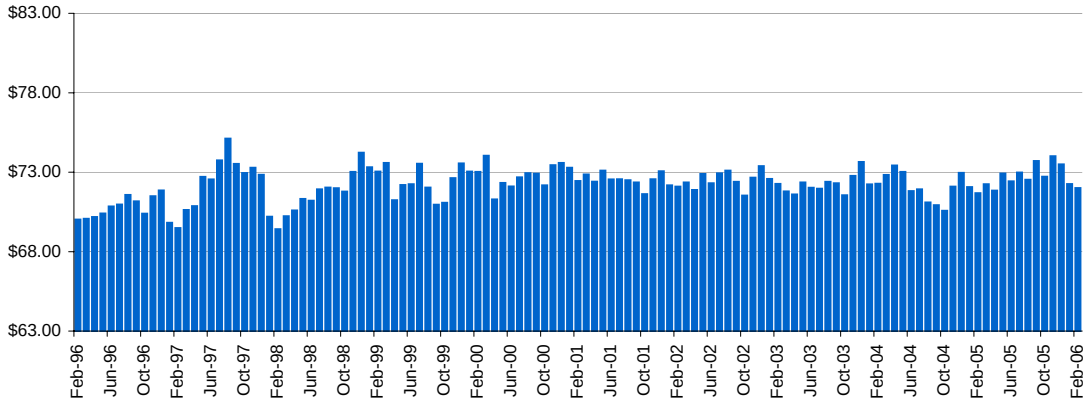
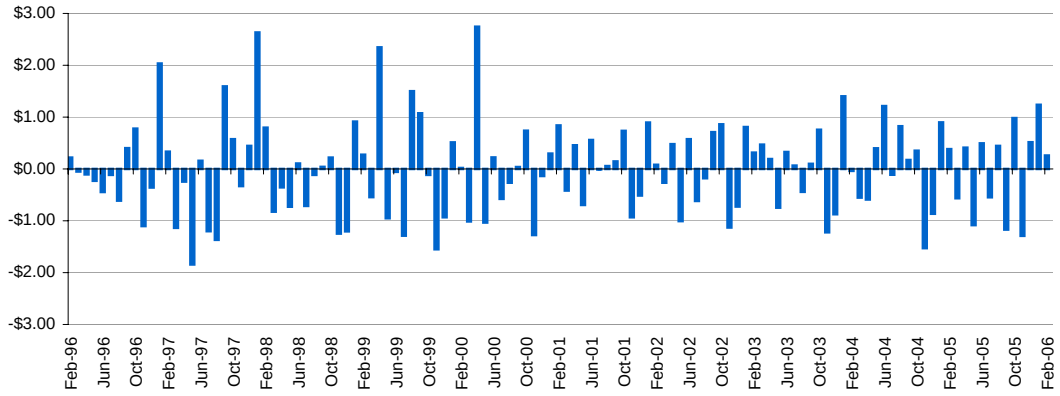


Chart 10

Manufacturing-Related Margin Change

Monthly Change per $100 of Product Sold



Guidance

Looking at the long term picture of manufacturing spending (per $100 of product sold) can help you to understand how an industry's cost structure responds to inflation, productivity and other economic factors and then develop product price expectations. In chart 9 above, economic pressures are mounting when the bars are growing longer. That's when the net impact of economic factors is negative on profit margins. The reverse is true when the bars are growing shorter. Looking at the entire graph provides a context for understanding how profitable or unprofitable a given direct cost position may be. Chart 10 shows the monthly change in manufacturing margins, which are the inverse of spending. For example, if spending rises by 50 cents, then margins are reduced by 50 cents.

As spending levels rise and margins fall, the pressure to increase prices grows greater. As margins rise, however, the ability to discount and still earn a fair return on manufacturing-related spending also grows. The role of margin pressures in shaping prices is shaped also by demand strength.

Basic IQ Charts

Charts 11 and 12: The Impact of Inflation, Productivity and Other Economic Factors on Industry Profitability

Chart 11

Manufacturing-Related Margin Change

Rolling Quarter-to-Quarter Change per $100 of Product Sold

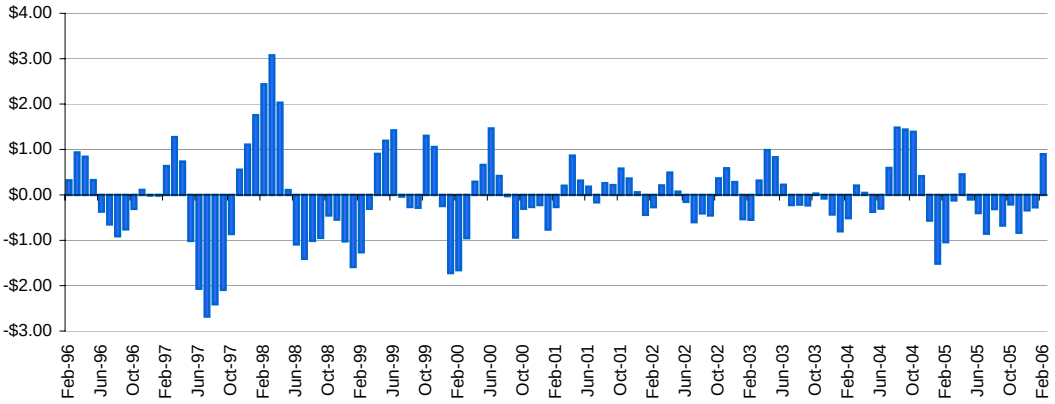
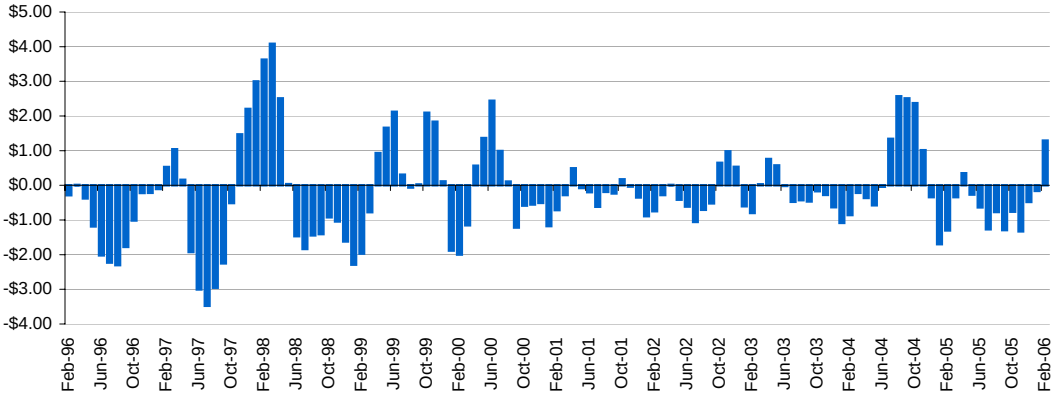


Chart 12

Total Margin Change

Rolling Quarter-to-Quarter Change per $100 of Product Sold



Guidance

Chart 11 is similar to Chart 10; both show the margin impact of changes in spending on manufacturing-related activities. The only difference is that Chart 10 looks at month-to-month changes while Chart 11 looks at changes on a rolling quarter-to-quarter basis. Chart 11 speaks more directly to financial analysts trying to assess how economic factors might impact a quarterly earnings report. When margins show a quarterly decline, then we expect to see a drag on an industry's earnings potential. When margins are rising, then economic trends presumably are helping to boost an industry's earnings potential.

The data in Chart 12 also shows quarterly margin changes, but takes into account estimated fluctuations in overhead spending.

Note: in the LMIQ model, estimates of margin changes attempt to capture the effects of inflation, productivity, technology influences and product line shifts.

Basic IQ Charts

Charts 13 and 14: Supply and Demand Fundamentals

Chart 13

Industry Prices vs. U.S. End Market Growth

Year-over-Year Percent Change

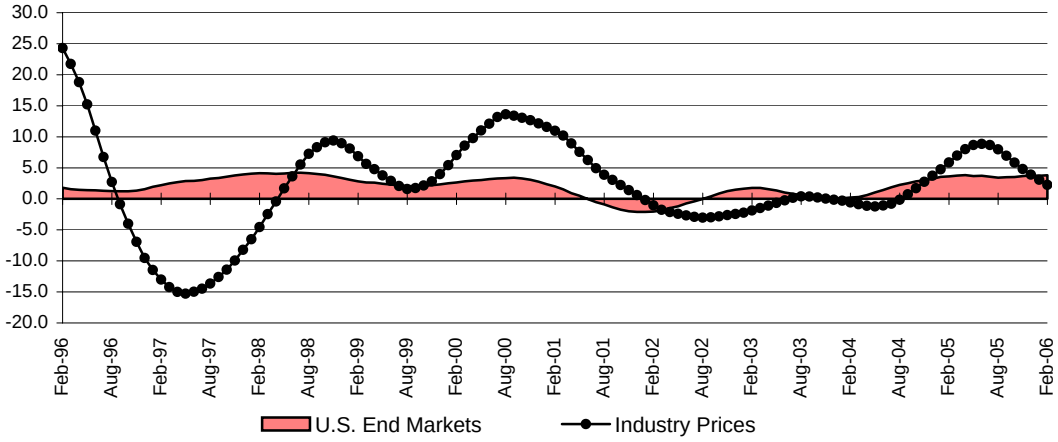
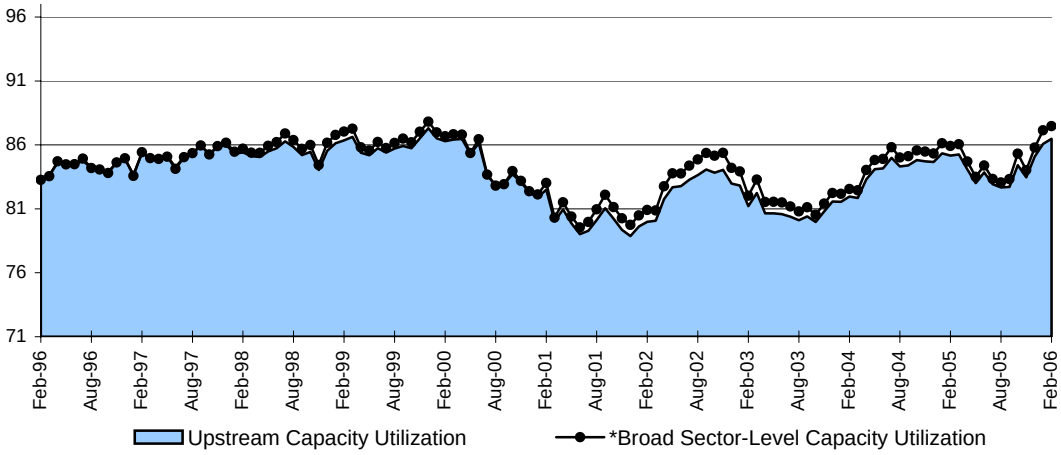


Chart 14

Capacity Utilization* vs. Upstream Capacity Utilization

Percent of Capacity Being Used



Guidance

Chart 13 plots the annual percent change in product price versus the annual percent change in U.S. end-market growth (demand strength). Often when demand grows and an industry's capacity strains, then prices will show increased sensitivity to changes in demand. When demand is strong, suppliers find that passing along cost increases becomes easier. When demand wanes, the supplier's ability to translate cost increases into price changes is often compromised. (For more about end-market growth metrics, see Table 6 in BasicIQ Trends.)

Chart 14 plots the industry's broad sector-level capacity utilization rate versus our upstream capacity utilization rate. If capacity utilization rates run too high, then supply bottlenecks and inflation pressures increase. (For more about capacity utilization rates in the LMIQ model, see Table 7 in BasicIQ Trends.)