AUTOMOTIVE SUPPLIER BUSINESS PERFORMANCE TRENDS: LESSONS TO BE LEARNED

AN ANNUAL REVIEW OF THE FINANCIAL HEALTH OF THE AUTOMOTIVE SUPPLIER INDUSTRY AND A COMMONSENSE GUIDE TO IMPROVING BUSINESS PERFORMANCE

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ACG was established in 1986 to pro vide strategic insight and direction to companies in transition or seeking to gain competitive advantage.

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PREFACE

In 1998, the Automotive Consulting Group, Inc. (ACG) published its first annual analysis of business performance among North American automotive suppliers. The report, titled *An Analysis of Business Performance Trends Among Automotive Suppliers: A Strategic Perspective*, was intended to provide automotive industry executives with strategic insight into the competitive dynamics of today's automotive supply industry, and how to manage more effectively in today's every changing business environment. The report gained wide recognition among the target audience by providing sound guidance to their strategic planning and decision making process.

I wish to acknowledge the time and effort extended by Mr. Hiro Mori in researching and presenting the materials contained in this report. Without his hard work and dedication to improving the state of the automotive supplier industry, this report would not be possible.

We at ACG trust you will find the following materials of benefit, and we encourage you to employ the strategies presented in the report to improving your company's business performance.

June 2002

Dennis Virag
President

This research is self supporting. Future studies depend on revenues from the sale of this publication.

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INTRODUCTION

Industry Background

Vehicle sales were robust in 2001…

The North American automotive industry concluded the year 2001 with the second-highest US vehicle sales in history. This is quite an accomplishment in view of the fears over a deepening recession lingered throughout the year and that the September 11 incidents were sure to have catastrophic consequences for the economy.

The high level of vehicle sales was supported by several factors. First, consumer confidence remained relatively strong through mid-September despite a malaise in the business economy. Second, despite a sharp decline in consumer confidence after September 11, zero-interest vehicle financing and "patriotism purchasing" offset the negative impact of the event to a large extent. Third, low interest mortgage rates and capital erosion in the stock market encouraged consumer spending. Fourth, aggressive manufacturer incentives boosted vehicle sales throughout the year.

The zero-percent financing campaign turned out to be a great marketing maneuver for the Big-3 automakers, especially General Motors who led it. The campaign appealed to patriotism and created the psychological incentive to consider a vehicle purchase by offering symbolic no-interest loans. Actual economic incentives were offered through cash-back options. Many consumers found that buying a vehicle was an emotionally and financially sound action.

... yet suppliers' profits fell sharply.

Despite the robust vehicle sales, automotive suppliers are gravely ailing. *The 2002 Business Performance Analysis* reveals that the median revenue of forty-three publicly traded automotive suppliers declined by 11.6%, from $2.5 billion in 2000 to $2.2 billion in 2001 (**Figure 1**). Furthermore, the median profitability (EBIT/revenue) plummeted by 54.4% from 6.4% of revenue in 2000 to a new ten-year low of 2.9% in 2001. Of the 43 companies studied, 32 companies experienced revenue decline and 37 companies saw their margins fall in 2001.

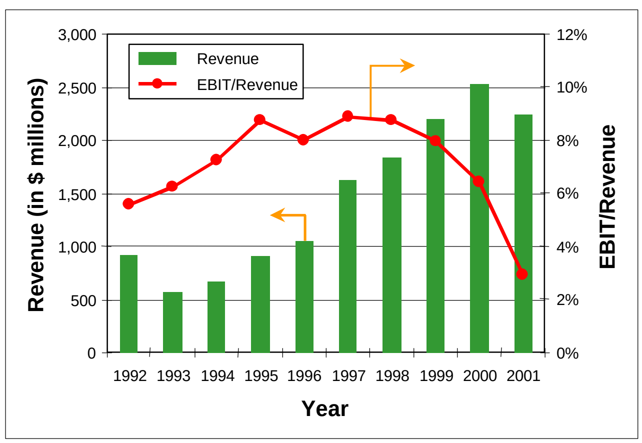

Figure 1: Median Revenue and Profitability Trends Among 43 Automotive Suppliers

North American production dropped.

Behind the suppliers' plight is the sharp decline in North American vehicle production in 2001. According to *Automotive News*, vehicle production in North America, including US, Canada, and Mexico, dropped by 1.8 million units, or 10.2%, from 17.7 million in 2000 to 15.9 million in 2001 (**Figure 2**). The North American automotive industry produced 1.3 million fewer vehicles than it sold in US. The difference came from the previous year's inventory, imports from Asia and Europe, and order backlog.

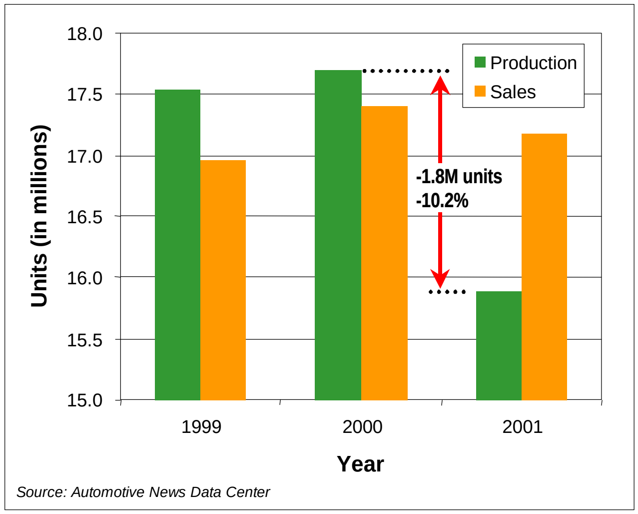

Figure 2: North American Production and US Sales

And the Big-3 are losing ground.

Domestic automakers continue to lose sales and market share, and the reduced production of 1.8 million vehicles in 2001 was largely taken out from their plants. The Big-3 accounted for 75% of North American vehicle production in 2000, yet their combined production loss in 2001 was 1.6 million, or 88% of the total decline experienced by the industry.

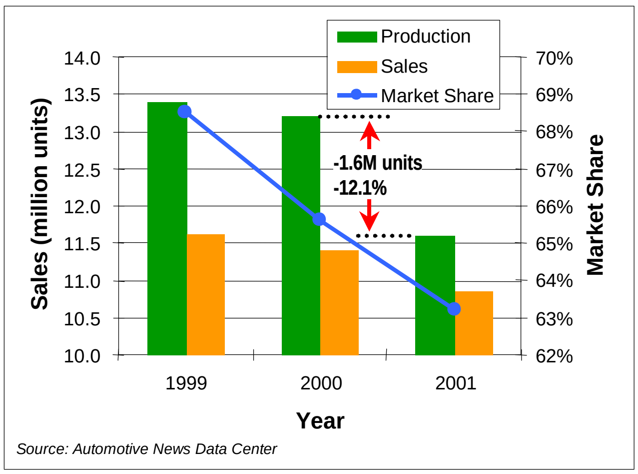

Figure 3: Big-3 US Sales and Market Share

Even at a time of globalization, the Big-3 automakers are undoubtedly the foundation of the North American automotive industry, and their performance profoundly affects suppliers. The sharp drop in profitability of North American suppliers is closely related to the erosion in their market position. The following sections will discuss how suppliers fared through the turmoil in 2001.

Study Profile

The landscape keeps changing.

Although the tide of mergers and acquisitions has subsided from its high, the landscape of the automotive supply industry continues to change. From last year's report, three companies were eliminated and two were added (**Figure 4**). Forty-three companies were analyzed in this year's Business Performance study, as listed in **Appendix A**.

From consolidation to rationalization

Slowing supply-base consolidation is clearly seen in the supplier revenue profile of the forty-three companies studied (**Figure 5**). Growth in the number of multi-billion dollar suppliers ceased, and the revenue profile virtually remained unchanged in 2000 and 2001. Consolidation will continue in 2002 and beyond, but the primary focus will inevitably shift from growth at all costs to rationalization. Although companies will make strategic acquisitions to reinforce a specific geographic presence or core product expertise, non-core business areas will be redefined and, likely, be divested. For some companies, this may mean an exit from the automotive business.

Eliminated
- Hayes Lemmerz (Chapter 11)
- Textron Automotive (Sold most of automotive)
- Triple S Plastics (Acquired by Eimo, Finland)

The following companies have also filed Chapter 11, but financials were available for FY 2001.
- Federal Mogul
- Newcor
- Sheldahl

Added
- Visteon
- American Axle and Manufacturing

Figure 4: Company Changes for the Business Performance Study

Financial data used for the analysis was extracted from each company's reporting documents, such as annual reports and 10K's to provide the proper level of information to calculate pertinent financial ratios.

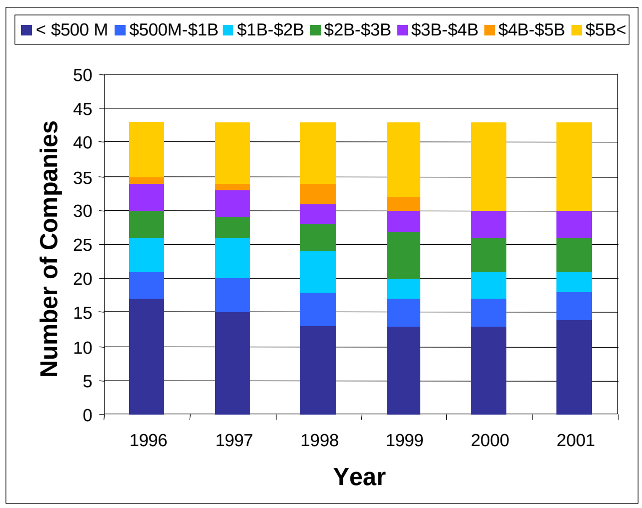

Figure 5: Historical Revenue Profile of the 43 Suppliers

From the forty-three companies, high- and low-performers were selected based on their profitability history, measured in terms of EBIT/Revenue, for the three most recent years. High- and low-performers are those suppliers who:

1. were in top/bottom 25% in terms of profitability in 2001; and
2. were in top/bottom 25% in terms of profitability either in 1999 or in 2000.

Using these criteria, nine high performers and eight low performers were identified.

SUPPLIER BUSINESS PERFORMANCE TRENDS

Revenue

Growth has reached a peak... for some.

The spectacular revenue growth in the 1990s has clearly lost its steam as three quarters of the suppliers in the study (32 out of 43) experienced a revenue decline in 2001.

The overall median revenue declined by 11.6%, from $2.5 billion in 2000 to $2.2 billion in 2001 (**Figure 6**). The rate of negative revenue growth for suppliers roughly corresponds to that of the sharp drop in North American vehicle production (-10.2%, **Figure 2**).

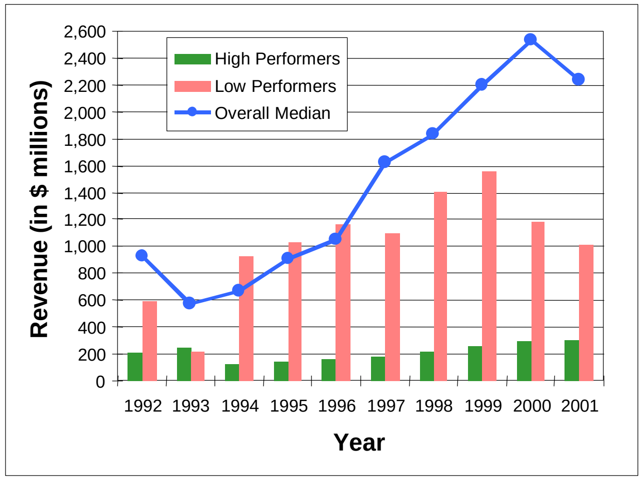

Figure 6: Median Revenue History by Performance Group

Low performers have now seen a significant revenue slide for two years in row. Seven out of eight low performers lost revenue in 2001, and their median revenue declined from $1.2 billion in 2000 to $1.0 billion in 2001 (-14.4%). Compared with the peak year of 1999, they lost 34.8% of revenue in two years and they are back to the level of 1995. Low performers are eroding to the pre-consolidation revenue level, and the economic climate is not nearly as favorable as in 1995.

High performers' median revenue, on the other hand, continued its slow but steady increase, from $297 million in 2000 to $310 million in 2001 (+4.3%). Their median revenue is about a third of low performers'. High performers are not only smaller companies. They can better react to and manage adverse market conditions. Yet high performers were not immune to the industry trend. Although their median revenue increased, five out of the nine high performers experienced revenue decline.

Tough times ahead

WardsAuto forecasts May's seasonally adjusted annual rate at 17.0 million US vehicle sales for 2002. It is good news that vehicle sales are holding. However, high retail incentives will squeeze OEM margins, and automakers will continue to ask suppliers for further price reductions, sometimes even retrospectively. North American vehicle production for the first four months in 2002, according to *Automotive News*, is slightly off compared with the low level in 2001. Tough times still lie ahead for automotive suppliers.

Profitability

Margins are plummeting…

Revenue decline had a profound impact on suppliers' margins. The median profitability (EBIT/revenue) plummeted by 54.4% from 6.4% of revenue in 2000 to a new ten-year low of 2.9% in 2001 (**Figure 7**). Of the forty-three companies studied, thirty-three saw their margins fall in 2001 and thirteen posted a loss before interest and taxes.

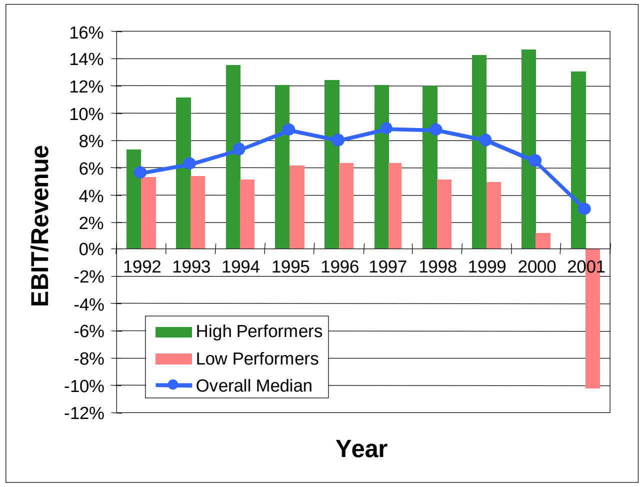

Figure 7: Median Profitability History by Performance Group

Automotive suppliers in general have been operating with very low margins, which have been in decline since 1995. The fall in revenue due to ever intensifying price pressure and lower production volume took a very heavy toll on low-performing companies. Their median profitability has gone under water from 1.1% in 2000 to -10.2% in 2001. With the lower revenue level, low performers could not support their operations and overhead. This is not surprising given their historically low margins. Simply stated, the inevitable has finally happened.

… and will continue to be squeezed.

High performers' median profitability also declined from 14.6% in 2000 to 13.1% in 2001. Due to their consistently high margins, this will not affect them, at least for the short term, much more than ordinary fluctuations from mild economic cycles. Yet price pressure from OEM and 1st tier supplier customers is increasing, and will continue to do so, impacting profitability levels. Even high-performing suppliers will be hard-pressed to maintain their performance and they, too, will have to boost their efforts in order to maintain their margins.

Restructuring did affect supplier profitability since nearly one half of the companies (20 out of 43), including all eight low performers, recorded non-recurring charges for 2001. Ten of the twenty companies reported negative EBIT, five of which would have seen positive EBIT without the one-time charges. However, it should be made clear that many companies recorded a loss not because of restructuring but because they have been marginal performers for far too long.

The robust 2002 US vehicle sales to date have come as a surprise for OEMs, and they are building up production to meet the demands. Even if OEMs achieve high full year sales and production levels in 2002, they will come at the cost of lower margins due to heavy retail incentives. Without a doubt, suppliers' margins will be under pressure.

Operating Cost

Cost, cost, cost

Cost management continues to be one of the key differentiators between high performers and their peers, as clearly seen in the long-term trends (**Figure 8**). The medians for all three groups dropped in 2000 although no rational reason could be identified for the phenomenon. It was likely a combination of factors and judged by ACG as an aberration since the trend line has readjusted to a more explainable situation.

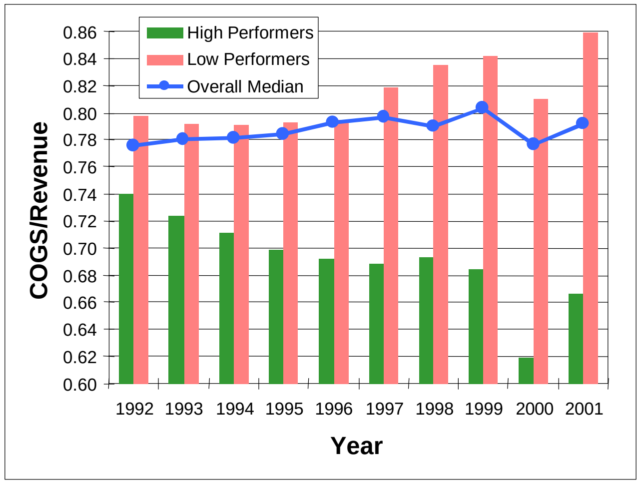

Figure 8: Median COGS/Revenue History by Performance Group

The overall median ratio of cost of goods sold (COGS) to revenue has gradually increased until 1999. In 2001, the ratio slightly declined to 0.792 from 0.801 in 1999. Suppliers' rigorous cost reduction efforts are credited for holding further cost increases in check, yet it is too early to determine if this is a real reversal of trend. Under mounting price pressures and with slowing or even negative revenue growth, the upward trend will likely resume unless suppliers continuously focus on long-term cost management.

Low performers are slow to respond to changes.

Low performers' median COGS to revenue ratio continued its upward trend and increased from 0.842 in 1999 to 0.859 in 2001. The increase in COGS, despite substantial revenue decline, indicates several possibilities as to the causes for low performers' cost problem. Among them are over capacity and high fixed cost, low labor productivity or overstaffing, quality problems such as high scrap rates and non-conforming shipments, and the lack of real-time data and/or information reporting systems that quickly identify changes in the business environment or arising quality or manufacturing problems.

High performers, on the other hand, have been able to steadily reduce costs, and their historical cost performance depicted in **Figure 8** presents the perfect example of continuous improvement and process optimization. Their median COGS to revenue ratio decreased from 0.684 in 1999 to 0.666 in 2001 while increasing revenue. High performers' ability to squeeze COGS enables them to improve margins and to invest in enhancing long-term competitiveness such as R&D, productivity improvement, and real-time information technology systems.

Asset Turnover

Declining asset turnover

Automotive suppliers' asset turnover has been in decline since the early 1990s, particularly after 1995. The overall median declined from the peak of 1.50 in 1995 to 1.15 in 2001 (**Figure 9**). One major reason for the decline is that suppliers substantially increased their asset base through mergers and acquisitions during the decade, and their physical growth outpaced revenue growth. In addition, OEMs' outsourcing prompted suppliers to expand their engineering capabilities, and global support requirements necessitated suppliers to add or even duplicate facilities such as overseas plants and engineering centers, as well as support infrastructure.

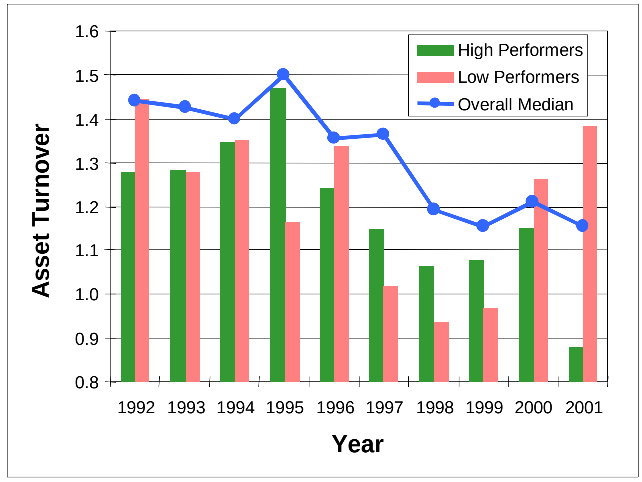

Figure 9: Median Asset Turnover History by Performance Group

The median asset turnover figures for both high and low performers have followed similar trends. The increase in the late 1990s is a sign of rationalization as companies shed redundant assets acquired throughout the decade. Notably, low performers substantially increased asset turnover during the last two years from 0.97 in 1999 to 1.38 in 2001 (+42.3%), despite their falling revenue for the same period as seen in **Figure 6**. Liquidation of large amount of assets may be a reason, but the real reason is the "shrinkage of the balance sheet" as discussed in a later section on debt to asset.

In contrast, high performers' asset turnover dropped sharply in 2001, to 0.88 from 1.15 in 2000. The decline could have been from continued strategic acquisitions but more likely from investments in long-term productivity. In any event, high performers' consistent high profit margins allow them more leeway in terms of strategic options. Even if it was due to a temporary decline in performance, high performers have proven themselves to be capable of managing such an issue through continuous improvement.

Business needs to be managed differently.

It is important to reiterate that the automotive supply industry has undergone a substantial structural change. Declining asset turnover is an indication of the change where suppliers need to manage higher asset levels in order to take on more responsibilities and become global. Declining asset turnover by itself is not negative provided it is compensated by increased revenue to cover fixed costs and higher profit margin to generate return on assets. Although most suppliers realized revenue and market share gains through acquisition, the higher margins never materialized for most companies. Automotive suppliers have been plagued by this problem, and it will be further discussed in the next section.

Return on Total Assets

ROA follows the profitability trend.

The overall median return on assets (ROA) has been declining since the mid 1990s, from the peak of 12.7% in 1995 to 4.2% in 2001 (**Figure 10**). Low performers posted negative ROA of -13.4% while high performers maintained a comfortable ROA of 15.6% in 2001.

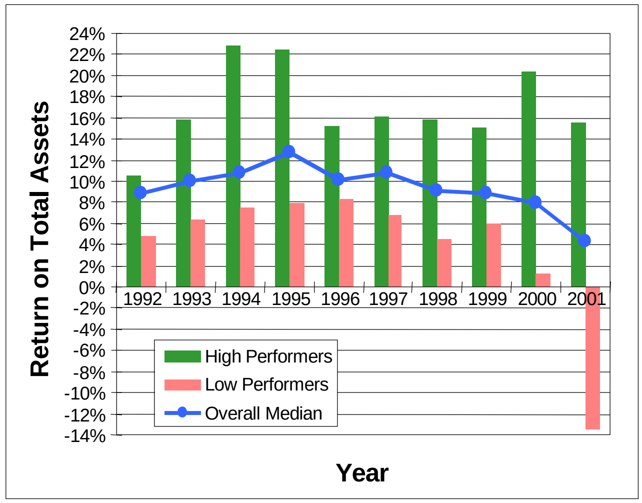

Figure 10: Median Return on Assets History by Performance Group

ROA is calculated as the mathematical product of profitability (return on sales) and asset turnover, and these two measures have direct impact on ROA. The fact that ROA has been following a trend similar to that of profitability (**Figure 7**) indicates that profitability has been the dominant factor of the two in determining automotive suppliers' ROA.

This is consistent with the discussion in the previous section on asset turnover. It is necessary for today's automotive suppliers to carry more assets compared with five to ten years ago. Although remaining redundancies need to be eliminated, the declining asset turnover is due to a change in the industry structure and is an irreversible trend; therefore, suppliers must generate higher profit margin in order to maintain the level of return on assets, or return on investment.

Turning point for suppliers

The mid 1990s was a turning point for the automotive supply industry. Large-scale mergers and acquisitions prompted by OEM outsourcing started to accelerate around 1995. Incidentally, suppliers' profit margins began to decline at the same time. OEMs drastically expanded outsourcing as their own cost management strategy; therefore, they did not allow very high margins for value-added engineering work performed by suppliers. As such, suppliers needed to focus on margin improvement through aggressive cost management. As seen in the profitability and the COGS (**Figures 7** and **8**), high performers were able to respond to the changing business environment to combat this trend while others could not, creating today's performance differentials.

Financial Leverage

Debt to Asset

Overall debt level is leveling off.

Due to extensive M&A activities, many automotive suppliers substantially increased their financial leverage to an alarming point during the 1990s. The trend apparently has eased as many suppliers reduced debt and some highly leveraged companies filed bankruptcy. The overall median debt to asset ratio remained flat at 0.70 between 1999 and 2001 (**Figure 11**).

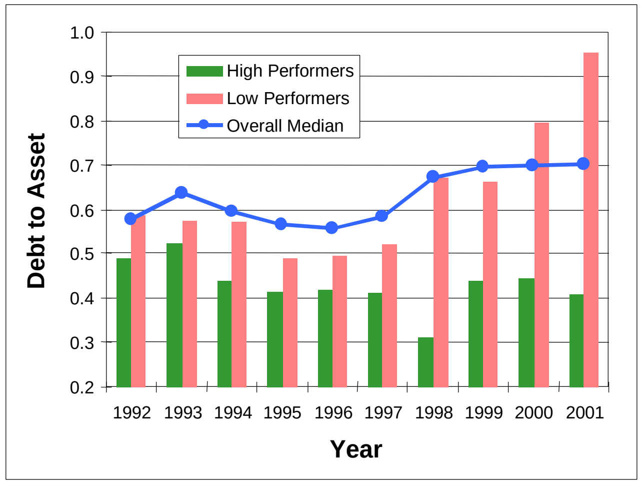

Figure 11: Median Debt to Asset History by Performance Group

High performers' median debt to asset has remained below 0.5 since 1992, with the exception of 1993, and maintained the low level at 0.41 in 2001. The low debt level reflects high performers' ability to finance growth primarily through internal sources, namely profits from operations, as well as their growth strategy to limit financial risks by avoiding drastic changes in the capital structure.

Beware of the erosion of assets.

While the overall median showed a sign of leveling off, low performers continued to increase their debt level during the last two years. In 2001, their median debt to asset ratio reached 0.95, and three low performers reported debt to asset ratios of over 1, or negative owner's equity. Low performers did not actually increase debt, but their accumulated net losses have eaten up the owner's equity through negative retained earnings. As noted in the section on asset turnover, the result is the shrinkage of the balance sheet or the erosion of assets. Low performers' increased asset turnover was not due to improved efficiency but due to erosion of capital through unprofitable operations. Unless there are extraordinary future cash flow expectations, liquidation of some of these companies appears inevitable.

Does the flattening debt to asset mean a lowered financial risk for automotive suppliers? No matter what the debt level is, a more important question is whether companies can meet debt obligations. Discussions in the next section show that the crisis is far from over.

Interest Coverage

Insolvency is a real risk.

Despite the stabilized debt to asset ratio, the overall median interest coverage continued its decline to 1.29 in 2001 from 3.09 in 2000 (**Figure 12**). Note that companies need the interest coverage of at least 1.0 to meet debt obligations. The decline started in 1995, and the fact supports the contention that the mid 1990s was a turning point for the automotive supply industry. In order to reverse this trend, suppliers must improve their profitability, and it is achievable only through aggressive cost reduction.

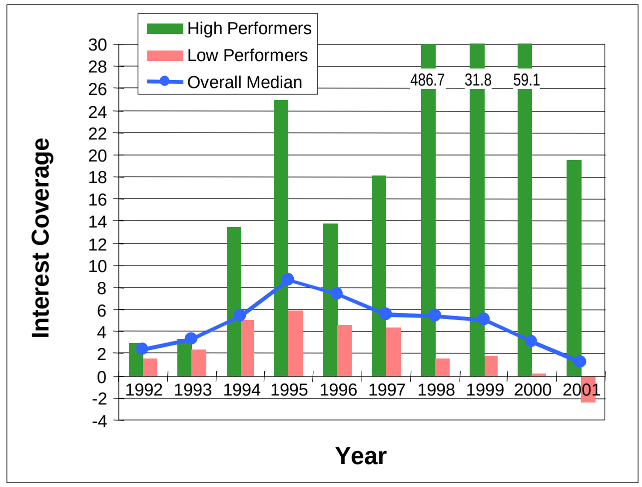

Figure 12: Median Interest Coverage History by Performance Group

Low performers' median interest coverage followed the same trend with that of the overall median. Low performers lost the ability to meet debt obligations in 2000, and their pre-interest losses caused the ratio to turn negative in 2001. By all accounts, some low performers must be finding it exceedingly difficult to remain as viable going concerns.

High performers have increased debt as most other companies did over the years, but their ability to maintain high profit margins and stable debt to asset ratio present little risk as to their solvency.

Improving Business Performance

Business performance of automotive suppliers on average has deteriorated during the unparalleled growth period in the 1990s. With the downturn, many suppliers are being pushed to a point where they can barely make economic sense out of their businesses, and more than a few have been forced out of business. Because vehicle sales continue to be largely supported by incentives, OEMs will increase pressure on suppliers to cut costs.

Broken business model… or is it?

Some argue that the automotive business model is broken. Yet, business performance differentials among automotive suppliers continue to widen, particularly between high performers and others. At least one group of suppliers, operating in the same business environment, has maintained excellent performance during the growth period and they continue to do so in the current downturn. The key to this performance differential comes from how high-performing companies manage their business, and herein lies the answer to the performance improvement question for those that struggle.

Figure 13 compares different performance groups using the common-size income statement. The largest differentiator for high performers is their low-cost structure. High performers recorded a gross margin that was 19.3% above low performers and 12.6% above the overall median in 2001.

	High	Low	Median
Revenue	100.0%	100.0%	100.0%
Cost of Goods Sold	66.6%	85.9%	79.2%
Gross Margin	33.4%	14.1%	20.8%
SG&A	20.3%	24.3%	17.9%
EBIT	13.1%	-10.2%	2.9%
Interest Expense	0.3%	1.9%	1.4%
EBT	12.7%	-12.1%	1.5%
Tax Expense (@34%)	4.3%	0.0%	0.5%
Net Income	8.4%	-12.1%	1.0%

Figure 13: 2001 Common-size Income Statement by Performance Group

1% cost reduction per year makes the difference.

Such distinctions did not occur overnight. The COGS to revenue ratio differential between high and low performers was 5.7% in 1992, and the gap widened to 19.3% in 2001, or by 13.6% per year which equates to about 1.5% annually (**Figure 14**). This simply means that less than a 1% change per year in the cost position, going in opposite directions, has created today's performance differential.

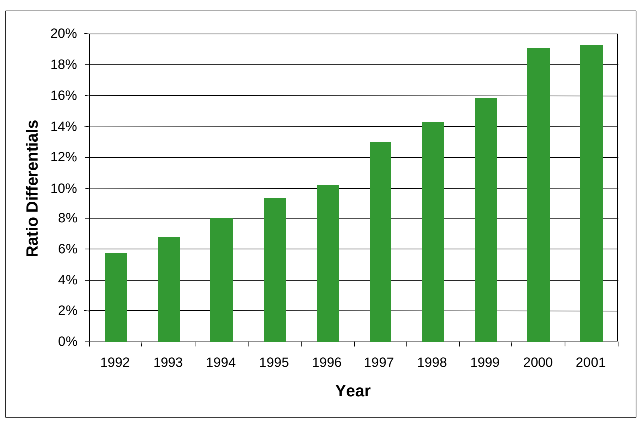

Figure 14: COGS/Revenue Ratio Differentials between High and Low Performers

Some deterioration in the cost

position is often condoned during a growth period, but high performers consistently improved their costs during the 1990s. Statements such as "continuous improvement is not enough in today's tough competitive environment" completely miss the mark. Failure to continuously improve in good times leads to situations where desperate measures are needed during bad times.

Growth and performance

The rapid supply-base consolidation and resulting structural change of the industry during the 1990s have definitely been challenging suppliers, in terms of how they manage their growing operations. Did the industry consolidation inevitably cause the declining business performance of automotive suppliers? **Table 1** lists the top 12 high-growth suppliers between 1995 and 2000, along with their business performance status in 2001. The list contains three high, three low and five average performers. Upon review, no statistical correlation was found between growth rate and profitability. At issue is how one grows rather than growth itself. Growth does not cause low performance but it does amplify business risks. Companies can grow spectacularly based on acquisition, but they can also fail miserably based on the lack of control.

Table 1: Top 12 High Growth Suppliers and Their Status

Company	1995-2000 Annualized Growth Rate	2001 Status
Noble International	89.9%	High performer
Tower Automotive	62.6%	Middle Cluster
Dura Automotive Systems	59.7%	Middle Cluster
Hayes Lemmerz	28.9%	Chapter 11
Magna International	26.6%	Middle Cluster
Federal Mogul	24.6%	Chapter 11, low performer
Lear	24.4%	Middle Cluster
Triple S Plastics	23.5%	Acquired
Gentex	21.7%	High performer
Newcor	21.4%	Chapter 11, low performer
Danaher	20.5%	High performer
IMPCO Technology	20.1%	Middle Cluster

High performers' growth strategy

High performers have been 'masters' at managing growth as well as managing costs. Their growth strategies share similar traits, including the following:

- Growth was primarily funded by internal sources, i.e. profits from operations.
- Acquisitions were aimed at expanding core competencies, based on a clear understanding of market needs rather than on market share gains or wishful thinking. As such, the positive results of strategic acquisitions were immediately reflected in increased business performance and not distractions in ongoing operations due to lengthy restructuring processes.
- The size and number of acquisitions were limited in order to keep transitions manageable.

- The rate of growth was controlled within a sustainable level so that financial risks would not be increased by drastically changing the capital structure.

High-performance Business Model

How can automotive suppliers improve their business performance? The High-performance Business Model, which was developed based on the traits and best practices of high performers, provides the framework for performance improvement (**Figure 15**).

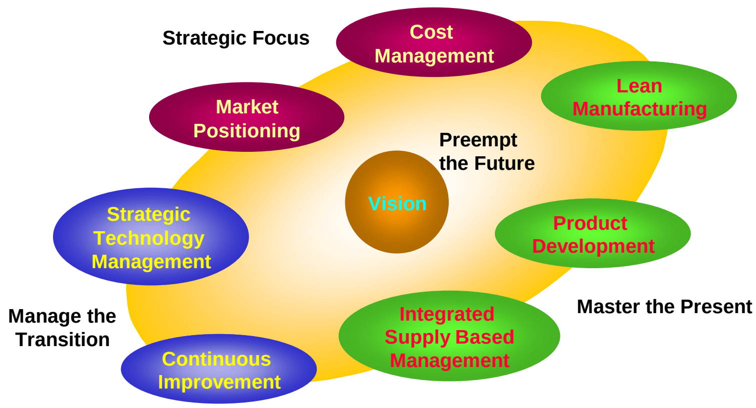

Figure 15: High-performance Business Model

Superior business performance comes primarily from process improvement and optimization. In this regard, high performers share the following traits:

- High performers are process 'masters'. They understand their core business processes and manage each of them focusing on key performance indicators.
- High performers optimize the process before automating the process. They understand the need to have good data on which to make good business decisions. As one high performer candidly stated, "If you automate a broken process you will only make bad decisions faster."
- High performers are system thinkers. They understand how each process is related to one another and manage them as a total system.
- High performers are sound strategists. They understand where they are, where they need to be, and how to get there. The paths toward strategic objectives are clearly laid out, and risks taken are calculated.
- High performers are paranoid by nature. They believe their competitors are targeting them and, for this reason, they work even harder to stay ahead. In doing so, they widen the performance gap even more.
- High Performers are never satisfied. They continue to set new, higher business performance targets when the current target is achieved. High performers recognize complacency is the beginning of a long, downward spiral.

The Internet and new Information Technology tools have emerged as powerful enablers for process improvement within an organization and across the supply chain. Effective use of these tools, combined with traditional process improvement methods, is one of the best practices often employed by high performers.

The High-performance Business Model is discussed in detail in the ACG report, entitled *Gaining Competitive Advantage Through the High-performance Business Model*.

Appendix A: Company List

(In alphabetical order)

High Performers

Actuant (ATU)
Danaher (DHR)
Gentex (GNTX)
Noble International (NOBL)
Parker Hannifin (PH)
Penn Engineering & Manufacturing (PNN)
Strattec Security (STRT)
Superior Industries (SUP)
Wescast Industries (WCST)

Low Performers

Amcast Industrial (AIZ)
Delphi (DPH)
Federal Mogul (FMO)
Motorola Automotive (MOT)
Newcor (NER)
Sheldahl (SHELQ)
Thomas & Betts (TNB)
Williams Controls (WMCO)

Middle Cluster

American Axle & Manufacturing (AXL)
ArvinMeritor (ARM)
BorgWarner (BWA)
Collins& Aikman (CKC)
Cooper Tire & Rubber (CTB)
Cummins Engine (CUM)
Dana (DCN)
Donnelly (DON)
Dura Automotive Systems (DRRA)
Eaton Automotive (ETN)
Edelbrock (EDEL)
Federal Screw Works (FSCR)
Goodyear Tire & Rubber (GT)
Hastings Manufacturing (HMF)
IMPCO Technologies (IMCO)
Intermet (INMT)
Johnson Controls (JCI)
Lear (LEA)
Magna (MGA)
Modine Manufacturing (MODI)
Plymouth Rubber (PLR)
Tenneco Automotive (TEN)
Timken (TKR)
Tower Automotive (TWR)
TRW (TRW)
Visteon (VC)