Our Thesis on the EMS Industry: New Chapter

- Leading EMS Companies are Becoming the Backbone of Electronics Manufacturing. Outsourcing is a Fact, Not a Trend. Select EMS Companies, in our view, Still Represent a Viable, Leveraged Play on a Tech Recovery.

- The Worst Downturn in Electronics History Marked the End of the First Important Chapter of the EMS Industry. It is in Transition from a Top-Line, Momentum-Driven Group to a Net Income Delivery and ROIC Group, as the Period of Dramatic Asset Aggregation Winds Down.

- The Companies Best Positioned to Navigate the Transition should be Those that Demonstrated Superior Asset Management, upon which the Model is Predicated. The Companies that can Best Execute the Basic EMS Model (Those Who Can Efficiently Manage the Scale and Asset Velocity Required for Good Returns) should be the Best Performers over Time.

- Significant Pressures Remain on the Industrial Economy, and Demand Trends are Opaque (Hence our Marketweight Industry Rating). Given our Somewhat Neutral view on End-Markets, we have Limited our Outperform Recommendations to only those Companies that we Believe have Company-Specific Attributes or Catalysts to Commend them. Our Favorite EMS Companies are Flextronics and Jabil and our Favorite Name in the Passives/Connectors Sector is Amphenol.
Top Line Growth in the 1990s was Stunning, and Sloppy

Satisfactory Returns are a Function of Return on Sales and Asset Velocity
Our Outperform-Rated EMS Companies Have Been Superior Working Capital Managers

For the March quarter 2003
Size of bubbles represent company sales

Source: Company reports and Smith Barney.

EMS: Our Conclusions and Questions

• EMS is Still a Growth Industry--Slower End Market Demand should Generate the Next Wave of Outsourcing Activity, as it did in 1998
• The Model has been Stress Tested During this Downturn. The EMS Companies Have Proven that They:
  – Are not Exclusively Dependent on the Hardware Cycle for Growth
  – Do not Carry Significant Inventory Risk
  – Are Low Fixed-Cost Businesses that can Adjust to Declines in Demand--Yet Stay Profitable
  – Have Very Defensive Operating Profiles--Slower Times have Generated Higher Operating and FCF
• EMS Companies are a Viable, Leveraged Play on a Recovery in Business Investment in Electronics Hardware.
• Will there be a “Dell” of EMS?
• What about China?
Future of EMS and the Supply Chain?--What's in the Cloud?

- Emergence of Outsourcing Non-Core Competencies As Mega-Trend -- "Globalization"
- EMS/ODM
- Foundry Model (TSMC, UMC)
- IT Svcs (IBM, EDS)
- Payroll/Acctg (ADP/PAYX)
- Personnel (RHI, Manpower)

1990's

Source: Smith Barney.

China is Emerging as the Center of Gravity for Commodity Electronics

Source: Smith Barney.
Supply Chain Inventory-to-Sales Ratios are at an All-Time Low – “Equilibrium” Production could be Higher than Today

Note: “Supply Chain” includes 140 companies representing relevant electronics hardware end markets.
Source: FactSet

Can the Group Work Absent a Recovery in Telco Equipment Spending?

Source: Company reports and Smith Barney.
Names We Would Focus On…and Why We Like Them

Electronics Manufacturing Services (EMS)

Flextronics (1H) We believe:
- A Share Taker in a Slow Growth Environment
- Low-cost Producer in the Industry
- Campus Strategy the Cornerstone of Plan to Reap True Synergies from the Model
- Adequate Cash Liquidity for 15-20% Internal Growth—Most of its Restructuring Charges are Behind it

Jabil Circuit (1H) We believe:
- Best Combination of Asset Velocity and Net Margin in EMS Industry
- Benefiting From the Inverse of “the Law of Large Numbers”

Names We Would Focus On… (cont’d)

Passives/Components

Amphenol (1H) We believe:
- Best-in Class Military-Aerospace Franchise
- Industry Leading Margins and Tight Cost Controls
- High Free Cash Flow Generation
- Deleveraging of Balance Sheet Should Mean Significant Augmentation of EPS
Tier-I Market Share—Flex is the Obvious Share Taker

**FLEX's market share increased from 3% of "Big 5" sales to 28% during 1994-2002, and has doubled since the end of 1999.**

Source: Company reports and Smith Barney.

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SB Supply Chain Universe

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<th>EBITDA F12</th>
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**EMS Coverage Universe Average:**

- 0.9x 12.7x 30.9x 39.2x 2.7x
- Tier-I Average: 0.5x 12.7x 32.6x 45.4x 2.4x
- Tier-II Average: 0.6x 13.2x 16.7x 16.7x 1.7x

**Components & Connectors**

- Amphenol APF 1H $47.37 $50 $2,061 1.8x 11.9x 20.5x 21.1x 2.05
- AVX AVX 1H $11.91 $9 $2,071 1.9x 18.9x NM NM NM
- Molex - Class A MOLXA 2H $24.00 $20 $4,988 2.7x 12.7x 40.7x 42.9x 4.07
- Vishay VSH 2H $13.81 $13 $2,210 1.1x 8.1x 51.1x 51.1x 5.11

* PEG is forward 12 month P/E to Projected 5 year EPS growth.

Source: Company reports and Smith Barney.
Valuation and Risks

Flextronics (FLEX—$10.68; 1H)

Valuation

While the Electronics Manufacturing Services Industry is still relatively young (essentially “born” after the recession of 1991), we use historic P/E multiples to derive our price target for EMS providers. Over the past ten years, the group has traded over a wide range, but over the past five years, our research indicates that the group has found relatively good support around a market multiple on forward earnings. We believe that the long-term outlook for the industry is still quite robust and that the secular trend toward outsourcing should continue to allow EMS providers to grow top-line faster than their customers and generate earnings growth in excess of the broader market. As such, we continue to believe that many of the tier-I and tier-II EMS providers should command market multiples or higher.

Over the past 10-years our coverage universe has traded at a median forward 12-month P/E multiple of 22x and Flextronics has traded at a median P/E multiple of 21x forward one-year estimates. Our 12-month price target of $11 is based on an earnings multiple of 23x our CY04 EPS estimate of $0.47. In our opinion, Flextronics should trade at least at the long-term median multiple of the industry due to its low-cost position within the industry (with the largest footprint in China and Eastern Europe in the industry), its industry leading working capital metrics, and its ability to take market share.

Risks

Generally speaking, risks to companies in the EMS sector, and hence, potential risks to investment in Flextronics shares, include: 1) a downturn in the electronics industry, resulting in lower demand for Flextronics’ customers’ products; 2) an increase in the price of outsourcing by OEMs; 3) management and integration of acquisitions and/or expansions; 4) risks of international operations; and 5) challenges associated with the fast ramp of new programs, including components shortages. Risks specific to Flextronics stem from its Multek (printed circuit board fabrication) business, where conditions remain difficult. Multek has had a drag on earnings, due to the capital-intensive nature of that business, and has been sustaining losses of approximately $0.05 per share, per quarter. We expect that Multek lost $0.05 per share in the December quarter, but believe that the business can reach operating breakeven on improving revenues later in calendar 2003, as we believe Flextronics is taking share as a result of the voluntary and involuntary capacity reductions worldwide over the past 12–18 months. If any of these risk factors were to occur, our price target may not be achieved.

Jabil Circuit (JBL—$21.66; 1H)

Valuation

While the historically high-growth Electronics Manufacturing Services Industry is still relatively young (essentially “born” after the recession of 1991), we use historic P/E multiples to derive our price target for EMS providers, as it is our opinion that earnings growth is the best indicator of future business value. Also, that metric, in our view, has distorted the action of the shares, and will in the future. Over the past ten years, the group has traded over a wide range, but over the past five years, our research indicates that the group has found relatively good support around a market multiple on forward earnings. We believe that the long-term outlook for the industry is still quite robust and that the secular trend toward outsourcing should continue to allow EMS providers to grow top-line faster than their customers and generate earnings growth in excess of the broader market. As such, we continue to believe that many of the tier-I and tier-II EMS providers should command market multiples or higher.

Over the past 10-years our coverage universe has traded at a median forward 12-month (F12) P/E multiple of 24x and Jabil has traded at a median P/E multiple of 22x forward one-year estimates. Our 12-month price target of $24 is based on an earnings multiple of 24x our CY12 earnings of $0.99. In our opinion, Jabil should trade at least at the long-term median multiple of the industry due to its low-cost position within the industry (with the largest footprint in China and Eastern Europe in the industry), its industry leading working capital metrics, and its ability to take market share.

Risks

Generally speaking, risks to companies in the EMS sector, and hence, potential risks to investment in Jabil shares, include: 1) A downturn in the electronics industry, resulting in lower demand for Jabil’s customers’ products; 2) a slackening in the pace of outsourcing by OEMs; 3) management and integration of acquisitions and/or expansions; 4) risks of international operations; and 5) challenges associated with the fast ramp of new programs, including components shortages. Risks specific to Jabil stem from its Multek (printed circuit board fabrication) business, where conditions remain difficult. Multek has had a drag on earnings, due to the capital-intensive nature of that business, and has been sustaining losses of approximately $0.05 per share, per quarter. We expect that Multek lost $0.05 per share in the December quarter, but believe that the business can reach operating breakeven on improving revenues later in calendar 2003, as we believe Flextronics is taking share as a result of the voluntary and involuntary capacity reductions worldwide over the past 12–18 months. If any of these risk factors were to occur, our price target may not be achieved.
Valuation and Risks

Amphenol (APH $47.37; 1H)

Valuation
The connector industry is a relatively mature industry that tends to grow in line with the overall electronics industry. The compounded annual growth rate for the connector industry over the past 20 years has been approximately 7%. The larger global connector companies, such as Amphenol (sixth-largest in the world), have been able to grow at 1.5x–2.0x the industry average over the same period due to a combination of market share gains from smaller second- and third-tier connector manufacturers and industry consolidation. We expect that the top-10 providers will continue to take share at 0.35%–2.5% the vendor list, and we also expect to see the top 10 further consolidate the industry.
We use historical P/E multiples to derive our price target for passive component manufacturers, as it is our opinion that earnings growth is the best indicator of future business value. Also, that metric, in our view, has dictated the action of the shares, and should in the future. Over the past 10-years, we find Amphenol has traded at a median P/E median multiple of 17x forward one-year estimates. Our $50 price target is based on a multiple of 20x our calendar 2004 EPS estimate of $2.50. We believe that a modest premium to its historical median P/E multiple is warranted as we view Amphenol as a quality story, one with high margins and no one-time charges during the most severe downturn in electronics history. Furthermore, the company continues to use its ample free cash flow to de-leverage its balance sheet. It also has a best-in-class defense business with higher-than-industry average margins.

Risks
In the highly competitive and fragmented connector industry, with ten out of 1,500–2,000 companies worldwide accounting for nearly 50% of worldwide revenues, companies face strong price competition, cyclicality in end markets, shortening product life cycles, and currency fluctuations due to the global scope of the business. Amphenol, in particular, faces specific risks from substantial leverage and debt resulting from its recapitalization by its majority shareholder, Kohlberg Kravis Roberts & Co. (KKR). Furthermore, Amphenol has become increasingly dependent on the communications industry, which accounts for approximately 52% of revenues. Amphenol is also a major supplier of high-performance environmental connectors for military applications, so a decline in U.S. military expenditures could adversely affect Amphenol’s sales. Amphenol is one of the least liquid stocks in our coverage universe, as only half of the outstanding shares float, while the remainder is held by its financial backer, KKR. We expect KKR to come to market several times over the next few years to monetize its investment, which from time-to-time could cause some short-term pressure on the stock until the additional liquidity is absorbed by the market. Furthermore, an increasing percentage of electronics manufacturing is moving to Asia, which requires supply-chain companies to move or establish incremental capacity in the region to be in close proximity to its customers. While Amphenol has been operating in the Asia region for more than a decade, this secular shift in manufacturing, in our opinion, increases competitive and execution risk. If any of these risk factors were to occur, our price target may not be achieved.