Riding the Wave

An Elongated M&A Cycle

➤ U.S. merger activity typically occurs in waves, with those waves tending to cluster in a small number of industries.

➤ Since 1895, there have been five prominent merger and acquisition (M&A) waves. Each wave began during a shift to new business structures. Each wave ended around the time of a recession.

➤ A significant portion of merger activity is generally due to industry-level shocks, such as a technological change, deregulation, commodity price swings, or foreign competition.

➤ M&A activity, which has rebounded strongly of late, is likely entering a significant wave. The shock that is driving this current merger wave appears to be the integration of the Internet and information technology into firms’ core activities, which is leading to a reconfiguration of business processes.

➤ With recessions occurring less frequently than in the past thanks to the “Great Moderation,” the current M&A cycle should be relatively prolonged.

➤ Since M&A waves tend to cluster in a small number of industries, Finance, Media & Entertainment, and Health Care are likely to continue to experience heavy M&A activity. We identify 19 potential takeover targets.
Table of Contents

Waves and Clusters............................................................................................................. 3
M&A Waves ...................................................................................................................... 3
Industry Clusters ........................................................................................................... 7
The Next Wave .............................................................................................................. 8
Potential Takeover Targets............................................................................................ 10
Finance ........................................................................................................................ 10
Media and Entertainment............................................................................................... 13
Health Care .................................................................................................................... 17

FIGURES:
Figure 1. Value of U.S. M&A Activity as a Percentage of Stock Market Value .................. 3
Figure 2. Number of Mergers and Acquisitions in the U.S................................................. 3
Figure 3. Top 5 Industries based on Average Annual Merger Activity .............................. 7
Figure 4. U.S. M&A Transactions: Deals Completed by Target Macro Industry ............... 8
Figure 5. 19 Potential Takeover Targets ......................................................................... 10
Figure 6. Recent Biotechnology M&A ............................................................................ 18
Waves and Clusters

M&A activity has rebounded strongly in recent months and shows few signs of slowing, thanks to a favorable combination of healthy economic growth, low interest rates, and strong corporate cash flows. However, it is not just because of those favorable macroeconomic variables that M&A should continue. As has been widely discussed in the academic literature, U.S. merger activity typically occurs in waves, with those waves tending to cluster in a small number of industries.

M&A Waves

An observation of time series data on U.S. mergers since the late nineteenth century suggests that mergers come in waves — see Figure 1 and Figure 2. (Note that this is not just a U.S. phenomenon; the pattern of U.K. mergers is remarkably similar.)

Figure 1. Value of U.S. M&A Activity as a Percentage of Stock Market Value

With recessions shaded and peaks of M&A waves circled

1. The "trustification" of industrial America, 1898-1903.
2. The emergence of the assembly line, 1923-1929.
3. The conglomerates of the 1960s.
4. The second Great Restructuring of the 1980s.
5. The deregulation-driven consolidation of the 1990s.

Source: Historical Statistics of the United States, FactSet

Figure 2. Number of Mergers and Acquisitions in the U.S.

With recessions shaded and peaks of M&A waves circled

Source: Historical Statistics of the United States, FactSet
In 1990, economists Scherer and Ross described merger activity as “episodic, marked by four prominent waves — one clustered around the turn of the century, one peaking in 1929, a third peaking in 1968, and a fourth . . . during the early and mid-1980s.” (Of course, subsequent to that analysis, there occurred the great M&A wave of the 1990s.) Indeed, the pattern of M&A activity in the U.S. has been so wavelike that some other economists used regression analysis to fit a set of sine curves to the annual time series data on merger activity, and found that the sine curves generally provided significant explanatory power. (A sine curve is simply the graph of the equation \( y = \sin x \).)

Brealey and Myers, in the sixth edition of their textbook, also stated that “mergers come in waves,” but count the lack of an explanation for the phenomenon among ten important unsolved problems in finance. That said, it would seem that the five prominent M&A waves illustrated in Figure 1 and Figure 2 share two key characteristics:

- each wave began during a shift to new business structures; and
- each wave ended around the time of a recession.

The Five Merger Waves

The “Trustification” of Industrial America, 1898–1903. In the late nineteenth century, the Industrial Revolution was characterized by myriad small enterprises and overcapacity, which greatly exacerbated the prevailing deflationary trends. Intense price wars buffeted manufacturers, and contributed to the bankruptcy of many of the nation’s railroads during the devastating recession of 1893–94.

In response, J. P. Morgan, the leading representative of European creditors, reorganized the railroads into a national oligopoly of seven regional groups. His aim was to maintain freight rates and prevent a replay of the vicious competition that had sent so many railroads into receivership. What Morgan did for railroads, the “trustification” of industrial America did for manufacturing. Between 1898 and 1903 financiers combined dozens of medium-sized companies to create giant industrial combinations, or trusts, controlling in most cases 50%–90% of an industry. Key industries — chemicals, steel, machinery — announced the merging of dozens of small manufacturers into trusts, claiming a major share of the market. Prominent among these trusts were U.S. Steel, DuPont, and the forerunner of Union Carbide.

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The Great Merger Wave of 1898–1903 was brought to an end by effective federal intervention, most notably President Theodore Roosevelt’s celebrated trust-busting, which began with a 1904 Supreme Court case. In addition, the economy fell into recession in the fourth quarter of 1902, and did not rebound until the third quarter of 1904.

The Emergence of the Assembly Line, 1923–29. Coincident with the scaling back of antitrust laws — especially the laws against merger — by the administration of President Calvin Coolidge (1923–29), a large wave of mergers occurred early in the twentieth century. In particular, the high-growth and new technology industries of the era — automobiles, aviation, food processing, radio, motion pictures and electric utilities — experienced extensive consolidation through acquisition and merger.

Indeed, as a recent academic paper argues, this merger wave played a major role in speeding up the diffusion of two key technologies throughout the economy: electricity and the internal combustion engine. As a consequence, mechanical power became ubiquitous in most dimensions of daily life, including communications (the telephone), lighting (the electric light replaced kerosene and coal oil), refrigeration (electric refrigerators replaced ice), entertainment (radio, phonographs, and motion pictures), and transportation (autos and electric streetcars replaced horses in local transportation and began to supplant railroads in long distance travel).

In addition, the shift by factories to electric power increased flexibility and efficiency, and led to the modern assembly line. The great merger wave of the 1920s was eventually brought to an end by the stock market crash of 1929, and the onset of the Great Depression.

The Conglomerates of the 1960s. A commonly given reason for why the acquisitions of the 1960s took the form of diversification is that antitrust policy restricted acquisitions of related businesses. Based on concerns about rising concentration, Congress in 1950 passed an amendment aimed at closing a loophole in a key antitrust law. The 1914 Clayton Act had prohibited anticompetitive acquisitions of stock, but left acquisitions of assets untouched.

As a consequence of the new law, as well as Supreme Court interpretations in the late 1950s and 1960s, horizontal merger policy became very restrictive. In fact, horizontal mergers involving market shares of as little as 5% and 10% were largely ruled out, and even vertical mergers came under attack. Conglomerate mergers — mergers of unrelated businesses — were not entirely immune, but did enjoy a relatively safe status.

Not surprisingly, though mergers of all types continued to occur, the 1960s experienced an upsurge of conglomerate mergers. Indeed, conglomerates drove the acquisition boom during the “go-go” years of the late 1960s: In 1968 there were three times as many acquisitions as in a typical year in the early 1960s.

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The problem with conglomerates, however, was that in the strong economy of the 1960s, even a mediocre conglomerate with uninspiring internal growth could produce very impressive EPS gains by doing many accretive deals while leveraging the balance sheet. But when the economy weakened with the onset of the 1970 recession, their profits turned disappointing and conglomerates’ share prices collapsed.

**The Second Great Restructuring of the 1980s.** Just as the first Great Restructuring of 1898–1903 was a necessary reaction to the trauma of the deflation of the 1890s, the second Great Restructuring of the 1980s was largely a response to the onset of disinflation. Specifically, financial structures and organizations perfected between 1945 and 1980 to cope with the prevailing economic conditions were modified as the U.S. economy faced dynamic change, not only in the form of a lowered inflation rate (i.e., diminished corporate pricing power), but also by way of intense foreign competition and the shift of the U.S. economy from manufacturing to services.

At a result, at least five major activities were employed to reshape the organizational structure of U.S. corporations: 1) consolidation of industries; 2) leveraged buyouts (LBOs) of entire companies; 3) liquidating or streamlining of diversified companies by spinning off divisions via LBOs and sales to other corporations; 4) hostile takeovers oriented toward dismembering the target; and 5) major acquisitions, many designed to raise the acquirer’s technological sophistication or alter its business mix. Such restructuring was particularly concentrated in oil, natural gas, financial services, regional banks, and food.

The traditional explanation of why the takeover wave of the 1980s petered out toward the end of that decade is that corporate, state, and federal anti-takeover policies, as well as legal action against Drexel, Burnham, Lambert and other financiers of hostile takeovers, raised the costs of takeover bids to the point that the activity was no longer profitable. Then, too, the economy fell into recession in the summer of 1990. (Note that, as per Figure 2, the 1960s’ wave contained many more deals than the 1980s’. However, as Figure 1 shows, in dollar terms, the 1980s were far more important, as large multibillion dollar deals became common.)

**The Deregulation-driven Consolidation of the 1990s.** As discussed above, the merger wave of the 1920s was characterized by a favorable regulatory environment and the diffusion of new technologies throughout the economy. In this regard, the parallels with the merger wave of the 1990s are quite strong. In the last decade of the twentieth century, three major industry sectors that accounted for fully one-third of S&P earnings — finance, telecom, and utilities — were deregulated, and subsequently transformed from sleepy bureaucracies into dynamic industries focused on innovation, mergers, and cost-cutting.

At the same time, the spread of information technology — including the Internet — encouraged widespread consolidation within these and many other industries, reflecting the very real threats posed by new startups, ranging from online banks to wireless phone operators to electric power traders.
As a result of these changes, business processes were reconfigured in four distinct ways: 1) the disintermediation of middlemen; 2) the creation of an auction framework; 3) more transparent and efficient markets; and 4) outsourcing. This most recent M&A wave ended with the technology-led recession of 2001. (Note that the 1990s’ wave was by far the most dramatic and widespread, characterized by both a large number of deals — such as occurred in the 1960s — and high values on individual deals, as occurred in the 1980s.)

### Industry Clusters

Academic studies have shown that, in addition to merger activity occurring in waves, these merger waves tend to cluster in a small number of industries. Moreover, although M&A waves are readily identifiable, the waves are not alike, so that the identity of the industries that make up each merger boom can vary tremendously.

A simple way to see this is to compare the level of merger activity in each industry over time. Three Harvard economists ranked industries in each decade by the market value of all acquired firms, and then correlated these rankings across decade. They found that the correlations are negligible, i.e., industries that exhibit high levels of merger activity in one decade are no more likely to do so in other decades. So, for example, as Figure 3 illustrates, there is no overlap between the top five industries, ranked by merger value, of the 1980s and 1990s.

**Figure 3. Top 5 Industries based on Average Annual Merger Activity**

<table>
<thead>
<tr>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Mining</td>
<td>Oil &amp; Gas</td>
<td>Metal Mining</td>
</tr>
<tr>
<td>Real Estate</td>
<td>Textile</td>
<td>Media &amp; Telecom</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>Misc. manufacturing</td>
<td>Banking</td>
</tr>
<tr>
<td>Apparel</td>
<td>Non-Depository Credit</td>
<td>Real Estate</td>
</tr>
<tr>
<td>Machinery</td>
<td>Food</td>
<td>Hotels</td>
</tr>
</tbody>
</table>

Source: Andrade, Mitchell and Stafford

The fact that mergers come in waves but each wave is different in terms of industry composition suggests that a significant portion of merger activity is likely due to industry-level shocks. Industries react to these shocks by restructuring, often via mergers. These shocks are unexpected, which explains why industry-level takeover is concentrated in time, and is different over time.

Examples of such shocks include:

- technological change;
- deregulation;
- commodity price swings (often involving deflation or disinflation); and
- foreign competition (i.e., globalization).

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The Next Wave

To review:

1. Mergers have come in waves, with previous waves beginning during a shift to new business structures.
2. Merger waves tend to “cluster” in a small number of industries.
3. Each merger wave is different in terms of industry composition.
4. A significant portion of merger activity is likely due to industry-level shocks.

As Figure 1 illustrates, M&A activity has rebounded strongly in the U.S.:

- In the first half of 2004, several large industry-shaping transactions pushed M&A volume above $407 billion, as compared to just $204 billion in the first half of 2003.
- One sign of the magnitude of M&A activity in the period was the number of deals valued at over $1 billion: 54 such sized transactions were announced, with a total value of approximately $245 billion, or 60% of all dollar volume of first half M&A activity. Of those 54 deals, four of them surpassed the $10 billion level.
- M&A activity was not just concentrated in a handful of mega deals. Announced transactions exceeded 4,000 in the first half.
- In terms of the sectors, the financial sector had the largest deals (e.g., JP Morgan/Bank One, Wachovia/SouthTrust, SunTrust Banks/National Commerce). The media and entertainment sector saw plenty of activity (e.g., MGM Mirage/Mandalay Resort, as well as Comcast’s aborted bid for Disney, and the ongoing bidding for MGM). The health care sector was the third most active (e.g., UnitedHealth/Oxford Health, Fisher Scientific/Apogent Technologies, Cardinal Health/Alaris). As Figure 4 illustrates, these three sectors accounted for over 60% of M&A in the first half of 2004.

The financial sector had the largest deals, the media and entertainment sector saw plenty of activity, and the health care sector was the third most active.
Of course, this begs the question as to whether this is the beginning of another merger wave. We think so. In our April 22 report “The Next American Dream” (order no. US04M025), we noted that “like the [baby] boomers themselves, the economy is in the third stage of a transformation, following the transition from the inflationary post-World War II boom-bust industrial economy (Stage 1) to the disinflationary service economy of the 1980s and 1990s (Stage 2).” The current transformation of the economy involves the shift to an Information Age.

Contrary to conventional wisdom, we believe the last 30 years were not yet an Information Age, but rather an “Automation Age,” where traditional functions (such as writing letters or tracking inventory) were done faster by using computers. While the speed of these functions increased, the functions remained largely unchanged. History will likely record that the Information Age began around the turn of the twenty-first century as firms integrated the Internet into their core activities and reconfigured corporate structures accordingly.

So the shock that is driving the current merger wave appears to be the integration of the Internet and information technology into firms’ core activities, which is leading to a reconfiguration of business processes. In other words, the “new environment” of an Information Age global service economy requires new organizational structures, and those structures are in the process of being created, in part, by the current M&A wave. For example:

➤ A significant driver for M&A in the financial sector is the desire to gain economies of scale by investing in cutting-edge technology, and thereby spread technology costs over a larger base of business.

➤ Health care is a two-tier sector consisting of a gradually shrinking number of corporate giants with slow and/or slowing growth prospects and hundreds of small, innovative new technology-driven companies that, if successful, are likely to be acquired.

➤ Technological advances are a key driver of consolidation in the media and entertainment sector. While the number of “windows” through which entertainment can be received continues to grow — movie theaters, cable, satellite, DVDs, video games — valuable content remains in relatively short supply, giving it a “scarcity” value that should appreciate over time.

One other key point to bear in mind is that, as previously noted, each of the prior five merger waves ended around the time of a recession. However, thanks to the “The Great Moderation” (aka the “muted business cycle”), one of the most striking features of the economic landscape over the past 20 years or so has been a substantial decline in macroeconomic volatility. Between 1950 and 1982, there were seven recessions, or one every 4.6 years; since 1982, there have been just two recessions in 22 years. So, with recessions occurring less frequently than in the past, the current M&A cycle should be relatively prolonged.
Figure 5 lists 19 companies that we view as possible M&A targets. We have focused on three sectors in particular (financial, media and entertainment, health care) given that, as discussed, M&A activity has been most concentrated in these sectors thus far in 2004.

### Figure 5. 19 Potential Takeover Targets

<table>
<thead>
<tr>
<th>Finance</th>
<th>Health Care</th>
<th>Media and Entertainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compass Bancshares, CBSS (1L)</td>
<td>Bristol-Myers Squibb, BMY (3M)</td>
<td>Electronic Arts, ERTS (1M)</td>
</tr>
<tr>
<td>Greater Bay Bancorp, GBBK (2H)</td>
<td>Celgene, CELG (1S)</td>
<td>Fairmont Hotels &amp; Resorts, FHR (1M)</td>
</tr>
<tr>
<td>Lincoln National, LNC (1M)</td>
<td>Dyax Corporation, DYAX (NR)</td>
<td>LeapFrog Enterprises, LF (2S)</td>
</tr>
<tr>
<td>Principal Financial, PFG (1M)</td>
<td>Gilead Sciences, GILD (1H)</td>
<td>Regal Entertainment Group, RGC (2H)</td>
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<tr>
<td>Prudential Financial, PRU (1M)</td>
<td>Health Net, HNT (1H)</td>
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<tr>
<td>SAFECO Corp, SAFC (2M)</td>
<td>MedImmune, MEDI (3H)</td>
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<td></td>
<td>Schering-Plough, SGP (2H)</td>
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<tr>
<td></td>
<td>St. Jude Medical, STJ (2M)</td>
<td></td>
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<td></td>
<td>WellChoice, WC (1H)</td>
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Note: Smith Barney’s stock recommendations include a risk rating and an investment rating. Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S). Investment ratings are based upon Smith Barney’s expectation of total return (price appreciation plus forecast dividend yield) within the next 12 months, and take into account the risk rating. Investment ratings are Buy (1), Hold (2), and Sell (3).

Source: Smith Barney

Not all of the companies highlighted in this report are rated Buy by Smith Barney analysts; some of the potential acquisition targets are rated Hold or Sell. Analyst ratings reflect many factors (e.g., valuation, EPS, P/E, balance sheet, etc.), and takeover potential is only one of those considerations. In this report we are highlighting companies solely for their potential as an acquisition candidate. Obviously, the basic risk to any acquisition thematic is that a potential candidate is not acquired. Many of these companies are acquisition candidates precisely because their current business structure is not optimal. Therefore, should they not be acquired, the investment attraction of some of these companies may be limited. As such, when making investment decisions, investors should view thematic analysis as only one input to their investment decision.

### Finance

During the 1990s there was significant consolidation of the banking, securities, money management, and insurance industries within the United States. The success of those mergers of the 1990s contrasts with a wave of deals in the 1980s that were, to varying degrees, failures. (Remember “financials supermarkets,” e.g., Sears’ acquisition of Dean Witter?) Financial combinations have worked much better lately because the focus has not been on synergies between disparate businesses but, rather, on consolidating operations. Despite this consolidation, America still does not need 9,000 FDIC-insured banks. The risk of a consolidation strategy remains relatively low because managers are buying businesses they understand.
Importantly, improvements in technology are making it easier for banks to merge and integrate operations. Indeed, it is the increasing competitive performance of technology that is a key factor driving the transformation of the banking sector. Although there are undeniable virtues to small firms — particularly an entrepreneurial spirit and fast corporate reflexes — industry fragmentation leads to much redundancy. In particular, each company must have its own computer network. Given the speed of technological change, keeping a network equipped with state-of-the-art software and hardware is becoming increasingly complex and costly.

So, a significant driver for M&A in the financial sector is the desire to gain economies of scale by investing in cutting-edge technology, and thereby spreading technology costs over a larger base of business. A key issue here is that software is expensive but “scalable.” If it costs two banks the same $100 million to develop a sophisticated back-office system, but one bank has ten times as many branches, the bigger bank’s software investment per branch will be only one-tenth as large. Moreover, in addition to lacking economies of scale, small banks also do not have much clout with technology vendors.

**Banks**

Smith Barney banks analyst Michael Diana believes that Greater Bay Bancorp (GBBK) and Compass Bancshares (CBSS) are the most likely banks to sell over the next 12 months. He estimates a takeout price of $30–$35 per share for GBBK and $44–$48 per share for CBSS.

Greater Bay Bancorp’s franchise in the San Francisco Bay Area, “Ringing the Bay,” is a very attractive one. GBBK was founded in 1986 by a group of bankers investors. Those founders are now in their sixties and seventies and, in Diana’s opinion, are ready to sell, especially now that the Bay Area economy has stabilized and fear of commercial real estate has abated. Valuing a takeout is difficult, because of the improving Bay Area economy; different buyers would discount the economy/growth prospects to varying degrees. The high end of the Smith Barney range is about 18x our 2005 EPS estimate and 3.8x tangible book value.

Potential buyers would include all banks with an existing California presence. In the opinion of Michael Diana, banks desiring to increase their presence in California include City National, UnionBanCal, and U.S. Bancorp.

Compass Bancshares is probably the best vehicle for an acquirer to enter the attractive Texas market, given that the bank has about as large a presence in Texas as the largest pure-play (Cullen/Frost Bankers) but has a better-distributed Texas footprint than Cullen/Frost (more Dallas/Fort Worth, Houston and Austin, but less San Antonio). Also, Compass appears to be a more willing seller than Cullen/Frost. With about two-thirds of its business in the growth states of Texas (40%), Arizona (10%), Florida (10%), and Colorado (5%), Compass’s franchise is very desirable, and accounts for the bank’s strong historical revenue growth.

In Diana’s opinion, Compass would be an excellent fit for Southeast banks that want to move into Texas (such as Wachovia, notwithstanding recent deals) and also for western banks that want to move east into Texas (such as U.S. Bancorp). In
addition, Compass would add to Wells Fargo’s existing No. 3 market share position in Texas (as well as to Wells Fargo’s Arizona, Colorado, and New Mexico franchises).

Diana’s estimated takeout price range for Compass is $44–$48, which equates, at the upper end, to 15x his 2005 EPS estimate and 3.7x tangible book value. His belief in Compass’s willingness to sell at this time is primarily based on the fact that there is no apparent successor to CEO Paul Jones. Diana believes that, as the best entry vehicle into Texas, Compass will be pursued, and that Compass would welcome a quality buyer such as Wells Fargo.

**Life Insurance**

Smith Barney life insurance analyst Colin Devine believes that three companies in his sector are possible takeover targets: *Lincoln National*, *Principal Financial*, and *Prudential Financial*.

*Lincoln National* is one of the ten largest U.S. life insurers, and is among the top-five sellers of universal life and variable annuities. Its high-growth business model is focused on underwriting and distributing annuities and life insurance to high net worth individuals. In Devine’s opinion, the driver behind a takeout of Lincoln would be its very attractive multi-channel distribution platform. This platform, which is probably the most powerful in the industry, includes approximately 2,100 career agents, 50,000 brokers, 14,000 bank agents, and 57,500 stockbrokers, as well as access to 53,000 financial planners. In addition, the company is rapidly growing its mutual fund manager, Delaware Management Holdings. Potential acquirers might include a large U.S. money center bank. A takeout value of 2x book value would seem reasonable, based on previous M&A activity in the sector.

*Principal Financial* offers retirement savings and insurance products to almost 15 million customers, with a focus on small to mid-sized businesses. At year-end 2003, it serviced more 401(k) plans in the U.S. than any other bank, mutual fund, or insurance company, and was the leading asset manager among plans with less than 500 employees. The appeal of Principal to an acquirer would be this dominant market position in the small- to mid-sized 401(k) market, as well as the company’s ability to consistently grow sales in this segment by 15%-plus per year. The recent sale of its mortgage business may have heightened its acquisition potential by removing a non-core and volatile earnings segment. Potential buyers again might include a large U.S. money center bank. Given Principal’s above average growth potential, very strong cash flow and stable earnings growth, Colin Devine would expect a takeout valuation of around 2.25x book value.

*Prudential Financial* offers a vast array of individual and group insurance products, as well as investment management and advisory services. The company was formed following the full demutualization of The Prudential Insurance Co. of America in 2001, concurrent with its IPO. Following the expiry of the demutualization related lockout this December, there will likely be increased investor interest in Prudential as a possible consolidation candidate. The company’s chairman, Art Ryan, is now 62 and Colin Devine believes that Ryan will move to combine the company with a larger financial services organization before his retirement. For an acquirer, some key attractions of Prudential include its very large variable annuity and 401(k)
operations, its profitable and rapidly growing businesses in Japan and Korea, as well as its globally recognized retail brand. Other attractive businesses include Prudential’s more moderately growing, but solid, domestic individual and group insurance lines, its 38% ownership in the retail brokerage joint venture with Wachovia, and its Jennison investment management unit. Potential acquirers might include a large U.S. or European financial institution. A takeout value of 2.5x book value would seem reasonable, given the very strong growth prospects (and high embedded value) of the company’s international operations, which will generate an estimated 30% of earnings in 2005.

**Property and Casualty Insurance**

In the Property and Casualty sector, Smith Barney analyst Ronald Frank thinks that M&A activity is not likely to be a very profitable theme. Recall that the last major deal — the acquisition of Travelers Property Casualty Corp by St. Paul Companies — was structured as a merger of equals, and did not involve a premium. Although the industry is in need of consolidation, it is not a strategically attractive sector for an outside entity, such as a bank, to diversify into. And for consolidators within the sector, balance sheet uncertainty is a formidable obstacle (i.e., concerns about potential long-lived liabilities of targets), among other factors. The bottom line is that there are only a few eligible buyers, — such as American International Group, Allstate, and St Paul Travelers — but they are not foolish enough or desperate enough to pay a hefty premium for a company in the sector.

That said, SAFECO could be a takeover candidate given that it may ultimately need more scale than it can achieve organically. However, for the reasons outlined above, if it were to occur, an acquisition of SAFECO would probably involve a very small premium.

**Media and Entertainment**

Technological advances are a key driver of consolidation in the media and entertainment sector. While the number of “windows” through which entertainment can be received continues to grow—movie theaters, cable, satellite, DVDs, Pay-Per-View, video games, cell phones—valuable content remains in relatively short supply, giving it a “scarcity” value that should only appreciate over time.

Against this backdrop, Comcast’s recently aborted offer for Disney, the ongoing bidding for MGM, the acquisition of small theater chains by financial buyers, and Microsoft’s push into home entertainment via its Xbox console are all part of the ongoing consolidation of content manufacturers and electronic distribution systems. As this consolidation continues, many companies will feel pressure to increase in size to compete. The net result will be continued opportunistic acquisition activity in the games, toys, and film exhibition businesses.
**Electronic Games**

The fastest-growing category in the entertainment sector today is video games, a category in which many of the big entertainment companies are, notably, either absent entirely or are only minor players. Most of the large companies have dabbled with games in the past, but none have been successful. So, it could well be that if a big company — such as Disney or Viacom — decided to build a presence in the category, it could do so in a major way.

Perhaps the best way to gain a significant presence in the space would be to buy the industry leader, *Electronic Arts*. The company is the largest video game publisher in the United States, holding an approximate 20% market share in North America. In addition to being the gorilla in the sector, Electronic Arts has the added attraction of owning a valuable library of diversified game brands, something which most of its competitors cannot claim.

In terms of a takeout valuation, Smith Barney entertainment analyst Jill Krutick thinks that an acquisition price for Electronic Arts above her $60 target price — which is based on company fundamentals — would be reasonable given an assumed control premium. An acquisition price above $60 would reflect an EV/EBITDA multiple of more than 16x, or about a 60% premium over where the large-cap entertainment companies trade today, justified in part by Electronic Arts’ large cash balance ($2.4 billion at June 30, 2004) which would go to the acquirer. On a P/E basis, a price above $60 would represent more than a 29x multiple, again above Krutick’s target for the large-cap entertainment names.

**Electronic Learning Aids**

*LeapFrog Enterprises* is another possible takeover candidate, given its market leadership position in the fastest-growing part of the toy category: electronic learning aids (ELAs). Although the company also sells standalone products, such as globes and talking plush dolls, the majority of its revenues come from educational platform and software offerings.

About 50% of LeapFrog’s software uses licensed characters to keep children engaged while, at the same time, providing educational value. The company has proprietary technology (it is currently suing Mattel over patent infringement) and manufactures its own ASIC chips, which results in a cost advantage.

The appeal of LeapFrog as an acquisition target is its superior product and dominant market share in the fast-growing segment. However, the company has experienced growing pains, resulting in earnings disappointments in third quarter 2003 and first quarter 2004, which have caused EPS estimates for 2004 to be flat versus 2003. It is largely for these reasons that the stock trades near $18, down from a high of around $50. These factors are also behind Krutick’s Hold rating.

Krutick believes the most likely acquirer of LeapFrog would be Mattel, which has repeatedly expressed its commitment to growing its share of the ELA business, although there are several barriers to this potentially occurring. Mattel has sufficient cash, debt capacity, and expected free cash flow to engineer a deal. However, Mattel is currently working on a Barbie turnaround and management may be nervous about taking on a company with so many problems, especially given
Mattel’s mixed results with past acquisitions. Also, an acquisition of LeapFrog would require approval by a few large controlling shareholders, namely Larry Ellison and the Milken brothers (Mike and Lowell). These investors have no short-term need for cash and might prefer to wait to sell until consistency of operations improves and the share price recovers somewhat.

In terms of valuations, LeapFrog theoretically could be acquired for a control premium above Krutick’s target price of $22, which at current valuations could be accretive to Mattel, assuming some cost savings, given that both stocks are trading close to parity on a P/E basis. A deal could make sense for Mattel considering a number of factors, including: 1) Mattel’s solid balance sheet and leverage capacity— at about $600 million in debt the company is only 22% levered; 2) Mattel’s ability to pay down debt given its strong cash flow profile (Krutick forecasts greater than $550 million, or $1.30 per share, annually in 2004–06); and 3) Mattel could accrue a significant cost-savings advantage from integrating LeapFrog into its own business.

**Theater Exhibitors**

The theater exhibitor sector has recently experienced three major M&A deals.

➤ In June, Canadian group Onex sold its U.S. based Loews Cineplex for $1.46 billion to an investor group led by Bain Capital (roughly 7.7x enterprise value/operating income before depreciation and amortization [EV/OIBDA]).

➤ Last March, Madison Dearborn Partners agreed to buy the Cinemark theater chain from buyout firm Cypress Group for about $1.56 billion (or about 8.2x EV/OIBDA).

➤ More recently, JP Morgan and Apollo Management entered into a definitive merger agreement to buy AMC Entertainment for $19.50 per share plus the assumption of debt. Based on Krutick’s calculations, this implies a total deal value of roughly $2 billion (or about 7.6x 2005 EV/OIBDA).

Loews is the world’s third-largest chain with over 200 theaters and 2,200 screens worldwide owning about an 8% share of the domestic box office market. In comparison, Regal Entertainment, the largest chain in the U.S., controls 17% of the domestic box office market, while AMC Entertainment, the second largest, has about a 14% share.

The recently completed deals suggest that, in contrast to the mid- to late 1990s, the theater exhibition space may not just go through another frenzied consolidation period but, rather, that theater assets could also just switch hands between private investors. In that regard, with AMC soon to be acquired, the major investors in Regal Entertainment Group could well decide to monetize their assets as well capitalize on the heightened level of interest among financial buyers. With Regal being the number one theater operator in the U.S. and the only remaining major publicly traded pure-play on the theater exhibition space, the major investors in the company would likely have bargaining leverage in a negotiated transaction. Specifically, Philip Anschutz, who has a significant stake in Regal, could look to
cash out on very profitable investments given the attractive valuation levels that theater exhibition assets are currently being awarded.

For financial buyers, there is plenty of allure in owning theater operators. Theater exhibitors are an important link in the film distribution chain, and are the critical “branding” venue for the movie industry before films are exploited through a whole sequence of windows that include home video (rental and retail), video on demand, cable, and broadcast television.

Technological developments have also added to the value chain of film distribution. Specifically, digital theater is a long-term opportunity, as movie theaters still remain very underutilized assets. With film print distribution costs estimated to run about $1 billion for the industry, the digital upgrade to theaters would alleviate this cost and open up the channel for more creative non-film applications (e.g., concerts, boxing, other original content). Krutick believes this opportunity could be two to three years away now that there seems to be some agreement on the right technology and a financial analysis is being completed on how to fund this new business. It is widely believed that the movie studios are the most likely to foot the bill. Hurdles remain, however, in terms of the usage of the digital equipment in the theaters, final financing decisions, and roll-out issues.

In terms of valuation, from the time Regal Entertainment went public (in May 2002), it has typically traded at a 1x premium to AMC. Krutick’s $19.50 target for AMC matches the current bid by JP Morgan/Apollo. The $19.50 target implies a 7.6x OIBDA multiple. In this case, the target is closely in line with Krutick’s target multiple for Regal (which suggests a $20 per share price target), as AMC shares now warrant an estimated 15%–20% control premium due to the pending transaction.

**Lodging**

In the opinion of Smith Barney’s lodging and gaming analyst, Michael Rietbrock, consolidation in the lodging industry makes sense from both an operational and real estate ownership perspective.

➤ Companies that operate hotels can achieve economies of scale and revenue synergies by leveraging brands and infrastructure over a larger room base. For example, the benefit of a more powerful sales and marketing effort, as well as integration into a larger central reservations system and guest loyalty program, can generate incremental occupancy and eventually result in additional pricing power.

➤ From a pure real estate ownership perspective, consolidation allows companies to leverage their asset management capability over a larger portfolio.

In part reflecting these factors, M&A activity in the sector has picked up recently. For example, in March 2004, The Blackstone Group agreed to acquire Extended Stay America (ESA) for $19.63 per share, which represented a 24% premium to ESA’s closing price before the transaction had been announced. The acquisition price represented a per-room value of $57,000, or a premium to Smith Barney’s net asset value (NAV) estimate of $53,000 per room.
With regard to further M&A activity in the sector, *Fairmont Hotels & Resorts* could be a potential acquisition target, based on potential synergies and underlying asset value. Rietbrock believes that one of the large-capitalization branded hotel companies would be able to achieve meaningful operating synergies through the acquisition of Fairmont.

The Fairmont branded portfolio consists of 44 hotels with just under 22,000 rooms. Rietbrock believes that a larger company would be able to add five percentage points of incremental occupancy to the Fairmont portfolio, reflecting the benefit of a larger sales force, central reservations system, and guest loyalty program. The Fairmont brand is under-represented in the United States, with distribution in only 12 of the top 25 markets. Integration of these hotels into a larger portfolio could stimulate additional demand, particularly from the corporate travel segment.

Fairmont trades at a 25% discount to Smith Barney’s NAV estimate of $35 per share. Smith Barney’s takeout value estimate is $39 per share, which represents a premium to estimated NAV. The NAV estimate assumes a per-room value of roughly $310,000 for Fairmont’s ten most profitable hotels. The company recently sold two hotels priced at $600,000–$800,000 per-room, which highlights Fairmont’s underlying asset value.

**Health Care**

**Biotechnology**

The strength of the biotech sector is that it specializes in innovative products, which address medical problems using new technological approaches. That is a plus in today’s health care environment where large pharmaceutical companies are facing empty pipelines and increasingly competitive generic manufacturers. Well-managed, small start-up biotech companies can use R&D resources more productively than large pharmaceutical companies because they enjoy the advantages of rapid decision making, given fewer layers of management, as well as highly focused research efforts targeted on a small number of critical programs.

Large drug companies with ample cash flows and meager new drug pipelines obviously might be interested in buying into good biotech companies. Large drug companies with ample cash flows and meager new drug pipelines obviously might be interested in buying into good biotech companies, as many firms have done in the past. Indeed, health care is a two-tier sector consisting of a gradually shrinking number of corporate giants and hundreds of small, innovative companies that, if successful, could be acquired or, at a minimum, forge a major collaborative effort with a large pharmaceutical or biotech company. In that regard, Smith Barney biotechnology analysts Elise Wang and Yaron Werber have identified four potential strategic M&A ideas in total. Based on recent transactions (see Figure 6), we assume that each company could command a 30%–40% premium to its current stock price in a takeout.
Three takeout targets identified by Elise Wang are MedImmune, Dyax Corporation, and Gilead Sciences.

In Elise Wang’s view, MedImmune has a higher risk profile relative to other large-cap biotechnology companies given its dependency on the sustained growth of one product and the accelerating growth of a new product. Specifically, MedImmune is highly dependent on the continued success of Synagis, its key marketed product, and FluMist for future growth.

With a penetration rate of greater than 65% in the U.S. for the 2002–03 respiratory syncitial virus season, Elise Wang believes that Synagis (for the prevention of respiratory tract disease in pediatric patients) is entering a mature phase of its product life cycle and, therefore, she expects growth to decelerate for Synagis over the next several years.

Furthermore, she remains relatively cautious on the market opportunity for FluMist, MedImmune’s intranasally administered flu vaccine. She continues to have modest initial expectations in terms of penetration and ramp-up for FluMist given its premium price to the traditional flu vaccine, lack of widespread reimbursement, logistical challenges as a frozen product, and relatively narrow targeted patient population (healthy patients aged 5–40).

In addition, the company’s product pipeline has become relatively anemic given clinical disappointments with late-stage programs, such as MEDI-507 for psoriasis.

Furthermore, MedImmune and Wyeth recently agreed to end their collaboration on the FluMist program. Elise Wang believes this reflects potential concerns that Wyeth may have had regarding uncertainty about the market opportunity and the level of profitability achievable with the FluMist program. Consequently, in the near-term, MedImmune is highly dependent on the continued success of Synagis, its key marketed product, which it co-markets with Abbott Labs.

Abbott currently receives about 30% of revenues of U.S. Synagis sales and retains overseas marketing rights. MedImmune has been developing an improved version of Synagis, called Numax, which is expected to be more potent than Synagis and therefore has the potential to replace Synagis in the United States. Abbott currently has no rights to Numax, as it opted out of this product several years ago when MedImmune acquired rights to Numax in its early stages of development. However, now that the product has advanced into clinical development, Elise Wang believes that Numax is becoming more of a commercial threat to Abbott’s interest in the Synagis franchise.
Abbott has been increasingly focused on its pharmaceuticals business since it spun off its hospital business, which suggests that it could well consider an acquisition in the biotechnology sector. Consequently, Elise Wang believes that Abbott may consider MedImmune a potential acquisition target. Synagis generated worldwide sales of approximately $935 million in fiscal 2003, and is estimated to generate over $1 billion in sales in fiscal 2004. As noted in Figure 6, Genzyme announced in February 2004 the acquisition of ILEX Oncology. This transaction is expected to close this summer, pending FTC approval. Elise Wang views the proposed ILEX Oncology acquisition as part of Genzyme’s long-stated strategy to jump-start a commercial franchise in the area of oncology. In her opinion, Genzyme will continue to make opportunistic acquisitions in order to diversify its existing business.

In addition to ILEX, Genzyme purchased the assets of the IMPATH physician services business (oncology testing) and Sangstat (immunology) during the past 12 months. In the past, Genzyme has also purchased companies with which it has had a prior collaboration, particularly if the key product in the collaboration has proven successful. For example, Genzyme purchased its joint venture partner, GelTex Pharmaceuticals, following the promising market outlook for Renagel.

In that regard, Elise Wang believes that a potential acquisition candidate for Genzyme could be Dyax Corporation. Dyax and Genzyme have a collaborative arrangement for the development of DX-88, a product for the treatment of a rare genetic disease called hereditary angioedema (HAE). In June, Genzyme and Dyax announced positive initial results from a Phase II study called EDEMA I for DX-88 in HAE patients. Genzyme previously indicated that if the results were positive from the EDEMA I study, Dyax and Genzyme would plan to meet with the FDA to discuss a potential registration strategy using these data.

Elise Wang believes that, if the FDA provides favorable feedback to the companies, this would only increase the attractiveness of Dyax as an acquisition candidate. She also notes that Henry Blair, CEO of Dyax, and Henri Termeer, CEO of Genzyme, have a long-term relationship as Henry Blair is a member of the Board for Genzyme and was a co-founder of the company. She believes this existing relationship could facilitate discussions regarding an acquisition.

Given the lack of significant pipeline products for many of the major pharmaceutical companies, these companies will likely continue to serve as acquirers and, at a minimum, product development partners of biotech companies. A major participant in such activities has been Johnson & Johnson (J&J). In 1999, J&J purchased Centocor, a major biotechnology company in the area of monoclonal antibodies, for $4.9 billion. Last year, it purchased Scios for $2.4 billion and forged a partnership with Millennium Pharmaceuticals for the development of Velcade in solid tumors.

As previously mentioned, we believe Abbott may consider acquisitions or development partnerships in the biotech area given its increased focus on the pharmaceuticals business. Both Abbott and J&J have been building a presence in the HIV arena. In that regard, Gilead Sciences could become an attractive candidate from a strategic perspective for either of these companies, given Gilead’s expanding
presence in the HIV market with its key products, Viread and Emtriva. At the same time, however, Gilead’s current lofty valuation could be a hurdle for such a transaction.

Recently, J&J has been highlighting its development efforts in the HIV area with a protease inhibitor and non-nucleoside reverse transcriptase inhibitor (NRTI) in Phase II development. In Elise Wang’s opinion, Gilead’s two compounds, which are NRTIs, would contribute to rounding out J&J’s product portfolio and jump start J&J’s commercial presence in the HIV area.

Gilead could also be a strategic fit for Abbott, which has a strong market presence in the HIV field with Kaletra, the No. 1 prescribed protease inhibitor, and Norvir, another protease inhibitor. Abbott also currently manufactures Emtriva for Gilead due to an existing relationship between Abbott and Triangle Pharmaceuticals, an HIV biotech company that Gilead acquired in 2002. We note that the CFO of Gilead, John Milligan, and the CEO and Chairman of Abbott, Miles White, have an existing relationship as John Milligan’s father, David Milligan, had been the head of R&D for Abbott for many years. This relationship could facilitate discussions regarding a potential acquisition.

Celgene is a biotech takeout target identified by Yaron Werber. Its flagship product Thalomid (thalidomide) has become the market-leading drug for multiple myeloma and has captured 45% of the market. Multiple myeloma is a blood cancer affecting an estimated 96,000 patients in the United States and Europe. Yaron Werber estimates that the global opportunity for this indication is $2 billion.

On the heels of Thalomid’s success, Celgene has developed a pipeline of Thalomid analogs that offer equivalent potency while mitigating Thalomid’s onerous toxicity. The most advanced analog in development, Revlimid, is in late-stage development, and has the potential to offer superior safety, premium pricing, and lower manufacturing cost compared to Thalomid. Revlimid will likely be priced at $23,000 per treatment cycle when approved for use in multiple myeloma; Thalomid is currently priced at $12,000 per treatment cycle. Since Celgene has already developed the infrastructure to service the multiple myeloma market, the launch of Revlimid should translate into strong financial leverage for the company.

Due to thalidomide’s history of causing birth defects, the FDA required Celgene to implement a strict system to prevent distribution of the drug to women who may be pregnant. The Systems for Thalidomide Education and Prescribing Safety (S.T.E.P.S.) program is designed to ensure compliance with prescribing information, and requires frequent pregnancy tests, use of two methods of contraception, as well as patient and physician consent, and pharmacy registration. Ironically, whereas this cumbersome system might have detracted from sales initially, it has fostered a close working relationship between Celgene’s sales force and the physician community and now poses a formidable obstacle to the emergence of generics.

Celgene would make a good fit for a larger company with an oncology franchise. A bigger biotech company, or even a diversified health care company with a pharmaceutical business, such as Johnson & Johnson, might also be interested.
Drugs
In general, the global pharmaceuticals industry is mature and faces a number of competitive challenges, most notably from increasing pricing pressures. In response, some companies may pursue M&A as a way to bolster near-term growth prospects, either through cost cutting and/or entering new markets/therapeutic categories where they may have previously lacked a marketing presence. In that regard, Smith Barney drugs analyst George Grofik believes that, longer term, two takeover targets could be Schering-Plough and Bristol-Myers Squibb. He notes that both companies have company-specific issues that make an acquisition in the near term somewhat unlikely.

Schering-Plough’s manufacturing problems, the loss of exclusivity of Claritin, and competitive challenges to its Hepatitis-C franchise have resulted in significant earnings deterioration, as well as a drop in the stock price of nearly 70% from its peak. In addition, Schering has a bloated cost structure with margins over 2,500 basis points below the industry average, implying significant cost synergies for any acquirer. And the fact that Schering is a relatively small company, with fewer financial and marketing resources at its disposal, makes it difficult for the company to compete for attractive in-licensing opportunities with, for example, biotech firms.

If history is any guide, newly appointed CEO Fred Hassan would not be not averse to selling out — after turning around Pharmacia a few years ago, he sold the company to Pfizer in 2003. In terms of valuation, Schering could be worth a premium of $7 or more above its current stock price to an acquirer, based on the cost-synergies the acquirer could reap from an acquisition. (We assume that an acquirer would cut at least 20% of Schering’s cost structure. As a comparison, we note that Pfizer is expected to eliminate about 35% of Pharmacia’s operating cost structure, and rationalized about 18% of Warner-Lambert’s cost structure. We then “tax effect” these savings, and discount them in perpetuity-less certain expected divestitures, e.g., Remicade to Johnson & Johnson-to arrive at the estimated $7-plus premium.)

Bristol-Myers Squibb has encountered a number of difficulties in recent years, most notably several patent expirations, as well as a restatement of its financial statements due to aggressive accounting practices. Multiple patent expirations over the next several years will likely lead to declining EPS through first half 2007. However, its pipeline is becoming increasingly interesting, making the company more attractive to potential acquirers. The company is filing three new drug applications (NDAs) within the next 12 months for products that target rheumatoid arthritis (abatacept), hepatitis B (entecavir), and diabetes (muraglitazar).

As is the case with Schering, a takeover of Bristol would offer an acquirer significant cost synergies, especially given that its operating margins are also below the industry average. However, the ongoing Plavix patent litigation (whereby the patent is being challenged by two generic manufacturers) would likely be viewed as a negative, and potential acquirers would likely wait for resolution of this litigation (with a Plavix trial commencing and/or decision on summary judgment potentially occurring in the second half of 2004).
If Bristol were to be acquired, it would likely be a hostile takeover — an offer would likely be met with some resistance by current management (which, for the most part, is new). As for valuation, Bristol possesses below-industry-average operating margins of 22.4%. If an acquirer were to eliminate approximately 20% of Bristol’s operating cost structure (in line with other pharma acquisitions), this would result in after-tax cost synergies of approximately $3.5 billion. Discounting these cost savings in perpetuity results in approximately $10-$15 in value solely from cost synergies, which is the theoretical premium an acquirer could pay for Bristol. Clearly, this calculation would be negatively impacted by any required FTC divestitures, depending on the acquirer’s product portfolio.

**Managed Care**

To continue to produce strong gains in revenue and earnings, HMOs can raise premiums and/or focus on growing enrollment. However, premium growth is, decelerating due to slowing health care cost growth. As for market share gains, above-average enrollment gains for one company generally results in below-average growth or even losses at another.

That leaves M&A, which current economics and valuations clearly favor, i.e., the stocks are attractively valued for a strategic buyer. Moreover, Smith Barney managed care analyst Charles Boorady points out that M&A would benefit both buying and selling company stocks because low P/E multiples and low interest rates allow for accretive acquisitions at high premiums. In addition, as is the case in the banking sector, one attraction of M&A for HMOs is that it facilitates the reaping of economies of scale in technology.

The Managed Care sector requires a significant technological infrastructure to support its actuarial, underwriting, customer support, sales, and other service areas. In addition, the customers and suppliers of Managed Care companies are fragmented among patients, brokers, doctors, specialists, hospitals, labs, and pharmacies. As a result, vast numbers of records of medical charts, test results, prescriptions, bills, and payments need to be exchanged among these various parties, as well as stored by HMOs for referral to by accountants, auditors, regulators, and others. Furthermore, recent amendments to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) mandated minimum standards for electronic transactions and code sets, and for the privacy and security of protected health information. These changes also required Managed Care companies to beef up their technological infrastructure. Clearly, there are tremendous economies to be reaped by cutting back on technology spending, and mergers offer an excellent way to achieve this goal.

Although important, technology is not the only factor driving M&A in the Managed Care sector. In addition to boosting a company’s growth rate, M&A can also lead to:

- diversification or expansion of a product portfolio;
- diversification of a company’s risky geographic profile;
- expanding a company’s geographic reach;
➤ cross-selling opportunities (e.g., PBM, life, disability, vision, and dental products);

➤ operational cost synergy or overhead leverage; and

➤ medical cost synergies (e.g., reduced out-of-network utilization).

In terms of takeover targets, **Health Net** is strategically valuable because of its 6% market share in California and 5% in the Northeast (Connecticut, New Jersey, and metropolitan New York). Health Net would likely be an attractive takeover target for Aetna or PacifiCare for the following reasons:

➤ **Health Net** is strategically valuable because of its 6% market share in California and 5% in the Northeast.

In Arizona, a potential Health Net acquisition would increase Aetna’s competitiveness for national accounts, especially against CIGNA. Health Net would give Aetna a TRICARE contract in the North region that it bid for and lost. In Medicare, Health Net would more than double Aetna’s franchise to 300,000 beneficiaries. Lastly, for Medicaid, a Health Net acquisition would give Aetna a foothold in a fast-growing segment.

➤ PacifiCare could potentially be interested in acquiring HealthNet to double its California market share to become one of the three largest Managed Care Organizations in that state while also gaining a new foothold in the Northeast.

On average, Charles Boorady believes that a buyer could pay 16.1x estimated 2005 EPS for HealthNet and the deal would be neutral to earnings.

Another takeover target could be **WellChoice**, the largest health insurance company in New York state, which possesses the valuable, exclusive Blue Cross Blue Shield brand in New York City and in selected counties in the state. WellChoice’s top market share in New York City and its strength in national accounts make it an attractive franchise. WellChoice is currently the only remaining publicly traded BlueCross Blue Shield company besides the merging Anthem/WellPoint.

Boorady believes that Anthem/WellPoint, a fellow Blue Cross Blue Shield licensee and the most likely acquirer, could pay 16.5x WellChoice’s estimated 2005 EPS and the deal would be neutral to earnings, implying a 36.0% premium.

**Medical Technology**

Companies in the Medical Technology sector have begun a transition from being just “medical device” companies to ones that are focusing more broadly on disease management in cardiology, neurology, and orthopedics. For example, cardiac pacemakers have traditionally been “dumb” because they have been connected to nothing, just like PCs of the early 1980s. Recently, however, Medtronic has led the charge to turn these implants into “smart” devices, connected to networks offering continuous patient monitoring and downloadable therapy and software upgrades. New products will alert doctors to a change in a patient’s condition before it leads to hospitalization.
The challenge for companies in this sector is, therefore, to upgrade their implantable product lines to focus on disease states that will benefit from the “smart” devices of the Information Age. One way to achieve this is via mergers. An attractive takeover target in this regard is *St. Jude Medical*.

*St. Jude Medical* is the number three player in the $8 billion cardiac rhythm management (CRM) market, behind Medtronic and Guidant. While market growth for CRM has slowed in the past couple of years, it is still growing at a greater than 10% annual rate, and gross margins for these products (pacemaker and ICDs) are around 75%. St. Jude has just received FDA approval for a new version of an ICD called CRT-D, which finally puts the company on a technological and competitive footing with Medtronic and Guidant.

While there is not much selling synergy, both Medtronic and Guidant get some leverage from owning both CRM and interventional cardiology (i.e., stent) franchises. (For example, both Medtronic and Guidant have been able to offer a bundled contract to hospitals, which includes rebates for achieving specific sales levels of their CRM and interventional cardiology products.) The two companies with the largest interventional cardiology franchises—Boston Scientific and Johnson & Johnson—both have very small CRM franchises, but lack pacemaker and ICD offerings. So, for both companies, it would make sense to fold in St. Jude’s CRM business.

One of the biggest issues about a possible acquisition of St. Jude is valuation: the company’s stock has been a robust performer, rising at a 30% compound annual rate over the past four years. With a 2004 sales forecast of $2.29 billion, St. Jude is currently trading at 5.4x sales. For a relatively large company like St. Jude, there is no valuation precedent available, but Matthew Dodds believes that a price of up to 10x sales is conceivable.
ANALYST CERTIFICATION

We, Edward Kerschner and Michael Geraghty, hereby certify that all of the views expressed in this research report accurately reflect our personal views about any and all of the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

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Smith Barney Global Equity Research Coverage (2402) Buy Hold Sell
Data current as of 30 June 2004

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Guide To Investment Ratings:

Smith Barney's stock recommendations include a risk rating and an investment rating. Risk ratings, which take into account both price volatility and fundamental criteria, are: Low [L], Medium [M], High [H], and Speculative [S].

Investment ratings are a function of Smith Barney’s expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings are: Buy [1] (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold [2] (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell [3] (negative total return).

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: Buy [1] (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold [2] (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell [3] (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in risk rating, or a change in target price. At other times, the expected total returns may fall outside of these ranges because of price movement and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

Between September 9, 2002, and September 12, 2003, Smith Barney's stock ratings were based upon expected performance over the following 12 to 18 months relative to the analyst's industry coverage universe at such time. An Outperform (1) rating indicated that we expected the stock to outperform the analyst's industry coverage universe over the coming 12-18 months. An In-line (2) rating indicated that we expected the stock to perform approximately in line with the analyst's coverage universe. An Underperform (3) rating indicated that we expected the stock to underperform the analyst's coverage universe.

In emerging markets, the same ratings classifications were used, but the stocks were rated based upon expected performance relative to the primary market index in the region or country. Our complementary Risk rating system -- Low (L), Medium (M), High (H), and Speculative (S) -- takes into account predictability of financial results and stock price volatility. Risk ratings for Asia Pacific were determined by a quantitative screen which classified stocks into the same four risk categories. In the major markets, our Industry rating system -- Overweight, Marketweight, and Underweight -- took into account each analyst's evaluation of their industry coverage as compared to the primary market index in their region over the following 12 to 18 months.

Prior to September 9, 2002, the Firm's stock rating system was based upon the expected total return over the next 12 to 18 months. The total return required for a given rating depended on the degree of risk in a stock (the higher the risk, the higher the required return). A Buy (1) rating indicated an expected total return ranging from +15% or greater for a Low-Risk stock to +30% or greater for a Speculative stock. An Outperform (2) rating indicated an expected total return ranging from +5% to +15% (Low-Risk) to +10% to +30% (Speculative). A Neutral (3) rating indicated an expected total return ranging from -5% to +5% (Low-Risk) to -10% to +10% (Speculative). An Underperform (4) rating indicated an expected total return ranging from -5% to -15% (Low-Risk) to -10% to -20% (Speculative). A Sell (5) rating indicated an expected total return ranging from -15% or worse (Low-Risk) to -20% or worse (Speculative). The Risk ratings were the same as in the current system.

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