4:00 p.m.: Tell junior manager to call off work and go home since she's been pulling all-nighters for a couple of days.

4:10 p.m.: Start reviewing budget requests and expense reports of department employees.

5:00 p.m.: Peruse the proposals from three top management consulting firms, all vying for a piece of a major project.

6:30 p.m.: Make a conference call to Asia executives to discuss progress on their latest initiative.

7:30 p.m.: Answer all outstanding e-mails.

8:30 p.m.: Leave the office.

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Real Estate

History of the Real Estate Industry in the United States

Real estate is tangible. It's a piece of land and any building or structures on it, as well as the air above and the ground below. Everyone comes into direct contact with real estate. The places we live, work, go to school, vacation, shop and exercise, are all assets to be bought, sold and rented. And it's always been an important element of the economy. .

Real estate has always been big business in the United States. Shortly after the signing of the Constitution, the federal government began transferring one billion acres of land to private owners through land sales and land grants. In the 1830s, for example, the government sold 20 million acres at roughly $1.25 per acre. This sounds like a bargain to us today, but at the time the vast majority of citizens couldn't afford that price. Consequently, a grassroots group called the Free Soil Movement formed and lobbied the government for an alternate method of distributing land.

The Homestead Act of 1862 was Congress' answer to the appeal. Settlers who did not already own what was considered a "judicious" amount of land were given title to 160 acres for each adult in the family. There was no cash exchange. Instead, the understanding was that the settlers would live on and improve the land for a period of at least five years. This program was very successful and similar federal land distribution programs followed until the later part of the nineteenth century. In total, the U.S. government distributed more than 300 million acres of public property to private landowners through the Homestead Act, creating the basis for the real estate market.

For the first time in the history of the young country, there was a system in place by which one landowner could transfer property rights to another through sale, lease or trade. This led to a tremendous amount of speculation. Some investors accumulated a tremendous amount of wealth, while others lost everything.

At the end of the 19th century, America was transitioning from an agricultural society to a manufacturing economy. Citizens flocked to urban areas to work at the burgeoning factories. For example, as the Midwest's industrial center, Chicago reached a population of one million people more rapidly than any other city in history. Settled in the 1830s, the city grew from less than 1,000 inhabitants to become the fifth largest city in the world by 1900.

The values of urban properties skyrocketed. By 1920, 50 percent of America's population lived in cities. This urban density created opportunities for real estate development as housing, office buildings, industrial facilities, hotels and retail centers were constructed to meet the demands of city dwellers.

Skyrocketing property values and associated costs began pushing people and businesses outside the city, just as advances in transportation made living outside the city easier. Suburbs, communities just outside urban centers, began to spread. Developers made these planned communities attractive by building along the transportation routes so people could easily commute to their jobs in the cities.

Technological advances influenced the building boom of the 1920s. Communities were wired for electricity, new machines such as elevators helped meet additional demand for space and allowed the construction of ever-taller buildings. Planned communities began taking shape in the suburbs, while skyscrapers changed the way the cities looked. One hundred buildings higher than 25 stories were constructed in this decade, most of them in New York City, with Chicago a distant second.

The Great Depression crippled most industries – including real estate. Values dipped below debt levels, causing a collapse. The federal government put the domestic financial markets through a major overhaul and was shrewd enough to include real estate financing as part of the New Deal programs. The Federal Housing Administration (FHA) was created in 1930 to provide mortgage insurance, lowering the risk on real estate loans and making lending more palatable for savings and loans and banks. The government also created the Federal Home Loan Bank System (FHLB) to supervise and regulate local banks. In 1938, the Federal National Mortgage Association (FNMA or Fannie Mae) was created to provide a secondary mortgage market as well as to lure investment capital in the mortgage market, and continues to play a very important role in supplying capital to the mortgage market today. These New Deal programs ultimately made the real estate finance market more sophisticated and secure.

America and the real estate industry slowly climbed out of the Depression only to fall headlong into the Second World War. Development was put on hold during the war, but once the GIs returned from overseas, another era of prosperity began. A tremendous amount of demand for housing emerged virtually overnight. By 1946, new housing construction quadrupled to over 500,000 homes. In the postwar period, a white picket fence and peaceful green lawn proved very appealing. Two-thirds of the 15 million homes built in the 1950s were in the suburbs.

The decade was also a period of expansion for the highways, which provided access to more areas by car and truck. This enabled all types of real estate (e.g., hotels, industrial and retail centers) to be located further outside the city. Hotel chains like Holiday Inn started popping up along roadways across the country. The suburban shopping mall also became popular in this era.

As the suburbs grew, the cities slumped. By 1960, many urban centers hadn't seen new office building development in 30 years. The decay of America's urban areas didn't go unnoticed. Community activism and political pressure led to the creation of a cabinet position in 1965 focused on improving urban housing – what today is known as the Department of Housing and Urban Development (HUD). The central business districts of America's urban centers saw a number of new buildings (both commercial and retail) constructed during the last three decades of the twentieth century, spurred by growth in the service industry, increased access to financing and municipal incentives.

Today, the real estate industry is considered one of the most dynamic and healthy sectors in the American economy – people may divest their stocks, but they always need a place to live, work and shop. (To read more about the history of real estate, read *Real Estate Development* by Miles, Berns and Weiss.)

Industry Trends

As of 2003, the real estate business employed close to five million people. Opportunities abound for candidates to earn staggering income levels. Those who work in this sector often enjoy greater flexibility in job responsibilities than in other industries.

There can be drawbacks, though, in the form of low paying entry-level positions, competitive co-workers and long hours when starting out. Furthermore, once you're established relocation can be detrimental to your career, as this industry is often geography-specific.

The real estate sector is largely dependent on the economy; small shifts can impact trends significantly. For example, the technology industry boom certainly helped the real estate industry in the 1990s. There was more demand for space-both commercial and residential-and asset values skyrocketed. The subsequent technology bust had a dramatic effect on some parts of the sector. Commercial firms that focused on office and retail development projects now find the market glutted with available space.

The residential real estate market is also affectecd by economic swings. Unemployment and interest rates impact both consumer confidence and buying power. Although the U.S. economy was mired in recession for the first several years of the 21st century, the residential real estate market was one of the few bright spots. In 2002, home sales shot up 8 percent and housing starts grew by 7 percent.

There are many reasons for the current residential housing boom. The aging United States population and the influx of immigrants has increased the demand for households. The rockiness of the stock market makes investing in real estate look very appealing. The Federal Reserve is playing a big part as well. Lower mortgage rates and minimal inflations meant that in 2003, a 30-year home mortgage could be had at a 5 percent rate. The drop in mortgage rates meant that homeowners could refinance, freeing up more cash for them – and in the process making real estate look like an even more attractive investment.

The wealth isn't spread equally. Residential real estate values continue to soar on the coasts. During the real estate boom that began after the end of the 1991 recession, homes and apartments in the Boston-to-Washington corridor and California have doubled, tripled or quadrupled in value. Even in fast-growing areas in other parts of the country, such as Las Vegas, gains have been more modest because there is more land on which to build houses and apartments.

The remarkable gains in the residential real estate market have provoked fears among some economists and homeowners that the real estate market is a bubble about to burst. The prices of homes, especially on the West and East Coast, have outpaced the ability of many prospective first-time buyers to purchase a place to live. A jump in mortgage rates would stop the current trend of refinancing in its tracks and make it more difficult for many homeowners to make mortgage payments. A revival in the economy could cause investors to stop investing in real estate and start investing in stocks. (Such a revival would, on the other hand, help the commercial and industrial real estate markets.) In the meantime, however, the residential real estate market continues to be an engine of the economy – and of the real estate job market.

Valuing Real Estate

There are three generally accepted approaches to valuing real estate: the sales approach, the cost approach and the income approach. Professional appraisers will reach a valuation after carefully considering each approach. You should make sure to review all three approaches before any real estate interview.

The sales approach

The sales approach arrives at a value for a property based on recent sales of similar properties. This approach can be used for both residential and commercial properties. There are proprietary databases that track home and commercial building sales, which make it easier for real estate professionals to access market information used in valuing properties. One of the most popular databases is the Multi-listing Service (MLS), which is used to track residential properties. The MLS contains useful information about homes, such as the sales history, tax records and property amenities that can be accessed for an annual fee. In the sales approach, appraisers will use databases, such as the MLS, to look for homes with similar characteristics (e.g. location and house specifics), as the subject property. For example, when valuing a four-bedroom, two-bathroom house in the Pacific Heights section of San Francisco, it is logical to value that property based on the most recent sales information for properties in the same area with similar characteristics. Bear in mind that no two properties are alike, so when valuing a property using the sales approach you must adjust for differences between the properties.

The cost approach

In markets where it is difficult to find similar properties, an appraiser can value a property based on the cost approach. This approach focuses on a few steps. First, you must determine the cost of replacing or reconstructing the improvements or building. Next, the age of the improvements must be considered and an appropriate amount of depreciation is subtracted from the value of improvements. Finally, the value of the land must be taken into consideration. The land value is added to the improvements minus the estimated property depreciation. The cost approach is used for truly unique properties like churches, which cannot use either the sales or income approach to arrive at a valuation.

The income approach

The income approach is the most quantitative of the three approaches. The income approach involves the use of net operating income (NOI) in calculating the value of the property. (See the Appendix for a detailed explanation of Net Operating Income.) Think of NOI as the reason most investors buy a building. The investment community talks about NOI incessantly, so make sure to understand this concept if you plan on being involved with real estate investing.

There are two forms of the income approach. One form involves isolating NOI for one year, while the other form involves a longer time horizon. Both forms use a capitalization (cap) rate to calculate a value. The cap rate is a market mechanism, so don't worry about what goes in the calculation. Just be concerned with how it is used. In practice the cap rate is generally used in a formula with the NOI to arrive at a property value. For example, suppose you were buying an industrial facility whose net operating income in the following year was projected to be $500,000. If you knew the market cap rate for similar properties, you could arrive an estimated value of the property. Assume the market cap rate for industrial facilities was 10 percent. To arrive at the value of the building, divide NOI by the cap rate. In our example, the value of the building would be:

$$\text{Value} = \frac{\text{NOI}}{\text{Cap Rate}} = \frac{\$500{,}000}{.10} = \$5{,}000{,}000$$

The yield capitalization form uses a longer time horizon. It involves calculating a discounted cash flow to arrive a property value.

$$\text{Value} = \frac{\text{NOI year n}}{(1+\text{discount rate})^{n}} + \frac{\text{NOI year n}+1}{(1+\text{discount rate})^{n+1}} + \frac{\text{residual value}}{(1+\text{discount rate})^{n+1}}$$

In the example above, the numerator represents the cash flows that the building generates today and in the coming years, which theoretically provides a value for the asset. Note, that there is also a future residual value listed in the formula. The discount rate reflects the cost of capital. Your client may provide this cost, or you may have to estimate the discount rate based on similar transactions and knowledge of the market. The discount rate is necessary because it allows you to bring all the future cash flows back to today's dollars or present value (PV). The discount rate factors in the opportunity cost of money or the return that you could expect elsewhere with the cash flows. The exponent "n" in the denominator represents the period or number of years in the future that you would receive that cash flow. The DCF is calculated based on a stated number of years and adds up the PVs. At some point in the future cash flows you have a residual value because it is assumed the property is eventually sold. The residual value is calculated by taking the NOI of the year after the assumed time horizon and then dividing that year's NOI by an assumed cap rate. Some investors use different time periods when calculating the DCF but 10 years is the generally accepted period to value an asset. The DCF is normally used for income-producing property, while a single-family house is typically valued by the sales comparison approach.

Although there are different ways to value real estate, there are a few common variables such as location, the property's condition and market demand that make real estate valuable regardless of the asset type. There is a popular industry saying, "The three most important things in real estate are location, location, location." You simply cannot underestimate the importance of location. While you can restore and upgrade a property as much as you want, there is no substitute for being located close to: transportation, good schools, attractive retail and an aesthetically pleasing area. While location is important, keeping the property in good working order also creates value because it lessens the need to make improvements or contribute capital to the property. In addition, fundamental macroeconomics plays a major role in real estate values. For example, when interest rates offered by lenders are low, people will rush to buy a house to take advantage of the low financing costs. If this new market demand is greater than the market supply, property prices will increase.

The Real Estate MBA

One possible educational route into real estate is to get an MBA at an institution with a specific real estate program. Some of the best programs, based on *U.S. News & World Report* rankings, are Wharton, University of California-Berkeley's Haas Business School, MIT's Sloan School of Management, University of Wisconsin-Madison and Ohio State University's Fisher School of Business. These schools also have strong real estate clubs that produce annual conferences and other activities.

Jobseeking Advice for Real Estate MBAs

Joseph Pagliari, a clinical assistant professor and director of the Real Estate Center at the Kellogg School of Management, says, “There are host of opportunities in real estate for MBAs. The issue is identifying the best fit for the candidate. Positions that are good fits for MBAs are with firms that supply capital to the industry. Typically these are large, sophisticated, financially-oriented firms. MBAs should identify these institutions and aggressively pursue them for employment. In today’s marketplace, this means looking at REITs, mezzanine funds (funds built around mezzanine financing, which combines equity and fixed income investments) and private equity firms.

“In general the high profile real estate positions and financially rewarding jobs are on the capital side,” adds Pagliari, who is also a principal of a real estate investment firm. “These jobs are almost self-selecting because they are tough to get and you have to be smart and aggressive to succeed. Given that positions in the capital side of the business are reserved for the elite, MBAs should pursue these positions because many of them possess the necessary qualities for these roles.”

Employers look for a variety of skill sets. “It is difficult to narrow it to just a few things,” he says. “Some positions are very quantitative while others emphasize strong interpersonal skills. Having a combination of both is a competitive advantage. In general, I tell all my students to look for roles that speak to their skill sets. It is going to be hard enough to get the interview, so don’t blow it by going after a job that probably doesn’t fit your background. MBAs should do their homework on the types of roles out there and match your background and interest with the best fit. However, you still want to shoot for the sky and leverage your MBA.”

Job seekers shouldn’t be shy about using their contacts “This industry is very tough for outsiders or newcomers to break into and students should be ready to accept that,” he advises. “Get in the hunt as soon as possible and network, network, network. Using alums or anyone else you know in the industry is something I always recommend.” When you have the interview, be prepared to talk about the local market – or any other in which the company operates. If it’s a public firm, check *The Wall Street Journal* for the scuttlebutt. Also, be certain they’ll welcome your MBA.

“In the interview you will most likely be asked about why you are interested in real estate and a few technical questions,” Pagliari warns. “Be ready to describe a cap rate and market specifics like rental rates and general economic conditions.”

To MBA students just starting a real estate program who know they want to enter the industry, he stresses, “Don’t rely on simply taking real estate classes, especially if you have no prior real estate experience.” You need to demonstrate passion by joining a real estate club or getting active in real estate-related activities at school. “Do whatever it takes to be able to demonstrate your enthusiasm for the industry,” he adds. “If it takes starting a real estate club or being the driving force behind an event, then so be it.”

The professor also advises individuals who are evaluating MBA programs that offer real estate curriculums to: make sure the professors have some practical experience and the curriculum will give you a skill set that will meet your end goal. Don’t sacrifice the overall MBA experience for a school that simply offers a strong real estate curriculum and is lacking in other areas.

For MBA students who are interested in real estate but whose programs do not offer real estate classes, Pagliari offers a solution. "Classes related to finance and economic principles that help you price risks are very useful," he says, noting that the ability to price risk is a strong differentiating factor. Pagliari also recommends taking business law classes because there are many legal issues involved in the industry. "Which is why you should not be surprised to find so many attorneys in the business," he says.

"I was a career switcher and was repeatedly asked in interviews about why I was interested in real estate," says Rich Monopoli, a recent graduate from business school. "Many of the interviewers wanted an explanation of how my background tied to my interest in real estate. I can't emphasize enough how important it is to be prepared to answer the question of why you are interested in real estate."

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Sales and Trading

The War Zone

If you've ever been to an investment banking trading floor, you've witnessed the chaos. It's usually a lot of swearing, yelling and flashing computer screens: a pressure cooker of stress. Sometimes the floor is a quiet rumble of activity, but when the market takes a nosedive, panic ensues and the volume kicks up a notch. Traders must rely on their market instincts, and salespeople yell for bids when the market tumbles. Deciding what to buy or sell, and at what price to buy and sell, is difficult when millions of dollars at stake.

However, salespeople and traders work much more reasonable hours than research analysts or corporate finance bankers. Rarely does a salesperson or trader venture into the office on a Saturday or Sunday; the trading floor is completely devoid of life on weekends. Any corporate finance analyst who has crossed a trading floor on a Saturday will tell you that the only noise to be heard on the floor is the clocks ticking every minute and the whir of the air conditioner.

Shop Talk

Here's a quick example of how a salesperson and a trader interact on an emerging market bond trade.

SALESPERSON: Receives a call from a buy-side firm (say, a large mutual fund). The buy-side firm wishes to sell $10 million of a particular Mexican Par government-issued bond (denominated in U.S. dollars). The emerging markets bond salesperson, seated next to the emerging markets traders, stands up in his chair and yells to the relevant trader, "Give me a bid on $10 million Mex Par, six and a quarter, nineteens."

TRADER: "I got 'em at 73 and an eighth."

Translation: I am willing to buy them at a price of $73.125 per $100 of face value. As mentioned, the $10 million represents amount of par value the client wanted to sell, meaning the trader will buy the bonds, paying 73.125 percent of $10 million plus accrued interest (to factor in interest earned between interest payments).

SALESPERSON: "Can't you do any better than that?"

Translation: Please buy at a higher price, as I will get a higher commission.

TRADER: "That's the best I can do. The market is falling right now. You want to sell?"

SALESPERSON: "Done. $10 million."

S&T: A Symbiotic Relationship?

Institutional sales and trading are highly dependent on one another. The propaganda that you read in glossy firm brochures portrays those in sales and trading as a shiny, happy integrated team environment of professionals working for the client's interests. While often that is true, salespeople and traders frequently clash, disagree, and bicker.

Simply put, salespeople provide the clients for traders, and traders provide the products for sales. Traders would have nobody to trade for without sales, but sales would have nothing to sell without traders. Understanding how a trader makes money and how a salesperson makes money should explain how conflicts can arise.

Traders make money by selling high and buying low (this difference is called the spread). They are buying stocks or bonds for clients, and these clients filter in through sales. A trader faced with a buy order for a buy-side firm could care less about the performance of the securities once they are sold. He or she just cares about making the spread. In a sell trade, this means selling at the highest price possible. In a buy trade, this means buying at the lowest price possible.

The salesperson, however, has a different incentive. The total return on the trade often determines the money a salesperson makes, so he wants the trader to sell at a low price. The salesperson also wants to be able to offer the client a better price than competing firms in order to get the trade and earn a commission. This of course leads to many interesting situations, and at the extreme, salespeople and traders who eye one another suspiciously.

The personalities

Salespeople possess remarkable communication skills, including outgoing personalities and a smoothness not often seen in traders. Traders sometimes call them bullshit artists while salespeople counter by calling traders quant guys with no personality. Traders are tough, quick, and often consider themselves smarter than salespeople. The salespeople probably know better how to have fun, but the traders win the prize for mental sharpness and the ability to handle stress.

The MBA in S&T

Do I need an MBA to be promoted on a sales and trading desk?

Generally, sales and trading is a much less hierarchical work environment than investment banking. For this reason, it is widely believed that you don't need an MBA to get promoted on sales and trading desks. This view is often perpetuated be people who work on trading desks, but just because you hear this once or twice, don't accept it as truth. Whether you need an MBA or not is really a function of the firm you work for and the desk you're on. If the firm you're considering hires both associates and analysts, but you notice that associates are offered twice as much pay as analysts, then this is certainly an indication that MBAs are better paid. This doesn't mean that you can't be promoted without an MBA; you'll just have to work much harder to get recognized. When it's time for a promotion, you may also be somewhat behind in the pecking order. Some firms, on the other hand, don't want MBAs. This may result from budgetary constraints, or explicit firm policy. Some firms also hold the view thatit's hard to teach an old dog new tricks, so they will hire exclusively out of undergraduate programs.

A more subtle point to discern are the desk dynamics. A lot about being on a trading desk is about fitting in, and if everyone else, including the boss, doesn't have an MBA, then chances are that having an MBA won't add too much value in this environment. In fact, an MBA degree may even hurt your career prospects if there's a downright disdain for MBA-types. Alternatively, if the desk you're on is populated with MBAs, then not having an MBA could potentially limit your career advancement. Alternatively, you can be in a situation where you're the only MBA and everyone thinks that you're the brain, which can work to your advantage even if the boss has no personal biases about the value of the degree.

The bottom line is that there are no hard and fast rules. Depending on the particular firm and desk, an MBA may not advance your career. Be aware of the aforementioned issues, and ask some good questions to get a better feel for whether an extra degree is a benefit.

What are some of the tangible benefits of an MBA?

The pay is better and you will generally have a faster track for promotion to salesperson or trader. The MBA associate will typically have to do the same demeaning things that an undergraduate analyst does, but mercifully for a shorter period of time. In some cases, MBAs are also more likely to be assigned the desk that they'd like to work for. Undergraduate sales and trading recruiting programs, on the other hand, may hire you as part of a generalist pool and place you on a desk that isn't your top choice.

Another tangible benefit for the MBA candidate is the availability of more exit options.

Day in the Life: Sales-Trader

Here's a look at a day in the life of a sales-trader, given to us by an associate in the Equities division at Lehman Brothers.

6:30 a.m. Get into work. Check voice mail and e-mail. Chat with some people at your desk about the headlines in the *Journal*.

7:15 a.m. Equities morning call. You find out what's up to sell. ("I'm sort of a liaison between the accounts [clients] and the block traders. What I do is help traders execute their trading strategies, give them market color. If they want something I try to find the other side of the trade. Or if I have stuff available, I get info out, without exposing what we have.")

9:30 a.m. Markets open. You hit the phones. ("You want to make outgoing calls, you don't really want people to call you. I'm calling my clients, telling them what research is relevant to them, and what merchandise I have, if there's any news on any of their positions.")

10:00 a.m. More calls. ("I usually have about 35 different clients. It's always listed equities, but it's a huge range of equities. The client can be a buyer or seller – there's one sales-trader representing a buyer, another representing the seller.")

10:30 a.m. On the phone with another Lehman trader, trying to satisfy a client. ("If they have questions in another product, I'll try to help them out.")

11:00 a.m. Calling another client. ("It's a trader at the other end, receiving discussions from portfolio manager; their discretion varies from client to client.")

12:00 p.m. You hear a call for the sale for a stock that several of your clients are keen on acquiring. ("It's usually a block trader, although sometimes it's another sales-trader. The announcement comes 'over the top,' – over the speaker. It also comes on my computer.")

12:30 p.m. Food from the deli comes in. (You can't go to the bathroom sometimes, say you're working 10 orders, you want to see every stock. We don't leave to get our lunch, we order lunch in.")

1:00 p.m. Watching your terminal ("There's a lot of action. If there's 200,000 shares trade in your name [a stock that a client has a position in or wants] and it's not you, you want to go back to your client and say who it was.)

2:00 p.m. Taking a call from a client. ("You can't miss a beat, you are literally in your seat all day.")

2:05 p.m. You tell the client that you have some stock he had indicated interest in previously, but you don't let him know how much you can unload. ("It's a lot of how to get a trade done without disclosing anything that's going to hurt the account. If you have to one stock is up you don't want the whole Street to know, or it'll drive down the price.")

4:30 p.m. Head home to rest a bit before going out. ("I leave at 4:30 or sometimes 5:00. It depends.")

7:00 p.m. Meet a buy-side trader, one of your clients, at a bar. ("We entertain a lot of buy-side traders – dinner, we go to baseball games, we go to bars. Maybe this happens once or twice a week.")

MBA Career Path

First-year MBA students and recent MBA graduates are eligible for summer associate and full-time associate positions respectively. Associates start with similar responsibilities as analysts, but add more responsibility quickly and are typically on a faster track for promotion.

MBAs are also more likely to have the opportunity to get staffed abroad. For example, Goldman Sachs, Morgan Stanley and Lehman Brothers have recently hired MBAs from American business schools directly into their European trading desks. MBAs interested in pursuing sales and trading opportunities abroad must be able to demonstrate local language proficiency, and a strong desire to make a long-term commitment to the region. Each of these firms has recently also offered summer internship opportunities, but these programs are less established than the New York-based opportunities, and therefore shouldn't be counted on as a stable source of MBA hiring demand.

Associate pay: To infinity and beyond

Sales and trading associates will start at about the same base pay as their investment banking counterparts. The going rate has held up around $80,000 to $85,000 per year plus an end of year bonus of $20,000 to $30,000. While signing bonuses were the norm during the bull market of the late 1990s, they are now rare. Salaries increase primarily through performance bonuses, especially if you've become a position trader for the firm. Bonuses are normally computed as a percentage of the trading revenues you generate (or commission dollars that you generate if you're a salesperson), so depending on how cheap or generous your firm is, this number can be normally expected to fluctuate between 0 percent and 10 percent in any given year.

If you make $10 million for the firm, however, don't expect to receive a cool million for your efforts. Wall Street firms are highly conscious of expense control, and the largest expense item is compensation. To keep compensation expense at or below 50 percent of revenues, investment banks hand out compensation packages that include among other things, cash, stock options and restricted stock. Generous stock option grants are a non-cash form of compensation that doesn't hit the income statement, but aren't quite as motivating as cash. Another game in the compensation is the granting of restricted stock. This is a major component of pay as you move up the ladder, and you can only convert this compensation into cash according to a vesting schedule that stretches out for years.

Finally, keep in mind that investment banks are operating across all markets and products sectors. In a simplified world, the investment bank operates a bond desk and an equity desk. The bond traders make more money and the salespeople sell more bonds when the economy is in recession. On the other hand, the stock traders make more money and the sales traders sell more stock when the economy is robust. What happens at the end of the year when the compensation committee is determining how big the bond bonus pool and the equity bonus pool should be? Most firms tend to cross-subsidize the equity desk with the bond desk's revenues when the stock market falls on hard times, and to return the favor to the bond desk when the bond market falls on hard times. This makes sense at the corporate level (preventing mass defections, for example), but the immediate consequence to the stock trader that generated $10 million in revenues and is expecting a $1 million check is that he'll see a lot less than $1 million. The small consolation to the expectant stock trader is that when he makes substantially less than his budget, maybe the bond desk will stuff his stocking.

The winding promotion road in S&T

The path to promotion on a sales and trading desk is less standard than it is in investment banking. Investment banking analysts really don't have much too look forward to except perhaps a third year and then back to business school or some other career. By contrast, undergraduate analysts who have a demonstrated ability to add value to a desk have the potential to move up without an MBA.

One common scenario that unfolds is that after several years, the restless undergraduate analyst decides to apply to business school and gets accepted. If this analyst is a prized employee, then the boss might offer the analyst a promotion to associate in order to keep the analyst on the desk.

Promotions on trading desks are generally not much to celebrate, except that it leads to potentially higher pay. Investment banking associates can look forward to moving out of the bullpen and into a real office with a secretary. Salespeople and traders settle for better accounts and more trading responsibility. The focus of promotions shouldn't be to achieve a particular title (vice president, director, managing director etc.), but rather, to earn real sales and trading responsibility. Of course if you do your job well, you'll be duly compensated and promoted, but after reaching a level of significant responsibility, you shouldn't be expecting to get promoted every couple of years.

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Technology Consulting

The State of Technology Consulting

IT consulting traces its roots from several parents. Traditional management and strategy consultants found their clients wanted more than just advice and reorganization; forward-thinking CEOs wanted their computers and electronics to be more than just a convenience. Another dollop of DNA comes from the engineers and Web heads who facilitated the rise of the Internet in the late 1980s and early 1990s. As technology became more complex, these Silicon Alley gurus scaled up their offerings to keep pace. Thirdly, traditional technology firms, like IBM, have moved strongly into the consulting field over the past 20 years as sales of their mainstay hardware have stagnated.

The technology consulting industry arose in response to the growing availability of computer technology in the workplace. Businesses realized that effective technology and technological processes were essential to maintaining competitive footing in the workplace. However, many companies found themselves without the internal capability to update their tech. The solution? Technology consulting companies. Outdated internal tech departments (or the absence of such a department altogether) prompted companies to employ computer savvy offered by IT consulting firms. The growth in governmental outsourcing of technology needs" both from the United States and other nations – has also been a boon to technology consulting firms.

The Big Five ... er, Four

Five firms (Andersen, Deloitte & Touche, KPMG, PricewaterhouseCoopers and Cap Gemini Ernst & Young) rose to dominate professional services, including both accounting and consulting. These so-called Big Five developed noteworthy technology consulting practices in the 20th century. Unfortunately, they also developed some noteworthy conflicts of interest; the highly-publicized accounting scandals of the late 1990s and early 21st century came from these sources. Ethical lapses at Andersen, in particular, led to its dissolution and sale to its rivals. Another result was the passage of the Sarbanes-Oxley Act, which established rules and penalties for professional services firms. The act made it less practical and more difficult for a firm to provide both accounting and advisory services; of the remaining Big Four (or, more popularly, Final Four), only Deloitte has maintained a unified practice.

Blue skies?

Like many businesses, technology consulting firms have suffered in recent years as the United States economy fell into a recession. Corporations cut back on technology spending and outside hiring during the slump, forcing the technology firms that depended on their business to endure falling profits and layoffs. (Technology firms that rely on government contracts, however, suffered a lighter downturn, especially with the increase in defense and security technology work contracts after the September 11 attacks and reconstruction efforts in Afghanistan and Iraq.) However, the beginning of 2004 is bringing brighter times to the industry. The United States economy is apparently in recovery, and companies are beginning to turn an eye to deferred technology upgrades. The cost-saving measure known as business process outsourcing

(BPO) continues to grow in popularity. Revenue growth outside the United States has been a plus for many technology consulting firms – BearingPoint, for example, grew its business by just 1 percent in the United States in 2002, but 33 percent overall.

The internationalization of technology consulting

One of the most noteworthy trends in technology consulting has been outsourcing engagements outside North America and Europe. India, China and a number of other countries (including Singapore, the Philippines and Pakistan) have benefited from the outsourcing of development and tech support to those countries. According to US Banker, a Forrester Research report projects that 3.3 million service- and knowledge-based jobs will migrate to other countries by 2015. Market research firm Gartner predicts that up to 40 percent of U.S. companies will develop or test software, provide tech support, or provide storage functions overseas by 2004. The loss of American jobs to foreign corporations is a hot campaign issue; Democratic presidential candidates Howard Dean and John Edwards have both made this a plank in their platforms. There has been some talk among legislators as well of action to limit the practice of "off-shoring," as it is also called, but so far it's just talk.

Outsourcing started in India, as U.S. consultancies, financial firms and other businesses tried to take advantage (literally) of a large pool of technical personnel who were willing to work for less. Alok Aggarwal, head of outsourcing-expediter Evalueserve, estimated in a Business Standard article that new consultants in India earn about a fifth what their U.S. counterparts do. The smarter firms also used their Asian locations as a selling point; Sapient Corp. instituted a "global distributed delivery" model, passing engagements across time zones to speed completion. Other firms have either independently developed similar models or copied Sapient's.

What goes around, comes around

Now, however, the influx of work has created offshore powerhouses that compete with the very companies who provided the work. The Indian government has worked to create a business-friendly environment by instituting economic incentives and infrastructure investments. In addition to India holding 70 to 80 percent of the outsourcing market, India-based firms such as Infosys Technologies and Tata Consultancy Services have become major players in their own right. As a result, wages are on the rise among Indian technicians, and their firms may in turn begin to outsource as well, perhaps to China. Stefan Spohr, a principal with EDS's A.T. Kearney, predicts that new outsourcing hot spots will include Mexico, South Africa and Hungary, to name a few candidates.

Mergers and acquisitions

IBM made big news when it acquired PricewaterhouseCoopers Consulting in October 2002. Big Blue saw its revenue surge as a result; IBM Global Services and IBM Business Consulting Services account for half of IBM's revenue today. Since that merger, there have been a large number of acquisitions in the tech consulting industry. Announcements of firms buying rivals, software developers and just about anybody else they think will improve and increase their business occur almost daily. Details of the more significant mergers may be found in this book's profiles, but many more are in the works. For example, SchlumbergerSema would have been ranked in this guide – but the company was acquired by Atos Origin in 2003.

Harvesting the tech consulting crop

Recently, there's been a blurring of the lines between management and technology consulting. Big strategy firms such as McKinsey and Booz Allen Hamilton have been beefing up their technology capabilities (Booz Allen Hamilton is especially prominent in the government consulting sector) while some IT firms look to make a name in management consulting (EDS, for example, acquired A.T. Kearney).

A major reason for this is inherent to the sort of work consultants do. A lot of engagements don't fit neatly into one category or the other; revamping a company's business strategy might very well involve nuts-and-bolts changes to the infrastructure. Similarly, a " simple" technology implementation might spark a client to change its organization to take full advantage of the new tech resources. The result of a management process audit might show the client can work more efficiently by outsourcing some of its business processes, and all of a sudden a management project is an operations job.

Less concrete, but still important, is the matter of image and perception. Consultants are problem solvers by nature and profession. To succeed, a firm must either own a niche or have a reputation for being able to do it all. Though most firms have specialties, competition makes niche ownership difficult to achieve, so a full-service image is often the solution.

There's also a perception, erroneous but driven by potential clients' cost-cutting efforts, that strategy consultants don't deliver anything that the company's own personnel couldn't come up with in time. Management firms have always had to overcome that prejudice, whereas technology specialists tend to work with deliverables a client can see and touch – hardware, software and personnel.

Engagements

Security
The world is still coping with the effects of the September 11 terrorist attacks and trying to prevent backlash from military expeditions. IT businesses have realized there's money to be made in designing and implementing better security and identification methods. Strides have been made in biometrics (the science of identifying a person via retina patterns, voice, fingerprints and other unique biological characteristics), contraband detection and secure communications. SchlumbergerSema, acquired by Atos Origin in September 2003, devotes its DeXa suite of services to firewalls, security badges and disaster recovery.

Research and development
Some consultants spend their time in the lab creating new hardware and software. Often, this work is geared toward creating new products (servers, analysis software and the like) that will help the consultancy sell work or accomplish the engagements is undertakes. In other cases, the consultants must create something entirely new for a client's use; for example, this is the realm of military contractors like Raytheon.

System Integration

This is one of the traditional jobs of the IT consultant. When two companies merge, or a single company wants to implement new hardware or software, they turn to consultants to make all the technology compatible. Sometimes, this is a simple matter of installing upgrades or changing settings. More often, it's a long and arduous process of writing new code to force all the machines to play nicely together.

Outsourcing

Another long-time area of tech consulting expertise, business process outsourcing (BPO) is the bread and butter of many firms. Some companies find it easier and more cost-effective to pay somebody else to manage their technology for them. The consultants, in effect, become the client's IT department. They handle everything from help desk and call center operations to server maintenance to passkey and ID tag issuance. Even governments and their armies outsource nowadays; CIBER has a number of contracts with the U.S. Army Reserve's Regional Support Commands and the U. S. Army Civil Affairs and Psychological Operations Command, while Computer Sciences Corporation has outsourcing deals with the U.K., Germany's armed forces and Australia.

Web services

Long the domain of design and hosting companies based in Silicon Alley (New York's tech center), Web services include e-commerce implementation and other secure-transaction work, though consultancies do some page design and site hosting as part of their overall deliverables as well. This specialty is receiving a lot of attention from major technology players like IBM, Hewlett-Packard and Accenture. Gartner predicts Web services spending will reach $14.3 billion by 2006, and a 2003 article in ConsultingCentral's Global IT Services Report claims, " Each week acquisitions and business alliances are announced, with dozens of firms jostling for position in the space." Clearly, this is an emerging business that bears watching.

Day in the Life: IT Consultant

Kristine is a consultant at a major consulting firm with many IT consulting engagements. Her role is Team Lead of the design and developer for eight Web-based training modules. She has five analysts on her team.

4:30 a.m.: It's Monday morning. Time to wake up. There's time for a shower this Monday morning – such luxury!

5:30 a.m.: I am in a cab on the way to the airport, making a mental list of anything that could have been forgotten. I ask the cabbie to tune the radio to NPR.

6:10 a.m.: At the airport I go up to the self check-in kiosk. I take the boarding pass and head down to the security line, laptop and small carry-on in hand.

6:25 a.m.: At security, I remove my laptop from my bag and place it on the tray. I move through security quickly. No alarms beep.

6:35 a.m.: After a quick stop at Starbucks, I arrive at the gate. I say hello to three other members of my project and check out the other passengers I see every week on this Monday morning flight. I board early along with the other premier fliers – one of the perks of being a frequent traveler.

7:00 a.m.: The flight departs on time. Yay! I relish my window seat close to the front of the airplane.

8:00 a.m.: The beverage cart wakes me up. I ask for coffee and scan *The Wall Street Journal* as I drink.

9:30 a.m.: I arrive at my destination and share a ride with my fellow consultants to the project site.

10:30 a.m.: At the project site. As I crawl underneath my desk to hook my laptop to the client LAN connection, one of my team members informs me that he still hasn't received feedback from his client reviewer. That's not good news.

11:00 a.m.: After checking and responding to e-mail, I call my team member's client reviewer. The reviewer agrees to send me the team member feedback on the training material by noon tomorrow.

11:15 a.m.: I remind the team of the 1 p.m. status meeting. I've got to start it on time – I have a meeting downtown at 3:15 p.m. I start to review the content outlines for the training modules.

12:00 p.m.: I scurry, along with two teammates, to get sandwiches at a nearby eatery. Mine is turkey and cheddar.

12:20 p.m.: Back at my desk, I get a call from the project manager, who is working at a client site in another state. He tells me that clients in the training department are nervous about their job security and asks that the entire team be sensitive to how the training changes may affect the training positions in the organization.

1:00 p.m.: The team holds a status meeting. I pass on the message from the project manager. Each member discusses what has been completed and what he or she expects to complete that week. Two other team members are having difficulty obtaining feedback from their client reviewers. We all brainstorm ideas on how to obtain the feedback.

2:00 p.m.: I finish up the meeting and get directions to my meeting downtown.

2:40 p.m.: Off to the 3:15 p.m. meeting.

3:15 p.m.: I meet the head of the training department to discuss the training courses. He calls in a close associate who has opinions on how the courses should be organized. The associate wants to add several more Web-based training modules. I politely suggest that part of the additional subject matter could be covered in the modules that have been agreed to in the scope of the project. We all sketch out the course structure on a white board.

4:45 p.m.: Back at the project site. I check in with my team members via e-mail.

5:45 p.m.: I complete a draft of the course flow in PowerPoint and send it to the client and my manager for review.

7:00 p.m.: I have reviewed 50 percent of the course outlines. It's time to head back to the hotel. I stop by a local diner for a quick dinner.

8:30 p.m.: Time for a workout in the hotel gym.

9:15 p.m.: I'm ready for bed. Clothes for the next day are hanging in the closet. The alarm clock is set to 6:30 a.m.

10:30 p.m.: I go to sleep.

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Telecommunications

Telecom Calling

In simpler times, the word "telecommunications" might conjure an image of a telephone – and not much else. These days, telecom is an industry encompassing everything from local and long-distance phone services to wireless communication, Internet access, and cable and digital television. In the U.S., total spending for telecom services reached more than $720 billion in 2004, and is expected to hit the $1 trillion mark in 2007, according to the Telecommunications Industry Association (TIA). Internationally, the TIA predicts telecom spending, estimated at $1.5 trillion in 2004, to top $2 trillion by 2007.

For whom the bell tolls

Established in 1877 as American Bell, AT&T enjoyed the largest share of the industry pie for nearly a century, thanks to the government's belief that the utility constituted a "natural" monopoly. That monopoly crumbled in 1969, when the Federal Communications Commission (FCC) allowed other companies to play in Ma Bell's sandbox. Companies like MCI were quick to get in the game. But monopolies don't disappear overnight – to encourage competition in the long-distance market, the Department of Justice followed up with an antitrust suit against AT&T in 1974, resulting in the division of AT&T into a long-distance retailer and seven regional Bell operating companies (RBOCs), which would compete in the local call market as independent local exchange carriers (LECs). The final breakup took place in 1984.

The industry thrived under the breakup, exploding into hundreds of smaller competitors, lowering the cost of long-distance calling dramatically. While AT&T held about 70 percent of the market in 1984, it holds about a third today, according to Hoover's. Still, it's these so-called "Tier 1" carriers – AT&T, Sprint, and WorldCom – that make up the bulk of the long-distance market.

Untangling the wires

As the long distance market diversified, the local exchange market remained relatively homogenous. The Telecommunications Act of 1996 aimed to change that, deregulating entry into local markets and requiring that the so-called Baby Bells, or incumbent local phone companies (ILECs), retail their network elements to smaller competitors. The incumbents were required to unbundle their networks for reasonable prices, with the goal of decentralization of the system into a "network of networks." The act also temporarily blocked an RBOC from entering the long-distance market until it could prove that there was sufficient competition in its local territory.

Another provision of the Telecom Act, allowing RBOCs the right to sell cable television services and phone equipment, proved to be a boon for the strongest RBOCs. Thanks to those services and the entry of the Babies into long distance, the Telecom Act actually had the opposite of its intended effect, allowing a few RBOCs to solidify their positions and dominate the market through mergers and acquisitions. Today, there are just four RBOCs – Verizon Communications, BellSouth, SBC Communications, and

Qwest Communications International – dominating both local phone service access and the burgeoning DSL (digital subscriber line) markets.

Still, sniping among the RBOCs and long distance giants like MCI and AT&T over network-access rights continues. As late as May 2004, the FCC was engaged in a dispute between the Baby Bells and the long distance carriers, as the LD companies argued for increased access to local calling networks.

Merger mania

The Telecom Act ushered in an era of merger fever among telecom companies. In 1997, Bell Atlantic purchased little sib NYNEX for $25.6 billion, and SBC bought Pacific Telesis. The following year, SBC acquired local and long-distance provider Southern New England Telecommunications, entering the LD market through this Telecom Act loophole. SBC also acquired Baby Bell Ameritech for $68.8 billion, and Bell Atlantic merged with GTE to form Verizon. Also in 1998, Qwest Communications International bought long-distance company LCI International, entering the struggle between the big three of long distance, AT&T, Sprint, and MCI. The next year, Qwest's bid to acquire US West (the smallest of the Baby Bells) defeated that of fiber optics leader Global Crossing of Bermuda. Also in 1999, AT&T acquired cable operator Tele-Communications, Inc. and merged with MediaOne Group in a $44-billion deal. Meanwhile, MCI was folded into WorldCom for $47 billion, (more on this later) becoming the world's leading Internet carrier and a full-fledged global telecom company, boasting a 25 percent share of the U.S. long-distance market after the deal.

The activity wasn't limited to America's shores. Telecom became truly global in 1997, when 70 members of the World Trade Organization agreed to open up their telecom markets to each other at the start of the following year. Those 70 countries control 90 percent of worldwide telecom sales. Nearly all telecom companies around the world had privatized in anticipation of this expanded level of competition. The accord led to a rush of international deals, especially in the world's second-largest telecom market, Japan. In 1999, British Telecommunications and AT&T partnered to acquire a 30 percent stake in LD operator Japan Telecom, combining their Japanese ventures under JT. Britain's Cable & Wireless bought Japan's No. 6 carrier, IDC, a few months later. Also in 1999, Global Crossing teamed up with Marubeni to build an entirely new network, called Global Access, to service Japan.

Wall Street highs and lows

As M&A activity heated up, Wall Street took notice – investors poured $1.3 trillion into telecom industry companies in the five years following the Telecom Act's passage, according to *Forbes* magazine. But with this activity came increased scrutiny and risk. Ultimately, the industry was subject to the same meltdown that hit the rest of the tech sector beginning in late 2000. According to *Forbes*, the industry's market value plummeted by $1 trillion after the Dow Jones took its dive. Mergers also fell by the wayside. In July 2000, a proposed deal between Sprint and WorldCom fell through when the Justice Department filed a lawsuit that attempted to block the deal. The prospect of a lengthy DOJ suit effectively killed the merger, and it may similarly discourage future unions.

Compounding the gloom in the industry, some major telecoms had high-profile problems in their accounting departments. The two biggest offenders were WorldCom and Global Crossing, both of which ran afoul of the feds in 2002. WorldCom filed for the largest bankruptcy in U.S. history in July 2002, racking up $41 billion in debts and an estimated $11 billion in fraudulent expenses – leading to a $100 billion loss to shareholders. Even as the company attempted a rebound, emerging from bankruptcy in April 2004 with a lighter debt load, a moderately healthy outlook, and a less tarnished name (the company reverted to the MCI brand), it had to contend with scores of class action lawsuits; former chief executive Bernard J. Ebbers also faced a growing list of federal fraud and conspiracy charges as late as Spring 2004. Accounting firm Citigroup announced in May 2004 that it would pay $2.65 billion to investors for its role in the scandal. The turmoil has led some industry analysts to speculate about a possible sale of MCI to one of its Baby Bell competitors.

A debt burden of $12.4 billion, along with an oversupply of high-speed network capacity, led to Global Crossing's Chapter 11 filing in January 2002. The outcome was predictable in this era of accounting scandals, including a Justice Department probe into the company's accounting practices, and lawyers rounding up plaintiffs. In April 2004, investors again had reason to worry as Global Crossing announced it would need to review and restate its financial statements for all of 2002 and 2003 thanks to a $50 million to $80 million understatement of liability costs.

In addition to WorldCom and Global Crossing, about a half-dozen other providers of telecom services began Chapter 11 bankruptcy proceedings in 2002, dumping customers and employees as they went. In September 2003, Sprint reported a reorganization into business and consumer lines in an effort to save $1 billion.

Wireless wins the day

Thanks to the booming wireless market, however, Sprint, which offers wireless service under the Sprint PCS name, faces less market risk, analysts say. The same holds true for other major telecoms that have devoted resources to wireless services. In fact, the wireless market, with $89 billion in spending in 2003, outpaced long distance for the first time that year, according to TIA research (LD posted $78 billion in spending). The number of wireless users was estimated at above 1 billion in 2003.

The boom in wireless may herald renewed business activity in telecom. One notable example is Cingular's $41 billion purchase of rival AT&T Wireless, announced in February 2004, following a fierce bidding battle with rival Vodafone. As an example of how complicated the industry's family ties are, consider this: Cingular happens to be owned by rival Baby Bells BellSouth and SBC; competitor Verizon Wireless is a joint venture of Verizon and the Vodafone Group. Competition began to sizzle in late 2003, as the first phase of a federal law allowing "portability" – the ability of consumers to retain their phone numbers when switching carriers – took effect. While the media emphasized a sudden boom in carrier-hopping among consumers, industry watchers like the Gartner Group pointed out

An end-run around the phone

Cell phones aren't the only way consumers are making calls these days – Voice over Internet Protocol (VoIP), offered by companies like Vonage, allows users to turn their personal computers into telephones by sending voice "data" over a broadband connection in the same way other data is sent online. Bypassing questions of local and long distance networks entirely, VOIP services allow complete number portability – users in Iowa can maintain Manhattan area codes. The technology also has an advantage in terms of cost – thanks to the FCC, VoIP is exempt from taxes and regulations regular phone carriers are saddled with. Of course, the major telecoms are busy on Capitol Hill, trying to level the playing field – meanwhile, most experts say the technology has a way to go in terms of reliability and simplicity for the average consumer.

But it isn't a simple question of phone companies competing with the Internet – indeed, telecom providers, seeing the Internet revolution early on, began expanding their data communication networks, constructing more than 90 million miles of fiber-optic cables alone. Cable lines, which are hooked up to 90 percent of American residences, have considerably greater bandwidth than current phone lines and appear to be the least painful replacement for the outdated phone lines connecting homes today. With AT&T currently gobbling up miles of cable wire, there's little mystery as to what its medium in the next few years will be.

A job market roller coaster

The numbers are intimidating: By some estimates, the telecom industry slashed 300,000 jobs during the troubled period beginning in late 2000. As recently as May 2004, MCI announced plans to lay off 7,500 workers – on top of 4,500 in cuts it had announced a few months prior to that. But outplacement firm Challenger Gray & Christmas sees the layoffs fading a bit – while more than 12,000 telecom workers lost their jobs in December 2002, that number was just over 8,700 in December of the following year. While employment prospects are expected to be limited in telecom for the time being, the U.S. Department of Labor's Bureau of Labor Statistics (BLS) says that rising demand for services will eventually boost hiring.

According to the BLS, telecom provided 1.2 million wage and salary jobs in 2002, the latest year for which statistics are available. Of these employees, just over half work in office and administrative support or in installation, maintenance and repair. Other positions in the industry include sales and IT-related functions like computer support, engineering and administration. Keeping job skills up-to-date is crucial in this rapidly changing industry, the BLS insists – many major employers offer training through Web sites and other resources.

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Transportation and Airlines

The vast transportation sector is charged with carrying people and products (safely and on-time, of course) to destinations around the globe – no small feat. The industry can be broken into a handful of sectors: airlines; air cargo and express delivery carriers; trucks; railroads; and buses.

Turbulent Skies for Airlines

It's an understatement to say that airlines are struggling these days. The nearly $25 billion lost by the airline industry from 2001 through the first quarter of 2004 is greater than the total of the profits it earned during the six years between 1995 and 2000. The aftermath of the September 11 terrorist attacks in the U.S. is an obvious factor in this downturn, but the industry has been weakened by other factors, as well, including unprecedented competition both within the sector and from other forms of transportation; skyrocketing fuel prices; online technologies empowering travel consumers; the SARS epidemic; increased liability insurance premiums; and unsustainable labor and operating costs. Still, the mammoth industry managed to post revenues of approximately $80 billion last year.

For the airline sector, turbulence is nothing new – since the early days of flight at the start of the last century, it's always been tough for air carriers to turn a profit. Major airline swan-dives took place long before the travel and economic crisis spurred by the increased attention to global terrorism – do the names Pan Am, Braniff, and Eastern ring a bell? They're among the approximately 100 airlines estimated by the Air Transport Association to have gone bankrupt since deregulation of the industry in 1978. In fact, industry analysts say that the number of airlines that have gone out of business since the dawn of the air travel industry outweighs those that have managed to survive.

Airline aid

Since the September 11 tragedies, Congress has given well over $20 billion to the industry, in the form of reimbursements for losses incurred while planes were grounded following the attacks, help with new passenger and plane security requirements, and pension funding relief. But many of the industry's major players were forced to shoulder massive debt loads to continue operating, on top of debt they had begun accumulating even before the terrorist attacks. This led a number of carriers to seek bankruptcy protection – since 2001, Great Plains, Hawaiian, Midway, National, Sun Country, TWA, Vanguard, United, and US Airways all have shown up in bankruptcy court.

While most of the majors managed to emerge with lighter debt burdens, United's parent company, UAL Corporation, remained in bankruptcy through early 2004, and observers worried that other troubled carriers might have to make a second trip through Chapter 11. Though passenger confidence continued to grow in the years following the attacks, and an improved economy bodes well for the travel industry as a whole, the industry's red ink continues to flow – according to a June 2004 Senate report, the industry carried combined debts of more than $100 billion as of that year, with much of it due by 2006. So major carriers continue to lobby the feds for financial support, in the form of subsidies and loans.

A global network

Around the world, many airlines still are heavily subsidized – or owned outright – by their home nations. While this has been a successful set-up for many, others haven't been so lucky – Swissair and Belgium's airline, Sabena, both crumbled when their respective governments couldn't keep up with demands for subsidies. Global alliances have been formed between subsidized international and U.S. carriers to avoid some regulatory issues and to maximize profits by sharing resources, including routes and marketing strategies. Well-known alliances include Oneworld, an alliance between American Airlines and British Airways, and SkyTeam, a partnership made up of Delta Air Lines, Air France, and AeroMexico. Such partnerships aren't always successful – an alliance between Dutch carrier KLM and AlItalia fell apart, for instance, after AlItalia had trouble securing funding from its government patrons.

But partnerships aside, the airline industry remains remarkably competitive, and in today's tough climate, it's everyone for themselves. The only major merger between top airlines in the past few years was the early 2004 acquisition of KLM by Air France (a deal expected to create one of the world's largest airlines). Tight regulatory controls in the U.S. make it tough for major domestic carriers to even consider merging; a plan to join United Airlines and U.S. Airways was the last such proposal to be floated, and it has since fallen to earth.

Going regional

Regional airlines, which benefit from smaller, newer jets and lower operating costs than the domestic giants, have gained ground in recent years, becoming the fastest-growing segment of the airline market. Approximately 25 to 30 regional, or commuter, carriers operate in the industry today, and one out of every eight passengers uses such a carrier for at least a portion of a trip, according to the BLS. The big carriers have taken notice, and many now have controlling interests in newer regional airlines – Delta controls Delta Express, Atlantic Southeast, and Comair, for instance, while American has American Eagle. The trend is reflected in Europe, too. Both globally and domestically, regional airlines benefit from such partnerships as alliances with major carriers allow the upstart regionals access to major airport hubs. In some cases, however, regional and low-budget airlines have skirted the hub question altogether by choosing to operate out of slightly out-of-the-way airports – Southwest's use of Islip airport, in the New York area, and JetBlue's adoption of Long Beach, near Los Angeles, are two examples.

And in other cases, regional airlines have decided to spread their wings and join the burgeoning low-cost boom. Independence Air is a prime example – once a regional carrier called Atlantic Coast Airlines, it relied on United for 85 percent of its revenue. Going independent, the carrier re-branded, changed its looks, and began marketing itself with rock-bottom rates, using Washington's Dulles airport as a hub, in the summer of 2004.

The budget boom

The budget airline sector – consisting of top performers like Southwest Airlines and JetBlue, plus a growing number of upstarts, has gotten a good deal of attention lately. But budget flight isn't a new phenomenon in the industry – in fact, Southwest has been around since 1971. The difference is in the branding, and public acceptance, of these carriers, fueled in part by Southwest's customer-centric approach, and partly by customers' reduced service expectations post-September 11. Expanded routes have helped, too – where once low-budget carriers limited their flights to relatively short hauls in regional markets, today's top discount airlines regularly offer cross-country, and even international, flights. The budget carrier phenomenon has rocked Europe, too, where more than 50 low-cost carriers were in operation in 2004, compared to just four in 1999. In fact, low-cost carrier Ryanair, operating out of Ireland, is one of the top performers in the industry worldwide, second in market capitalization only to Southwest as of mid-2004, according to Yahoo! Finance.

Around the world, carriers have come to realize that there just aren't as many passengers willing to pay for five-star air travel these days – at least, not enough to make these services profitable for most carriers. The demise of the luxury liner the Concorde, in 2003, was seen by many analysts as yet another indication of this trend.

Cutting costs

But above all, cost-savings are seen as key to the success of low-budget carriers. One way air carriers measure their fiscal health is through cost per available seat mile (or CASM), a complex formula involving airplane capacity, operating costs, route lengths, and other factors. Whereas American Airlines spends about 9.4 cents for each seat on each mile flown, budget competitors like Southwest and JetBlue lighten their loads with CASMs of 7.6 cents and 6.4 cents, respectively, according to an MSNBC article from December 2003. Those pennies add up over time, and so-called "legacy" carriers are under pressure to pinch them ever harder. But with more liberal work rules and a less-senior workforce overall, low-cost carriers beat their established rivals in terms of labor costs. Making matters worse for the legacy airlines, they're now under pressure to match the rock-bottom ticket prices issued by upstarts like JetBlue (founded in 2000) and seasoned discounters like Southwest. Combine that pressure with the growing presence of those once-fringe carriers at major domestic airport hubs, and the stage is set for all-out price wars. One way in which legacy carriers have begun to compete is by spinning off their own low-cost subsidiaries – Delta's Song took to the skies in April 2003, followed by United's Ted in early 2004. Where legacy carriers once competed with low-cost rivals, now the low-cost carriers are waging wars amongst themselves – Southwest, feeling the burn of higher labor and fuel costs, posted a 54 percent lower profit in the second quarter of 2004.

If budget airlines represent the great hope of major passenger carriers, corporate jets are the bright light on the business travel horizon. Fractional jet firms like NetJet, which allow the sharing of jets between multiple partners for charter use, are flying high, and even industry skeptics like Warren Buffett are backing the idea, MSNBC has noted.

Investing in a dream(liner)

Major carriers hope to save money in the future by investing in new planes that offer a lower cost of ownership and operation. In early 2004, Boeing got the go-ahead from Japan's Al Nippon Airlines to begin work on a new 7E7 Dreamliner passenger jet, which promises fuel savings of up to 20 percent – other carriers' orders are expected to follow. Boeing's rival manufacturer, Airbus, is also working on a new offering, the A380, which is touted as the largest passenger jet the industry has seen. Other cost-cutting measures in the airline industry overall include the streamlining of fleets and the retirement of older planes; the cancellation of unprofitable routes; greater efficiency in procurement processes involving suppliers; and the slashing of commissions once paid regularly to middlemen such as travel agencies. Many see technological advancements as their great hope – according to a January 2004 *BusinessWeek* article, Continental hopes to save $500 million annually in coming years partly by investing in Web-based check-in systems and wireless bag tracking.

Through these and other measures, legacy carriers have slashed annual operating expenses by $13.4 billion and annual capital expenditures by $8.1 billion since 2001, according to the Air Transport Association. The belt-tightening was beginning to pay off as of mid-2004: While industry capacity (a measure of per-seat miles flown) contracted by 8 percent in the three years following mid-2001, capacity was expected to expand by nearly 7 percent.

Labor pains

According to the BLS, labor costs make up roughly 38 percent of many airlines' operating costs – that's around 40 cents for every dollar spent by an air carrier. Passenger safety regulations, a workforce made up of highly specialized – and rarely cross-trained – professionals, and a strong union presence in the industry make it tough for airlines to trim costs from their labor budgets. One way they've done this is by cutting workforces to the bare bones. Following September 11, Continental Airlines and US Airways were the first to make dramatic cuts, laying off about 20 percent of their respective workforces and paring flight schedules. Most other carriers followed suit. With well over 110,000 jobs lost since mid-2001, the U.S. airline industry's workforce is at its lowest level since 1996. These trends were reflected in Europe, too, where carriers like British Airways and Lufthansa also made cuts in staff and services.

Carrying the Load

Amidst all this choppy air, the air cargo business remains comparatively stable, with major cargo carriers posting profits even in the dark days of 2001 and 2002. Worldwide revenues for the air freight and express delivery market were $75 billion in 2003, and the market has doubled every 10 years, according to the Air Line Pilots Association (ALPA). Still, a few air cargo carriers, including Arrow Air and Atlas Air, were forced into bankruptcy court alongside their passenger-carrier counterparts. Arrow emerged from Chapter 11 in June 2004, and Atlas Express (one of the world's largest cargo carriers) was expected to re-emerge shortly thereafter.

Express-delivery giants like United Parcel Service, FedEx, and DHL dominate the sector, both operating their own modes of transportation and leasing space and services on other cargo haulers' vehicles. Many of the challenges the sector faces, including tighter security requirements, high fuel costs, and the need to replace an aging fleet of planes, mirror those on the passenger side. Others are specific to the air cargo industry – for instance, the ALPA worries that international shippers may begin routing cargo through Canada and Mexico in response to the new security restrictions, meaning reduced activity in the domestic market. In addition, the ALPA notes that the need for hard copies of documents and other items has diminishes with the rise of e-signatures and other digital technologies, leading to load reductions. And air cargo services also have to contend with other forms of transport, like ships and trucks.

The Germans are coming

Run by German postal entity Deutsche Post, express delivery company DHL made aggressive steps to solidify its position in the U.S. market in 2003. In August of that year, DHL acquired Airborne Inc. for $1.1 billion, securing its American rival's number-three place domestically and further strengthening its dominance in the world market for express delivery services overall. As of September 2003, according to *BusinessWeek*, FedEx held 44 percent of the market, with UPS coming in at 34 percent and Airborne trailing at 13 percent. Meanwhile, FedEx and UPS have attempted to beat back the upstart by challenging DHL on regulatory grounds, particularly citing a restriction barring foreign companies from controlling U.S. airlines (DHL's airline was spun off from the company in 2003). But DHL has forged ahead, pulling out all the marketing stops in a $150 million PR campaign beginning in the summer of 2004.

In the fiercely competitive delivery market, where the leaders vie for massive corporate contracts as well as business from average consumers, marketing has become a hardball game. In 2003, the employee-controlled UPS, with a fleet of about 88,000 ground vehicles and 575 planes, branded itself as the "brown" company. FedEx has strengthened its market position by diversifying. The company, with approximately 42,000 ground vehicles and an air fleet of 643 planes, operates different Express, Ground, and Freight units. In early 2004, the firm further diversified by acquiring document services provider Kinko's, which now goes by "FedEx Kinko's" and incorporates its parent company's mailing services into its copy shops in the U.S.

Greening Brown

As for their ground services, both UPS and FedEx have taken steps recently to "green" their fleets, replacing diesel vehicles with environmentally friendlier options like compressed natural gas and electricity-powered vans. In March 2002, FedEx announced plans to eventually replace its entire 30,000-van fleet with hybrid electric vehicles over a number of years. While the companies get PR points for their efforts, what's really driving the green movement is, well, the green – cash, that is. An August 2003 *BusinessWeek* article notes that hybrid electric vehicles can cut operators' fuel costs in half. And as big companies like FedEx continue to place orders for the lower-emissions, fuel-friendly vehicles, prices of these vehicles will go down too, benefiting the entire sector over time.

Keep on truckin'

Express-delivery services also share ties – and in some cases overlap – with the trucking sector. Dominated by bulk truckers like Quality Distribution Inc., JB Hunt Transport Services, and Yellow Roadway Corporation the industry is seeing increased demand for its hauling services, with sales of $254 billion expected for 2004, according to Global Insight, Inc.

The trucking sector also overlaps with the railroad world, with giants like JB Hunt and Schneider International teaming up with old hands on the rails such as Union Pacific, Norfolk Southern, and Burlington Northern Santa Fe. With new technologies allowing real-time cargo tracking and time-specific delivery, this sector of the transportation industry is expected to grow increasingly integrated. Both road and train shippers started adding jobs in 2004, keeping truck fleets and rail lines running at maximum capacity.

Road and Track

While the shipping portion of the rail sector has continued to chug along, the passenger-train sector has contracted dramatically in previous decades. In fact, the rail sector has been in decline since the dawn of the automobile; in the 1960s, it was dealt a heavy blow when the U.S. Postal Service turned to trucks and airplanes for its first-class shipping needs. Amtrak took over the majority of U.S. passenger trains under its National Railroad Passenger Corporation umbrella following legislation in the 1970s intended to prop up the flagging sector, but the operator has had trouble turning any sort of profit. Though still a top draw for commuter travel, particularly in the Northeast, Amtrak's fares usually can't compete with the rock-bottom rates and speed offered by airlines. Following September 11, 2001 and the deadly Madrid train bombing in March 2004, security has become a primary focus. With these requirements, dwindling passenger rolls, and increased operating costs, Amtrak has become increasingly subsidized – the organization requested $1.8 billion from Congress in 2004 to help it stay on track.

On the bus

For long-haul passenger travel, about the only thing cheaper than a bus is sticking out your thumb. Intercity buses, also known as motorcoaches, provide regular service to more than 42,000 U.S. communities. According to the American Bus Association (ABA), more passengers travel by motorcoach in the U.S. than on any other commercial mode of transportation. The bus sector is unique in its composition – unlike the heavily subsidized rail and airline sectors, motorcoach companies are more likely to go it alone (though the industry received about $25 million in grant funding for security following September 11).

There are more than 4,000 bus companies on the roads in the U.S., many of which are small, entrepreneurial operators – 90 percent operate fewer than 25 buses, the ABA reports. Major operators include Trailways, which has been around for nearly 70 years and operates a group of 65 member companies, and Greyhound, founded in 1914 and acquired in 1999 by Laidlaw Inc. As insurance rates have increased tenfold in recent years, access to affordable coverage is a key challenge faced by the industry. Unaffordable rates have priced some operators out of the market.

A Life in Transportation

As a whole, the transportation industry offers a range of employment options for highly skilled professionals and newcomers alike.

The friendly skies

Even the most phobic of flyers can find a career working in the airline industry. In fact, the majority of the approximately 559,000 workers (as of 2002) in the U.S. airline industry are employed in ground occupations, as mechanics, reservation agents, and customer service representatives and the like. Flight crew members make up another large portion (around 31 percent) of the workforce – they include pilots and flight attendants. The size of the airline workforce depends in large part on the fluctuations of the market, but other factors are more predictable – for instance, the BLS notes, the ranks of reservation and ticket agents will continue to thin as these positions are phased out by paperless tickets, Internet travel purchases, and online check-ins.

Trucking along

In the truck sector, drivers hold about 44 percent of approximately 1.9 million jobs, with the remainder consisting of warehouse workers, dispatchers, and clerks. The number of wage and salary jobs in the sector is expected to grow 23 percent by 2012, according to the BLS, with opportunities opening up at all levels, particularly for drivers, service technicians and mechanics.

As of 2002, rail transportation workers held 101,000 jobs in the U.S., the BLS reports; this figure is expected to decline over the next decade. Occupations in the sector include conductors and yardmasters, engineers, brake, signal, and switch operators, and subway and streetcar operators.

Employer Directory

The Boeing Company

Boeing World Headquarters
100 N. Riverside
Chicago, IL 60606
www.boeing.com/employment/college

With a heritage that mirrors the first 100 years of flight, The Boeing Company provides products and services to customers in 145 countries. Boeing is a premier manufacturer of commercial jetliners and a global market leader in military aircraft, satellites, missile defense, human space flight, and launch systems and services. Total company revenues for 2003 were $50.5 billion.

Boeing employs more than 156,000 people in 70 countries and 48 states within the United States, with major operations in the Puget Sound area of Washington state, Southern California, Wichita and St. Louis.

EOE statement: Boeing is an equal opportunity employer supporting diversity in the workplace.

AMR Corporation (American Airlines)
4333 Amon Carter Blvd.
Fort Worth, TX 76155
Phone: 817-963-1234
www.amrcorp.com

Canadian National Railway Company (CN)
935 de la Gauchetière St. West
Montreal, Quebec H3B 2M9, Canada
Phone: 514-399-5430
Fax: 204-987-9310
www.cn.ca

Continental Airlines, Inc.
1600 Smith St., Dept. HQSEO
Houston, TX 77002
Phone: (713) 324-2950
Fax: (713) 324-2637

CSX Corporation
500 Water St., 15th Fl.
Jacksonville, FL 32202
Phone: (904) 359-3200
www.csx.com

Delta Air Lines, Inc.
Hartsfield Atlanta International Airport
1030 Delta Blvd.
Atlanta, GA 30320-6001
Phone: (404) 715-2600
Fax: (404) 715-5042
www.delta.com

DHL Worldwide Network
De Kleetlaan 1
B-1831 Diegem, Belgium
Phone: +32-2-713-4000
www.dhl.com

FedEx Corporation
942 S. Shady Grove Rd.
Memphis, TN 38120
Phone: (901) 369-3600
Fax: (901) 395-2000
www.fedex.com

Greyhound Lines, Inc.
15110 N. Dallas Pkwy., Ste. 600
Dallas, TX 75248
Phone: (972) 789-7000
Phone: (972) 387-1874
www.greyhound.com

JetBlue Airways Corporation
118-29 Queens Blvd.
Forest Hills, NY 11415
Phone: (718) 286-7900
Phone: (718) 709-3621
www.jetblue.com

Norfolk Southern Corporation
3 Commercial Place
Norfolk, VA 23510-2191
Phone: (757) 629-2600
Phone: (757) 664-5069
www.nscorp.com

Northwest Airlines Corporation
2700 Lone Oak Pkwy.
Eagan, MN 55121
Phone: (612) 726-2111
Phone: (612) 726-7123
www.nwa.com

Southwest Airlines Co.
2702 Love Field Dr.
Dallas, TX 75235
Phone: (214) 792-4000
Phone: (214) 792-5015
www.southwest.com

Trailways Transportation System, Inc.
3554 Chain Bridge Rd., Ste. 301
Fairfax, VA 22030-2709
Phone: (703) 691-3052
Phone: (703) 691-9047
www.trailways.com

UAL Corporation (United Airlines)
1200 E. Algonquin Rd.
Elk Grove Township, IL 60007
Phone: (847) 700-4000
Phone: (847) 700-4081
www.united.com

Union Pacific Corporation
1416 Dodge St.
Omaha, NE 68179
Phone: (402) 271-5777
Phone: (402) 271-6408
www.up.com

United Parcel Service, Inc. (UPS)
55 Glenlake Pkwy., NE
Atlanta, GA 30328
Phone: (404) 828-6000
Fax: (404) 928-6562
www.ups.com

Venture Capital

The Financial Industry and Venture Capital

Where does VC fit into the world of finance? The financial industry can be divided into two general segments: the buy-side and the sell-side. Sell-side refers to those financial firms that have services to sell, such as investment banks, brokerages, and commercial banks.

For instance, when a large company wants to sell stock on the public stock exchanges, an investment bank's corporate finance department handles the legal, tax, and accounting affairs of the transaction as well as the sale of those securities to institutional or individual investors. For providing these services, the investment bank receives a fee (between 2 percent and 10 percent of the money raised by selling stock). An investment banking firm's primary motivation is to sell such services, characterizing them as sell-siders.

Brokerages are paid a fee for the service they provide of buying and selling stocks. Commercial banks are paid for managing deposit accounts, making and then managing loans, etc. Again, they sell these services, so they are sell-side firms.

Venture capital firms, on the other hand, are on the buy-side because they control a fund or pool of money to spend on buying an equity interest in, or assets of, operating companies.

For the sake of this discussion, most buy-side vc firms have only one way to realize a return on their investment: selling their ownership stake to another private investor, a corporation (trade sale) or to the public markets for more money than they paid (often termed to be "in the money"). While some later-stage private equity shops invest in or acquire companies for their cash flow potential, venture capital is about building young companies and finding an exit (liquidity event) on the back side for "x" times their original investment. Descriptions of each segment of the buy-side are included below. Keep in mind that these definitions are intended to be very general in nature and that many buy-side organizations cross organizational boundaries.

Day in the Life: Venture Capitalist

7:00 a.m.: Arrive at the office.

7:01 a.m.: Read *The Wall Street Journal*, paying careful attention to the Marketplace section covering your industry focus.

7:20 a.m.: Read trade press and notice four companies you haven't seen before. Check your firm's internal database to see if someone else on your team has contacted the companies. Search the Internet to find out more. Of the four companies you find, only one holds your interest. Send yourself an e-mail as a reminder to call them during business hours.

7:45 a.m.: Clip out some interesting articles and put them in the in-boxes of other associates or partners with a note explaining why you found the information interesting. The other members of your firm have more expertise in the areas covered by the articles. You stay and talk for a few minutes with each of the people in their offices, exchanging the latest word about the people and technology you follow.

8:00 a.m.: Respond to e-mails or voice mails from the day before. People you are communicating with are primarily entrepreneurs, other VCs, and personal acquaintances.

9:00 a.m.: You attend a meeting with a group of entrepreneurs who want to make their pitch. You read the business plan for five minutes. One general partner (GP) sits in with you. The other GP, who planned to be there, cannot make it because he has a conference call with a portfolio company facing some challenges. The computer projecting the entrepreneur's presentation crashes, so you have to take their paper version of their presentation and work with your assistant to make four photocopies before the meeting can proceed.

During the 10-minute delay, the partner talks with the team informally, and learns more about the opportunity than he or she would in any one-hour presentation. You sit politely through the presentation, and identify the three critical issues facing the company. During the question and answer phase, you think of how to politely extract more information about those three issues, all the while evaluating whether you would want to work with this team or not.

In the end, you decide to make some calls to gather more information about the market, or a competitor, but you feel that there's a very low probability you would ever invest. You wish you could just kill the deal, but the management team is reasonable (though not great), the customer need they have identified may actually exist (you don't know first-hand, so you will need to call around), and you may learn something by taking it to the next step. Plus, in the back of your mind, you know the market for good deals is very competitive, and you don't want to reject a deal too quickly.

11:00 a.m.: Phone the people who called during your meeting. These people include entrepreneurs, analysts, other VC's, and your lunch appointment. You find out from another VC that the company you almost invested in two months ago was just funded by a competing firm. You wonder if you made a mistake. You find out from an entrepreneur you were hoping to back that he wants his son to be a co-founder and owner of the firm. You abandon all hope. You learn from an analyst that AT&T has decided to stop its trial of a new technology because it doesn't work, which creates an opportunity for companies with an alternative solution. You happen to know about two small companies, one in Boston, one in Denver, that have alternative solutions. You make a note to yourself to call them back to get a status report.

12:30 p.m.: Lunch with an executive recruiter. This person is very experienced in finding management talent in your area of expertise. You have kept in touch with her over the years, and try to see her every quarter to hear the latest buzz and to make sure she will be available when you need her services quickly. It's a fun lunch, freely mixing personal and professional information.

2:00 p.m.: Call new companies you have heard about over the last few days. Ideally, you could do this task a little bit every day, but you find you need to be in a friendly and upbeat mood to make these calls, so you batch them. Also, if you actually get in touch with the CEO, you may be on the phone for 90 minutes, so you need to have an open block of time. You leave the standard pitch about your firm on the voice mail of the CEO's of four other companies. You get through to one CEO, and although you can tell in the first five minutes that you won't be interested in investing, you talk for 30 minutes. You spend most of the 30 minutes probing about competitors who might be better than the company you're talking to and finding out more about his market space.

3:00 p.m.: You and a partner meet with a portfolio company on a conference call. The company is facing some challenges and you offer to screen executive recruiters to help find a new CFO for it. The GP offers to talk to two M&A firms to get a first opinion about what might be done to sell the company over the next six months. At the end of the call, the GP gives you three names and numbers of recruiters, which you add to your own two contacts.

3:30 p.m.: You call the recruiters, explaining the situation and asking about their recent experiences in similar searches. The critical element is whether the recruiters actually have time and interest in doing the search. You talk to two recruiters and leave voice mails for the other three.

4:30 p.m.: You make due diligence calls for a potential investment you have been following for two months. Last week you called the company's customers, and they seemed happy for the most part. Today, you are calling the personal references of the management team. The idea is to get as much negative information as possible. You need to discover any potential character or personality flaws any member of the team may have. VC firms are "due diligence machines," doing the hard work of making sure a company is what it says it is.

5:30 p.m.: You make calls to the West Coast. You also check your stocks and confirm dinner plans. You do some miscellaneous surfing on the Web to gather some articles about the technology areas you cover.

6:30 p.m.: You stand around the halls talking with other members of your firm, brainstorming and filling each other in about what's happening in your area.

7:00 p.m.: Dinner with two other young VCs downtown. You talk mostly about life, sports, travel and relationships, but also about the latest deals, cool business ideas, and recent successes. You find out that a competing firm just made 30 times their money on a deal you never saw. You also find out that a company you turned down which was invested in by someone else is about to go bankrupt. A train missed; a bullet dodged.

VC Uppers and Downers

Uppers

- There is a reason that very few people ever willingly leave their VC careers. Where else can you have so much fun investing other people's money (plus some of your own), while being "in the middle of it all"?
- You often get to be the one making decisions because you have money.
- Over the long term, financial security will cease to be an issue, because the job is well paying and you should eventually get "carry" or equity in the firm.

- You have access to the best minds – the people you work with are typically some of the smartest and most interesting. Successful venture capitalists have interests and hobbies as diverse as mountain climbing to playing jazz in nightclubs.
- Your job is to absorb and enjoy the positive creative energy of entrepreneurs and direct it toward successful execution.
- You could suddenly become rich if one of your companies does extremely well and you were able to co-invest or you have carry.
- You have access to the best information systems.

Downers

Because so many think of the venture capital industry as "the hot job to have," people often forget to question whether it is the right job for them. Here is a list of some of the negatives we hear from those who have worked in the industry for a while.

- Unless you work with a hands-on early-stage VC firm known for taking an active role in building successful companies, you don't have pride of ownership in anything. You're just an investor, not a builder.
- VC is a slow path to wealth compared with the immediate cash income you get in investment banking, hedge funds or even management consulting.
- It can be argued that venture capital is fundamentally a negative process. Because you reject 99 of every 100 plans, year after year, over time you focus on figuring out what is wrong with a company. You can then reject it and get on to the next deal. What is wrong with the management? The technology? The deal terms? The strategy? If you tend to have a contrarian disposition, after just a few years, that mentality may bleed into your life. What is wrong with my partners? What is wrong with my spouse? What is wrong with me? Oh, the angst! If this reaction hits too close to home, venture capital might not be for you. What fun is it to search through hundreds and thousands of business plans and ideas for that one rare gem, if you aren't an eternal optimist?
- Because you reject 99 of every 100 entrepreneurs, you can make some enemies, no matter how nice and helpful you try to be. No one likes rejection, and passionate entrepreneurs have long memories.

Employer Directory

Accel Partners
428 University Avenue
Palo Alto, CA 94301
Phone: (650) 614-4800
Fax: (650) 614-488
www.accel.com

Apax Partners
495 Park Avenue, 11th Floor
New York, NY 10022
Phone: (212) 753-6300
Fax: (212) 319-6155
www.apax.com

ARCH Venture Partners
8725 W. Higgins Road
Suite 290
Chicago, IL 60631
Phone: (773) 380-6600
Fax: (773) 380-6606
www.archventure.com

Austin Ventures
300 West 6th Street
Suite 2300
Austin, TX 78701
Phone: (512) 485-1900
Fax: (512) 476-3952
www.austinventures.com

Benchmark Capital
2480 Sand Hill Road
Suite 200
Menlo Park, CA 94025
Phone: (650) 854-8180
Fax: (650) 854-8183
www.benchmark.com

Charles River Ventures
1000 Winter Street #3300
Waltham, MA 02451
Phone: (781) 487-7060
Fax: (781) 487-7065

Draper Fisher Jurvetson
2882 Sand Hill Road
Suite 150
Menlo Park, CA 94025
Phone: (650) 233-9000
Fax: (650) 233-9233
www.drapervc.com

Hummer Winblad Venture Partners
2 South Park
2nd Floor
San Francisco, CA 94107
Phone: (415) 979-9600
Fax: (415) 979-9601
www.humwin.com

JAFCO America Ventures
505 Hamilton Avenue
Suite 310
Palo Alto, CA 94301
Phone: (650) 463-8800
Fax: (650) 463-8801
www.jafco.com

Kleiner Perkins Caufield & Byers
2750 Sand Hill Road
Menlo Park, CA 94025
Phone: (650) 233-2750
Fax: (650) 233-0300
www.kpcb.com

Mayfield Fund
2800 Sand Hill Road
Suite 250
Menlo Park, CA 94025
Phone: (650) 854-5560
Fax: (650) 854-5712
www.mayfield.com

Menlo Ventures
3000 Sand Hill Road, Building 4
Suite 100
Menlo Park, CA 94025
Phone: (650) 854-8540
Fax: (650) 854-7059
www.menloventures.com

New Enterprise Associates
1119 St. Paul St.
Baltimore, MD 21202
Phone: (410) 244-0115
Fax: (410) 752-7721
www.nea.com

Norwest Venture Capital
525 University Ave., Suite 800
Palo Alto, CA 94301
Phone: (650) 321-8000
Fax: (650) 321-8010
www.norwestvc.com

Sequoia Capital
3000 Sand Hill Road
Building 4, Suite 180
Menlo Park, CA 94025
Phone: (650) 854-3927
Fax: (650) 854-2977
www.sequoiacap.com

St. Paul Venture Capital
10400 Viking Drive Ste 550
Eden Prairie, MN 55344
Phone: (952) 995-7474
Fax: (952) 995-7475
www.stpaulvc.com

TL Ventures
435 Devon Park Drive
700 Building
Wayne, PA 19087
Phone: (610) 971-1515
Fax: (610) 975-9330
www.tlventures.com

U.S. Venture Partners
2735 Sand Hill Road
Menlo Park, CA 94025
Phone: (650) 854-9080
Fax: (650) 854-3018
www.usvp.com

Venrock Associates
30 Rockefeller Plaza
Room 5508
New York, NY 10112
Phone: (212) 649-5600
Fax: (212) 649-5788
www.venrock.com

APPENDIX

Employer Directory Index

Aerospace and Defense

Biotech and Pharmaceuticals

Brand Management and Consumer Products

Energy/Oil and Gas

Fashion

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Investment Management

Management Consulting

Manufacturing

Media

Real Estate

Sales and Trading

Technology Consulting

Telecommunications

Transportation and Airlines

Venture Capital

About the Author

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