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Supplement:

Murray Stahl Lecture:

Industry Analysis via Comic Books

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Exclusive Marketers of The Devil's Advocate Report

Industry Analysis via Comic Books

Inductive vs. Deductive Reasoning

Good afternoon. We have talked specifically about balance sheets in past lectures, but today we're going to talk about industry analysis as a generalization, and then we're going to analyze a specific industry, which I think you'll enjoy. We'll use a method that I've talked about in many of the previous lectures, which is the inductive approach as opposed to the deductive approach to analysis. Just to review, the deductive approach is when you establish a certain premise, and then reason from that premise. As you know, I don't think very highly of that, so I'm going to spend just a couple minutes reviewing those two types of reasoning, and then go right to the industry analysis.

Tell me what you think of this sentence: Wellington's victory at Waterloo made him the greatest name in Europe. What do you think of that sentence?

Okay, let's look at it carefully. Wellington is used as an adjective modifying the noun victory. As we go on with "made him," there's no noun to relate to the pronoun "him," because Wellington was used as an adjective. We make the assumption that "him" refers to Wellington, but it can't, because the name is used as an adjective. In fact, the pronoun "him" could be referring to someone other than Wellington. That's a minor example, but I'm going to use it as a starting point to illustrate how paradoxes can arise when you think deductively after establishing a premise. I could develop that sentence to come up with all sorts of preposterous statements to make about Wellington that would illustrate what can happen when we try to reason after accepting a premise.

If you do your own thinking, you can see how thinking linguistically as imprecisely as we frequently do could lead to ridiculous conclusions. Let's use that concept to see how little is required to arrive at a ridiculous conclusion. I'll introduce a well-known paradox of philosophy called the Unexpected Hanging Paradox that has relevance in investment management. After that, I'll talk about another example called the Bottled Genie Paradox that's more directly relevant to investment management.

In the Unexpected Hanging Paradox, let's assume that you were found guilty of a crime punishable by death by hanging. You are sentenced to be hanged some time during the following week. According to the prevailing laws of your society, no one can be executed on a Saturday or Sunday, because that's the Sabbath. That means that the execution must take place between Monday and Friday, both days included. This society's laws also decree that to make the execution a little bit less cruel, the prisoner is not supposed to know in advance on which day the execution will take place.

If you have a philosophical turn of mind and you enjoy deductive reasoning, then, as you're in your cell reflecting on your fate, here's the conclusion you might come to. You might say, "Well, I can't know in advance on what day I'm going to be executed; that's the rule. So, if I'm alive on Thursday, then I can't be executed on Friday, because it would be the only day left. I would know that Friday's the day, because it would be the

only day left in the week, and it wouldn't be a surprise. Therefore, I can't be executed on Friday.

"If I can't be executed on Friday, then it would have to be between Monday and Thursday; therefore, knowing that I can't be executed on Friday, they can't execute me on Thursday either because Wednesday night I would know that if I hadn't been executed yet, then it would be Thursday. It wouldn't be a surprise; therefore, I can't be executed on Thursday." You would continue this line of reasoning through all of the other days until you reached the conclusion that you could not be executed at all. As you are comforting yourself with that thought, they come to your cell and drag you away to be executed. There's the paradox; they can take you at any time. You see how deduction is really dangerous in social science, as opposed to physical science.

The Bottled Genie Paradox is a direct business analogy. If you reflect upon this one you will see that it's the same basic principle as the Unexpected Hanging Paradox, except that we're applying it, so to speak, to business as a way of introducing our topic today. In this paradox, you can buy a genie in a bottle at any price that you want to pay, \$10, \$20, \$2 or whatever you like. This bottled genie will grant you ten wishes. The wishes can be anything that you want. The only catch is that once your ten wishes have been granted, you're required to sell this genie to someone else at a price lower than you paid. If you bought the bottled genie for \$10, it'd be perfectly acceptable to sell it for \$9. However, if you should fail to sell it, then for the rest of your life you would live in incredible torment. So, you must sell it.

There wouldn't be a problem selling it for \$10, \$9, \$8 and all the way down to a penny. At that point, however, because in our currency you can't reduce the penny to fractional amounts, no one would buy it for a penny, because they wouldn't be able sell it to anyone else for less than what they paid and, therefore, they'd live in everlasting torment. Therefore, no one would buy the bottled genie for a penny.

It logically follows that no one would buy it for 2 cents either, because if they did, no one would buy it at a penny, because if they did, they wouldn't be able to sell it and would be doomed to live in everlasting torment. If you follow that line of reasoning then you couldn't sell it at 3 cents either, or 4 or 5 all the way to infinity. Ergo, there is no price that anyone would pay, given the rule structure we established, for a bottled genie that would grant you any ten wishes you want. That's an example of a logical absurdity. We'll revisit this example if we have time at the end of the lecture when we talk about risk and risk premiums.

Now, we're going to analyze an industry. I could've chosen mining, because I enjoy the mining industry. Likewise, I could have chosen utilities, because I like to talk about utilities, but I found that those industries are too dry for people, in general. I also could've chosen consumer products, but that's too broad. Consumer products can be soap, media, clothes, or many other items. I could've chosen financial services, but even that's too broad, and it requires a certain technical knowledge. After looking at all the industries while searching for an example that wouldn't require any knowledge learned

from balance sheets, income statements and the like, and upon which we could apply inductive reasoning, I chose the comic book industry and comic books like Superman and Batman. I happen to know something about it, because when I was a kid I went through that period of my life from about age 10-13 years when I collected comic books.

My mother tremendously objected to this activity, and many a time she threatened to throw out my comic book collection. She ultimately acted on that threat, and the entire collection disappeared one day. By the way, I'm not saying anything bad about my mother, because there was a certain logic to her action. This is an aside, but you may or may not know that in the 1960's, the comic book industry was subject to a major Congressional investigation, which resulted in the establishment of the comic book code. They sought to establish a standard of ethics to control the level of prurience in comic books. There were certain comic book characters, an example being Wonder Woman, about whom various members of our society felt that, how shall I put it, the attire of Wonder Woman in these comic books was not appropriate for viewing by 11-year old boys. It was the subject of an actual Congressional investigation, conducted during the Vietnam War era, which is interesting to note. They didn't have hearings on the Vietnam War, but they did have them on comic books. Anyway, that was an aside.

My mother had reasons for her point of view, but my father was of a much more philosophical turn of mind. He felt, and I agree with his view, that anything you study rigorously builds your knowledge base, and that all knowledge is basically unified. It doesn't matter what you study, as long as you study something. The basic principles of learning are the same whether you're studying comic books or you're studying quantum physics, as long as you're devoted to something. He would try to encourage me to expand my knowledge of comic books, and today, we're going to talk about the basic topic of comic books

Comic books are a global phenomenon. There are comics from all over the globe; for example, *Astérix & Obélix* in France and *Tintin* in Belgium. I became familiar with the comics from many different nations, and it was an opportunity to learn about other cultures. It was a really good experience.

Anyway, back to America. One of the reasons I chose this topic for today's lecture is that there were basically two comic book companies in America: DC Comics and Marvel Comics. DC stands for Detective Comics, so now you already know a little fact about comic book history. DC had Superman, Batman, Wonder Woman, Green Lantern, and The Flash. Marvel had Captain America, The Hulk, Thor, X-Men and Ironman. I had Ironman Number 1 in my collection. It was in perfect condition, and today it would be worth a lot of money. Of course, it's gone now, but I did have it.

The question before us is, even if you knew nothing about investing, how could you apply your knowledge of comic books in an investing sense? What could you have done with it? Everything we talk about from here on will be an answer to that question, and will demonstrate that, if you can gain knowledge of comic books, you can gain knowledge of anything. Incidentally, there's a very good book called *The Physics of*

Superman, which is a way of learning physics by reviewing Superman comics. Are Superman's feats possible or not?

The first appearance of Superman was in June 1938 in Action Comics, Issue Number 1. Superman wasn't an immediate success; and it took a few years before the world recognized the virtues of Superman and began to enjoy that character. At that time, the comic book industry was not quite a cottage industry, but it was not a business the way it is today. It took approximately 30 years for the large corporate world to understand the value of comic books. Incidentally, Batman first appeared in May 1939 in a publication called Detective Comics Number 27. Superman and Batman did not appear simultaneously, but they were in the same era. The creator of Batman was a fellow by the name of Bob Kane. I think he died several years ago. Superman was created by two people: Jerry Siegel and Joe Schuster.

No one likes comic books; you either love them or you're not interested in them. That's an important fact to know. If you went to the San Diego comic convention and you walked around there for five minutes, you would immediately see that the people there are not merely interested, they love it. That fact tells you something in a business sense right away: there isn't a lot of price sensitivity for the product. (So, who knows what an Ironman Number 1 in pristine condition like mine was would sell for today?) That demand is a gauge that tells you something about the potential market, and the margin that can be achieved on a product.

In 1969, DC Comics was acquired by Warner Entertainment, which is now part of Time-Warner. Think about that for a second. In 1969 they acquired it, and clearly by 1969 Batman and Superman were each a phenomenon, but the first Batman movie wasn't made until 1989. It took 20 years. If you were looking at a Warner balance sheet in the 1970s, and you reflected that one day maybe there'll be a Batman movie, and a Superman movie, too, how would you assign a value to the possibility that one day there could be a movie?

I'll help you out a little bit by telling you that the 1989 Batman movie had a budget of \$45 million and the gross was \$411 million. The company made almost a 10x return on its investment. The copyright to Batman was intangible from the start, so its value on the balance sheet was nil to begin with, but it had potential. If you did nothing other than financial analysis, how would you know about its value unless you employed inductive analysis? For inductive analysis, you just collect facts about the company. You wouldn't have to be sophisticated and trained in finance to realize that the Batman copyright was potentially worth something if applied to a use other than a comic book, like a movie. It's the logical extension of a comic book. As a matter of fact, it took 20 years before even the company realized it could do that. It wasn't so obvious.

It was 1992, three years later, before the company made the next Batman movie, which was called *Batman Returns*. For the second movie, the budget was \$80 million. Let's say that you knew nothing but that fact. You could've read somewhere that *Batman Returns* is in production with a budget of \$80 million; that information was clearly in the

public domain. It might have appeared in the Time-Warner annual report for that period, or the Form 10-K. I didn't go back and read the Time-Warner 10-K for that time period, but it's not inconceivable that the movie budget information was there. If it wasn't there, it might easily have been in some other publication.

As an analyst, you know that if they're going to almost double the budget by spending \$80 million for *Batman Returns*, the only way they can get the same rate of return would be if they made double the gross amount of the first. If the gross in 1989 was \$411 million, they would need to gross \$822 million. How many movies are going to gross \$822 million? Even today it's almost impossible to achieve that, so it wasn't likely to happen then. Therefore, even if you knew the budget of the second Batman movie and nothing else, then you would know that the marginal return on capital invested for that company would decline.

The company would know that fact, too, which is probably one of the reasons that it made investments like AOL. They may regret that now, but you can see the logic of it. If you accepted the premise that the marginal rate of return would decline, obviously you wouldn't want to engage in that activity anymore. Nevertheless, to have a budget of \$80 million and have a gross of \$282 million is not a bad investment, so a lot can be said for undertaking it anyway.

Three years later, in 1995, the company made another Batman movie called *Batman Forever*, which I believe is the only Batman movie that was nominated for three Oscars. With the Oscar nominations, the comic book became recognized as an art form. That movie had a \$100 million budget and grossed \$336 million. Though the rate of return on capital continued to decline, the company was still making a lot of money.

One powerful influence on the rate of return on capital was that Warner owned the DC Comics copyrights. If the company hadn't owned the copyrights, it would have had to pay for the rights in order to make the movie. I understand that there's an Ironman movie coming out, but Ironman is a Marvel Comics character; therefore, whoever makes the Ironman movie will have to pay Marvel a royalty for the use of the characters. Let's say that Ironman was coming out at the same time as Batman and you were comparing the two companies. It wouldn't be unreasonable to assume equal audience acceptance for both movies. If that were the case, then you would have to know that the competitor of Time-Warner would have a lower return on capital, all other things being equal, because it would have to pay royalties on the copyright, but Time-Warner wouldn't. The hurdle rate for having a rate of return on capital equivalent to Time-Warner would mean that the other company would have to make up for the royalty payments by increased audience acceptance, which is a much harder to do.

The latest Batman came out in 1997 and is called *Batman and Robin*. Notice how the movies were three years apart, and then two years apart, which might have been a tactical error. The budget for this movie was \$125 million and it grossed only \$238 million. It was a commercial success, but not anything like what it should have been given the

budget. The Batman movies are all part of the library of Time-Warner, and to my knowledge, they're not making any Batman movies right now.

You should begin to understand why certain strategic investors are trying to buy a stake in Time-Warner. The idea is that there are dormant assets that are not being exploited, not the least of which are these movies. The assets are on the balance sheet for essentially nothing, and they presumably have some value. They could either be monetized in the private or public marketplace, or turned to some productive use.

The earnings and cash flow reflected on a Time-Warner income statement are not representative of what the potential is; it's merely the actuality. An investor could decide to buy a large stake in Time-Warner, and may even pay a premium for it, because they could push for a higher rate of return. You can see the thinking behind someone engaging in that investment. The next time you read in the paper that an investor offered to pay a premium for a stake in a company, that's what's going through their mind.

We talked about Batman, but I deliberately didn't talk about Superman yet. There have been some Superman movies, but we haven't seen Superman movies for a very long time. Why? Well, we have to go back in history to understand it, which is why history is so important.

Jerry Siegel and Joe Schuster created Superman during the Depression, and they sold the copyright to Detective Comics in 1938 for \$130. At that time, \$130 seemed like a lot of money. Superman didn't appear in Action Comics until 1939. At that time, they didn't know it was going to be a huge success. So, from roughly 1947 to 1978, Siegel and Schuster tried to recapture the copyright through various legal means, but they succeeded only in gaining a small annuity. The Siegel family filed to reclaim the copyright in 1999, but as a result of the Copyright Term Extension Act, also known as known as the Sonny Bono Copyright Extension Act, the copyright was extended. The Act basically extends the then existing life of a copyright to the life of the author plus 50 or 75 years, depending on the circumstances. This law made it possible for the heirs of Jerry Siegel and Joe Schuster to re-file their lawsuits.

On March 26th, 2008 the Federal Court in California ruled that the Siegel Family copyright lawsuit can proceed. It's going to get a hearing in May. With that knowledge, let's say that they're thinking about breaking up Time-Warner and maybe certain activist investors are trying to force the company to sell DC Comics to them. You don't know, however, whether or not they actually have the copyright to Superman. Clearly it's very valuable, but maybe it's in question. You really have to think about that.

If your approach to the company was to merely look at the financial statements, you wouldn't see this potential problem. Inductively, you would gather information about the company that you sift through. Obviously, I look at the financials; I'm not saying don't look at financials. The problem is that when an analyst looks at nothing other than the financials, and concludes only that a company has no debt and has a P/E of X, it's like taking a color photograph and only looking at the negative. You don't know what

substance there is behind it, and the financials only tell you so much. If you were just gathering information on a company without reaching any conclusions as to its desirability for purchase and/or sale, and you're trying to separate the relevant information into two categories according to its relevance or lack thereof, then everything I told you so far would land in the relevant pile.

Let's take it a step further. The legal doctrine upon which Jerry Siegel and Joe Schuster's heirs are proceeding against the company in question is the statute of the Copyright Extension Act. Therefore, as an analyst, you should realize that it must be at least theoretically possible that other people are either proceeding on that basis or are considering it. You'll find out in a moment that they are. For any company that has the kind of intangible value like a copyright, you really have to think about the probability that it might at some point lose that value, even though it might only be a temporary loss. That situation is why I want to come back, if we have time, to the subject of paradoxes that I talked about at the beginning of the lecture.

Here's a little ironic twist about someone who you wouldn't know. There was a comic book creator known as Will Eisner. The name probably means nothing to you unless you're a comic book buff. Back in the 1930s, in addition to DC and Marvel, there were also some lesser companies, and one was called Eisner & Iger. Bob Kane, the fellow who created Batman, actually worked for Eisner & Iger, so they could've had the Batman copyright, but Bob Kane merely went somewhere else and the company lost a valuable asset.

Before selling the Superman copyright to DC Comics in 1938 for \$130, Joe Schuster and Jerry Siegel approached Will Eisner of Eisner & Iger and offered to sell the Superman copyright to him. He rejected it, because he couldn't see the value. He could have had both Batman and Superman.

Will Eisner eventually became a noted figure in the world of comic books anyway, not as a business leader, but as one of the creators of the graphic novel. A graphic novel is a novel in comic book form. It's a hardcover book that looks like a comic book on the inside, but it's really a book; it's actually a novel. Graphic novels are now recognized as an art form. As a matter of fact, over the last 60-some-odd years, comic books themselves have achieved scholarly recognition, believe it or not. If this were a field trip, I would take you to the New York Public Library to show you some of the scholarly articles written about comic books. The articles have been written by university professors of literature, I might add.

Superman was born on the planet Krypton, and you might know that Superman's Kryptonian name is known as Kal-El. The scholars say that Kal-El is actually a denaturation of the word, and it should be pronounced "Kol-El". Kol-El in Hebrew is the voice of God. So, scholars actually write articles on comic books but, since the name "comics" doesn't sound academic, the scholarly name for comic books is "sequential art." As a matter of fact, Will Eisner wrote a book called *Comics and Sequential Art*. The name had to be changed to gain scholarly attention. It's called sequential art,

because the story moves from one frame to the next as opposed to animation in which the frames change very slightly from one frame to the next to simulate movement.

Let's say that you're interested in comics and you get a job following stocks at a big firm, but they don't put you in the consumer products group. Instead, they put you in the real estate group since they were short-handed. You so wanted to follow consumer products, because you wanted to demonstrate and apply your knowledge of comic books. Here's the question I want answered. With the knowledge of comic books that you acquired, not only through what I told you, but through your own "studies," can you apply it to real estate? The answer is yes. Here's an example of how it could be done. It shows that my father was right, that knowledge actually has a universal application; it doesn't matter what the knowledge is.

In Southwestern France, there is a town called Angoulême on the River Charente that is not far from the city of Bordeaux. Believe it or not, the annual International Comic Book Festival is held every year in January in Angoulême. The comic book festival was first created in January 1974, and it's reprised every January. The normal population in Angoulême is 43,000, but the Comic Book Festival attracts 250,000 visitors from around the world. Imagine how that affects business for the local hotels, restaurants, and the price of any piece of real estate in the vicinity of Angoulême. In your hypothetical job, your knowledge of comic books and this festival could inspire some interesting real estate investments. As a matter of fact, you could probably make better real estate investments than the real estate professionals would. Why? Because you would know that the International Comics Festival is to the world of comic books as the Cannes Film Festival is to the film industry; it's that big.

The International Comics Festival is organized under the authors' names. The names might not mean anything to you but, for example, they feature many sections on Burne Hogarth who created the *Tarzan of the Apes* comic strip. Burne Hogarth wrote all sorts of textbooks on how to draw comic books. People are attracted to this sort of thing. With your knowledge of comics, you would know that people who are in, or want to be in, the comic book business will be at the festival. To them it's a money-making opportunity.

Someone else, without your knowledge of the comic book world, might look at properties you would bid on and would analyze them through the lens of the discounted present value of the cash flow, and would forecast the cash flow of the property in question with a normal inflationary escalation. You would know that such an approach is ridiculous because, whatever the normal rate for a hotel room is, it will double, triple or quadruple every year during the Festival.

Angoulême is famous for its cognacs. I don't know this for a fact, but it is said that the reason Angoulême was chosen as the site for the festival is that most of the authors enjoy cognac. The festival itself is author-centric, so it might be true. In 1974, if you had known about the plans for the festival, because of your knowledge of the comic book world, you could have made a fortune in real estate, an absolute fortune, and you

wouldn't have had to know anything about real estate. It would be your knowledge of comic books. It shows that you don't have to be able to read a balance sheet to be a successful investor; I personally think that's incredible.

The graphic novel was first recognized at Angoulême, so the festival started an industry. There's a very famous graphic novel written by Art Spiegelman called *Maus* that won a Pulitzer Prize in 1992. It's about someone trying to survive the Holocaust. *Maus* was first recognized at Angoulême. Today there are many graphic novels; you might not be interested in reading them, but many people are.

Time-Warner is a leader in the graphic novel business, and it's just at the beginning. Knowing that graphic novels are now a recognized art form, that many people are interested in reading them, and that the leading company is Time-Warner, you would look at the portion of the income statement related to income derived from graphic novels and realize that it does not represent the potential, by any stretch of the imagination. Therefore, if you were to buy the company at a given price and a given P/E ratio, you wouldn't be buying it at the P/E ratio indicated based on its historical earnings, but would be buying it a much lower P/E ratio, by making even a modest assumption about what the graphic novel could theoretically generate. Interesting.

My dad encouraged me to learn about comics from different countries. In Japan they have manga, which is a different genre of comics. In Belgium they have *Tintin* written by Hergé, which is code for the reverse initials of the real author, Georges Rémi. When his initials are reversed to be R.G. and are pronounced in French, they sound like Hergé. *Tintin* first appeared in 1929, and is very popular in the francophone world. Unfortunately, for Georges Rémi, the Belgians accused him of being a Nazi sympathizer. To my mind, there doesn't appear to be any evidence that he actually was a sympathizer, but Belgium was occupied during the war, and he was so accused. As a result, there was always some degree of stigma attached to *Tintin*, so it never got the universal distribution that other comics from Belgium have gotten.

If you saw that someone was negotiating to buy the rights to *Tintin*, and you knew about comic books, you also would know that there are a lot of people who won't let their kids read *Tintin*, because they think that Georges Rémi was a Nazi sympathizer. They would object to having their kids read *Tintin*.

It turns out that Steven Spielberg's company, DreamWorks, happens to own the rights to *Tintin*, but has not yet produced a movie. Since Steven Spielberg produced the movie *Schindler's List*, he might be able to pull off making a movie of *Tintin*. I don't know what he paid for it, but he probably didn't pay a lot for it. If a *Tintin* movie comes out, there are certain parts of the world where it might very well be popular. One day we're going to get a *Tintin* movie coming out of DreamWorks, and it has a good chance of being a hit. The analysts might not have heard of *Tintin*, so they'd assign a very low probability of it being a hit, but if you knew, you would value the company entirely differently.

Does anyone know what a Smurf is? If you were really familiar with the cartoon, you would know that it comes from Belgium where they are called *Les Schtroumpfs*. Obviously in America that'd be a little hard to pronounce. The pen name of the cartoonist who created them was Peyo, but his real name was Pierre Culliford. He sold the North American rights to *Les Schtroumpfs*, which ultimately became *Smurfs*, to Hanna-Barbera, the creators of The Flintstones. Time-Warner ultimately bought Hanna-Barbera, so Time-Warner has the Smurfs.

What is Time-Warner doing with the Smurfs? Not very much at the moment, because there are questions about the copyright. You wouldn't want to invest a lot of money in bringing a product to market if the copyright was at all questionable. Therefore, the earnings that Time-Warner gets from this business are probably not representative of what they could get in a different mode. Now you see why certain strategic investors, like Carl Icahn, are interested in Warner. We've gone through a lot of examples in which the value of certain assets on the balance sheet is zero, or next to zero, and they are not properly understood or valued, nor can they be, given the restraints of balance sheet valuation principles.

Merely as an aside, Smurfs are one of the few children's cartoons ever to win an Emmy Award. They are well-known in North America. One day the Smurfs might generate a lot more money. How many movies are there that are wholesome enough to let your kids watch? The Smurfs are one of them. I'm not saying that it would happen, but if it ever happened that the business that includes the comic books, and maybe some other assets, were spun off by Time-Warner, you can see why I, for one, would be very intrigued by such an action. In its history, Time-Warner has engaged in transactions of that type, an example being the spin-off of Time-Warner Cable. If that were to happen, a part of the company that appears to have no value within the larger company would be disaggregated from it, and its value could become visible. I would be analyzing that.

Did any of you ever read *MAD* magazine? Did you like it? Today we laugh but, in its day, *MAD* magazine was very controversial. Incidentally, *MAD* magazine is also owned by Time-Warner. Let's talk about its recent incarnation and then talk about its history. Has anybody picked up a recent copy of *MAD*? Nobody wants to look at *MAD* magazine. You know why you don't read it? I'll tell you why. The reason you don't read it is, because starting in 2001, I believe, the format of *MAD* magazine changed. Historically, if you think back to your *MAD* magazines of the 1960s and 1970s, they had no advertisements whatsoever. It was entirely reader supported. In 2001, I believe that was the year, they went to an advertising format.

Think back to the things that you would have seen appear in the old *MAD* magazine. You all have your favorites. Instead of Donald Duck, they would have "Darn Old Duck". Or, instead of GI Joe, they would have "GI Schmo". It wouldn't be the same thing if you had to turn to page 87, because there were several pages of commercials. If someone acquired it and recast it in its old format, they might make a lot of money.

Everyone knows that the Internet is displacing the print media. In its day, I believe that *MAD* magazine had at its peak subscription 900,000 readers. Just think of the physical cost of printing and distributing 900,000 copies without any advertising support. Economically you see how hard it would be for that to work. There's some experimentation going on at Marvel Comics and at DC to have a digital Internet-based archive. So, if you were a subscriber of *MAD* magazine, you wouldn't get a hard copy of it, you would view it on the Internet.

You might not like to read it on the Internet, but we now have computers with good enough graphics to have the images occupy the whole screen, and they can be manipulated. For the first time, it's possible to deliver superior graphic quality through the computer. You may recall that the earlier version of *MAD* magazine was basically in black and white. Now you can change all sorts of features when viewing it on the computer. There is some dispute among business owners on how this change is going to be received, but maybe there could be a non-advertising supported model.

We haven't talked about Marvel yet. It was founded in 1939, about the same time as DC Comics. Marvel went an entirely different route from DC. Here are some of the Marvel characters: Spiderman, X-Men, The Fantastic Four, Thor, The Hulk, Captain America and Ironman. There have been movies or television shows made about those characters. Marvel is a publicly traded company. We have learned two things already. First, when a company makes a movie using any of the Marvel characters, that company will have, *ceteris paribus*¹, a lower profit margin than one that owns the rights to the characters and material it uses, because it would have to pay royalties to Marvel. If any of the movies that are made using Marvel characters were to be a big hit, the profitability of Marvel could go up a lot.

Let's say that the Ironman movie that's planned turns out to be a big hit. Since Marvel has a much smaller market capitalization than Time-Warner, and since it merely would be renting out a license for the use of its intellectual property for which the marginal cost is zero, it would have lower risk, and no investment of capital, so its marginal return could be enormous. All else being equal, Marvel would have a higher profit margin than Time Warner, and would be a much more interesting investment.

What have we learned so far? We learned about market capitalization, marginal return on capital, balance sheets and off balance sheet assets. There were a lot of important concepts included, and all we talked about was comic books.

American comic books have penetrated various parts of the world. The foreign characters, for historical reasons, have not yet penetrated America. In the other parts of the world that we'll talk about in a second, they had comic books and they had characters, but their production was disrupted by war and then poverty. It took a while for the industry itself to develop.

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¹ Ceteris paribus is a Latin phrase commonly used in the field of economics that means all else being equal.

Comic books are clearly a luxury, though you might not think of them as luxuries, but they are. You can lead a very nice life without ever looking at comic books. It took a long time before the comic book industry in the rest of the world began to establish itself as such. You might say, in the sense of global penetration, that the non-U.S. comic book industry could be 30 or 40 years behind the one in the U.S. It's just a matter of time before something from another country enters the Anglophone world.

If you were to acquire the rights to a comic book character popular in another country that has a limited linguistic scope, how many people could they possibly attract as readers? If you were an investment banker, or you happened to work for Time-Warner, and you made a specialty of going to different countries in search of comic books that you think could find an audience in the Anglophone world, you might be able to purchase it cheaply. Finland has comic books, Denmark has comic books. If you could translate it to the American market, it might become a big success. Translating it to that market, however, entails more than just translating the words; it means translating it culturally.

In Italy there was a comic book creator who's the Italian version of Joe Schuster, Jerry Siegel and Bob Kane. His name is Hugo Pratt. He wrote a comic series called Corto Maltese, which is basically a comic version of books like *Treasure Island* by Robert Louis Stevenson. If you were to read that a company like DreamWorks was buying the rights to that comic book, I don't think DreamWorks has the rights to it, but if they did, you would see how that could be very profitable because, in conception, Corto Maltese is not that far removed from *Raiders of the Lost Ark*. If they made that into an animated film that is wholesome enough for children, which *Treasure Island* is, then you could gauge what the marginal return on capital might be for Dreamworks. And you could accomplish that by either reading comic books, or going to the comic book conventions; that's all you would need to do.

Argentina had a comic series called Mafalda; I think they still have it. Mafalda has a hidden political agenda, because of what happened historically in Argentina. The main character is a six-year-old girl who has very strong political views. Her name is Libertad, which means freedom in Spanish. What wouldn't have been tolerated in an editorial did slip through in a comic book designed for children. Of course, to translate Libertad to the Anglophone world would be very difficult. It wouldn't be difficult to translate the simple Spanish into English, but the context wouldn't be the same. We never really had a repressive dictatorial regime in the Anglophone world. If you were working for one of the movie companies, you might not be that interested in buying Mafalda. Alternatively, if you saw that someone had bought Mafalda, you'd have to think that it would be very hard to make it into a movie, and it might be a low return on capital investment.

If you ever saw it, Mafalda resembles the Peanuts comic with Charlie Brown. It actually has that look and feel to it. You could say that it's a South American Peanuts. It turns out that since October 2007, Time-Warner has also acquired the rights to the Peanuts comics. In the course of this lecture, I've told you about Time-Warner acquiring the rights to many different comic book characters and entities. They have been acquiring these rights with terms undisclosed, which means that the acquisitions were not material

to the company. If they were material, by law they would have to disclose the terms. They're not paying a lot of money for any of these properties because, given the Copyright Term Extension Act, the copyrights, in theory if not in actuality, could be subject to some dispute, which makes it possible to buy the copyrights cheap. Time-Warner has been quietly buying up all sorts of copyrights. Therefore, there must be, by definition, a considerable amount of latent or potential earnings that you should think about when you look at that company.

Another comic, Calvin & Hobbes, is named after historical personages. Calvin is named after John Calvin, the theologian, and Hobbes is named after Thomas Hobbes, the author of the philosophical political tract, *Leviathan*. Calvin & Hobbes is owned by the somewhat reclusive creator and artist, Bill Watterson, who has always been against selling the rights. He didn't believe that Calvin & Hobbes should ever be commercialized, but his heirs might have different views. Usually what happens is that the heirs don't have the same views as the parents, so maybe one day you're going to see somebody very cheaply acquire Calvin & Hobbes and perhaps they'll do something with that.

One more comic, and then we'll go back to this whole business of logic and risk. *Astérix & Obélix* was invented in Belgium, and in the francophone world they are very big. I think there have been nine *Astérix & Obélix* movies featuring French movie stars comparable to the stature of Michael Keaton who was in *Batman*. The creators of *Astérix & Obélix* are René Goscinny and Albert Uderzo. I believe that Goscinny is dead, but I think Albert Uderzo is still alive. Their company is called Les Editions Albert-René. That company is involved in a very interesting copyright case that has been started in Germany, and it appears that it's going to be a worldwide case. Due to the popularity of *Astérix & Obélix*, they claim that any product nomenclature, trademark, or name for a product that ends in a vowel and then X is infringing on their copyright. Examples would be Linux, the operating system, or Unix, the operating system. That's what they claim. If they win that case, think of all the names in the world that end in a vowel and an X; there are quite a few. So, that's what they claim.

It's a question of interpretation of what their copyright embraces. Why are they pursuing their copyright that way? If you ever saw the comic book, or even saw a movie of *Astérix & Obélix*, you would see that it's all puns and wordplay, which in French is very funny but in English it wouldn't translate very well. So, for example, in the cartoon they might have a character whose name is Madame Sasoeur, which is plausible as a French name. In French, sa soeur means one's sister. The play on words would be the confusion between whether the characters were talking about Madame Sasoeur or about someone's sister. While that word play works in French, there is no plausible name in English that sounds like "his sister" so it wouldn't translate very well. That limits the opportunities that the comic has for mass international appeal.

As a result, *Astérix & Obélix* never made it in the Anglophone world, so maybe it'll be destined to remain in the francophone world, unless the various European courts find that the copyright really was infringed upon in the manner that I described before. If that

were to happen, it could get very interesting. The suit has been dismissed many times in the past, but if it were to be successful, and it had universal acceptance (which is unlikely), then since the U.S. is a signatory on the National Copyright Treaty, in theory, it could affect many U.S. companies. That information would be significant if you had investments, or were contemplating investments, in the affected companies.

There's no inside information here; it's all in the public domain. If you followed this copyright issue, and you saw that they had actually won their case, you could engage in some very interesting trades by being short companies that would have a claim put against them. That doesn't mean that the claim would be upheld, but there's no question that it would affect the valuation, because there would be a risk that the suit might be upheld.

At this point, let's return to how all this verbiage, inductive logic and gathering of facts relates to valuing companies, at least insofar as establishing a very primitive version of risk premium. If this copyright case were upheld, any company that had a name ending in a vowel followed by an X would have a probability that some portion of its cash flow would be seized by another entity. Therefore, its valuation, all other things being equal, would have to be lower. In other words, in order to encourage someone to buy those shares, because the shares would still trade, the seller would have to price them lower in order to offer the buyer a higher prospective rate of return, at least as a potential outcome, for taking a chance that maybe it's going to be a lower prospective rate of return.

We've stayed in popular culture throughout this lecture so far, so we'll continue in that vein. Did any of you ever watch the television game show called *Let's Make a Deal*? Monty Hall was the show's host. He would choose someone from the audience, and they would be given a choice of door number one, two or three. Behind door number one might be some piece of merchandise worth \$1,000, but it also could be something worth nothing. Behind door number two could be some other piece of merchandise worth \$1,000, or worth nothing. He then gave the contestant a third choice of taking \$500 in cash immediately.

The logical approach would for the contestant to say that one of the two doors is going to have nothing. If I'm going to pick door number one or door number two, I have a 50% chance of getting zero and a 50% chance of getting something worth \$1,000. Therefore, my expected rate of return is 50%, or 0.5 times \$1,000, plus 0.5 times zero. Since anything times zero is zero that leaves the expected rate of return at 0.5 x \$1,000 or \$500 to compare with the choice of getting \$500 cash.

Since the expected rate of return from picking a door would be equivalent to the offered guaranteed rate of return of \$500, if they were logical, every contestant would choose the \$500. Let's say Monty Hall realized that if everyone picked the \$500, there would be no game. The whole idea is to have a game that's interesting, or you'll have no ratings. You have to get people to pick one of the doors, and the only way to do that would be to create an incentive for choosing one of the doors. If you let door number one or door number two still have a chance of being zero, it would keep some risk in the game to

make it interesting. The risk would be that when people pick the wrong door, the curtain is pulled and they'd say, "Oh, you're out of luck." They wouldn't get anything. People actually enjoy that.

I you added the possibility of winning merchandise worth \$2,000, what would be your expected rate of return? You would still have a 50% chance of getting zero, but you also have a 50% chance of getting \$2,000. That makes the expected rate of return \$1,000 compared to the guaranteed rate of return of \$500. In that situation, since you haven't risked anything, that is, you haven't invested any money, then it's more logical to take the chance. Many people, however, would still take the \$500, and if that was a common risk preference, then maybe you would have to make the prize \$3,000 or \$4,000 or \$5,000 until it's so high that they can't resist taking the risk.

That consideration of risk vs. reward is what happens in the marketplace. As we just discussed regarding comic books and the suit filed by Albert-René, there's a set of circumstances that lead to, not the certainty, but the possibility, even if it's very remote, of an outcome that would be unfavorable. The way the market reacts is to balance the risk against the probable return by placing a risk premium on it.

The Bottled Genie Paradox illustrates the problem of establishing a selling price given the risk of suffering the consequences if a buyer could not be found. The risk premium effectively creates opportunities that are highly favorable so that a clearing price can be established that offers the potential for a higher rate of return. That's the reason why you're better off buying, not selling when the price goes down and people start saying negative things, because the prospective rate of return via the action of the market and the application of the risk premium has now altered the odds more in your favor. It's not a guaranteed rate of return, because there's still the chance of an unfavorable outcome, but that's how the market mechanism works.

What other people would call volatility, I say is merely the application of risk premiums that create a new spectrum of outcomes, many of which are much more favorable than the originals.

I'll stop there and open it up to questions.

Q: Since you can't quantify the investment, on what basis do you make an investment in companies like DreamWorks, Marvel, Time-Warner and others like them?

A: Actually, you can quantify the investment, because the company is not without earnings and cash flow. Those aspects of the business that have earnings and cash flow, such as they are, can be valued. Let's say that, relative to other investment opportunities, the assets or company in question have an average valuation, speaking in generalities. However, you have this other outcome; it might be zero, but you're not paying for it. It's no different from choosing door number two, which offers the possibility of gaining several thousand dollars and costs you nothing. All you have to do is get Monty Hall's attention, so even if door number two has nothing in it, you're none the worse for wear.

If you look at Time-Warner you say that, well, I have the Smurfs, Superman, Batman, and whatever else the company happens to own, that are not making any money for me right now, but I'm not paying for it. In that instance, through the market mechanism, you are effectively acquiring the rights to all those copyrights, and you're not paying for them. You don't know that it's going to give you anything; all you know is that it might give you something. That's not taking a chance, as it would be if you were paying for it.

If those assets ever get to the point at which they're actually generating revenue, then that fact will be reflected in the multiple assigned to the stocks in the form of a higher price, so in that case you would be paying for it. Would you prefer to get a benefit that you didn't have to pay for, or to pay for the benefit? Obviously you would want to get the benefit and not pay for it; therefore, you have to get it while it's unquantifiable and wait. That's what's known as a dormant asset.

If there are no further questions, then we'll adjourn until next week.