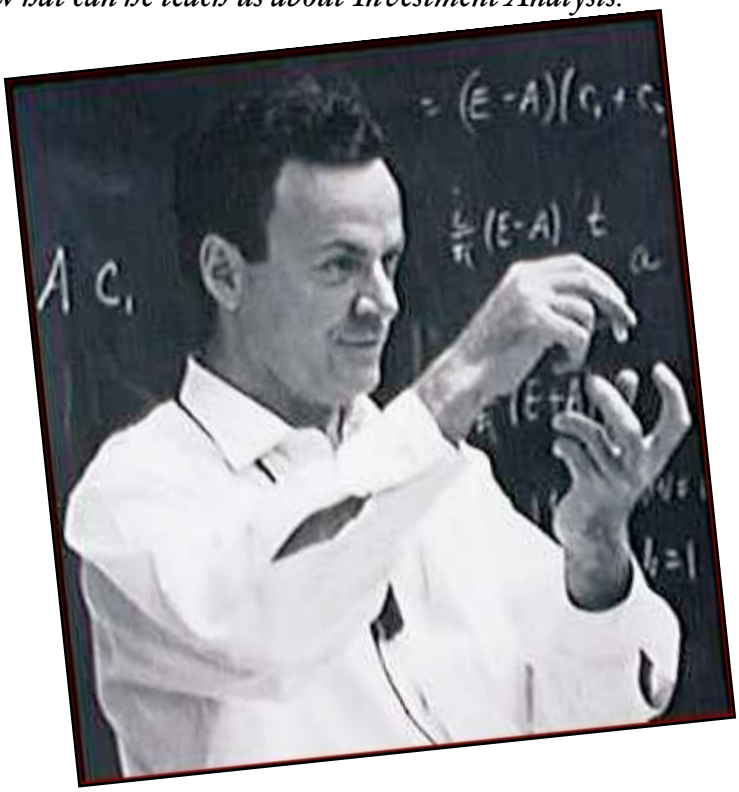
BFBV NEWSLETTER

Legendary Investor Richard Feynman

What can he teach us about Investment Analysis?



As far as I know, Richard Feynman never bought a stock in his life. If he did, he never talked about it or about his "investment acumen." But he should have...

Feynman was not only a great physicist, he was also a great teacher.

Many of you in my class are Engineers and would have heard of Feynman and read about him in your Engineering college or perhaps even your School. And those of you who are not Engineers might have also learnt about him.

I discovered Feynman in 1984, when I was in College pretending to study commerce while fooling around with my girlfriend.

But my kid brother was studying science in school and one day I saw this book on his bed: "Surely You're Joking, Mr. Feynman!"

I picked it up and started reading it. I could not put it down. And I could not stop laughing as I read it. Oh yes that was a very good book by a very funny man!

Fast forward 20 years. In October 2004, when I was teaching the first batch of BFBV at MDI, Punit Sanwalani, a student in my class, sent me one of Feynman's famous lectures "Cargo Cult Science."

Hi,

Some readers of the first issue of the BFBV newsletter have sent me remarks about how much they loved reading it etc etc... Thank you for writing to me. I appreciate it.

Here is the second issue of the newsletter. I don't know how this is going to evolve. It might take the form of supplementary notes to my lectures, or it might become something else. It really doesn't matter!

I do know that at this time I am enjoying writing this and I hope that you will continue to enjoy reading it!

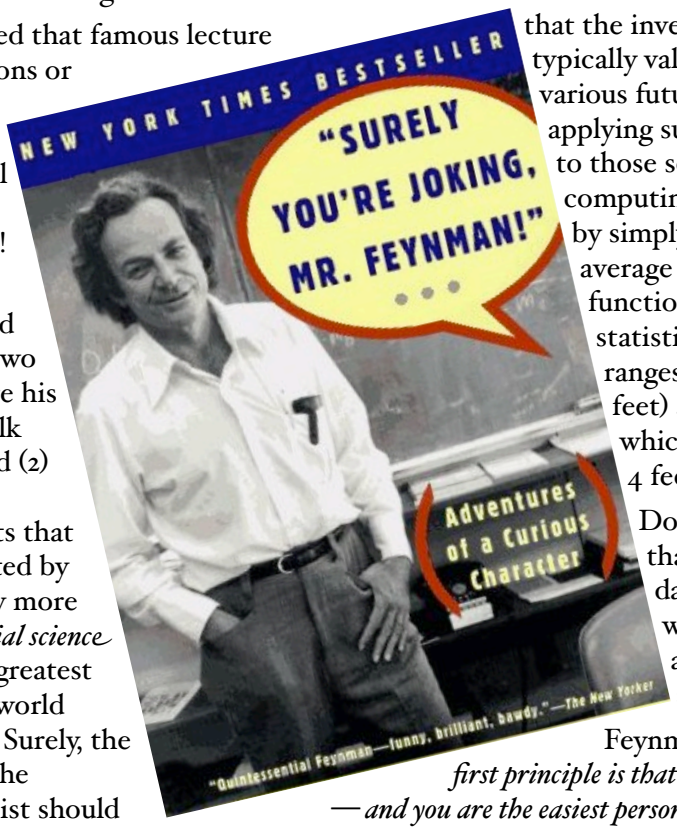
This one is dedicated to Richard Feynman, one the greatest investment minds that the world never saw...

Thank you,

-Sanjay Bakshi

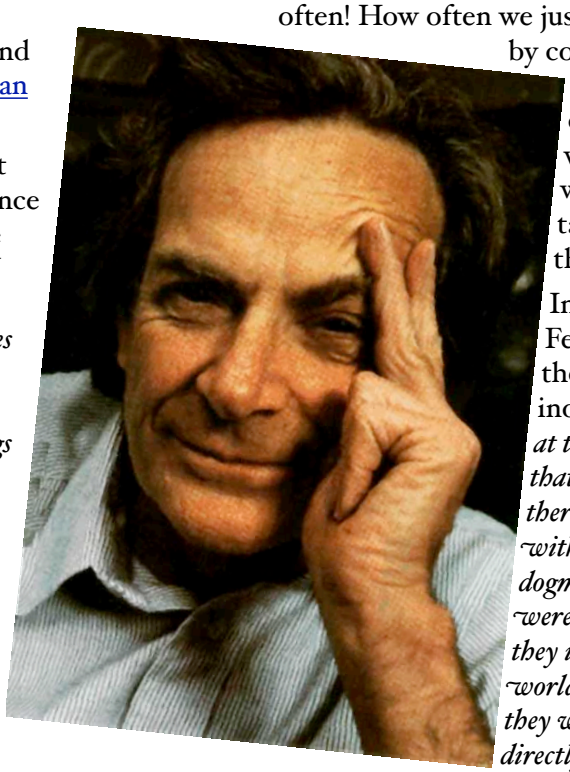
If you haven't read Cargo Cult Science, do it today. And if you have, then do it again.

Punit might have related that famous lecture to the BFBV class discussions or maybe there was another reason — in any case, I was hooked by Feynman all over again. Thank you Punit if you're reading this!



Since then, whenever I read Feynman, and watched his videos, I was stuck by two things: (1) How similar were his mental habits to those I talk about in the classroom; and (2) how naive are some of the investment research reports that come across my table created by analysts who seem to know more about the world from a *social science* perspective than even the greatest scientists know about the world from a *science* perspective! Surely, the degree of certainty about the worldview of a great scientist should be more than the degree of certainty exhibited by social "scientists"?

Let me illustrate this. Go and watch this video clip — Feynman on Uncertainty and Doubt.



Does it not bother you that one of the greatest men of science that the world has seen is quite happy to accept uncertainty (*"I have approximate answers, and possible beliefs, and different degrees of certainty about different things, but I'm not absolutely sure of anything, and there are many things I don't know anything about."*), while you are studying how to use the DCF model to value businesses? That's a model which requires you to predict cash flows more than thirty years out requiring "degrees of certainty" that Feynman would have laughed at.

Does it not bother you that DCF models use "scenario analysis" where all sometimes all scenarios are the functional equivalents of "groping in the dark"? And does it not further bother you that the investment community typically values a stock based on various future scenarios by applying subjective probabilities to those scenarios and then computing the "expected value" by simply taking the weighted average thereby becoming functional equivalents of the statistician who forgot about ranges of depth (2 feet to 10 feet) and drowned in a river which was, on average, only 4 feet deep?

Does it not bother you that a man of science can dare to say *"I don't know"* while investment analysts almost never say that?

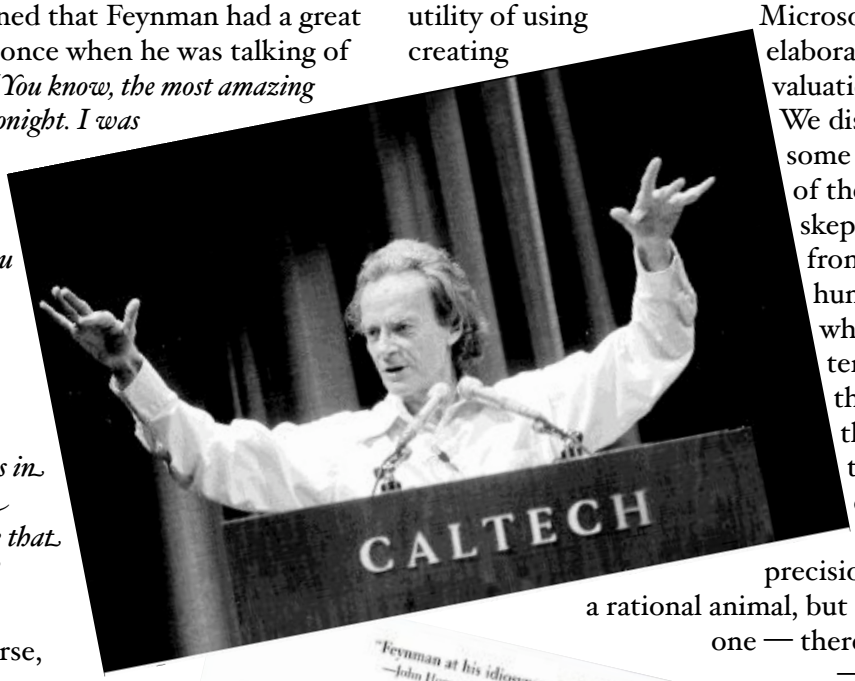
Feynman once said, *"The first principle is that you must not fool yourself — and you are the easiest person to fool."*

How true! How we analysts fool ourselves so often! How often we just believe what we are told by companies and their self-interested agents and convert that nonsense into very nice-looking reports with plenty of pie charts and tables which make the whole thing look so believable!

In one of his famous lectures, Feynman was talking about the scientific method of inquiry. He said, *"Looking back at the worst times, it always seems that they were times in which there were people who believed with absolute faith and absolute dogmatism in something. And they were so serious in this matter that they insisted that the rest of the world agree with them. And then they would do things that were directly inconsistent with their own beliefs in order to maintain that what they said was true."*

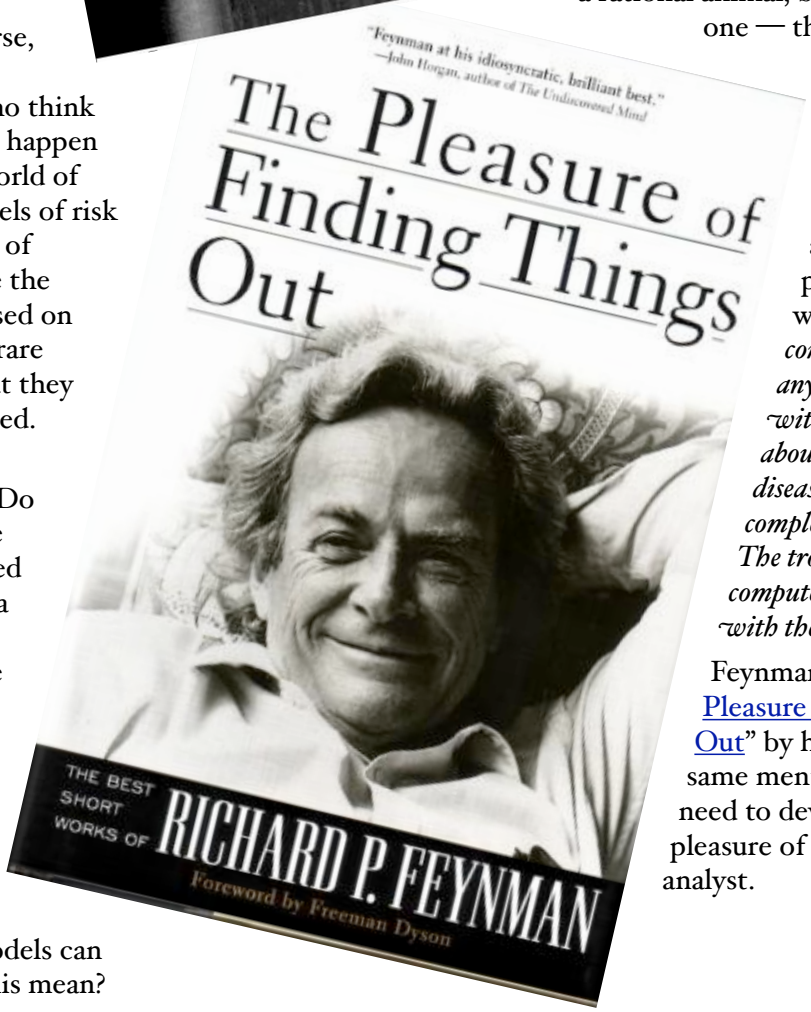
Are we sure that Feynman was referring to the worst scientific practices of the past instead of current "best" practices in investment analysis? After all, that particular excerpt was from a lecture titled *"The Uncertainty of Values."*

Earlier I mentioned that Feynman had a great sense of humor, and once when he was talking of rare events he said: *"You know, the most amazing thing happened to me tonight. I was coming here, on the way to the lecture, and I came in through the parking lot. And you won't believe what happened. I saw a car with the license plate ARW 357. Can you imagine? Of all the millions of license plates in the state, what was the chance that I would see that particular one tonight? Amazing!"*



Feynman, of course, was having fun at the expense of people who think that rare things don't happen very often. Yet the world of finance is full of models of risk like VAR and models of capital allocation like the CAPM which are based on the assumption that rare events are so rare that they can virtually be ignored.

Four sigma? Six sigma? Seven sigma? Do you realize that if the world is best described by a bell curve then, a seven sigma event is likely to happen once every 3 billion years? And do you realize that the world in the past few decades has experienced many more seven sigma events than those models can explain? What can this mean?



Feynman knew what it meant when he said, *" It doesn't matter how beautiful your theory is, it doesn't matter how smart you are. If it doesn't agree with experiment, it's wrong."*

You already know of my skepticism about the utility of using Microsoft Excel in creating elaborate models of valuation using DCF. We discussed that some time ago. Part of the reason for my skepticism arises from the biases of human nature which have a tendency to find their way into the models thru the biased man creating an illusion of precision. Man is not a rational animal, but a rationalizing one — there I said it again — many of you will be pulling your hair by now!

Feynman was aware of this problem when he wrote: *"There is a computer disease that anybody who works with computers knows about. It's a very serious disease and it interferes completely with the work. The trouble with computers is that you 'play' with them!"*

Feynman had "The Pleasure of Finding Things Out" by having the very same mental habits that you need to develop to have the pleasure of becoming a great analyst.