

STRATEGY

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# A fresh look at strategy under uncertainty: An interview

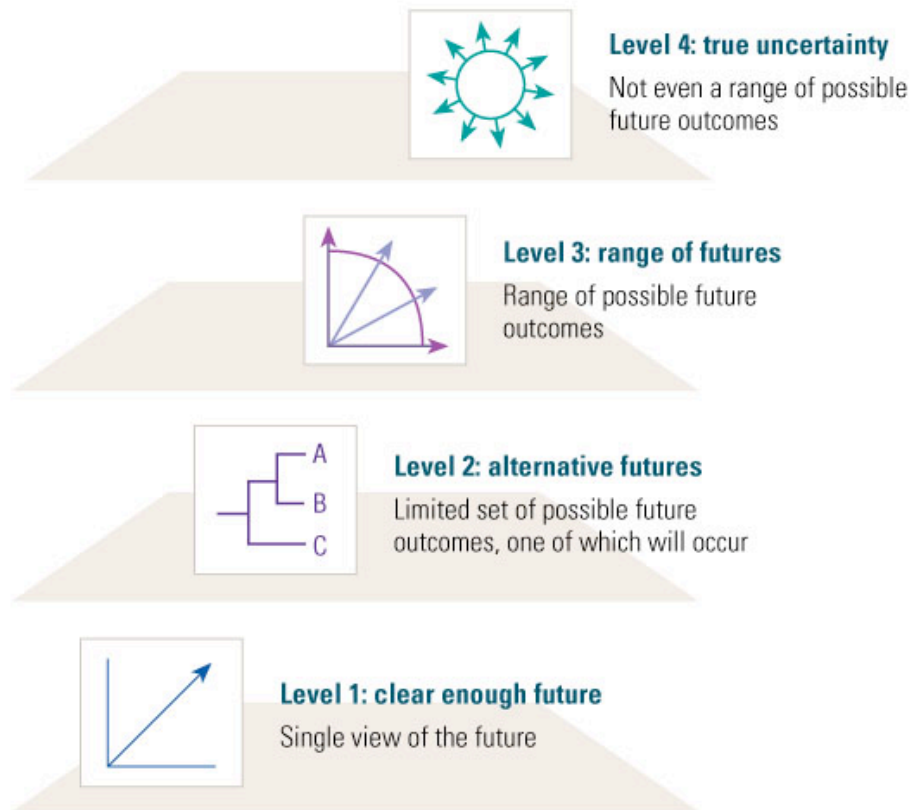
**Although even the highest levels of uncertainty don't prevent businesses from analyzing predicaments rationally, says author Hugh Courtney, the financial crisis has shown us the limits of our tools—and minds.**



Hugh Courtney's book, *20/20 Foresight: Crafting Strategy in an Uncertain World*, was published the day before the terrorist attacks of September 11, 2001. As the economist and former McKinsey associate principal recalls, in the following weeks interviewers often asked him, "Does this change everything? Is this stuff still valid? The world is so much more uncertain." Says Courtney, "The honest answer then was that the only thing that had changed was our perception of risks and uncertainties that were always there. And it's the same answer I give today about the current global business and financial situation."

EXHIBIT

**The four levels of residual uncertainty**



One of Courtney's contributions to the literature of strategy was a four-part framework to help managers determine the level of uncertainty surrounding strategic decisions. In level one, there is a clear, single view of the future; in level two, a limited set of possible future outcomes, one of which will occur; in level three, a range of possible future outcomes; and in level four, a limitless range of possible future outcomes. Courtney, an associate dean of executive programs and professor of the practice of strategy at the University of

Maryland's Robert H. Smith School of Business, discussed the relevance of this idea in a recent interview with the *Quarterly*.



**Hugh Courtney**

#### Vital Statistics

Born January 12, 1963, in Boston, Massachusetts

Married, with three children

#### Education

Graduated with BA in economics in 1985 from Northwestern University

Earned PhD in economics in 1991 from the Massachusetts Institute of Technology

#### Career highlights

##### **D&E Communications (2005–)**

- Chairman (2008–)

##### **University of Maryland's Robert H. Smith School of Business (2002–)**

- Associate dean of executive programs (2008–)
- Professor of the practice of strategy (2007–)

##### **McKinsey & Company (1993-2002)**

- Associate principal (2000-2002)
- Strategy practice senior engagement manager (1998-2000)

#### Fast Facts

- Recipient of numerous MBA and executive teaching awards
- Named one of five “Up and Comers” in management consulting, *Consulting Magazine* (December 2001)
- Consults on strategic planning, decision making, and competitive dynamics under uncertainty
- Has served on multiple non profit boards
- Enjoys what his children enjoy: professional and collegiate athletics, hiking, and the beach

The *Quarterly*. How do you evaluate the level of business uncertainty today?

Hugh Courtney: The financial crisis has actually brought greater clarity because it has forced us to recognize that we have a lot more level three and level four situations than we would have admitted a few months ago. They probably were there all along, yet the bias was toward thinking that issues were more at level one and level two. Specifically, we have learned how interdependent our financial markets are and how systemic failure in any important node of the network can work very rapidly through the system and bring liquidity to a halt. So our scenarios about the availability of capital around the world have changed significantly.

Maybe the world and the uncertainties we face haven't changed all that much as a result of the financial crisis, but our perception of risks has. That means there is a real opportunity to rethink the way we make strategic decisions, the way we plan under uncertainty. We should realize that, across sectors, for most important decisions we're actually pretty far to the right—levels three and four—in the uncertainty spectrum.

*The Quarterly*: What does that mean in practice for managers?

Hugh Courtney: Level four situations are, by definition, ones for which you can't really bound the range of outcomes, because it's anybody's guess. I'm sure we've all felt a little bit of that in the last few months. So the question is, do you just have to wing it? Is that what strategic decision making comes down to? I don't think that's true at all, but level four does require a different mind-set.

From level one to level three, the presumption is that you can do some bottom-up analysis. You can figure out what the value drivers are and do some market research and some competitive intelligence. All this may not give you a precise forecast, but you'll be able to bound the outcomes somehow. That's impossible in level four situations, by definition. There's just stuff that's fundamentally unknowable—truly an ambiguous world.

On the other hand, that doesn't mean you can't be rigorous in thinking through strategic decisions in level four. It just requires you to work backward from potential strategies to what you would have to believe about the future for those strategies to succeed. The classic example would be biotech—early-stage biotech investments have always faced level four uncertainty, because you're playing with therapies with an ultimate commercial viability that is unknown.

*The Quarterly*: How does that play out?

Hugh Courtney: You could ask, "What's the return on investment of starting up a lab in this particular therapy?" The answer would be, "Who knows?"

Honestly, no amount of analysis would allow you to bound the ROI. But say you told me the following: “We’re thinking about investing in a lab to work on a therapy. The lab’s going to cost \$10 million. Should we do it?” Of course, I could say, “Well, I don’t know.” But I could also work backward from that \$10 million investment and reply along these lines: “Say you need a 15 percent return on that investment. I can develop a scenario about the conditions needed to achieve this—what you would have to believe about the probability of finding a viable treatment, the amount of time it would take to get to market, the physician uptake rate on that treatment, the compliance rate of patients over time, what you’d be able to price it at, for how long, and how long you’d have patent protection.” I could tell you all that. In fact, I could give you a range of scenarios, all of which will give you that 15 percent return.

Now, the reason that approach would be useful is that even though I can’t do any bottom-up analysis, I can look at analogies. There’s a whole history of drug development, and I can at least place those scenarios within the range of other outcomes in the past. Then I could tell you, for example, “We know now that this project would have to be the most successful drug launch in history to earn the return you want on that \$10 million. I can’t say whether it’s going to play out that way, but are you willing to roll the dice given those odds?” Alternatively, “Hey, it only has to be as successful as the median drug-discovery process.”

In other words, you can think about a level four problem in a very structured way. It’s just that your mind-set has to change from a bottom-up analysis based on the value drivers to one based on what we know from similar situations in the past. You don’t have to wing it.

*The Quarterly:* Let’s say I’m a strategist for a financial-services company. How should I think about today’s uncertainty?

Hugh Courtney: This is a really interesting time because it provides unprecedented opportunities for the survivors. I think the fundamental strategic issues are whether there will continue to be benefits of scope and scale in financial services and whether there will be a big pure-play investment-banking industry in the future.

We learned very well with Glass–Steagall<sup>1</sup> reform that the benefits of scope and scale are highly dependent on regulatory structure—that is, what you’re allowed to do with that scope and scale. For example, regulations will influence to what extent scope and scale will give you preferential access to low-cost capital, as well as how much you’re able to leverage and what you can and can’t do to hedge risks. And that’s why even the healthiest financial-services players

today face tough strategic choices: they have the opportunity to make bold scope- and scale-building plays, yet the payoffs are highly reliant on future regulatory decisions that are up in the air.

*The Quarterly:* So what level of uncertainty does this represent?

Hugh Courtney: I imagine most of the leaders of the financial powerhouses understand the possible regulatory alternatives, and they're well enough connected to people in Washington to see how this could play out. Potentially, it could be level two. There really are discrete alternatives, and there's usually only a number of fairly well-defined ways to regulate any market environment. If you layer on top of this the fact that our political process tends to even out the extremes, maybe the range of alternatives is actually even narrower. So these are the sorts of things that can be bounded, and multiple scenarios can be run and quantified. The hard part for the decision makers is that even if you can define the scenarios, they have quite different implications for strategy. Still, the example illustrates why applying this kind of disciplined thinking is extremely helpful when you make such bets in uncertain times.

*The Quarterly:* What advice would you give to a chief strategy officer today?

Hugh Courtney: I would start with, "What were you doing in strategic planning before the financial crisis hit?" and "How well do you think it worked?" As I said, what's changed is largely our perception of uncertainty. Most CSOs would reply, "Well, we had a pretty standard strategic-planning process. We did some industry analysis and market research and tried to do some long-term discounted cash flow on our opportunities. It was very financially driven and we felt it worked pretty well." In the end, though, you would probably find that they were treating a lot of level three and four issues like level one and two issues and relying on the wrong tool kit.

So I would start with scenario-planning techniques—even though scenario planning has been around for decades, it's still a niche tool in strategic-development and -planning efforts. The CSO and I would also talk about using analogies better. The basis of the analogy doesn't have to be the exact thing you've done in the past, but it should be a similar space, geography, or basic business model that you can learn from. Many people today are asking what might be analogous situations, such as the Great Depression or the 1997 Asian financial crisis, and I really understand why they are focused on them: it's a classic example of using level four reasoning when it's hard to use any other.

Finally, this is a good time to rethink your planning process. Have you been doing strategic planning on an annual basis as a paper-pushing exercise? That

will have to change. In the months to come, you're going to have to make decisions very quickly on fundamental opportunities that may drive your earnings performance for the next decade or more, and you've got to be prepared to make these decisions in real time. That requires a continuous focus on market and competitive intelligence and far more frequent conversations—daily, if necessary—among the top team about the current situation. Senior executives already may be in closer contact because of the emergency they face, but that doesn't necessarily imply that they have the raw material and the structure to work through strategic decisions systematically. These daily conversations have to move beyond getting through that day's crisis to more fundamental strategic issues as well, because the decisions made today may open up or close off opportunities for months and years to come.

*The Quarterly:* Your book discusses the shaper and adapter models. How should strategists think about shaping and adapting in these times?

Hugh Courtney: That depends on how prepared or fortunate you were going into this downturn. No one player can shape the fundamental uncertainties that are driving global capital markets. Interdependent players all over the world are making decisions. No one player—not even a Warren Buffett—can say, “You know, I feel great about things,” and change the dynamics all that much. So in some sense, everyone has to adapt to that macro uncertainty.

When it comes to fundamental strategic decisions, the paradox is that for a lot of companies in the most uncertain environments, there's actually very little uncertainty about what they're going to do. The situation is very clear because of the condition of their balance sheets. They really have to hunker down. They just don't have the degrees of freedom to think about fundamental changes in their strategy.

On the other hand, there are the fortunate few that have very healthy balance sheets, aren't so dependent on financing today, and don't hold a lot of bad assets. They have a real interest in shaping opportunities. Again, they cannot shape the macro environment; they must adapt to that. However, they can fundamentally reshape their industry landscapes with bold M&A plays, R&D that others can't finance, and entry into new markets. They can make bold moves that may shape the way their markets and industries play out for many years to come by fundamentally changing the competitive dynamics or product positioning. They do have degrees of freedom and thus the opportunity to be successful shapers.

*The Quarterly:* Who are these fortunate few?

Hugh Courtney: They tend to be companies with business models that generate a lot of cash and don't have much debt. That would include a lot of high-tech companies and service businesses in general, which tend to scale up through people rather than through \$100 million plants. Similarly, some businesses in the energy, utilities, and telecom sectors rely on fully depreciated assets generating a lot of operating cash. So the fortunate companies are in sectors that have real cash cow businesses, even if these companies can't completely escape the profitability and growth challenges that will be difficult for any company to avoid in the near future.

*The Quarterly*: Would your message be the same for companies in emerging markets like India and China?

Hugh Courtney: Yes, and in many cases the shaping opportunities are even greater. The fortunate companies are those that have healthy balance sheets and don't need reliable, cheap financing right now, because such a reliance would put the brakes on a lot of current entrepreneurial efforts, particularly in countries like India and China. Some of the larger incumbents—the Tatas of the world—may have profound shaping opportunities in their home markets because a lot of global companies are going to retrench and pull back a little. These trends are at work in economies all around the globe, and companies with healthy balance sheets, the right capabilities, and a tolerance for risk can put together positions that could drive competitive advantage for years.


*The Quarterly*: How has your thinking changed since you wrote *20/20 Foresight*?

Hugh Courtney: The financial crisis and 9/11 are wake-up calls to think about better management of risk and uncertainty. I find myself these days taking uncertainty more seriously. Remember, in the book I wrote that everyone should take uncertainty seriously, but day to day I fall into standard patterns that behavioral scientists have described—for example, I tend to have too much confidence in my ability to predict the future.

In the aftermath of the financial crisis, I've been thinking a lot about how these fundamental human cognitive biases influence everything we do in strategy development. We actually know more about the world today than we did a few months ago, because there's information in the meltdown. But the message behind that information is really, "You fools, remember that you're human." Remember the biases that lead us to be overconfident in our ability to forecast the future. Remember that the most important decisions for most companies will truly be level three and, many times, level four decisions. Our standard



strategic-planning tool kits—the ones that we are most comfortable with and that we learn in MBA programs—don't do a really good job for that.

So we ought to pay attention to this wake-up call. Embrace uncertainty. Get to know it. In uncertainty lies great opportunity. If you don't try to understand what's separating the known from the unknown from the unknowable, you're really missing out. You're just playing roulette with big money—usually other people's money. It behooves us to take uncertainty seriously and to fundamentally rethink the way we do strategic thinking and planning. 

#### About the Authors

This interview was conducted by *McKinsey Quarterly* editors.

#### Notes

<sup>1</sup>The Glass-Steagall Act of 1933 established the Federal Deposit Insurance Corporation (FDIC) in the United States and separated investment and commercial banking activities. The act was repealed in 1999.

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