



**Profile: Richard Petty**

**An Improbable Risk Is Not an Impossible Risk**

*The inherent risk of exotic derivatives was mispriced, but very few understood what was going on, according to professor Richard Petty.*

**Intro**

“My view is that the whole mess that we have now really comes down to one thing: the mispricing of risk,” says Richard Petty when asked about the financial crisis. “That has really led to a whole host of investment decisions that were very poorly made.” In this interview, Petty explains some of the things that went wrong—governance structures, financial reporting, and auditing issues—and comes up with a number of suggestions on how to get it right in the future.

**Richard Petty: A brief bio**

Professor [Richard Petty](http://richardpettyblog.wordpress.com/) is a professor in management (accounting and finance) at the Macquarie Graduate School of Management, Sydney. He is also chairman of an investment company headquartered in Hong Kong, and consults to several governments as well as to listed companies in the US, Hong Kong, Singapore, Australia, the UK, and China. Petty is chairman and president of CPA Australia and chairman of Hong Kong's Best Reporting Awards. Petty commenced his career as an analyst. He then worked at Ernst & Young, Sydney, before starting (and later selling) several companies. Petty has been a faculty member at the University of New South Wales, University of Hong Kong, and Australian Graduate School of Management.

See also <http://richardpettyblog.wordpress.com/>.

**Don't treat an improbable event as an impossible event**

*What went wrong?*

“Many financial institutions held a whole lot of very complicated products, such as derivatives like CDOs,<sup>1</sup> which during the progression of the credit crisis increasingly turned into toxic assets. The fundamental error underlying the credit crisis was in not pricing risk appropriately when the original investments were made. Many people, for example, were taking improbable events—events that will happen at some point in time, but just not very often—as impossible events and zero-rating them. They were effectively treating them as if they were never going to happen, when of course they would happen. Overall, there has been a pretty poor capability and sometimes an unwillingness or an inattentiveness to price risk.”

“When you don't understand the risk, you can't put a value on the asset.”

**Very few people understand derivatives**

*Why did they misprice risk?*

“One of the reasons we have got all those issues with these derivatives is because very few people understand them, and very few people are in a position to mathematically deconstruct and price them. I recall a quote from an executive at one large company who basically said that there were two people in

<sup>1</sup> CDO = Collateralized Debt Obligation, a security backed by a pool of bonds, loans, and other assets.

that company who wrote the CDOs that ultimately undid the company. So there were only two people on the team who had the mathematical training—they both probably had PhDs in mathematics or other advanced training—who put this stuff together and understood what it meant, and no one else got it. No one on the board understood it, the CEO did not understand it, nor did other people in the organization. Far too few people had a proper understanding of derivatives and their inherent risk, and when you don't understand the risk, you can't put a value on the asset."

## **Counterparty risks**

"One of the subsequent issues that confronted the financial sector was when the subprime meltdown started to happen. There was a period of many months wherein the counterparty risk could not be effectively measured. Because it is so complex, you have got to work it through the system to figure out who the counterparties are, and—even when you can identify counterparties—to mathematically work out their exposure and risk is a very complicated undertaking."

## **Mispricing of risk twice**

*You can argue that risk was mispriced at least twice: it was underpriced when the sky was still blue and clear, and when everything turned sour, it was overpriced again, because companies had to write all these assets down to virtually zero.*

"I agree with that. The financial crisis and the subsequent panic led then to the mispricing of risk on the other side of course: the massive write-down in value. I did a fundamental analysis of one entity following the write-downs and figured out that the entity was priced below the level it should have been priced at, if only a portion of the largely rock-solid transaction business that it owned had been factored into the analysis. It was as if the market assumed that the entity had got rid of everything else at zero value or lower, and they hadn't. The markets had gone crazy."

## **Look for better ways to manage inherent risk**

*Would forbidding such complex derivatives be a solution?*

"I don't think you should ban these products, because doing so is likely to be overly restrictive and limit the degrees of freedom in business that might actually work in the interests of well-intentioned parties. Also, history suggests that if such instruments were banned, then entrepreneurial minds might find a way to evolve the state of play in ways that create even greater (and unforeseen) complexity. We don't want to be in a position wherein regulators put regulations in place that others find a way around, with the regulators then upping the ante with new regulations and so on. An inevitable consequence of not banning complex derivatives would be to ensure that companies find better ways to manage the risks that they pose, and that managers and professionals are better educated and informed."

## **Create better predictive risk models**

*How could companies look for better ways to manage the inherent risk?*

"Quite likely we are going to see more and more predictive models. There are a number of predictive algorithms that are already out there, of course, which will be refined further. In all likelihood, what will happen is that their use and application will become more and more standardized within industry,

because a lot of the risk is industry- or sector-driven: banking risk is very different from retail risk and so on. The relationship of company to industry, and industry to market, will be dissected and explained in new and innovative ways as well.”

## **Let specialized risk-consulting agencies develop the models and tools**

*Can companies develop these predictive models themselves?*

“I don’t think that companies will be the ones pioneering the development of the models. For the most part it will be others that bring the knowledge and the techniques to the companies. It is far more likely that there will be agencies or institutions— independent of the companies—that develop those tools and risk-assessment capabilities and then work with companies to help them better understand, manage, and report on their risks. The companies will pay for it, of course.”

## **Increase your understanding or stop investing in such products**

*What other recommendations do you have to deal with these complex derivatives?*

“There needs to be more education across a whole range of parties that are involved in this risky business. Especially on the buy side, there should be much clearer guidance and advice given to people along the lines of: ‘Do not invest in something unless you understand it,’ because you can and very likely will lose money in the long term if you invest in things that you don’t understand.”

## **Increased regulation can lead to unworkable situations**

*What else is going to change as a result of the financial crisis?*

“Quite likely, there will be even greater regulation, even tighter regulation; we are already seeing this happening. Not only will corporate governance be tighter, but there will also be more externally imposed restrictions around what companies can do—for example, in accounting and in capital market regulation (see also ‘The US will (continue to) play a dominant and leading role in global regulation’).

### **The US will (continue to) play a dominant and leading role in global regulation**

“I see, globally, the push for greater regulation being driven out of the US and led by the US. In fact, I think that in each of the areas that we are discussing—corporate governance, financial reporting, financial auditing—that the US will (continue to) play a dominant and leading role into the near term by dictating what is likely to happen, and there are various reasons for that. The first one is, obviously, the size of the US. Another one is that, in large part, the reporting and governance requirements out of the US are more robust and stringent than they are elsewhere. A further reason is that a disproportionate number of the very large multinationals, which have spread their wings into many other locations globally, are still US based. This means that, ultimately, they consolidate back to US practice, and therefore the requirements that are imposed on them in the US tend to propagate elsewhere.

“The US has a disproportionate influence on things, disproportionate in the sense that it overwhelms what happens in many other locations, or it overwhelms practice that perhaps otherwise would originate in other locations. It is not disproportionate, though, when one considers the level of investment and the size of US-listed companies against the total of listed companies in other jurisdictions. For all these reasons, the US is going to continue to have a disproportionate role going forward.”

“For some companies, regulation is already tight to the point where it is probably not workable. What is now happening is that directors are being required to have full understanding of all material aspects of the company. This is part of the problem on the governance side, where directors are now saying, ‘If I cannot rely on external advisors, rating agencies, or on others, and I have got to be an expert in everything, then this directorship is an untenable position.’ There are reports, for example, of people not wanting to be on boards, or resigning from boards, because they feel that they can no longer absorb all of the information that they are now being required to assimilate and vouch for as board of directors. I think that as the restrictions are tightened more and more, we are going to see a crisis in corporate governance in terms of companies practically just no longer being able to comply.”

## **Different governance model for directors**

*What will be the implications of that?*

“What we are going to see is a very different type of governance emerging. A friend of mine who is a board director at one of the big US companies told me about a discussion he had had with some of his board colleagues. Basically, they had concluded that it is not worth the risk now being on the board of any company, let alone one of the US banks. They also noted that it was becoming pretty much a full-time occupation. If board directors are going to be required to review and endorse pretty much everything the company does, they see themselves becoming de facto another level of management. Their vision was that there would emerge a whole class of full-time professional directors who don’t take on ten, but only one or two directorships, and treat each of them pretty much as being a fulltime job and will demand the corresponding remuneration.”

*One of the other interviewees in this series, John Coombe,<sup>2</sup> saw a business opportunity for a new type of consultant who helps these board members in keeping up with all these responsibilities.*

“Yes, I agree, that is another possible response. You have the board directors, who then have to rely very much on consultants. Any person considering joining a board right now could quite reasonably suggest that the company ‘pay to have an independent law firm and an independent accounting firm look through everything and report back to me before I even agree to join your board. And once I am on your board, you are going to provide me with access to funds such that I can have every single document that I am required to approve and endorse go through independent advisors of my choosing.’ Because of these developments, the governance costs for companies are ratcheting up massively.”

## **Executives will be tracked more and more**

“I think that over time an entirely new industry will spring up to track and rate senior managers and board directors. Various agencies are already quite active in this area and more are likely to develop. Such agencies follow executive management and board directors and rate them based on the decisions they have made and on the quality of their decisions. This has already led to painful consequences for some high-profile directors who have been passed over for additional board positions because their past actions led the tracking agencies to say, ‘These directors basically screwed up.’ The major risk for those people is their reputations.”

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<sup>2</sup> See also the interview with John Coombe, HSBC non-executive director, in this series.

## Copious amounts of information, but not very useful

*These regulatory, liability, and reputational issues also seem to make boards very compliance focused in their communications with external stakeholders.*

“The information overload is the big problem now because people have bounded rationality; they just don’t read much of the information that is given to them. The reason they do not use financial reports is that they have found them too complicated and lacking in utility. They have not helped them make decisions, so have stopped referring to them.

“There are many cases in which companies provide copious amounts of information but do not really provide useful information. Their annual reports are long, thick, detailed, and impenetrable to anyone who is not really highly technically trained and very persistent in being prepared to sit for days and read through all the information. The reason for that is very simple: most of those companies fall under the umbrella of US reporting requirements, because they either are based in the US or have an entity/entities in the US that are subject to US reporting requirements. So what those companies quite rationally do is take all the information that they are required to report in the US—which is very technical, jargon-driven, black-and-white information—and just cut and paste that information into the annual report as information to stakeholders. So you end up with this very technocratic, legalese-written diatribe. It contains a lot of information, but it doesn’t help anyone or it helps very few. What I see happening is that more and more companies are going this way because they feel the need to protect themselves and get all legalistic, which a very bad thing in terms of providing reports that are readable to a majority of stakeholders, reports that enable understanding (see also ‘Very few people read IPO documents’).

### **Very few people read IPO documents**

“Another good example of information that is not very helpful are some of the IPO<sup>3</sup> documents, where you are required to sign the form that says you have read them before you subscribe to the IPO. But we know from empirical studies that very few people actually do read these reports, and one of the major reasons is that they are too long and not very helpful.

“In Australia, they have introduced a means of raising capital for existing shareholders of companies, the [Share Purchase Plan](#) option. This option basically allows companies to raise up to Aus \$15,000 from each existing shareholder, in terms of share capital with absolutely no prospectus, no financial numbers, nothing at all, provided they have had an audited set of accounts over the previous period. That is really a classic example of the prospectus becoming so unwieldy that even regulators have moved to other ways for allowing companies to raise capital.”

“The original purpose of financial reporting was to provide decision useful information. Is the information we receive today decision-useful? Not really, unless people are prepared to spend days and days trying to dissect it, or unless people are going to effectively outsource their own thinking on the matter to analysts. Using external analysts already happens now, but it is going to happen to an even greater extent going forward.”

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<sup>3</sup> IPO = Initial Public Offering

## Provide a more accessible report as an addendum

*What could companies do to make business reporting more useful for their stakeholders?*

“They probably have to provide all of that compliance information, but they really need to provide an additional document besides that. To begin with, they will say, ‘Legally we feel the need to tell everyone everything in this way. Here it is. Here are 300 pages of detailed information with disclaimers and qualifiers and so on.’ Then they have to add, ‘We understand that the overwhelming majority of people who want to understand our company actually want to see highlights and certain types of information.’

“What they should do next is to condense the full report, reword it, and put it in a much more accessible and user-friendly addendum. They should be upfront in saying, ‘We will show you everything, but here is what we truly believe is likely to drive value in the business or to destroy value in the business.’”

*If you try to press a complex company into a simplified short form, then you might lose a lot of details that are essential for good decision making.*

“I agree with that, and I think that one has to be somewhat pragmatic about this because the alternative is to convey pretty much all the information, this often being done from a mandatory reporting or compliance perspective. That ultimately means that no one really reads or understands the full company report, apart from professionals.

“If you look at the retail level for a bank, the number of shareholders who are just small moms and dads is overwhelmingly high. The materiality of disclosure and understanding to those individuals may be great, however, as they might have a large portion of their life savings invested, so they need to understand the information. They would not have a clue if they read the full report, so there really is a great need for them to get guidance and information that helps (see also ‘Mom-and-dad investors’).

### **Mom-and-dad investors**

“One can take the view that the devil is in the details, and therefore provide all the details to mom-and-dad investors and it is their bad luck if they don’t get it: ‘Go do a degree in accounting and finance and learn how to read the statements, or go and pay an advisor large sums of money to tell you what is happening.’

“Alternatively, one can be a bit more pragmatic and accept that it is never going to be the case that the mom-and-dad retailers are *en masse* going to go off and acquire the skills they need to get into the information. In my mind, the only pragmatic way around this is to provide mom-and-dad investors with condensed information that they can understand.”

“Companies that are rated most highly in terms of corporate governance will be those that are forthcoming in providing condensed information that is far more accessible and goes out to the wider stakeholders. The better companies will start doing that more and more.”

## Section out different information for different stakeholders

*Are “the wider stakeholders” not in fact different groups with different needs?*

“That is correct, and when you think about the different stakeholders, they just don’t have a general information requirement. They all have specific needs. Therefore, there is no reason to assume that one generic report would best fit their information needs. They probably could find the information they are looking for somewhere in that multi-purpose report, but if the company were able to section out the parts that relate to different stakeholders and put those together in a series of reports, that might be very useful (see also ‘Create different tiers of reporting’). There would be costs involved in that, but that could be overcome by advances in technology and by standardizing the information.”

### **Create different tiers of reporting**

“Different tiers of reporting that engage different stakeholders in different ways are inevitable, because they all have different information needs. Very detailed reports, for example, should go out to the institutional investors and analysts who will carve it up and figure it out. There should be a more summarized report on a retail level. Specific information should go to special-interest groups such as creditors, because they are looking for different things than shareholders, and so on.”

## Drilling down on online, real-time data

*What kind of advances in technology do you foresee in the business-reporting area?*

“What is likely to change is that we will get more and more graphs. It has to be that way if it is about making the reports more readable and more accessible to a wider audience. That is going to have to happen or we will become far less relevant than we are today.

“If I were looking long-term then I would be betting money that we are no longer going to have quarterly reporting, half-yearly reporting, or annual reporting. Instead, we are going to have real-time, online reporting with control mechanisms in place that provide some assurance on the data. On a day-to-day basis we are going to have a ticker that will allow us to drill down on online, real-time data (see also ‘Click, click, click all the way through’).

### **Click, click, click all the way through**

“I foresee a time where you will be able to go the website of a retailer and:

- Click on its financial data;
- Click on the profit-and-loss statement;
- Click on the revenue lines of the retailer;
- Go to the aggregate revenues of the retailer, click down, and get individual country, individual outlet, individual product line, and cashier-level information if you want it. In real time, literally second by second, you see the revenue lines being updated online.

“What we are going to see over time is an ever-expanding database of shared data that provide a lot more information. Some of which will be meaningful, some of which will not be so meaningful, but a lot more information. Then, it is going to be a matter of what filters and tools are put in place for stakeholders to access the information and put it into a format wherein they can make useful decisions.”

“The technology already exists to do this, of course, but it is not done, mainly because there are legal issues involved in the quality of the information and the assurance given and so on. Furthermore, the costs are quite significant. I think, however, that in the long term you can drill down and get in real time pretty much the same information as the internal management team—with some exceptions, of course.”

## **Remove information asymmetry between management and external stakeholders**

*So, in the longer term, external stakeholders will be able to get information at pretty much the same time as internal management?*

“Correct. The whole agency problem, and its associated costs in terms of monitoring and bonding, is one of information asymmetry between the management team, the board, and the external investors or stakeholders. The only way to remove that agency issue is to remove the information asymmetry, and the only way to do that is to provide, to the extent possible, the same information to both camps.”

*Apart from the legal issues and the high costs you mentioned earlier, don't you think that companies would be reluctant to share too much detail with their competitors?*

“The anti-competitive argument has been a strong one to date, and it is certainly one that many companies fixate on, but I don't think it is a realistic argument going forward for many companies. Most big companies already have the ability to work out a very close approximation of what their competitors are doing. Many companies do not show their cost in great detail, for example, but their competitors probably know exactly what the costs are and, if not, they can reverse-engineer those costs easily enough.”

## **Wise up and provide more voluntary information**

*What should be the incentive for companies to voluntarily provide this information?*

“A lot of companies become a bit lazy because they haven't felt compelled or impelled to be more proactive. So I fully recognize that is an issue, and as far as I am concerned it is laziness born out of a lack of incentive. What is likely to happen is that, when more and more companies start providing additional information, then companies that don't do that start looking bad. Then the practice of voluntarily reporting to bring greater transparency will really get some traction.

“Ultimately companies that only provide required information will lose out, as there are huge discounts applied to their stocks because of the uncertainty premium that investors demand because of the lack of useful information; the capital markets discount the stock because of the black-box phenomenon. When companies wise up to that, they will provide more and more information on a voluntary basis.”



## **Once a new reporting system gets traction, the costs go down**

*What would be your recommendations to overcome the costs of moving to a different reporting system model?*

“In the first stages of transitioning to a new reporting system, a large amount of time will be taken up by pioneering a new way of doing things. Developing a proprietary system requires a great amount of thought on what should or should not be captured, how it should be processed and presented, and so forth. That is always the case when you are a pioneer. But when there is more widespread acceptance and the issues become standardized, then tools and techniques will be developed to help, and the costs will come down.”

## **Develop and report on intangible asset monitors**

*Can you give a specific example of how we could further improve the content of business reports?*

“In my opinion, more of the non-financial metrics need to be developed and reported on by companies. In the mid-1990s, a number of Scandinavian companies, such as Skandia (real estate holdings and financial services) and Celemi (a consulting firm), started developing what they called intangible asset monitors, as a supplement to the traditional financial reports. They take financial- or accounting-based metrics and extend them into a wider reporting framework. In addition to their balance sheet, profit-and-loss account, and cash-flow statement, these companies started providing this supplementary information to give clearer comparative information on their productivity, on the value of their human capital, on their structural capital, on their customer capital, and on their relational capital. These intangible assets really have an impact on business and on the prospects of business.

“Now, US companies would claim they have done the same thing with their internal strategic reviews by many of them adopting the balanced scorecard. The balanced scorecard is often taken as being a non-financial, non-accounting performance measurement tool, and there are some similarities. I think, however, that many of the techniques that were being used by the Nordic and some other European companies really were more advanced than what was happening in the US.

“Also, in terms of how the results of those ideas were embedded into the financial reports, there were big differences: according to one study I read, almost all of the Fortune 400 companies in the US claimed to do balanced-scorecard-type analysis. Very few of those companies, however, reported the results of their analyses in their annual financial report. Whereas in Europe, and in the Nordic countries in particular, a great many companies were taking the intangible-asset monitor data and the intellectual-capital reporting-type data and actually including them in their annual reports.”

## **Auditor should provide assurance beyond the financial statements**

*From an investor perspective, how could auditors improve their communications with investors and other stakeholders?*

“Auditors play a vital and important role, and will continue to do so into the future. I think that the audit profession should be given some latitude to perhaps express an opinion beyond the standard true and fair opinion on the financial statements. That would be useful to stakeholders, but I don’t know if the

Richard Petty

audit profession is currently in the position to do that. So, guidance by the auditor, beyond the true and fair view, in prose form would be useful.”

*Can you give some examples of that?*

“The first step would be providing some assurance on some of the non-financial information to a greater extent than is currently being provided; that would be a step in the right direction. Some of the corporate social responsibility (CSR) and sustainability information would benefit through more robust auditing. For many firms, their reporting on CSR and so on is largely self-directed with reference to the [UN Global Compact](#). Auditors should be given a greater role in this arena. This will happen in time, but sooner is better.

“Finally, a more frequent audit process would be useful as well; in line with my earlier view that in the longer term, companies will do real-time online reporting almost exclusively, then there has to be a real-time online audit process that goes hand-in-hand with that. But again, there are cost issues involved that need a technical or other solution.”

*Do you see a role for auditors in the condensed report you proposed earlier?*

“Yes, it would be very useful for auditors to give assurances regarding the condensed report. Assurances that they agree with the contents of the report, and believe that anyone reading the documents would not be misled on material matters relating to the company.”

## **Highly specialized auditors needed**

*How could auditors further improve their competencies?*

“With reference to my earlier comments on the mispricing of risk, I think that too few auditors currently specialize in the type of work that needs to be done to accurately assess risk for complex entities. Audit professionals are smart people and they're highly trained, but there is perhaps a need to develop more auditors who specialize in areas that have been underrepresented within the profession at times. This is part of the natural ebb and flow that drives every profession. There is great opportunity for the audit profession in this. This gives rise to a specialist class of auditors. These people probably have a degree as an actuary or maybe a post-graduate degree in mathematics beyond that, as well as an accounting degree. These highly specialized auditors are the ones who really can pull apart the various financial products and process the risk independently of the company, and then figure out what is happening. I could see this being a very highly paid specialization—for example, where you get people who, before, were the ones developing the funds, the products, and the derivatives, who now are paid large sums of money to do the audit.”

### **Key recommendations from Richard Petty**

1. Don't treat an improbable event as an impossible event—as if it is never going to happen.
2. People need much clearer guidance and advice to understand the inherent risk before they can put a value on an asset.
3. Specialized risk-consulting agencies should develop predictive risk models for individual business sectors, as many risks are sector-driven.
4. Directors need more resources to continue to perform their duties adequately.
5. Senior managers and board directors should protect their reputations more carefully, as a new industry will spring up to track and rate their actions.
6. Different stakeholders all have specific information needs. Therefore, companies should produce different tiers of reporting that engage them in different ways.
7. In addition to providing a full compliance report, companies should produce a more user-friendly addendum highlighting the major drivers that create or destroy value in their business.
8. Control mechanisms need to be developed for stakeholders to better access online information, in a format wherein they can make useful decisions.
9. Companies should increase their voluntary reporting, because it has a positive impact on stock prices (as it lowers the uncertainty premium that capital markets command).
10. Companies should develop and report more (financial and non-financial) metrics on issues such as productivity, the value of human capital, structural capital, customer capital, and relational capital.
11. Auditors should provide assurance beyond the financial statements—for example, on the non-financial metrics and the corporate social-responsibility information that many companies provide.
12. Develop a specialist class of auditors who are even more focused on assessing risk in its many forms and who may advise other audit professionals who do more general audit work.

***We welcome your feedback on these recommendations. To provide us with your feedback, please complete this brief [survey](#).***