The 2009 Ernst & Young business risk report
The top 10 risks for global business
“Risk management is based on the notion that history repeats itself, but not quite.”

Peter L. Bernstein

About this report

Ernst & Young continues to be heavily engaged around the world in seeking to identify leading practices in the area of risk management. Properly approached, the process of risk management can add value even if, fortunately, the feared events never happen. In working through scenarios and impact analysis, companies may find many opportunities to tighten processes and controls that can make them more agile and able to operate more effectively, in whatever market conditions arise.

Our work with companies around the world suggests that there is a body of leading risk management practice emerging, but that many companies are still doing too little in this area. Our research has shown that, while strategic risks have become more important, companies have been focusing on the easier-to-manage areas of operational risks. In looking to general practice, the implications for different sectors can be blurred. One person's challenge is frequently someone else's market opportunity. Even within each sector, the risks for each company may vary. Risk management must be carried out at the company level.

We have consulted widely but this is not an exhaustive list of risks. Inevitably it is a snapshot of the risks we see at this time. We encourage you to read this report in a questioning manner. Do you agree with the risks? How do they impact you? We hope that some of the risks identified surprise you and some of the weightings that we attached to them in the rankings differ from those that you would apply. You should have your own equivalent of a risk radar and your own ongoing dialogue around this, within your own organization.

We believe that company leadership must:

- Conduct an annual risk assessment that defines key risks and weights probability and impact on business drivers. The risks in this report can provide the start of that process.
- Such a risk assessment needs to go beyond financial and regulatory risk to consider the wider environment in which the organization operates and the full extent of its operations.
- Conduct scenario planning for the major risks that they identify and develop a number of operational responses (possibly as part of the planning cycle).
- Evaluate the organization's ability to manage the risks that they identify – in particular ensure that the risk management processes are linked to the actual risks that the business faces.
- Have effective monitoring and controls processes to give both earlier warning and improved ability to respond.
- Keep an open mind about where risks can come from.

Sometimes, of course, the risks that we fear actually come to pass. Few of the risks that have devastated the financial services sector and badly hurt the wider economy were unpredictable – economic bubbles generally burst. It is now, in the hardest of times, when seeking to gain opportunity from adversity, that we will see the evidence of effective risk management and those companies which mastered it.
Introduction

Risk in a volatile world
2008 was a traumatic year for the global economy. A decade of global economic growth has come to a sudden, grinding halt. The financial services sector has been forever transformed through collapse, write downs and forced government intervention.

The flood of credit and funding to fuel the global economy has dried to a drip. Property has seen boom and now bust. Energy prices have hit new heights before crashing, and currencies and interest rates have tumbled almost overnight. Even the engines of the emerging markets have spluttered and slowed. In such a market, it can seem trite to talk about business risk. After all, a risk is not a risk if it has happened.

To us, however, there has never been a more appropriate time to talk about business risk. Indeed perhaps now, more people will be inclined to listen and participate in this critical debate.

Each of the events that has happened in the past 12 months could, and might, repeat itself. Another global financial institution could crash. The enacted and planned solutions could fail to work. The present recession could turn into a future slump. The world is no more predictable now than it was in 2007, indeed volatility has increased. Business risk has consequently increased.

It is also worth remembering that risk is never static. It is in a constant state of evolution. Risk management must always be seen against the business objectives that are sought. The risks to business today are clearer and fewer than the risks arising next week. They are also different. The massive government interventions in the financial sector may have, for now, prevented even more calamity but the consequent regulation brings a new set of risks. History teaches us that consequences can often be worse than the cause but the lessons will differ and may well be new.

And since performance is always relative, management action matters. In a fast growing market, annual growth in double digits can rightly fail to impress whilst in a falling market, maintaining last year’s performance can be the mark of business genius. A rising tide may float all boats but not all ships run aground when the tide retreats. Companies might focus on cost containment and cash management but not all will perform equally well. For every distressed sale, there must be a buyer and there are few more effective competitive actions than to buy your competitor. There are companies, funds and individuals who cashed out at the peak, who paid down their debt and who are well-positioned to take advantage. Winners often make their own luck.
In the current climate, it is imperative for companies to form a strategic view of the risks that they are facing and develop their thinking about the necessary action required should the event they fear actually happen. Risk management needs to be taken back from the compliance function into the boardroom. Companies need to enhance their capability to proactively identify these risks with a rigorous and disciplined approach. Management needs to be alert and nimble, prepared to define their risk appetite and tolerance, and monitor it. It should be cautious and focused. And it must take action. After all, we must all cross the road; the mistake is to stand still when you see the headlights.

Many people have been involved in developing this report. As we did for the 2008 report, we have taken a bottom-up approach to our work, asking each of our global sector groups and the analysts from Oxford Analytica to form a view of the major risks that face their sectors. These will be produced in separate sector reports. They also, however, provide the foundation for this report. Work started in July 2008 and we were in the midst of compiling our overall assessment of business risk when the events of September 2008 happened and the financial landscape was transformed. We have taken our own medicine and subsequently gone back to our sector groups and analysts and refocused our views. Recognizing the current pace of change and continually responding and adapting to it, is an integral part of the risk management process.

What follows is not a prediction for the global economy in 2009. That is neither the purpose of this report nor how it should be used. The 10 risks we highlight and those that fall just under the radar were selected through the frequency with which our sector groups and analysts identified them. We recognize that at the time of writing, economies are in a state of flux. These risks may not turn out to be the top 10 risks to the global economy, and they almost certainly will not be the top 10 risks for any particular company, but we hope that they serve to fuel the discussion about risk that needs to happen in each company, now more urgently than ever.
The Ernst & Young business risk radar

Risk weighting and risk prioritization

Phase 1:
- We interviewed more than 100 industry commentators representing 11 sectors and more than 20 academic disciplines, asking each interviewee to identify the top business risks for 2009. We asked the panelists to focus on risks for the “leading global firms” in their sector. We also asked each expert to provide commentary on why each risk was important, how each risk had changed since last year, and which of a company’s value drivers each risk might impact.
- Based on these interviews we drew up ‘long lists’ of between 20 and 40 risks for each sector.

Phase 2:
- In order to prioritize the top risks for each sector, we interviewed panels of sector experts including CEOs, strategy planning executives, analysts, journalists in trade publications, advisors and our own Ernst & Young practice professionals. We asked each panelist to provide their own ranking of the top 10 risks for their sector, as well as up to five ‘below the radar’ risks that may emerge to threaten the performance of industry-leading firms in the years ahead.
- The panelists’ ratings were aggregated to select the final top 10 risks for each sector.
- The risks that were rated as having the greatest impact across the largest number of sectors were identified as the top 10 risks for global business in 2009.

The Ernst & Young risk radar is a simple device that allows us to present a snapshot of the top 10 business risks across the 11 industry sectors we covered.

The risks at the center of the radar are those that the analysts we interviewed thought would pose the greatest challenge to industry-leading global businesses in the years ahead.

The radar is divided into four sections that correspond to the Ernst & Young Risk Universe™ model. Compliance threats originate in politics, law, regulation or corporate governance. Financial threats stem from volatility in markets and the real economy. Strategic threats are related to customers, competitors, and investors. Lastly, Operational threats impact the processes, systems, people and overall value chain of a business.

The top 10 business risks

Key to symbols

- Up from 2008
- Down from 2008
- New entry
### Executive summary – the global top 10

Aggregating our interview results worldwide and across the sectors, the top 10 business risks for multinational firms that are leaders in their industries are:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Risk Description</th>
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<tbody>
<tr>
<td>1</td>
<td>The credit crunch</td>
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<tr>
<td>2</td>
<td>Regulation and compliance</td>
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<tr>
<td>3</td>
<td>Deepening recession</td>
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<td>4</td>
<td>Radical greening</td>
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<td>5</td>
<td>Non-traditional entrants</td>
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<td>6</td>
<td>Cost cutting</td>
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<td>7</td>
<td>Managing talent</td>
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<td>8</td>
<td>Executing alliances and transactions</td>
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<tr>
<td>9</td>
<td>Business model redundancy</td>
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<td>10</td>
<td>Reputation risks</td>
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#### 1. The credit crunch

The credit crunch and its aftershocks pose existential threats to leading global firms in asset management, real estate, insurance and banking, while capital-intensive sectors such as life sciences and power and utilities are under pressure from a tighter credit environment. (Rising from Number 2 in the 2008 report.)

#### 2. Regulation and compliance

Regulatory risk – last year’s number one threat – remains near the top of the list. This risk may not have such an obvious impact as the global credit crunch, but regulatory risks continue to be keenly felt at leading firms in sectors such as life sciences, telecoms, oil and gas and power and utilities. Furthermore, uncertainty regarding the regulatory response to the global financial crisis has caused this risk to become more important in asset management, banking and insurance. (Falling from Number 1.)

#### 3. Deepening recession

The global financial crisis and house price declines have delivered a shock to consumer confidence and sparked capital flight from emerging markets, raising the specter of a retraction in developed economies becoming a truly global recession. (New this year.)

#### 4. Radical greening

Environmental and sustainability challenges continue to escalate, most dramatically in carbon-intensive sectors such as automotive, real estate, oil and gas, and power and utilities. The change of administration in the US raises the possibility of concerted government regulation. (Rising from Number 9.)
Non-traditional entrants

New competitors are emerging from adjacent markets and distant geographies. National oil companies now compete with the majors in oil and gas; banking, insurance and asset management companies now compete for the same customers; as do internet, telecom and media companies; and emerging market companies are more competitive in the automotive sector. (Up from Number 16.)

Cost cutting

With the global economy slowing, cost containment is now crucial to survival in sectors such as automotive, media, and consumer products. It is impacting both suppliers and consumers. (Rising from Number 8.)

Managing talent

What was the “war for talent” is now more complicated: attracting talent is still important, but so is retaining key talent during a downturn and (especially in banking) the intensifying debate over compensation structures that are misaligned with risk management or longer-term returns. (Rising from Number 11.)

Executing alliances and transactions

Tightening credit conditions have lessened the pace of M&A activity. Yet alliances and partnerships remain crucial to the business strategies of leading firms in sectors such as telecoms, life sciences, utilities and media. Furthermore, the financial crisis has led to sudden and dramatic ‘rescue mergers’ for which due diligence must be undertaken after the fact. (Falling from Number 7.)

Business model redundancy

In sectors such as asset management, life sciences, media, and telecoms, technological change and industry transitions are making long-established business models obsolete, forcing industry-leading firms to reinvent their corporate strategies and structures. (New this year.)

Reputation risks

Not only the reputations of firms but those of entire industries are increasingly under threat. Environmental and climate concerns threaten oil and gas and utilities companies; pressures to provide wider access to life-saving drugs threaten funding for innovation in life sciences; and the credit crunch is weakening public trust in banking and asset management companies. (Up from Number 22.)
We present (overleaf) the results of our scan of business risks for each of the 11 core sectors.

In order to make the results more comparable, we asked the analysts we interviewed to focus on the challenges faced by the leading global multinationals in their respective sectors. Even with this focus on the largest companies, we expected and found dramatic variation in the most important business risks from sector to sector, region to region, and of course, from firm to firm.

This variation is indeed evident in the risk radars for 2009. Consider the extent to which regulatory and compliance risk (our number two risk in this report) varies from sector to sector. Leading oil and gas companies face “political constraints” on access to reserves as well as “uncertain energy policy,” while life sciences firms struggle to manage “pricing/reimbursement pressures,” and asset management firms are vulnerable to “geopolitical, macroeconomic, or regulatory shocks”. In a similar vein, risks stemming directly from the credit crunch (risk one) appear as “significant shifts in the cost/accessibility of capital” for utilities, “capital access and capital allocation” for life sciences, “responding to the market crises” in asset management and, simply, “global financial shocks” in banking.

Indeed, this variation extends to the impact that the same developments can have for a sector. Global economic fluctuations are primarily a financial risk for the real estate sector but seen as a strategic risk for media and entertainment, for example.

Scanning the sectors, most risks are concentrated in the ‘strategic’ and ‘operations’ segments of the radar – indeed, in most sectors, at least seven out of the top 10 risks are in these areas. Only in banking, real estate, and oil and gas are as many as four of the risks located in the other two quadrants. These sectors are heavily exposed to uncertainties resulting from either the global financial crisis, regulatory intervention, or both.

Still, it is notable that in every sector, at least one of the top 10 risks falls in each of the four quadrants. This highlights the importance of taking a broad view of risk issues – which could emerge from any part of the enterprise and its activities. Leading organizations scan the environment to identify emerging risk issues. They expand the scope of consideration throughout the value chain to suppliers, customers, business partners and key stakeholders to identify and define emerging risks and opportunities.
The Ernst & Young industry sector risk radars
The 2009 Ernst & Young business risk report – The top 10 risks for global business
Identifying the global top 10

Methodology
By aggregating the findings of our research in 11 sectors, we have produced a list of the 10 most important business risks across the sectors — concerns that will be common to the leading firms in many industries. These top 10 risks are the focus of this report.

The table below shows the relative importance of the top 10 business risks across the 11 sectors that we studied, and thus the method we used to select and rank the risks. The risks at the top of the chart are those that are expected to have the greatest impact across the largest number of sectors. According to the analysts we interviewed, these risks will do the most to influence markets and drive corporate performance in 2009 and beyond.

Starting a conversation
This list should not be interpreted as a financial or quantitative analysis of the risks facing an ‘average’ global firm. Indeed, there is no such thing as an ‘average’ firm: risks vary from sector to sector and from firm to firm and are dependent on a company’s objectives. To cite just one example, the top risks facing a major state-owned oil company are very different from the risks facing an international oil company, even if both are of comparable size and are leaders in the same sector.

Instead, this list should be interpreted as a part of an ongoing conversation about business risk — a conversation that has been ongoing for several years. This conversation is about how companies approach risk management. How frequently are companies scanning their horizons and with what scope? Consider the risks we highlight in this report, and the sector reports and compare them to the top risks facing your firm. Are the risks on the global list similar to those you are monitoring? Are they the top risks? Have the analysts missed anything important?

Our research suggests that, not surprisingly, the global financial crisis was the most important strategic risk development of 2008, and that the resulting credit crunch will continue to be the top risk driver for 2009. A review of the impact matrix shows why this is the case. Unsurprisingly, global financial shocks feature directly as the top risk in banking, insurance and real estate. The credit crunch is also indirectly responsible for higher regulatory risks in the financial services sectors. Similarly it is also the underlying source of the risk of a deepening recession, which is rated as risk three this year. Indeed, the direct and indirect impacts of the crisis are large enough to feature in the top 10 in almost every sector.

In the following section, we explore the global top 10 risks that have emerged from our study, and we share the thinking of some of the leading analysts to whom we have spoken.

Risk impact matrix
The Ernst & Young organizational value framework

In the current market environment, scarce corporate resources should be allocated on the most efficient basis in order to create and protect shareholder value. The Ernst & Young value framework presents a structure to align key risks to business objectives and value drivers to drive such an allocation process. The framework is intended to support a sustainable and embedded management discipline to drive focus on the key risks and support improved performance against business objectives.

We asked the analysts we interviewed to apply this framework to identify the value drivers that will be most crucial for firms responding to the risks identified in the report. This commentary appears in the risk narratives that follow.

### Business objectives and value drivers

<table>
<thead>
<tr>
<th>Revenues and market share</th>
<th>Expand product offering</th>
<th>Expand into new markets</th>
</tr>
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<tbody>
<tr>
<td>Reputation and brand</td>
<td>Deliver superior customer service</td>
<td>Provide high quality products</td>
</tr>
<tr>
<td>Asset and capital management</td>
<td>Maximize return on capital</td>
<td>Maximize benefits from technology investments</td>
</tr>
<tr>
<td>Earnings and operating margins</td>
<td>Optimize operating efficiency</td>
<td>Achieve cost optimization</td>
</tr>
</tbody>
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### 2009 top 10 business risks

- The credit crunch
- Regulation and compliance
- Deepening recession
- Radical greening
- Non-traditional entrants
- Cost cutting
- Managing talent
- Executing alliances and transactions
- Business model redundancy
- Reputation risks
1. The credit crunch

Several of the insights from analysts we interviewed in Spring 2007 (for last year’s Business Risk report) were remarkably prescient in anticipating the evolution of the global financial crisis during 2008. One analyst, anticipating the problems of counterparty risk that would, more than a year later, compel US regulators to nationalize the insurer AIG, wrote in our 2007 report that: “A crisis in CDO/structured finance markets could lead to potential systemic problems.” In a similar vein, anticipating the bailout for the US banking system that took place in Fall 2008, Jens Tholstrup, Executive Director and Director of Consulting at Oxford Analytica, wrote that “the failure of one or more major financial institutions remains a real worry and could turn the crisis into systemic failure in the year ahead.”

Over the course of 2008, the impacts of the credit crunch continued not only to deepen but also to spread. The financial contagion moved from sub prime mortgages, to the banking sector, to monoline insurers, to investment banks, to the insurance sector, to credit derivatives and beyond. At the time of writing this report, the chain of escalating crises that had threatened to cause a systemic collapse in the global financial system appears to have been interrupted by aggressive bank recapitalization programs pursued in countries worldwide. However, the credit crunch itself is expected to continue to pose a serious threat, as banks continue to reduce lending. (As to where the financial crisis might spread next, the most frequently expressed concerns of analysts we interviewed this year were a sudden loss of value of the US dollar or a severe collapse in the hedge funds sector.)

The credit crunch ranks as the top risk this year because of its extraordinary and direct impact as well as its unpredictable evolution. The credit crunch and attendant crises in property and financial markets have posed existential threats to firms in asset management, insurance and banking, forcing some of the leading global companies in these sectors into insolvency. In many other sectors, lack of credit is undermining business activity: “Lack of credit has paralyzed the transaction sector of the real estate industry,” as one analyst noted.

In addition to contributing to volatility in the financial, currency and property markets, for many companies, the credit crunch will be felt as a severe financial management challenge in the year ahead. “The ability to secure capital can dictate a company’s business model, ultimately impacting its capital structure and asset efficiency,” as Yali Friedman, Managing Editor of the Journal of Commercial Biotechnology, noted.

Steps companies can take to respond to this risk include:

- Developing safeguards to minimize the effect of tail risk – high loss, low frequency outcomes – on the financial well being of the organization. Any realistic analysis of the credit crisis must incorporate the failure of models adequately to capture and anticipate the impact of the credit crunch. The crises offer a chilling reminder that tail risk and how to correlate it to a business model are not well understood. Approaches must be developed that provide distributions of outcomes that can be used to assess exposure to tail risk.

- In the near-term, changing business plans to obtain cash on the balance sheet in order to trade on higher multiples. That is to say, adopting a capital oriented business plan and focusing on obtaining cash rather than growth.

- Setting up a Program Management Office as part of a systematic approach to managing risks related to the credit crunch. Specific program aspects can include: cost cutting, improving cost management, upgrading the financial competence of the company and enhancing lending relationships.
Navigating the credit crunch

The economic landscape
The world economy has entered some new and precarious territory. No region will be fully immune. The fallout from the US credit crisis has spread to housing markets around the world. Global house prices fell for the first time on record towards the end of 2008, underlining the extent of the downturn. Fears about rising default rates and declining property values, which engulfed the home mortgage market at the start of the credit crisis, are spreading to the commercial real estate market; many feel the worst is yet to come with respect to commercial real estate values.

There is no question that the global impact of the subprime meltdown exceeded most expectations. Debt structures and investment vehicles have become increasingly complex. In addition, a number of complicated ‘alternative asset’ classes, such as private equity and infrastructure have emerged.

The problem associated with some of the complex securities and debt structures is that we don’t fully know what all the risks are. This has created an environment of uncertainty, which has virtually brought lending to a stand still. The restrictions on the availability of credit and the short-term inability to deploy capital at acceptable levels of return have paralyzed the transaction sector – as transaction volume around the world has skidded to a halt.

No matter where you reside, world economies are finding out that they are much more highly correlated to each other than originally anticipated – particularly during tough economic times. Other global trends are putting additional pressure on businesses and consumers, including rising energy costs, globalization, increased regulation and risk of political and social unrest.

As a result, consumers have retreated. Global economic forecasters have revised their GDP estimates downward. Governments are now working together to restore confidence and get consumers and businesses moving again.

Reality check survey
Ernst & Young and Globest.com, an Incisive Media Website, polled clients and subscribers (15-17 October, 2008) to take their pulse on a number of significant real estate issues now in play. More than 2,300 global real estate executives responded.

The survey indicated that there will be more pain ahead, and that industry professionals across the board are going to feel it. Although the majority of respondents believed that the credit markets will begin to emerge during 2009, the implication is that the process of restoration could take months longer. Respondents expected commercial real estate values to decline – by perhaps as much as 20% or more but at least by 10%.

Implications
The current crisis is negatively impacting residential and commercial asset values, company liquidity, and availability of credit. Everyone is trying to conserve capital. Companies are also taking advantage of opportunities that exist. When things are going really well, it tends to mask organizational inefficiencies. Smart companies are asking how they can eliminate the duplications and inefficiencies inherited when growth was strong. As things turn around, they can then be in a position to hit the ground running.

With unprecedented challenges, come historical opportunities...for some. Smart lenders will be looking to move real estate related assets off their books very quickly while forward-thinking companies will develop strategies to take advantage of distressed asset and debt situations. Overall, there may be a lot of capital waiting to deploy when the time is right. Consolidation will likely take place as the industry reshapes itself in response to changing global economic and market conditions. Whether you’re an owner, investor or developer, now is the time to get your house in order.
Regulation and compliance, the second-greatest risk for 2009, encompasses many issues: the increasing political restrictions that prevent oil and gas firms from gaining access to proven reserves, regulatory intervention into pricing in power and utilities and telecoms, and the regulatory response to the current banking crisis, which will affect the operational and competitive environment for the financial services industry.

Regulatory and compliance risk was the top global cross-sector risk in the 2008 report. For 2009, although the credit crunch dominated the headlines, regulatory risks continued to rise in importance in many sectors. The political and regulatory response to the credit crisis has already been extraordinarily far-reaching, including banking nationalizations that would have been hard to imagine only a few months earlier. Doubtless, the political response to the crisis will go even further than this – leading a number of analysts to worry about possible unintended consequences. “Regulators must regulate but not in a capricious way that could do more harm than good,” wrote David Stowell, Professor at the Kellogg School of Management and former Managing Director at JP Morgan. The regulatory backlash may extend beyond banking and stretch into insurance and asset management. (Although not all analysts felt an aggressive regulatory response to the financial crisis would be a bad thing: “Closer monitoring of all market instruments is required, as shown by the credit crisis,” commented one panelist.)

The impacts of regulatory intervention are spread across a firm’s value drivers – which in part accounts for the risk’s continued high ranking in our global list. For example, as one Ernst & Young panelist commented in relation to the telecoms sector: “Regulation affects every part of the business from awarding licenses, provisioning and pricing of services to network operations.” Firms respond to these risks by improving stakeholder relations, including relations with politicians and regulators, thereby maintaining or increasing performance.

If these efforts are unsuccessful, regulation can have a dramatic impact on companies’ growth and profitability. It is these effects of regulation, which can alter a firm’s competitive situation, that contribute to the ranked position of regulation and compliance risk this year. Companies in highly regulated sectors, and companies moving from areas that are not highly regulated (e.g., emerging markets) to markets that are (such as North America and Europe) are often most vulnerable to these risks.

Steps companies can take to respond to this risk include:

- Prioritizing this risk appropriately. “This is a strategic issue when it results in certain companies being treated unequally. [Telecoms companies] have not been very good at handling regulatory issues, leaving them to lawyers and not seeing them as a strategic issue,” wrote one Ernst & Young panelist.

- Adopting a proactive stance. Regulatory and compliance risks are usually narrowly defined and technical, and there are few experts in these areas within most organizations. Hence there is a tendency for companies to be reactive to these risks, except in the most well controlled organizations. A Chief Risk Officer, CRO, can be a key initiator of a proactive approach.

- Reacting appropriately to the breadth of the risk. Competitive practices (anti-trust and customer/supplier relations), information management, corporate governance, benefits/compensation, international dealings/trade, and fraud and corruption are all impacted.

- In sectors characterized by a high degree of regulatory uncertainty, there is value in undertaking detailed analyses of future regulatory scenarios and preparing detailed plans of engagement with the regulatory authorities to influence policy outcomes.
Edmond Escabasse, Asialis
Edmond is Chairman and CEO of Asian French media group, Asialis and also of Franco Cell, a green power supplier start up. He is also a member of the board of ParisTech Telecom.

Does a skier about to rush down a slope see an opportunity or a risk? It is, in fact, the anticipation and the adaptation to the slope that will make his ride a pleasure, a sporty event or a catastrophe.

While ARPU (Average Revenue Per User) decline in fixed and mobile voice is not a recent trend, it remained the greatest risk to the telecoms sector in 2008. Adaptation to a known uncertainty has therefore never been more important.

In the complex world of telecoms, care needs to be taken to avoid confusing industry drivers with sector risks. Instability is driven by a number of factors, such as the capital intensive demands of infrastructure, constant technological disruptions and the rapid rate of service development. Taken together, they make for an industry that is as unstable as it is innovative.

In this light, regulation is key to ensure that all players get fair remuneration for their work, avoid economically unjustifiable network migration and are allowed to evolve cooperatively with other segments of the industry. Ultimately, it is hard to see how service provision can evolve if the infrastructure itself is poorly developed.

Despite this, regulation is often difficult to implement since fair prices for the end user and a fair return on infrastructure investment are sometimes conflicting concepts. Short-term advantages for the consumer are catalyzed by the rapid development of low-cost services; however, the expensive investment in technology required may fail to generate an attractive remuneration profile. Furthermore, in such a fast-moving industry, regulation must also prove itself flexible and dynamic in order to safeguard the interests of both carriers and their customers.

But are these economic foundations sufficient? The notion of convergence has already structured and shaped – and will continue shaping – industry transitions.

Convergence between telecoms and IT was the industry buzzword some 20 years ago. While those within the industry were familiar with the concept even then, the general IT user was unaware of the guiding principle. This fundamental evolution was rather technical, and has been the origin of the new digital world. However, the business model through which the boundaries between infrastructure and service have changed is a complex one. Today there is a new convergence between content and networks. The reality is clear enough; but what does the future look like in this converging world?

We are witnessing a business revolution, not a technical one, as business models converge. To anticipate the future, there is a lot to learn from the changing revenue models underway in the audiovisual sector and the media industry at large. In particular, media models could shape potentially diverse trends in telecoms business models. We see:

- Massive subsidies between sectors designed to finance creation (movies, live entertainment, for example), comparable to some extent with the historic cross-subsidies between geographies or customer segments (residential versus corporate) inside the telecommunications industry. Such cross-subsidies have been progressively eliminated by regulators but may come back under a new economic system.
- The direct link between a product or a service and its payment by the beneficiary (advertiser, sponsor etc.) has disappeared. According to this model, with the increased risk of strategic error, it is important to identify who the ultimate beneficiary really is. For example, in the TV industry the real client of the company is rarely the viewing audience but the advertiser, who is often indifferent to the content as long as quality and impact are high and measurable.

We will have varied and fluctuating business models. The stability of a company will reside in its capacity to control essential products/services in two ways: either by offering high added value for which the consumer is willing to pay, or by aggregating multiple sources of revenue on the same service.

Some major players will need to merge to have the ability to coordinate these different methods of moving forward. It is also inescapable that telecoms companies will move into the content business. Those who do not adopt these new models and are unable to adapt to these new changes will face the greatest risk.
A new entrant to the top 10 list this year is the possibility of a genuinely global recession. As of this writing, many developed economies have entered recession, and some forecasters are projecting recession for the world economy in 2009. This is of greatest concern in cyclical industries, such as automotive and media, and industries with direct exposure to the global financial crisis, including banking, asset management and real estate.

In recent years, analysts have worried about the possibility of macroeconomic shocks emanating from emerging markets. In 2008 the crisis struck first in the economies of the industrialized world. Talk of “decoupling” of international markets has been replaced by fears of simultaneous recessions in the Eurozone, US and UK, and the potential spread of the downturn to the rest of the world. “[There are a] number of things that could trigger a world-wide recession...This, in my view, is possibly now the number one risk,” wrote one insurance sector analyst. The combination of financial crises, home value declines, stock market deterioration and the diminished availability of credit presents a clear danger. Lower growth will hit profitability and valuations across the global economy, and cyclical sectors such as automotive have already seen leading companies pushed to the brink of collapse.

With a baseline forecast of global recession, analysts expressed concern about further threats that could emerge. In the main, these were complications that could worsen the recession: “political risks create uncertainty,” as one analyst put it. The media sector worried about a backlash against globalization, asset managers worried about instability in emerging economies, and oil and gas commentators expressed concern about possible instability in oil-exporting states that could lead to a second spike in global energy costs. Aside from political threats, the main worry was that deflation could take hold in major economies, driven by competitive exchange rate devaluations and a ‘flight to cash’. This would exacerbate the rate of debt defaults and drive further losses from falling asset prices.

Not all was gloom, however: “Emerging markets will be supportive, particularly in the second half of 2009,” one panelist wrote.

Economic downturns create heightened trade credit risks, as well as threatening revenues and profitability. While some companies may see falling sales in the US offset by rising sales in other regions, “companies that are not globally integrated will not be able to take advantage of counter-cyclical international trends,” commented David Cole, Chairman, Center for Automotive Research.
We are currently experiencing a financial crisis and an economic crisis, each feeding off the other and creating a downward spiral for the global economy. A total loss of confidence and trust is exacerbating the situation.

The key questions for 2009 are: How long will it last? And, how deep will it get? There is no clear answer to either question. We face unprecedented economic conditions and economic forecasts based on econometric models offer little help. How can the lack of confidence and the lack of credit be modeled? In the past few months, forecasters have been downgrading their GDP growth projections for nearly every country and region.

A more useful approach is to look at bottom-up and anecdotal evidence. Chief executive officers across many sectors and geographies have been reporting a deteriorating outlook and an accelerating fall in demand. Many companies are cutting back on costs and abandoning investment plans pending an improvement in the economic outlook. The household sector is also cutting back on expenditure in an effort to reduce debt and to build up savings.

All the evidence suggests that the downward spiral is likely to continue well into 2009 as the massive debt bubble that has been built over a 20 year period plays out. Hopes that emerging markets would be relatively insulated from the problems in the developed world have evaporated as the truly global nature of the economic crisis becomes apparent.

Emerging markets are unlikely to be the engine for global recovery that had been hoped for. It is however likely that emerging market economies will be responsible for well in excess of 100% of global growth in 2009. Moreover, their strong fundamentals mean that they are likely to rebound earlier and with greater strength than developed economies.

In the near-term, the only source of offsetting demand is government expenditure. Recent moves in the US, the UK, the EU and China indicate the willingness of governments to use fiscal stimuli to add to aggressive monetary policy in order to check the recessionary forces at work, and in particular to avoid the onset of deflation. Yet the weak fiscal position of many governments, including the US and the UK, may limit the extent that such stimuli can offset the dramatic cut back in expenditure by the corporate and household sectors.

The enfeebled financial system will limit the ability of the global economy to rebound. Despite widespread injections of liquidity by central banks and injections of equity to boost the capital base of many of the world’s largest banks, there is limited credit available to all but the strongest-rated borrowers. Credit insurance has been withdrawn from many suppliers, and the more than 90% fall in the Baltic Dry Index since its peak in July 2008 underlies the shortage of available trade credit. A strengthening of the financial sector (by further government intervention) will be required before the global economy will recover.

To conclude on a more positive note, the speed and force of the current downturn, combined with the determined reflationary moves by many governments, suggest that the bottom of the spiral will be reached earlier than anticipated – and perhaps in the second half of 2009. But any rebound is likely to be modest, unless the financial system recovers its health, and confidence is restored.
Radical greening

With headlines dominated by the global credit crunch, it is easy to overlook the fact that one of the most dramatic movements on the risk list is almost completely unrelated to finance: the rise of “radical greening.” The strategic pressures created by rising environmental concerns and the threat of climate change climbed six places on the list. In our 2008 report this risk was rated as having a “critical” impact in only two sectors. For 2009 the analysts rated it as “critical” in three sectors, and “high” in three others.

One reason for the rise in this risk is probably the exceptional surge in oil prices that occurred in 2008. Oil prices have now fallen, though they remain high by historical norms. But few analysts expected the pressure for radical greening to disappear. Surging oil prices accelerated long-anticipated structural shifts and raised political and consumer pressure on carbon-intensive sectors such as automotive, oil and gas, power and utilities and real estate. “This is probably the next competitive battleground for the automotive industry. With growing fuel prices and carbon conscious consumers, being able to provide low-carbon footprint technology will be a key advantage,” wrote one Europe-based automotive industry analyst. These comments were echoed by commentators/experts in the utilities sector in Australasia and the oil and gas sector in the United States, among others.

High oil prices made long-awaited paradigm shifts seem realistic. Several experts made forecasts of major policy changes, such as the emergence of carbon pricing in the US — a shift made all the more plausible by the change of administration. “In the next construction cycle...virtually all major office buildings will be green,” claimed Leanne Lachman, President of Lachman Associates. The CEO of a US-based oil and gas independent commented that “The [oil and gas] industry will change fundamentally over the next few decades. Climate concerns leading to energy conservation will be a key driver...Oil in our lifetime may be relegated to petrochemicals.”

There were some dissenting voices. For instance, in the insurance sector, some analysts expressed skepticism about how “real” the risk is, claiming that recent large weather losses have been driven by factors unrelated to climate change.

‘Cap and trade’ regimes, by which the government establishes an overall cap on emissions and gives emissions allocations to the those generating CO2, enable companies to make their own decisions to reduce emissions or pay another party to reduce them. Businesses are incentivized to be innovative and come in below their cap and can make a profit by selling their extra carbon credits. They are the dominant regulatory vehicle (other than tax incentives and levies) and high on the agenda of public policy debates globally. For example, the EU Emissions Trading Scheme (ETS) is in its second phase, the Australian government is issuing a white paper on the topic and it seems likely that the US will be adopting cap and trade at a national level under the new administration. This also links to Clean Development Mechanism (CDM) projects in emerging markets such as India and China. Companies need to consider how this will impact them, if they can leverage it as an opportunity and/or look for ways to manage the cost.

Climate and environmental concerns also pose a direct challenge to firms’ reputations and brands. Failure to be seen to be responding to climate change could have huge reputational risks for companies in high-carbon sectors and elsewhere. However, impacts on revenue and market share are just as important. Green buildings in real estate, green technology in automobiles, and green generation technologies in power and utilities will be, as noted above, the new competitive battlegrounds. New regulations may also impact financial performance. “There is a regulatory risk arising from incoherent and unrealistic regulation developed out of panicky government policy founded on poor analysis...growth and profitability are the main affected value drivers,” wrote Nigel Lucas, an independent consultant in the power and utilities sector.

“Demand for energy services is still likely to double over the next two to three decades with rising demand from developing countries.”
There are a number of key drivers behind the quest for low carbon technology, most important of which are climate change, rising energy prices and geopolitical risks associated with access to fossil fuels. Any judgment about the risks of low carbon technologies has to be evaluated against the risks associated with incumbent technologies.

A number of studies including the Intergovernmental Panel on Climate Change, Shell Energy Scenarios and a recent study of the most viable climate wedges have identified the most viable low carbon technologies. Coal and carbon capture and storage (CCS) technologies feature prominently on these lists.

CCS is likely to be cost competitive with emerging renewables for the foreseeable future for electricity generation. Coal may also show potential, as a hydrogen source.

Wind and solar can be seen as the most viable renewable sources. Other candidates include ethanol from biofuels. Current options such as ethanol from corn generate negligible reductions over the production life cycle and soy and canola face limitations in terms of scale. Cellulosic ethanol from trees and agricultural waste is the most attractive option in terms of overall carbon reductions, but technologies are still emerging. Demand reduction initiatives may also represent important sources of emissions reductions.

There are many risks associated with these low-carbon technologies:

**Competition from non-renewables.** Demand for energy services is still likely to double over the next two to three decades with rising demand from developing countries. As oil and gas prices rise we will witness rising demand for coal, which is the most accessible substitute. Unconventional oil sources such as tar sands also become cost effective. The risk for alternative energy is that the implementation risks are perceived as higher and the transactions costs involving the construction of new infrastructure are also high. Both solar and wind involve very significant capital expenditures. By contrast, coal can often be substituted for relatively lower incremental costs. If oil and gas prices do fall and demand rises, the opportunity cost of unextracted coal is low; wind and solar are difficult to scale back once they have been built and require protected demand.

**Wider impacts of alternatives.** In the face of rising oil and gas prices, biofuels have become substitutes at the margins. There is evidence that some biofuels have had an impact on food prices in developing countries, although rising oil prices, which has an impact of the cost of agricultural operations has also had a significant impact. The challenge is that consumers are unable to distinguish between good and bad biofuels, with the result that the whole class becomes tainted. Demand for biofuels may create incentives to increase the rate of deforestation in developing countries, leading to significant losses of carbon.

**Sourcing capital for alternative energy.** Oil and gas exploration generates double digit returns on investment; once extracted, oil contains very high energy density per dollar of expenditure. By contrast, alternative energy systems generate utility rates of return to investors. In a competition for capital, alternative energy may offer lower rates of return and some perceived performance risk.

**Bad bets.** Much has been promised about the hydrogen economy. Hydrogen as a large-scale solution in transportation is problematic because of issues related to distribution and storage. More importantly, the current sources of hydrogen come from industrial waste streams, which are limited, and from the transformation of non-renewables such as oil and gas. While hydrogen from these sources may be cleaner burning and reduce other forms of pollutants, the life-cycle may not reduce carbon dioxide emissions. The risk is that more viable technologies are being ignored.

**Missing the low hanging fruit.** Society has addressed energy issues by focusing heavily on the generation of new sources of energy supply. This means that demand reduction opportunities tend to be ignored. Improved green building design may reduce overall energy use by as much as 70%, solving the supply problems. Similarly, in transportation studies, the most cost effective solutions may simply be to reduce travel.

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**Professor James Tansey, Associate Professor and Chair in Business Ethics, University of British Columbia.**
Any judgment about the risks of low carbon technologies has to be evaluated against the risks associated with incumbent technologies.

Point of view

Steps companies can take to respond to this risk include:

- Adopting a collaborative approach. The innovation required to address/respond to “radical greening” often cannot be accomplished by companies acting on their own. Collaboration is feasible, because there are so many stakeholders with environmental concerns. For instance, in the automotive industry, the rollout of new technologies will require companies to share costs with competitors, and to collaborate with engine makers, fuel makers and fuel distributors. This collaboration will go well beyond a company’s immediate sector. For instance, manufacturers have begun working with national governments to develop the infrastructure for electric cars.

- Taking a leading role. Just as insurers, in the past, played a role in developing fire departments and advocating better building codes, today they can be a voice for responsible land management and loss prevention measures. This will enable them to continue to write business in some areas where they otherwise could be forced to withdraw. Organizations can use the specter of climate change and the public’s desire to be environmentally friendly as an opportunity to innovate and enhance their corporate brand and reputation.

- Evaluating their exposure to the green agenda. Step one, which has been taken by many companies, is to have a detailed understanding of the actual environmental impacts of the business activities that occur all along their value chain. Step two, which has only been taken by a few leading firms, is to understand the expectations of stakeholders from regulators and employees through to customers; understanding how others are responding and where others might have got it wrong; and having a clear view of mitigation opportunities and the associated costs.

5 Non-traditional entrants

The challenge posed to industry-leading firms by new entrants — companies entering a sector from adjacent markets or distant geographies — may well be increased by the credit crunch and the resultant threat of a global economic downturn as existing players are weakened or distracted. Like radical greening, this strategic risk has moved up the list, becoming more serious, despite the credit crunch dominating global business headlines.

State-owned “national oil companies” are becoming “national international oil companies” and challenging the oil and gas majors; the media, internet, telecoms and technology industries are converging with one another; the banking, asset management, and insurance industries are targeting the same customers; and automotive companies based in emerging markets are just beginning to make their presence felt in world markets.

This risk had a higher ranking on this year’s list because competitors from adjacent industries have now become genuine challengers to the leading multinationals in some sectors. In many cases, the analysts we interviewed saw the challengers as having an advantage. For instance, internet companies, mobile phone operators and cable companies are becoming advertising partners for media companies. These new entrants have deep knowledge of their customers and can target advertisements much more precisely than media corporations — meaning that they are taking an increasing share of the advertising revenues from their media partners.

Similar new entrant advantages are evident in other sectors. “Not only do some national oil companies (NOCs) have the advantage of aid-backed deals, their shareholders are also often less concerned than those of Western international oil companies (IOCs) about the human rights and democratic values of potential host countries,” wrote an oil and gas sector expert. “Telecoms operators are struggling in a regulated environment with increased pricing pressures while internet companies are free to operate, have access to millions of end customers and are able to provide richer content and applications,” wrote Vincent de La Bachelerie, Ernst & Young’s Global Telecommunications leader. New entrants can affect growth potential by reducing the ability of established companies to acquire customers and raise prices. To maintain the value of their firms, the established players are forced to innovate.
There were alternative views. Some panelists expected this trend to slow as a result of the credit crunch. For instance, the banking crisis has left many financial firms with large losses, leading them to focus on their core businesses. In the US and Europe, the crisis has also given rise to a new entrant into the sector: national governments. It remains to be seen whether government managers will in fact remain at arm’s length. And one analyst sounded a highly prescient warning about the dangers of entering adjacent sectors: “As the insurance industry becomes more linked to the...performance of obscure corners of the capital markets, industry risk can increase exponentially...in my opinion this is the number one strategic risk,” wrote Keith Buckley, Group Managing Director at Global Insurance, Fitch Ratings. A few months later, AIG’s derivatives losses resulted in the company’s collapse.

### Non-traditional entrants continued...

**Steps companies can take to respond to this risk include:**

- Taking the threat seriously now, rather than expecting that it can be dealt with in years to come. In consumer markets, focus on the needs of those customers who are likely to switch to other brands as early as possible. Given the possibility that customers may be tempted to switch to non-traditional providers, conduct scenario analysis to understand the potential impact on market share – it is inevitable that some customers will switch. In most cases, it is good advice to remain consistent in brand – look at the factors that make it popular at the moment and stick with it, deploying a strong marketing strategy.

- Focusing on threats in new market segments. Often, emerging players will occupy new segments of the market. For instance, the fastest growing segment in the car industry is likely to be the small car, in which the Indian company Tata is a leader. In this niche area, emerging market producers are making cars to the same standards as western producers. Since this threat will take time to develop, consider strategic joint ventures, in order to understand the dynamics of these new market segments.

- Reviewing and identifying sources of strategic advantage. Often, it seems that new entrants have all the advantages. But established players still have many cards to play. For instance, established telecoms companies have begun to give their existing customers the same discounts as new customers. This makes sense – in the current climate, it’s more important for a company to keep its existing customers than to acquire new ones. Loyalty program design is another key area on which established players can focus.
“The reality is that each SWF is different, yet much of the commentary and analysis surrounding the funds only considers them at an aggregated level.”

Francis Small, Ernst & Young

Francis is Ernst & Young’s Global leader for Sovereign Wealth.

The rapid rise of Sovereign Wealth Funds (SWFs) has ignited controversy in many parts of the world. Today, nearly one third of one of Britain’s largest banks is owned by three shareholders based in the Middle East. In the last 12 months, Middle Eastern funds have also acquired two iconic New York landmarks, the Chrysler building and the General Motors building. SWFs are increasingly grabbing the headlines, surprising many with the boldness of their investments, and yet their motives for investing are not well understood – are they purely financial, or are they also geopolitical?

SWFs are large, powerful investors that are not subject to the regulatory regimes that apply to other investors. If we don’t understand their motives and can’t effectively regulate them, how should we react to SWFs as potential investors? Are they a threat or an opportunity?

SWFs are not new – the oldest dates back to 1953 – but they have grown rapidly in number, size and profile in the last five years, driven partly by oil price rises. The reality is that each SWF is different, yet much of the commentary and analysis surrounding the funds only considers them at an aggregated level. Their origins may be similar, driven by the production of raw materials such as oil, gas and minerals, but they differ in terms of their organizational maturity, degree of independence from government, risk appetite and investment appraisal processes. Each fund has a distinctive investment pattern.

The principal sectors in which SWFs have invested to date have been financial services, real estate and industrial companies. The recent investments by SWFs in US and European financial services firms, which have generated so much publicity, are atypical and primarily reflect the impact of the credit crunch.

A number of the funds are making investments to accelerate economic development in their home country, but they do not appear to be active in ways that threaten the economic or national security of foreign countries where they invest. On the contrary, recent investments made in financial services were welcomed as long-term investors contributing to market liquidity.

The reaction of governments to SWF investment has fluctuated. When a SWF acquired a major international shipping company in 2006, the US government raised concerns about national security, as the assets to be acquired included six US ports. The French, Italian and German governments have all issued strict guidance on investment in their economies by SWFs and other organizations.

In response to these concerns, a group of 26 SWFs have issued a set of voluntary principles, encouraging greater transparency – a helpful first step. More recently, both the US and UK governments have actively encouraged investment in their economies by SWFs in the light of the economic climate. Today corporates and private equity houses are queued outside their doors, seeing them as potential sources of long-term funding.

SWFs are here to stay. They seem to be taking more financial risk with their investments and even the newest of them will mature rapidly as organizations. As the global economy continues to shift, companies may need to embrace SWFs as a potential source of funding, invest time in building relationships and find ways of partnering with them.
6 Cost cutting

Over the past year, cost inflation – our eighth-ranked risk in the 2008 report – captured the headlines, as rising energy, food and raw material prices triggered political unrest and ate into corporate margins. For 2009, analysts expected that while cost inflation would abate, cost cutting would become crucial for many sectors, as companies struggled to navigate difficult economic times. Hence, despite the downturn, this challenge rose two places on our risk list.

While some inflationary pressures have lessened, few analysts expect that this will be more than a temporary respite. This is because these pressures result from the long-term trend of growing prosperity (and demand) in emerging markets. In the US automotive sector, for instance, concerns about legacy pension and health care costs have been augmented by concerns about labor costs. (Indeed, labor costs in some markets have risen so quickly that “One...purchasing executive, when asked which low-cost country he preferred, responded ‘Alabama’,” wrote Neil De Koker, President and CEO of the Original Equipment Suppliers Association.) Similarly, “The [oil and gas] sector has experienced an unprecedented explosion in its costs which is unsustainable,” argued one independent consultant.

During a global downturn, some of these cost pressures can be expected to moderate. Global demand and therefore prices for industrial raw materials, such as steel, have fallen, at least temporarily. Pressure on labor markets should also ease, at least in some sectors. However, this easing of inflationary pressures will not ease the need for cost control. During a downturn, price wars and falling revenues will only increase the importance of cost containment, as companies struggle to beat competitors’ prices while maintaining margins. “Cost pressures significantly increased last year with more to come in 2009 as the global economy goes into recession,” commented Keith Mansford, former President of Research and Development at Beecham Pharmaceuticals and SmithKline Beecham and Chairman of Mansford Associates.

In terms of value drivers, the main impact of cost inflation is on earnings and operating margins. However, there can be other impacts, as one analyst stated in relation to a famously over-budget oil and gas project: “The very public nature of the problem has also caused profile problems for the project operator, with some analysts questioning their competence to run such a big and complex project.”

Point of view

Steps companies can take to respond to this risk include:

- Match any current and emerging customer opportunities with strategic sales and marketing plans, and identify any market entry or growth opportunities with a focus on customer churn and product or service innovation.
- Perform a detailed assessment of all intellectual property and by analyzing licensing agreements and business processes for improved revenue collection.
- Entering into a cross-border contract, especially in a region of significant cultural and regulatory differences can lead to increased costs and loss of revenue. A detailed assessment of contracts should be performed to assess risk exposure and to better monitor and manage the performance of that contract.
- Ensure finance operations are fit for purpose; installing benchmarks, streamlining processes, looking at the options for shared services or outsourcing and partnering more with the business.
- Perform a procurement process analysis as savings can commonly be achieved through reduction of discretionary spend, improved demand management, better financing options, reduced stock-holding, reduced purchase price, improved/harmonized payment terms or improved payments processing.
- Perform IT process re-engineering to identify improvement ideas to better manage the control of IT costs and increase the quality of IT services.
- Perform a strategic analysis of the real estate portfolio to align with current operating needs and long-term business strategies.
The economic downturn in most markets and rising prices for commodities has contributed significantly to declining profits and a resulting focus on cost controls in the automotive industry.

Many manufacturers can begin to address these challenges through a series of initiatives aimed at taking costs out of their processes. These initiatives will focus on three primary areas: the customer, the supply chain, and business support services.

Customer-focused initiatives will have the largest impact on vehicle assemblers. With rapidly changing preferences, it is imperative to insert the will of the customer into the redesign of supporting processes. One such area is around vehicle complexity and the reduction of orderable configurations. By dramatically reducing this complexity—in many cases reducing more than 90% of orderable configurations—assemblers can minimize the vehicle-to-vehicle variability during the assembly process, and greatly reduce the forecasting inaccuracies that often lead to excessive (or insufficient) inventories. A detailed understanding of customer preferences is required prior to initiating such reductions.

Pricing is also increasingly important and can be variably applied by vehicle configuration or geographic placement, for example, through incentive plans that target specific customer segments. Variable pricing has long been debated in the automotive industry, and through rich data analysis and customer understanding, targeted pricing could lead to enhanced top-line revenues.

Within business support services there are many areas that are getting attention, but perhaps none of higher priority than creating or expanding global shared service centers. With traditional functions such as accounts payable, human resources, information technology and even non-production procurement, there are significant gains to be had in standardizing and centralizing these activities to gain scale efficiencies.

Many aspects of the procurement function should likewise be evaluated for cost improvement opportunities. Examples include assessing contract risk (particularly for emerging market sourcing decisions and sole-source arrangements), increasing focus on cost reductions, and introduction/expansion of centralized procurement to gain maximum purchasing leverage from scale of operations.

Continuing globalization is resulting in the export of new, highly competitive automobiles from countries with lower cost production, such as Korea, China and India. These exports tend to upset traditional market share balances in the markets they enter. Throughout the value chain, manufacturers and assemblers alike have been faced with increasing costs and limited ability to pass along those increases or to raise prices.
Managing talent

For several years the global search for talent has been an escalating challenge in many sectors. This year, the risk changed fundamentally, and as a result rose on the list (from outside the top 10 in 2008, to risk seven in 2009). Talent management includes not only the competition for top talent, which continues in many sectors, but also perhaps surprisingly the struggle to retain key competencies during an economic downturn, and the escalating debate on misaligned compensation structures. This was dramatically illustrated by the salary caps imposed as part of the US banking bailout package but extends to a broader debate on the relationship between reward and risk management.

In a number of sectors, worries about stifled competition for talent continued despite expectations of a softer economy. This is because the issue has several roots: demographics, globalization and industry transition. The talent war remains but the resources available to fight it have been reduced. “There is an open-ended demographic gap that is not being addressed...while the knowledge base continues to age. The window of opportunity for knowledge transfer is short and getting shorter,” wrote one oil and gas sector panelist.

Increasing numbers of Chinese and Indian engineers and scientists are leaving the US and Europe to find jobs in their fast-growing home countries, and competition for talent in media – among other sectors – is increasingly global, keeping the demand for talent high even in a downturn. Furthermore, an economic downturn will pose new challenges, as companies undergoing downsizing or making strategic divestitures struggle to avoid losing key competencies. There were also a number of dissenting voices to this view: “The speed at which the emerging producers have generated skills is evidence of the short lead time needed to populate the automotive industry,” wrote one analyst. A new aspect to human capital risk for 2009 is the importance of governance. Following massive bailout packages for the financial sector, executive pay and misaligned compensation structures have become a topic of political debate. “Aggressive remuneration is widely perceived as a contributing factor to credit oversight failures,” wrote Rory Macleod, former Head of Fixed Income and Currency, Baring Asset Management, and Managing Director, Objective Analysis. “The sub-prime meltdown highlights the failure of corporate governance,” commented one Ernst & Young panelist. Dealing with these complex human capital risks will not be simple, and is made harder by the ferocity of the backlash and the politicization of the issue. Litigation and reputational risks will only make it more difficult to secure high quality board members in the years ahead.

Steps companies can take to respond to this risk include:

- Developing training and recruitment programs and leadership and coaching skill programs will help to combat the decline in employee quality that will otherwise occur. Demographic and other shifts mean that the availability of labor in some markets is declining. As a result, in affected sectors, many employees will be promoted too quickly, fail to have sufficient skill sets to do their jobs, or be sourced from abroad (which creates its own risks). Identifying high talent individuals and providing differential investment in their development will be a key success factor.

- Formulating a systematic response to human capital risks. A few companies, mostly in professional services, are leaders in this area. In many other sectors, competition for talent continues on an ad hoc basis. Many companies lack good hiring and retention policies. Companies that recognize the problem but do not address it in a structured way will struggle to compete for talent. Companies with affinity groups, college hiring, training initiatives, sponsoring degrees, coaching, mentoring, and so on will have a significant advantage. Leading companies monitor how many people they are losing, whether the people that they are losing are good, bad or average, where those people are going, and why they are leaving. With respect to the existing talent pool, assessing key competencies, communicating expected skills, knowledge and behaviors and providing corresponding training and development are key factors to success.

- Managing the unique risks of emerging markets. In most sectors, the talent markets in emerging economies are relatively small. This means many mid-level to senior people have spent time with a number of competitors. Many companies understand each other’s so-called “competitive advantage”.

Point of view

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The 2009 Ernst & Young business risk report – The top 10 risks for global business
“Risk in relation to human capital has now gone way beyond the traditional remit of the Human Resources (HR) department.”

Christopher Lipski, Ernst & Young
Chris Lipski is HR Risk Management Service Line leader, based in Cleveland, Ohio.

Risk in relation to human capital has now gone significantly beyond the traditional remit of the Human Resources (HR) department. With current economic challenges and in an increasingly complex regulatory environment, managing risk in the HR area has become an increasingly important issue for global executives.

According to Ernst & Young’s recent global HR risk survey of Fortune 500 CFOs and HR executives, talent management and succession planning were viewed as strategic issues having a high presence in terms of their impact and likelihood of occurrence within an organization. Closely following in the survey results were professional ethics/tone at the top, pay and performance alignment, regulatory compliance and employee training and development.

Managing all stages of the talent cycle – recruitment, training and development, performance management, retention and separation has become a key performance indicator for the best run companies. As businesses are contemplating transformation programs within their HR management strategies, managing these risks successfully can deliver significant financial (and non-financial) benefit. Equally, if not managed effectively, the issues surrounding human capital can leave skills gaps in the business and seriously damage its performance and reputation.

The aging workforce
The aging of our global population is an undeniable force. In Japan, for example, 42% of the population is predicted to be aged 60 or over by 2050, and as a result, the working age population is predicted to drop from 65% in 2007 to 47% in the same period. The result is likely to be a ‘brain drain’ of core skills and knowledge in the workplace, and a different set of consumer demands in the marketplace.

The talent pool
Employment needs and expectations are shifting. High caliber Gen Y (born 1981 onwards) job applicants now look for a manageable work/life balance, more inclusive work environments, and greater mobility. Attracting the best candidates is all about proving strengths in these other areas, in addition to remuneration. It is inevitable that the economic downturn will have an impact. Corporate redundancies will mean a glut of highly qualified people competing for fewer jobs. Traditionally ‘desirable’ places to work, such as investment banks, may well fall in popularity. The public sector may become increasingly attractive as graduates search for more secure career paths.

Retention and optimization
Managing their talent pool also represents risks for businesses. Gender inequalities persist at a leadership level, and only a minority of companies have undertaken adequate succession planning. Complex employment laws relating to discrimination, harassment, employee privacy and other regulatory requirements around compensation and benefits add to the confusion. An uncertain economy means that employees need regular training to ensure they continue to meet the needs of both business and the market.

Responding to the risks
It is likely that all aspects of talent management will move higher up the agenda, with a possible reinvention of traditional HR practices. As regulation, legislation and employee expectations change at a rapid pace, HR professionals will need to keep up. While HR functions will try to operate more effectively during the economic downturn, to maximize resources, businesses may start to take a more strategic, longer-term view of talent and HR. Metrics may be used to develop a measurable understanding of HR capabilities and needs.

Businesses look set to experience a shift in perspectives, utilizing structured training at all levels, career development plans for all employees, robust competency models for key positions and viable processes for employee competency to be assessed with remediation plans developed and monitored.

As businesses manage their product portfolio, the market in which it operates, competitor activity and opportunities, HR should do the same to measure performance, and invest in high achievers. A more business-like approach to managing these risks, will mean that talent is optimized by the business.
The 2009 Ernst & Young business risk report — The top 10 risks for global business

Steps companies can take to respond to this risk include:
- Investing in understanding the target. In the case of targets in emerging economies, companies making acquisitions may find expansion problematic (because business models and risk profiles may be unfamiliar). In the case of targets that are complementary businesses, companies may have trouble understanding the acquiree’s business model and may therefore struggle to integrate the target. Beyond due diligence, it is important to understand the target’s strategy, business model and risk profile.
- Focusing on integration. Many acquisitions fail due to poorly executed integration – synergies are not maximized.
- Ernst & Young’s principles for getting transaction integration right center on the six Ps:
  - **Purpose** – be honest about your objectives;
  - **Planning** – starting planning as early as possible;
  - **Process** – rigorously manage the deal continuum;
  - **Price** – pay what’s right for you;
  - **Pace** – act with speed; and
  - **People** – communicate and act with integrity.
- Creating value and managing risk throughout the investment cycle. Acquiring organizations should set near- and medium-term goals for which the M&A team can be held accountable.

In a number of sectors, strategic alliances are becoming a core business model component. “The movement towards vertical coordination between supply chain members has been recognized as a phenomenon for decades,” wrote a consumer products sector panelist. Pharmaceutical companies are increasingly partnering with biotech companies to replenish drug pipelines. Media companies are increasingly developing alliances with telecoms and internet companies to distribute their content. While these alliances are now fundamental to competition in these sectors, such partnerships require sophisticated controls as the underlying agreements can be complicated and the company is often exposed to risks distributed throughout the ‘extraprise’.
“Private equity firms are increasingly partnering with industry participants to increase profitability and mitigate risks.”

A changing role for private equity

Firms have a weaker position and less independence. After half a decade of cleaning up their balance sheets, it is corporate entities that now have the ability to drive transactions in the market. Until conditions become more favorable, the M&A space is unlikely to see an increase in volume, and corporate transactions, which a few years ago were still outbid by private equity, will prevail.

Private equity targets

In general, the multiplication of media channels drives expectations that content assets will increase in value. PE firms have taken a pronounced interest in acquiring content ownership, particularly in the education and multiplayer gaming space.

Similarly favoured is the acquisition of existing content applications diffused via new distribution channels such as mobile telephony and other personal electronic devices that aggregate large audiences, and therefore are likely to see above-trend growth in advertising spend.

Making partnerships work

Private equity firms are increasingly partnering with industry participants to increase profitability and mitigate risks. Transactions affirming these new partnerships however are characterized by potential misalignment of interest between the PE firm and the corporate entity. Whereas private equity approaches the transaction with a medium-term exit strategy of five years historically, the corporate entity commonly focuses on long-term opportunities without considering an exit strategy at all.

Exit evaluation therefore is a key consideration. Both parties should clarify expectations on timing, and ensure their investment objectives are known to each other in advance: PE firms are now holding investments for longer, which demonstrates that strategies and expectations are changing.

Mitigating risks

PE firms and M&E companies alike can further mitigate risks by improving asset value throughout the investment cycle. This includes identifying working capital needs and better capital management, operational restructuring and cost rationalization to increase asset profitability, as well as business growth - whether organic or through acquisitions.

The surge in distribution channels for media content increases the risk that acquired assets might initially fail short of expected investment returns as the shifting landscape impacts pricing power. The music industry provides an instructive example: very profitable during the 1990s, distributors lost a large part of their pricing power with internet distribution causing notably lower returns than expected.

Asset valuation that considers potential adverse impacts on investment returns from such disintermediation risks will be key for successful transactions. Both PE investors and corporate entities will benefit from conducting integration and market risk assessment pre- as well as post-transaction, including modelling disintermediation, business integration and further transaction risks.
Business model redundancy

New on the risk list this year, business model redundancy is a concern for several sectors, as long-established business models are becoming obsolete. Regulated monopolies in power generation and telecoms; medium-sized mutual funds promising above-market returns in asset management; pharmaceutical companies exploiting a portfolio of ‘blockbuster’ drugs; traditional studios in media and entertainment – these are endangered species. As a result, many industry-leading firms have been forced to re-invent their business models.

Since the 2008 report, this trend has gathered pace. Comments to this effect came from across the sectors: “The dramatic drop in performance of many media companies due to the shift of advertising to the internet and the pressure on advertising from the recession triggered a much greater sense of urgency to change business models”; “Big pharma needs to revolutionize its business model, and doing that has resulted in companies looking to biotech to fill their pipeline”; “The ‘middle class’ [in asset management] is disappearing as larger firms are gathering the preponderance of asset flows”; “New services [in telecommunications]...need to find their own business models.” The fact that these changes are now underway does not make business model re-invention any easier. One panelist quoted a media CEO speaking at a conference: “We have been so successful for so long that our people are not flexible enough to adapt to these challenges,” he said.

This kind of fundamental change can threaten many of a firm’s value drivers. Perhaps the most difficult aspect of these new business models is monetization, including the ability to charge sustainable prices in sectors, such as media, where some players are willing to offer content and services free of charge (usually in exchange for access to customers). This puts the revenue and market share of established players at risk, compelling them to adopt the new model. “Advertising models are becoming commonplace in areas once driven by subscriber models or purchase models,” wrote one Ernst & Young panelist.

Point of view

Steps companies can take to respond to this risk include:

• Taking an approach that allows experimentation. “[Companies] need to ‘pilot’ new products and revenue models as fast as possible and ‘fail them fast’ if they don’t work. The more ideas tested, the better the chances of hitting a winner,” wrote one telecoms sector expert. To make this possible, a business model that allows business units to be innovative, while a strong central management allocates investment and carefully monitors success and failure, can be useful.

• Expanding in emerging markets. In many emerging markets, the business model reinvention that is sweeping the US and Europe is still years away, and these markets are growing fast. The traditional business models of established players can therefore function well in these markets – subject to successful management of issues such as political risk and local competition.

• Maintaining sound controls. Companies are inventing business models to serve new business platforms (for example, mobile and digital in the media sector). Many of these developments are unique and are based on business models never tested before. As these business models are not completely clear and are untested, it is crucial that a company has excellent organizational controls to deal with them. Inevitably, many risks that appear will be unanticipated, and therefore must be managed reactively. The company must therefore have the controls needed to identify problems and react quickly before a company’s reputation is challenged.
With today’s discontinuous pace of change, only the innovative survive. Sustaining innovation is not just about risk mitigation, but is a must for sustainable growth and survival. Today companies don’t just deal with risks, they deal with uncertainties. Investing in innovation has been synonymous with investing in R&D or getting involved in product improvement activities. To sustain innovation in the future, companies will need to change their mindset and see innovation in cultural terms. True innovation looks to the changing world around it and encompasses processes, business models and products alike. These companies look at the upsides of risks as opportunities. In achieving this, there are a number of key points to bear in mind.

Firstly, the current trend towards convergence in the market place has accentuated the need for innovation, not just in products but also in processes and business models. It has also created opportunities for innovative thinking across new boundaries. Formerly distinct technologies, people and products are now coming together in similar markets. Firms need to be increasingly visionary in their thinking and take advantage of reverse synergies from new interactions. Methods that preach sticking to a ‘best in class’ process have become standard in western markets. They now need to be challenged and innovation encouraged.

Secondly, whenever we see downturns, new chief executives start laying people off. Innovation is about a focus on balanced, steady, value-added growth rather than just cutting head count.

Thirdly, firms need to be globalized in the true sense of the word. Revenues, operations and people need to be global, and true globalization can help to manage risks if assets can collectively engage themselves. We have been talking of the ‘decoupling theory’ for quite some time. Globalization embraces new centers of power – markets which are resilient to shifts in traditionally stronger markets. Companies which embrace globalization secure themselves more room to play.

Fourthly, cross-fertilization between converging sectors, particularly brokering technology and ideas, is crucial to innovation. Pouring money into R&D and breakthrough technology is no longer the only answer. Proactive moves must be made to benefit from opportunities for cross-pollination created by flattening market places. For examples, one of Germany’s largest homeopathic drug firms in the Indian market not only supplies homeopathic products to India, but also feeds back reverse synergies from Ayurvedic and other non-allopathic products into their European markets. Capitalizing on cross-pollination in products, technologies, global sourcing and global human resources will push innovation further.

Finally, corporate social responsibility (CSR) is a hot topic. Firms need to provide support, skills and volunteers based on their own core competencies in order to have impact. The advantages in reputation capital and social innovation which result from well strategized CSR are significant.

Sustaining a culture of innovation is therefore primarily about openness. Firms must strive to create a genuine “culture” which is receptive to ideas from different sectors and communities, as well as internal creativity. Innovation must stretch across all facets of business processes, products and business models, and remain open to the increasing number of new and varied markets it comes into contact with. To sum up – to an innovative mind a risk is an opportunity, and uncertainty a sum of many parts.
Reputation risks, ranked 22nd in the 2008 report, rose dramatically on the global list primarily as a result of the financial crisis. This crisis elevated a firm’s financial reputation to a matter of survival in many cases, and threatened the reputation of entire sectors such as asset management and banking. In addition, the ongoing trend of escalating compliance requirements continued to drive the importance of this risk, because compliance failures are perhaps the most common source of serious reputational damage.

In many sectors, such as oil and gas, the nature of reputation risks has changed little since 2008, but the intensity of ongoing public debate has increased. For instance, as a result of rising climate concerns (risk four this year), “failure to be seen to be responding to climate change and oil’s perceived role as a driver of this will have huge reputational risks for IOCs,” as one panelist contended. In a similar vein, rising political pressure on pharmaceutical companies to provide life-saving drugs in even the poorest countries caused “Enabling Access” to appear on the top ten list this year for the life sciences sector. In Europe and North America, energy security has become a major topic of political debate impacting power and utilities companies.

However, the most dramatic reputation risk development this year was surely the financial crisis and resulting credit crunch. With great uncertainty regarding the nature, extent and disclosure of losses, and the business strategies and management oversight associated with these losses, a good financial reputation became a matter of survival. Credibility, built on financial strength, transparency and honest communication with the market, was a critical component of value. Reputation has always had a link to market capitalization, but the credit crunch made this link obvious, “Reputation relates to confidence. When damaged it can spiral out of control,” wrote one commentator. Allegations of fraud, insider trading and other ethical lapses that have been associated with the crisis further eroded the tattered reputations of many institutions.

Unsurprisingly, as the impacts of the financial crisis have spread to the broader economy, the political rhetoric regarding blame for the crisis has intensified. “There has been reputational damage to major banks due to the financial crisis,” as one analyst argued. Other, non-financial sectors have been affected by the limited availability of credit and increased cost of capital attributable to market uncertainty. Company reputation is an important factor affecting the availability and cost of credit and capital to support operations and fund growth.

The value driver impacted by these reputational threats is a firm’s profile. Aside from the obvious, direct financial impact of poor or reduced corporate reputation, other aspects of business operations may suffer. For example, analysts in the oil and gas sector noted that a poor reputation could impact the sector’s ability to attract talent, at a time when the sector is facing a growing human capital deficit.

Steps companies can take to respond to this risk include:

- Performing an assessment of external views regarding your company’s business reputation and identifying perceptions that are within your control. Consider establishing a formal reputational risk policy and incorporate its precepts into risk management discussions at the executive management and Board level. Executive performance criteria, accounting manuals and overall governance policy are also key.

- Assessing major business decisions against their impact on public perception. Perceptions matter tremendously, especially in sectors that have become the focus of high-profile political debate. While it is common for businesses to resent political interference, business models in many sectors depend on support from regulators and policy makers. For instance, the life sciences sector depends on strong intellectual property protections, market-based prices, robust product approval infrastructure and support for scientific research.

- Communicating financial information in a clear, accurate and balanced manner while at the same time complying with regulatory reporting frameworks. Establishing protocols for internal issue escalation, assessment and well-considered external communications is critical. In the context of today’s volatile markets, it becomes ever more important for companies to present information in a timely manner, or risk losing the trust of stakeholders.
“Reputation risk is related to corporate governance, business ethics, and crisis management, and the time to develop plans and procedures is not when the world is at your door looking for answers.”

David Stulb, Ernst & Young
David is the Global leader of Ernst & Young’s Fraud Investigation & Dispute Services. He has extensive experience leading complex investigations in Europe, Asia, the Middle East and the Americas.

Managing reputation risk in today’s business environment cannot be considered a second or third order priority. It is no exaggeration to say that it is essential to the survival of the business. In markets where access to credit has been severely curtailed and the price of risk significantly increased, aberrational behavior by a rogue employee can ruin an entire enterprise overnight. Whether one is referring to a lapse in product quality control, a bribe paid overseas to retain an existing contract, or a senior executive acting for personal gain, the speed of the reaction of regulators, law enforcement and the financial markets can quickly overwhelm management and Boards of Directors alike.

Ultimately, reputation risk is related to corporate governance, business ethics, and crisis management. And like crisis management, the time to develop your plans and procedures is not when the world is at your door looking for answers. Addressing the need for ethical business conduct – and how your organization will deal with any lapses – is of paramount importance.

The challenge of bribery and corruption is one particular aspect of business ethics which has posed difficulties to some of the world’s most prominent companies in the past two years. There are lessons to be learned for multinational businesses from all sectors from the collective efforts of many of these organizations to improve their anti-bribery/anti-corruption programs.

Effective reputation risk management must start with the Board. Making a clear statement of the company’s values, the importance it gives to ethical business conduct, is foundational. Boards should consider making reputation risk an agenda item at all meetings, and should give thought to mandating the explicit assessment of reputational risks in all business decisions they take. Individual directors would be wise to challenge management with respect to the quality and frequency of assessments of reputation risk they receive. Should more be done to provide direct access to business unit leaders for Board members?

Senior management are not without additional responsibilities as well. In addition to preparing more frequent assessments – by business, by geography – the policies and procedures meant to mitigate these risks should be evaluated accordingly. Due diligence procedures, including those relating to vendors and agents, should be revisited regularly. Is the amount of face-to-face interaction adequate? Has a “box ticking” mentality set in? When lapses in ethical behavior surface, does the company have a uniform approach to investigating them and taking remedial measures? Assuring effective compliance is a personal and collective responsibility of management, and performance/compensation reviews should reflect their successes and shortcomings.

Management also has a duty to take steps to be sure that the message is effectively reaching all their personnel. Training, in local languages and using a variety of teaching methods, is key. Subsequent testing of employees’ knowledge of their compliance obligations, especially for listed or otherwise highly regulated companies, is particularly useful when demonstrating contemporaneous effectiveness of the compliance program is necessary. Making telephone support available for employees in need of ethics-related advice, in addition to hotlines through which they can report allegations of misconduct, is also worth considering.

Comprehensive communications to internal and external stakeholders regarding the totality of the corporation’s efforts to promote ethical conduct are becoming standard practice for leading organizations, building confidence in the level of commitment from leadership. Moving beyond the bare minimum approach to disclosure, and considering independent, external and ongoing assessments of compliance, can reinforce the messages from leadership further still.

Many of these aspects of managing reputation risk have been implemented by companies beset by high profile fraud and corruption scandals. Senior management and Board members would be well advised to consider them as they undertake efforts to reinforce the imperative of ethical business conduct.
In each sector, we asked analysts to identify not only the top risks, but also risks that are “below the radar” and may emerge to top the risk lists in years to come.

At the global, cross-sector level, a number of the top 10 risks in our 2008 report have fallen down the list this year and now appear “below the radar”. The growth potential of “Emerging markets” (number 12 in this report) is less on the minds of analysts concerned with near-term corporate survival. “Energy shocks” (number 17) have been outweighed by other threats.

There are a few new risks appearing in our list of below the radar threats. “New owners” (number 22) reflects the increasing role of private equity, sovereign wealth funds, and indeed (in the financial sector) governments as owners. “Capital allocation” (number 15) reflects the difficulty of forecasting returns in a situation of heightened economic uncertainty. Finally, “Model risk” (number 23) is a sign of the times, as many risk management models have been over-stressed by the credit crisis (an issue presciently highlighted by the insurance sector’s 2008 report, with their top risk below the radar: “over-reliance on financial models”).

Below the radar – the next five

Consumer preferences are shifting rapidly, going green in consumer products, and digital and mobile in media and telecoms. In the automotive sector, the shift towards smaller, more fuel-efficient cars has contributed to the near-bankruptcy of sector-leading firms, “putting the [US] industry upside down in its efforts to shift its product line-up to this sudden, dramatic and permanent shift in consumer demand,” as one panelist put it.

The challenge is not limited to particular shifts triggered by lifestyle or economic trends. “A failure to understand customer trends in today’s competitive environment is tantamount to organizational suicide,” and most firms are well aware of this, as one commentator noted. The other side of the same coin is what might be called consumer empowerment: on-demand media, niche automobiles, and lifestyle and personalized medicines. New technologies and intensified global competition have made the ability to meet the individual demands of each consumer the ‘gold standard’ in many industries.
Emerging markets are an increasingly important competitive battleground, and can pose a novel set of risk management challenges. “Emerging markets represent the majority of the growth opportunity for consumer products companies in the next decade,” in the words of one panelist. This was a sentiment expressed in many sectors, including insurance and automotive.

However, success in emerging markets is far from guaranteed. Differences in culture, wealth, market structures and politics create pitfalls for companies that do not adapt their strategies to local conditions. “As markets in China, India and Russia modernize, levels and quality of domestic competition will increase,” as one panelist noted. Indeed, emerging market firms are already industry leaders in sectors including oil and gas and telecoms. Emerging markets also pose a different risk profile. Labor costs can rise more quickly than expected; it is easy to underestimate the time required to set up production, distribution channels, and sales outlets; and the ‘war for talent’ in these markets can be particularly fierce.

Firms are struggling to build the architecture of truly global enterprises, as asset managers develop global business models, automotive companies optimize their global production capacity, and power and utilities companies grapple with geographically distinct market structures. The mandate for globalization is clear. Globalization allows firms to diversify, which can be crucial during an economic downturn, and it allows them to follow changing patterns of global demand. “Increased attractiveness of Asian investment forces [asset] managers to increase their globalized positions,” according to one commentator.

However, building a global operating model is not easy. Some companies have been struggling for years to strike the right balance between standardization and localization. Other leading firms have taken aggressive actions such as internationalizing core functions including research and development. With a global economic crisis emerging, there are also risks to the global model: for instance, “The threat of trade quotas has become more apparent over the past couple of years and retailers have had to rethink their strategies for importing particular goods,” as one industry resource commented.

New technologies including ‘cleantech’ – such as next-generation automotive power trains and utilities generation technologies – and information technologies such as the next generation of telecoms networks are constantly emerging. These new technologies challenge companies to develop new competencies. For instance, as more and more of an automobile’s value is created by electronics (such as air bags, navigation systems, and batteries), the balance of power between different manufacturers is shifting.

The impact of emerging technologies will be felt especially in high-carbon sectors. “Technology has the potential to change the entire industry’s approach to supplying power,” as one utilities sector panelist noted. And in oil and gas, “technology is increasingly central both to the development of frontier resources, to the efficient exploitation of existing resources, to cost control and to operating within a carbon constrained world.”
Other risks below the radar

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Managing intellectual capital</td>
<td>It is easy to lose key competencies during a downturn, which will increase the difficulty of the climb to reach a turnaround.</td>
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<tr>
<td>Energy shocks</td>
<td>Few analysts expect anything more than a temporary respite from high fuel prices, as the discovery of new supplies is outweighed by rising demand.</td>
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<tr>
<td>Inability to innovate</td>
<td>Developing a culture of innovation and increasing the pace of product development is crucial in life sciences and consumer products, among other sectors.</td>
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<tr>
<td>Intellectual property risks</td>
<td>Intellectual property rights are under threat from digitization and political pressure to provide wider access to life-saving drugs.</td>
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<tr>
<td>Infrastructure risks</td>
<td>These can undermine the performance of real estate investments and the ability of energy, utilities and oil and gas companies to reach their clients.</td>
</tr>
<tr>
<td>Shifting demographics</td>
<td>Aging and urbanizing populations are changing competitive dynamics and creating new markets in asset management, insurance and real estate.</td>
</tr>
<tr>
<td>New owners</td>
<td>Private equity, sovereign wealth funds, and now, the government (in financial services).</td>
</tr>
<tr>
<td>Model risk</td>
<td>The weaknesses of backward-looking risk management models were exposed by the global financial crisis.</td>
</tr>
<tr>
<td>Supply chain and extraprise</td>
<td>A critical threat that is easily forgotten when a few months have elapsed since the last major event.</td>
</tr>
<tr>
<td>Managing new business models</td>
<td>New strategies open up new opportunities, but managers can neglect the hard work of building the infrastructure to support these ventures.</td>
</tr>
</tbody>
</table>
Appendix: Participants

We interviewed more than 100 analysts, representing 11 industrial sectors, more than 20 academic disciplines, and the global sector leadership of Ernst & Young. The participants were selected for their positions as leading experts in their fields.

We gave external participants the option to offer their insights anonymously, to enable them to express opinions that might be sensitive, given their positions and responsibilities. Many panelists selected this option, including a number of academics, consultants, and industry journalists, as well as executives in positions in corporate strategy, research and development, and government relations. We thank them for their participation, as well as those analysts — listed below — who agreed to be named.

David Cole, Chairman, Center for Automotive Research
Mark Salmon, Professor of Finance, Warwick Finance Research Institute, Finance Group
Svetlozar Rachev, Co-founder of Bravo Risk Management Group, Chief-Scientist at FinAnalytica and Professor and Chair of Econometrics, Statistics and Mathematical Finance, School of Economics and Business Engineering, University of Karlsruhe
Dr Stephen Satchell, University Reader and Fellow of Trinity College, The Faculty of Economics, University of Cambridge
Jens Tholstrup, Executive Director and Director of Consulting at Oxford Analytica
Dr Matthias Holweg, Director of the Centre for Process Excellence and Innovation, Judge Business School, University of Cambridge
Neil De Koker, President and CEO, The Original Equipment Suppliers Association
Dr Rory Macleod, Former Head of Fixed Income and Currency, Baring Asset Management, and Managing Director, Objective Analysis
Professor Paul Freathy, Director, Institute for Retail Studies, University of Stirling
Rob Golding, Independent Auto Industry Analyst
Dr Peter Miskell, Senior Lecturer, Business History, Henley Business School, University of Reading
Keith M. Buckley, Group Managing Director, Global Insurance, Fitch Ratings
Dr Christopher Parsons, Professor of Insurance, Cass Business School, City University London
Jonathan Reynolds, Academic Director, Oxford Institute of Retail Management, Fellow of Green Templeton College and Lecturer in Management Studies, Said Business School, University of Oxford
Dr Keith Mansford, former President of Research and Development at Beecham Pharmaceuticals and Smith Kline Beecham, and Chairman of Mansford Associates
Alicia Löffler, Director, Kellogg Center for Biotechnology Management, Kellogg School of Management
Christopher O’Brien, Director, Centre for Risk and Insurance Studies, Nottingham University Business School

Michael G. Walker, President of Walker Bioscience, and Consulting Professor, Department of Medicine, Stanford University
Michael A. Crew, CRRI Professor of Regulatory Economics and Director, Centre for Research in Regulated Industries, School of Business, Rutgers University
Al Lieberman, Founder and CEO of Grey Entertainment, and Clinical Professor of Marketing, Entrepreneurship and Innovation and the Executive Director of the Entertainment Media and Technology Program at New York University’s Stern School of Business
Joseph Lampel, Professor of Strategic Management, Cass Business School, City University London
Julian Lee, Senior Energy Analyst, Centre for Global Energy Studies
Leanne Lachman, President of Lachman Associates
Björn Wellenius, Independent Emerging Market Telecoms Analyst
Michael Adewumi, Professor of Petroleum and Natural Gas Engineering, Department of Energy and Mineral Engineering, Pennsylvania State University
Peter Linneman, Principal of Linneman Associates, and Professor of Real Estate, the Wharton School of the University of Pennsylvania
J Andres Jordan, Vice President, Innovation, Deutsche Telekom North America
Raul Katz, Director, Business Strategy Research, Columbia Institute for Tele-Information, and Adjunct Professor, Division of Finance and Economics, Columbia Business School
Dr Michael Hantke-Domas, Lecturer in Regulation and Governance of Water Services, UNESCO Centre for Water Law, Policy and Science, University of Dundee
James Tansey, Associate Professor and Chair in Business Ethics, W. Maurice Young Centre For Applied Ethics and Sauder School of Business, University of British Columbia
Martin Blaiklock, Independent Consultant, Energy & Infrastructure Project Finance
Nigel Lucas, Independent Consultant, Power and Utilities sector
David Stowell, Professor at the Kellogg School of Management and former Managing Director at JP Morgan
Yali Friedman, Managing Editor of the Journal of Commercial Biotechnology
### Sector leaders

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<tr>
<th>Global sector</th>
<th>Leader</th>
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<tr>
<td>Asset management</td>
<td>Ratan Engineer</td>
<td>44 207 951 2322</td>
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<tr>
<td>Automotive</td>
<td>Michael Hanley</td>
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</tr>
<tr>
<td>Banking and capital markets</td>
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</tr>
<tr>
<td>Biotech</td>
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<tr>
<td>Consumer products</td>
<td>Howard Martin</td>
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<tr>
<td>Govt and public service</td>
<td>Philippe Peuch-Lestrade</td>
<td>33 146 937 262</td>
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<td>Insurance</td>
<td>Peter Porrino</td>
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<td>Media and entertainment</td>
<td>John Nendick</td>
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<td>Oil and gas</td>
<td>Wendy Fenwick</td>
<td>44 207 951 5394</td>
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<td>Pharmaceutical</td>
<td>Carolyn Buck Luce</td>
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<td>Power and utilities</td>
<td>Ben van Gils</td>
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<td>Real estate</td>
<td>Howard Roth</td>
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<tr>
<td>Technology</td>
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<tr>
<td>Telecoms</td>
<td>Vincent de La Bachelerie</td>
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### Global Area risk leaders

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<tr>
<td>Global</td>
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<tr>
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<tr>
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<td>Takaaki Nimura</td>
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</tr>
</tbody>
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