

The Ernst & Young Business Risk Report 2010

The top 10 risks for business

A sector-wide view of the risks
facing businesses across the globe



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Introduction

In today's business environment, conditions remain challenging for many, and risk retains its position high on every organization's agenda. Businesses themselves are changing, which brings new risk horizons and, at the same time, they are grappling with the changes brought about by a post-downturn economy. The ability to anticipate threats, respond and continually adapt is as critical a part of the risk management process as it ever has been.

The third in its series, our Business Risk 2010 report is part of an ongoing conversation about business risk – a conversation that has been taking place for several years, asking the question: are companies scanning their horizons and with what scope?

In this report, we explore the global top 10 risks facing businesses that have emerged from our study, and we share the thinking of some of the leading industry-based and academic commentators to whom we have spoken. As we did for the 2009 report, we have taken a "bottom-up" approach to our work, gathering opinions among each of our 14 global sector groups, industry executives and from the analysts from Oxford Analytica, to form a view of the major risks that face each sector. These sector insights provide the foundation for the overall top 10. The 10 risks we highlight and those that fall just under the radar were selected based on how frequently our sector groups and analysts identified them.

Our research suggests that the most important business risks for 2010 are concentrated in the areas of regulation and compliance. Many of these threats are related to the aftermath of the global financial crisis. Asset management, banking, and to a lesser extent, insurance are facing a political backlash and regulatory overhaul following the global financial crisis. Oil and gas, real estate and mining and metals are contending with efforts by cash-strapped governments to gain revenues. And public sector organizations must cope with knee-jerk decisions made by political leaders under pressure.

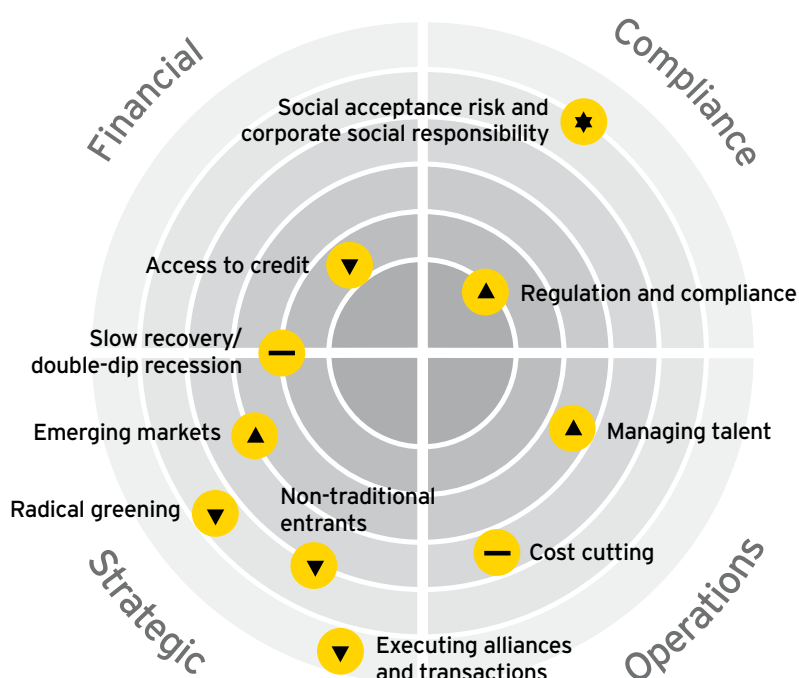
The list is the result of a qualitative, opinion-gathering process, designed to identify the key risks for businesses in 2010. However, we also recognize that the definition of risks varies from sector to sector and from firm to firm, depending on a company's objectives and many other factors. As such, we hope the list will trigger a debate, which we would like to explore further. Are the risks on the global list similar to those you are monitoring? Are they your top risks? Have our panelists missed anything critical?

The Ernst & Young business risk radar

Our risk radar is a simple device that allows us to present a snapshot of the top 10 business risks across the 14 industry sectors we covered.

The risks at the center of the radar are those that the executives 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. Finally, operational threats affect the processes, systems, people and overall value chain of a business.

The top 10 business risks



Key to symbols

- ▲ Up from 2009
- ▼ Down from 2009
- No change
- ★ New entry

Risk weighting and risk prioritization

- ▶ We interviewed a panel of more than 70 industry executives and analysts representing 14 industry sectors, asking each interviewee to identify and rank the top business risks for 2010, as well as risks “below the radar” that could rise into the top 10 in years ahead. At least 5 executives or analysts were interviewed in each of the 14 sectors. The panelists included CEOs, strategy planning executives, heads of internal audit, business unit directors, academics, journalists for trade publications, advisors and our own Ernst & Young practice professionals.
- ▶ We asked the panelists to focus on risks for the “leading global firms” in their sector. We also asked the interviewees to provide commentary on why each risk was important, how each risk had changed since last year, and how firms could respond to each threat. The panelists’ ratings were grouped by sector and aggregated to select the final top 10 and below-the-radar 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 2010.

Executive summary – the global top 10

The top 10

Ranking from 2009 in brackets

- 1** Regulation and compliance (2)
- 2** Access to credit (1)
- 3** Slow recovery or double-dip recession (No change)
- 4** Managing talent (7)
- 5** Emerging markets (12)
- 6** Cost cutting (No change)
- 7** Non-traditional entrants (5)
- 8** Radical greening (4)
- 9** Social acceptance risk and corporate social responsibility (New)
- 10** Executing alliances and transactions (8)

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

1 Regulation and compliance

Regulation and compliance has resumed the Number 1 spot it last held in 2008, with concerns about this risk voiced across the majority of sectors. One of the most current worries among businesses is that the uncertainty surrounding regulation is stalling business decision-making and planning. (Rising from Number 2 in the 2009 report.)

2 Access to credit

Although this risk remains high, viewpoints regarding the availability of credit varied across sectors, with some interviewees indicating that the threat has receded. However, rising levels of government debt may have a strong impact on the cost of credit in the future. (Falling from Number 1 in the 2009 report.)

3 Slow recovery or double-dip recession

Although the financial crisis has abated, a fiscal crisis has emerged in its place. There is no guarantee that global growth will be sustained if stimulus packages are withdrawn. (No change from the 2009 report.)

4 Managing talent

Companies face a number of threats linked to the management of human capital. The global war for talent continues to pose a challenge in some sectors, the approaching retirement of the baby boomers looms over others and, the debate over compensation structures is ongoing, especially in the financial sector. (Rising from Number 7 in the 2009 report.)

5 Emerging markets

With emerging economies likely to dominate global growth, succeeding in these markets has become a strategic imperative. (Rising from Number 12 in the 2009 report.)

6 Cost cutting

Although this risk remains at Number 6, specific concerns among sectors have shifted from last year. Commodity price inflation and pressure from low cost competitors are now rising challenges. However, pressures to control costs to preserve financial viability have receded. (No change from the 2009 report.)

7 Non-traditional entrants

This risk fell two places from 2009, as higher costs of capital and declining demand sapped the strength of some emerging competitors. Further, incumbent firms in transitioning sectors, having had some years to adjust to new entrants, have been able to shore up their positions. (Falling from Number 5 in the 2009 report.)

8 Radical greening

In the current economic climate, environmental issues are not at the top of the agenda, and this challenge has slipped down the rankings this year. However, companies continue to strive to stay ahead of shifting consumer preferences and government regulation. (Falling from Number 4 in the 2009 report.)

9 Social acceptance risk and corporate social responsibility

Social acceptance and corporate social responsibility (CSR) have become increasingly important over the last decade and it is not a surprise to find this risk entering the top 10 this year. In the current business climate, where there are continuing reputational threats and a rising political backlash, firms will need to tread carefully to maintain (or rebuild) the trust of the public. (New this year.)

10 Executing alliances and transactions

Over the past year there has been a noticeable decline in merger and acquisition activity as finance has become costly. However, rescue mergers in the wake of the financial crisis and regulatory changes that may force new transactions remained topical. (Falling from Number 8 in the 2009 report.)



Scanning the sectors

We present (on the following pages) the results of our scan of business risks for each of the 14 core sectors.

In order to make the results more comparable, we asked the commentators 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 2010. The sector-by-sector impacts of a lack of “access to credit” (Number 2) range from “residual credit quality issues” in banking, to general “financial shocks” in insurance, to “access to capital” in power and utilities and mining and metals, to the broader question of “capital access and allocation” in life sciences and the growing threat of “failure to manage debt and fiscal policy” in the public sector.

Similarly, social acceptance risk and corporate social responsibility (CSR) – a new risk for 2010 – manifests itself as a growing political backlash and threat to the “reputation of the industry” in asset management and banking, “managing planning and public acceptance risk” in power and utilities, “maintaining social license to operate” in mining and metals, and several below-the-radar threats in technology, telecoms, and the public sector.

It is notable that in almost every sector, at least 1 of the top 10 risks falls in each of the 4 quadrants. This highlights the importance of taking a broad view of risk issues – which could emerge from any part of the enterprise or its activities.

Leading organizations scan the environment to identify emerging risk issues. Many strategic uncertainties arise from such risks, which can be driven by broader environmental and industry changes, and have the power to threaten or invalidate the current value model of a business.

It is important, therefore, that organizations expand the scope of consideration throughout the value chain to suppliers, customers, business partners and key stakeholders to identify and define emerging risks. Strategic uncertainties are in a constant state of flux and cannot be monitored on a management-by-exception basis. In fact, some management control systems act as filters, thereby removing signals of disruptive change.

Senior management needs to take responsibility for external developments which they may previously have seen as outside their control. Environmental scanning and scenario analysis offers a structured approach to take into account emerging risks and their upside potential.

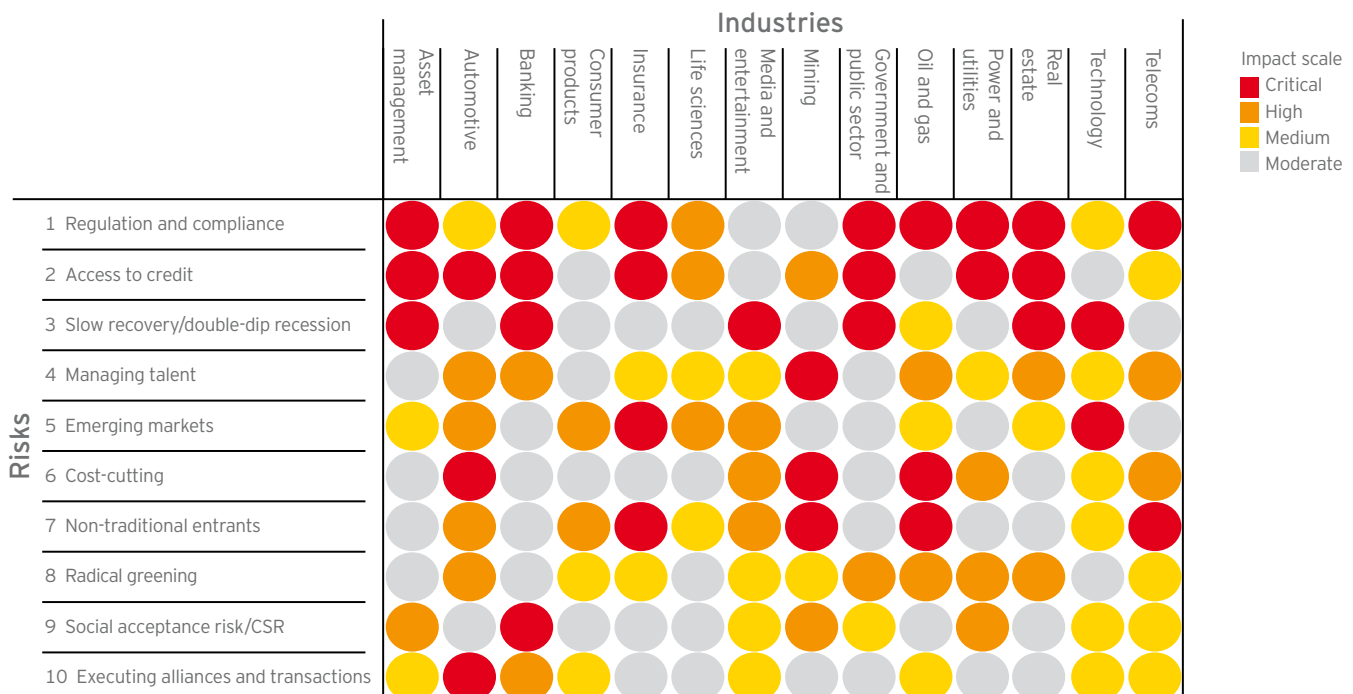
Identifying the global top 10

Methodology

By aggregating the findings of our research in 14 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 14 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 those individuals we interviewed, these risks will do the most to influence markets and drive corporate performance in 2010 and beyond.

Risk impact matrix



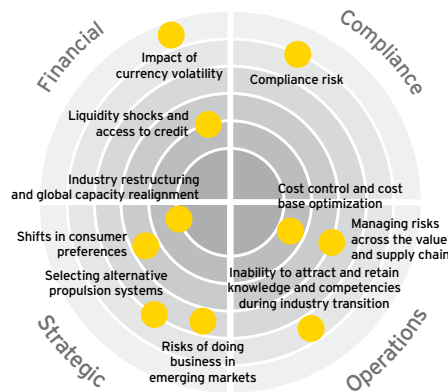


The Ernst & Young sector risk radars

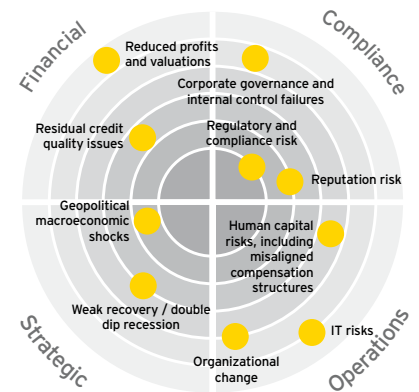
Asset management



Automotive



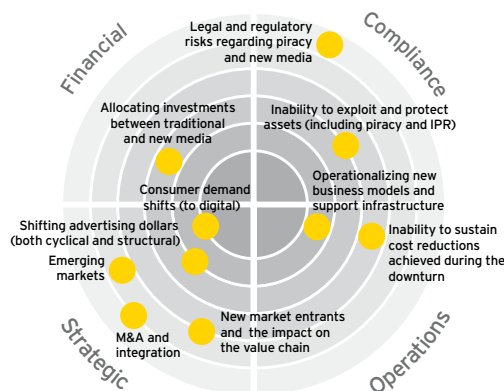
Banking



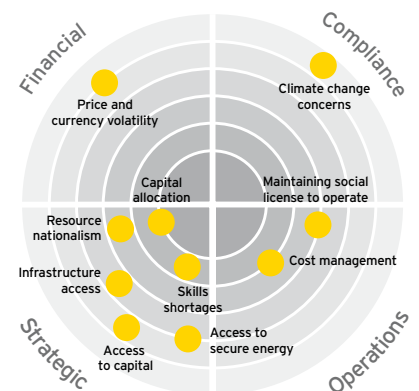
Life sciences



Media and entertainment



Mining and metals

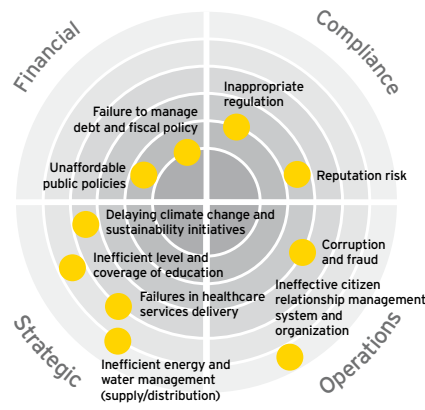




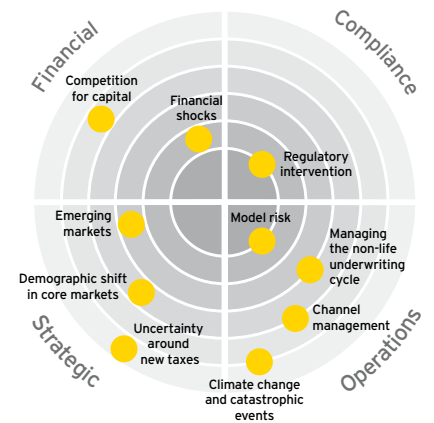
Consumer products



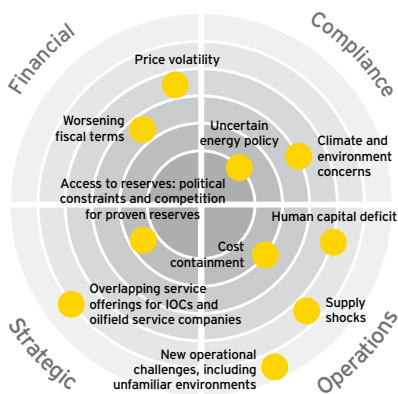
Government and public sector



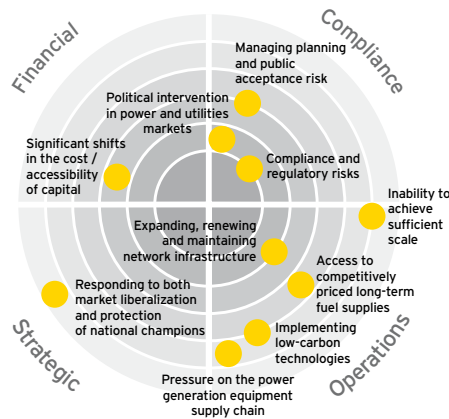
Insurance



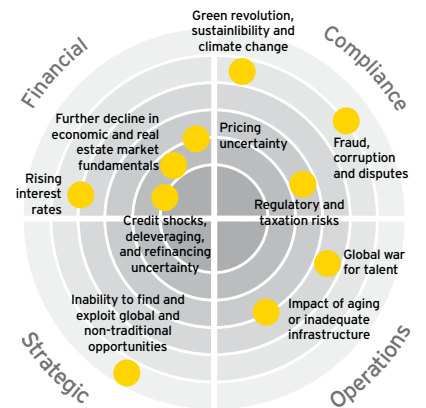
Oil and gas



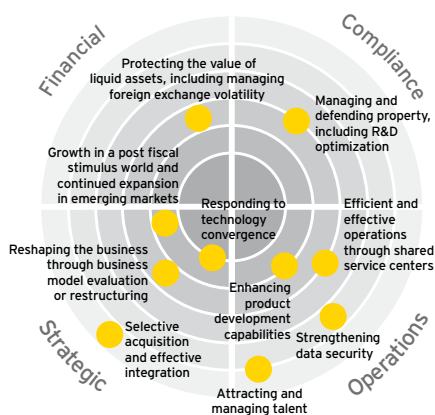
Power and utilities



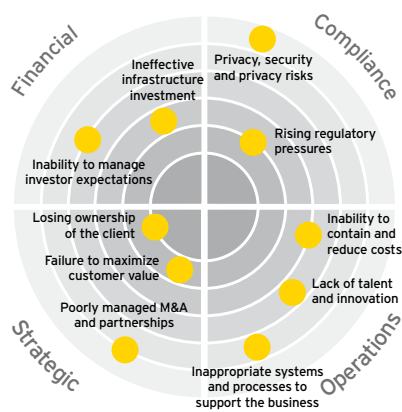
Real estate



Technology



Telecoms





The top 10 business risks

1 Regulation and compliance

Regulation and compliance has remained one of the most prominent risks since 2008 when these reports began. In 2008, regulation and compliance risk topped the global list. In 2009, this risk was only exceeded by worries about the credit crunch. For 2010, regulation and compliance has resumed its place as the Number 1 threat, not only for financial services, but also across a spectrum of sectors, from oil and gas to real estate, and from life sciences and technology to telecoms. Compliance risks are also notable in the automotive sector and the power and utilities sector.

For the financial services sector, the risk of encroaching regulation is still growing with severe worries regarding a poorly designed regulatory response to the credit crisis. Coordination among governments worldwide has the potential to fall by the wayside, increasing the risk of uncoordinated and conflicting new regulation. Banking executives and academic analysts expressed concern that this could result in an over-regulated sector and greater protectionism, preventing global firms from effectively operating across borders.

Our interviewees worried that, in the wider financial sector, regulatory reform proposals have the potential to destroy customer and shareholder value. "New taxes and higher capital requirements will impair the industry's ability to absorb risk, impose a competitive disadvantage when it comes to attracting capital relative to other financial market players, and more broadly constrain the industry's ability to meet its social and economic function as ultimate holder of risk," wrote Daniel Hofmann, Group Chief Economist at Zurich Financial Services. Firms need to rebuild trust, and act in concert to convince governments, regulators and the public at large that their activities do not create systemic risks.

Uncertainty over regulation was another problem raised by many panelists this year. Uncertainty both damages investment and the ability of companies to act. "Governments need to move fast to remove uncertainty, particularly regarding regulation of the financial sector," wrote one panelist. Similar concerns were raised beyond the financial services sector in telecoms, power and utilities, and oil and gas.

Companies can take a number of steps to respond to this risk. First among these is planning ahead and preparing for expected changes in regulation now, rather than waiting for regulations to be imposed. Trying to respond to new regulatory standards in a short space of time can be difficult, especially in a climate where forbearance may be scarce. Avinash Persaud, an independent consultant on finance and policy, commented that forthcoming regulations were likely to favor banks with larger deposits. To respond proactively to such fundamental changes may require companies to take a long view on possible regulations and consider alternate scenarios.



David Scott, Senior Manager, Financial Services Risk Management, Ernst & Young

David has more than 12 years of experience in the financial services industry, focusing for the past 9 years on risk management and regulation in the banking and capital markets sector.

Over the next 12 months, the most sweeping set of financial regulatory reforms in a generation will gain considerable momentum. While policy questions remain open, it is clear that the implementation by national regulators of the ambitious and far-reaching agenda set out by the G20 and the Basel Committee will permanently change the way global banks do business. The consequences of these reforms raise key business risks for the banking sector:

Business issues

It seems inevitable that differing national political and regulatory priorities will create an uneven field of play, giving rise to regulatory arbitrage and incentives to migrate certain business activities to more accommodating jurisdictions. Derivative and hedge fund activities will be particularly exposed.

Banks will face limitations on certain activities including restrictions on proprietary trading and certain derivatives activities, as well as on the ownership of hedge and private equity funds. Even where not directly restricted, banks can expect margins to fall on derivatives, on securitized products and

The cost of change: the business impact on banking of the global financial reform agenda

across many aspects of consumer banking.

Wide-ranging operational impacts stemming from the need to develop and sustain resolution plans may significantly affect financial conglomerates' operational, funding and legal entity structures.

Technology and operations

Demands on IT infrastructure and data will increase exponentially. The bar will be raised for reporting on aggregate risk positions, concentrations and counterparty credit exposures to both management and regulators. Specific and highly granular reporting and disclosures will also be required for many aspects of derivatives, securitizations and consumer businesses. Developing and maintaining the data quality needed to support this regime will be a major undertaking for many banks, as will supporting the necessary IT infrastructure. Regulators have indicated that "quick fix" solutions will miss the mark – banks must make fundamental improvements and investments in this area.

Operational areas will need to adjust to the new standards for derivatives clearing and reporting, while risk management must adapt to higher standards for underwriting and analytics and establish day-to-day processes to support enhanced stress testing, reporting and governance practices.

Balance sheet and funding

On top of the impact of the 'Basel III' capital proposals – which will remain subject to calibration during 2010 and beyond, increased focus from national

banking supervisors on stress testing, scenario analysis and macro-prudential concerns is also likely to drive up capital demands for the largest and most interconnected firms even further. Additional capital requirements for swap activities will also increase these needs, and the likely thrust of so-called "living will" proposals toward financial and operational self-sufficiency of material entities is likely to trap capital and liquidity within those entities. The result could be a push to re-evaluate legal entity structures and cross-entity activities.

The Basel liquidity proposals will force banks to hold buffers of prescribed liquid assets and reduce their reliance on short-term funding, requiring significant changes to funding structures.

The cost of raising capital and liquidity seems certain to rise, driven by the extent to which the markets and rating agencies believe that the reforms have ended the era of financial institutions that are "too big to fail." Leading rating agencies are holding fire until late 2010 or early 2011 before passing judgment on this, with downgrades possible.

The full cost to banks of the new regime remains to be seen, but with some analysts estimating that about a fifth of annual profits may be at risk, it is clear that anything banks can do to mitigate the costs of managing these changes will be an essential component of near-term and strategic planning. Banks should start immediately to assess the global impact of the reforms on their specific business models and develop a prioritized and integrated road map of projects to address these.



2 Access to credit

Last year's top risk has fallen by one place, as the credit crunch has receded on the back of unprecedented government bailouts and stimulus packages. In 2009, widespread investor panic was replaced by a bull market in equities. Emerging market economies recovered quickly, as the commentators we interviewed last year predicted ("Emerging markets will be supportive, particularly in the second half of 2009," was one comment appearing in last year's report.)

This year, several experts we interviewed in the asset management sector expressed confidence that the recovery in global credit markets would last. "[Credit crunch] risk is receding or past," a professor of finance contended, "risk appetite has returned very quickly."

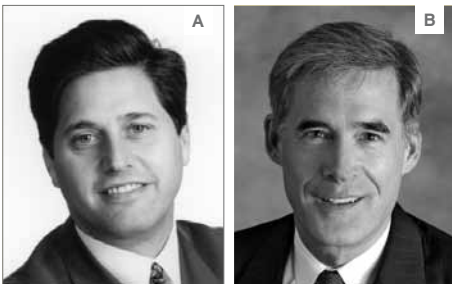
However, other executives in the financial sector were more concerned about credit crunch aftershocks and unrealized or unrevealed losses. Bankers worried in particular about companies holding asset-backed securities and loans coming up for refinancing in the real estate and power and utilities sectors. One interviewee noted that US\$1.4 trillion in commercial real estate debt will require refinancing between now and 2013.

The comments of automotive sector executives were a reminder of why this risk had risen to the top spot, and of the many channels through which the banking crisis spread to the real economy. "In 2009 there was no liquidity," commented Al Koch, the CEO of Motors Liquidation Company. Credit concerns disrupted automotive supply chains "all the way down to the tooling companies," as another executive put it, as the withdrawal of cover by credit insurance companies became a headline issue.

The main reason this risk remains near the top of our list for 2010 is concern about the public sector. Government backing, or implicit government backing, is now crucial for many companies to retain their access to credit. The Chief Risk Officer of a global bank felt that the withdrawal of this support would be a challenge to manage. As one panelist put it: "The patient is still in intensive care and the question is what will happen once life support is withdrawn."

Even more worrying is the impact of skyrocketing government debt. As of this writing, despite the announcement of a bailout package, the Greek sovereign debt crisis continues to unsettle markets, triggering fears for the health of indebted Eurozone economies, as well as the economies of other indebted countries around the world. The head of internal audit at a global auto parts company worried that this sovereign debt crisis would trigger a second credit crunch, once again disrupting the automotive sector. A former Northern European finance minister contended that the affordability of public finances was the top risk for 2010.

This risk may be with us for the long term and have a strong impact on the cost of credit. "Large budget deficits are almost certain to lead to higher interest rates over time – potentially causing [US] yields to spike by 250 to 400 basis points or more," warned Robert Wescott, President of Keybridge Research.



A Mark Grinis, Leader of the Real Estate Distress Services Group, Ernst & Young

B Chris Seyfarth, Real Estate Distress Services Group, Ernst & Young

Of the many risks that real estate organizations face today, credit risk is a particular concern. Most organizations, from small partnerships to the largest companies, need debt capital to finance new property investments or to refinance existing debt. But lenders have become extremely cautious about providing credit. Commercial property values have fallen sharply from their pre-recession peaks and, in the first quarter of 2010, the amount of non-current loans and leases increased for the 16th consecutive quarter, according to the FDIC.

Despite a tight market, some real estate companies have managed to obtain credit. Others have been largely shut out of the credit markets. Among the key indicators that distinguish the successful from the unsuccessful are:

- ▶ **Access to equity capital.** Real estate organizations that have equity capital, or that can raise equity in the public or private capital markets, can use it to pay off existing debt or as leverage to obtain new debt financing.
- ▶ **Balance sheet strength.** Organizations that have relatively strong balance sheets, with lower debt-to-equity ratios, are in a better position to obtain credit.

Credit markets: what shut-out real estate organizations must do to get back in

- ▶ **Asset quality.** Most lenders are far more willing to provide financing to organizations that have loans secured by higher-quality properties, such as class A income-producing real estate in prime locations, on the assumption that these properties will rebound more quickly as the economy recovers.
- ▶ **Capital-oriented business plans.** Organizations that have business plans centered on obtaining and preserving cash will improve their chances of obtaining credit. Among other features, such plans include contingency scenarios in cash flow modeling and strong management accountability on cash metrics and active cash management.¹

For organizations that are having trouble getting credit, the immediate question is how to maintain or restructure existing property financing arrangements and lines of credit. Many of these organizations – and real estate organizations generally – have billions of dollars in commercial mortgage loans that are reaching maturity. And many do not have sufficient capital to repay these loans.

One option is to sell the assets collateralizing the problem loans, but because property values have fallen, the organizations may not realize enough cash from such sales to repay the loans, and they may have to give the property back to the lender.

Another option is to try to negotiate either an extension or a restructuring of the loan. In today's environment, lenders have been increasingly amenable to one of these alternatives rather than having to take the

property in foreclosure and add to their inventory of foreclosed assets. To secure an extension or restructuring, however, real estate organizations, and businesses generally, must provide more details about their businesses, assets, operating costs, revenue streams and other information.² Furthermore, lenders often require real estate borrowers to invest more capital in the properties collateralizing their loans. This will require organizations to raise new equity capital; for example, the managing partner of a small real estate investment partnership might need to seek funds from business associates, friends, family or other sources.

While an extension or restructuring might solve the immediate problem of maintaining credit access, organizations also must be concerned with broader strategic questions: how to grow and preserve capital, control costs and achieve long-term growth. This, in turn, will require them to re-evaluate their risk management, focus on keeping quality tenants and determine whether assets can meet cash flow expectations.

In sum, the immediate concern for many real estate investment organizations is how to preserve capital to weather the current downturn in real estate. The longer-term challenges are how to raise and optimize capital, seize future growth opportunities and build a sustainable organization.

¹ *Lessons from change: survival and growth in the real estate industry*, Ernst & Young, 2009.

² Emily Maltby, "Tightening the Credit Screws," *The Wall Street Journal*, 17 May 2010.



3 Slow recovery or double-dip recession

The panelists we interviewed in 2008 accurately placed the risk of “global recession” near the top of the risk list for 2009. This year, there is considerable concern regarding the likelihood of a full recovery and whether we face a “false dawn”, with the economy slipping back to low growth or recession after stimulus packages are withdrawn.

The economy is a concern for the majority of sectors, but especially for cyclical industries such as consumer products and media, as well as those directly exposed to the financial crisis such as real estate, banking and asset management.

The fallout from Greece, problems in the Eurozone and concerns about sovereign debt open up real possibilities of a second round of downturns. As one panelist described the situation, “The financial part of the crisis is now largely abating, making way for the fiscal part of the crisis. Governments have had to socialize the financial crisis, creating large fiscal deficits. Now, potential sovereign defaults have huge implications for the economy and

there is a real worry that bailout packages simply postpone long-term problems.”

If recession returns, governments may struggle to find the resources to re-institute stimulus packages. Even if there are no further cuts in public expenditure or tax cuts, there is still a risk that unemployment and company failures will continue to increase through the year.

Although this is a macro risk, companies can still try to mitigate it by ensuring strong risk management control and a proactive approach. Flexible cash management and the need to preserve the value of liquid assets during periods of unprecedented economic stress were challenges mentioned by several executives interviewed. Sustaining cost-cutting measures also will be key (see Number 6). Lastly, investing in scenario planning to visualize a number of different business paths can help to keep the company's vision and future direction flexible and able to respond to changing economic conditions.



Desmond Lachman, Fellow, American Enterprise Institute for Public Policy Research

Since the start of 2010, the European economy has been embroiled in a sovereign debt crisis that has its roots in the highly compromised public finances of Greece, Spain, Portugal and Ireland. The seriousness of this crisis should not be underestimated.

For example, it is very likely that within the next 12 to 18 months Greece will default on its US\$420 billion in sovereign debt. This would constitute the largest sovereign debt default on record. A Greek default almost certainly would result in contagion to Spain, Portugal and Ireland, which also suffer from severe competitiveness and public finance problems. This would raise the potential for a major shock to an already enfeebled European banking system. A major European economic recession and banking crisis would considerably heighten the probability of a double-dip US economic recession in 2011.

Greece's road to default

The underlying cause of Greece's present economic crisis is years of public sector profligacy that highly compromised the country's public finances while seriously eroding its international competitiveness position. The essence of Greece's present economic predicament is that, stuck within the Eurozone, Greece cannot resort to currency devaluation to either restore

The sovereign debt crisis

international competitiveness or to boost its exports as a cushion to offset the highly negative impact on its economy from the major fiscal retrenchment that it now needs.

The recently agreed US\$140 billion IMF-EU program for Greece requires that Greece aims to reduce its budget deficit from 14% of GDP at present to below 3% of GDP by 2012. If the recent savage budget-cutting experience of Latvia and Ireland is any guide, Greece could very well see its GDP contracting by 15% to 20% over the next three years. Such a slump could cause Greece's public debt to GDP ratio rise to 175%. It is little wonder then that markets are presently assigning a 75% probability that Greece will default within the next few years.

Major risks to the European banking system

A Greek debt default almost certainly would result in intense contagion to Spain, Portugal and Ireland. Like Greece, all of these countries have highly compromised public finances and severely eroded international competitiveness positions. And like Greece, their Eurozone membership precludes their using exchange rate devaluation as a means to address these two problems.

The total sovereign debt of Greece, Spain, Portugal and Ireland exceeds US\$2 trillion dollars – the major part of this debt is held by the European banks. An eventual write-down of these countries' debts by 20% to 30% would constitute as large a shock to the European banking system as that which it experienced in 2008. This runs the risk of provoking a renewed European credit crunch and economic recession.

Risks to the US economic recovery

Any further deepening in the Eurozone crisis would heighten the risks of a double-dip US recession in 2011 for the following two reasons:

- ▶ The dollar would continue to appreciate against the Euro, which would diminish US export prospects as markets would become increasingly concerned about Europe's economic growth outlook.
- ▶ A further deepening in the European crisis is very likely to result in increased risk aversion in global financial markets, which could increase borrowing costs for US companies and households.

Longer-term global implications of Europe's crisis

The all too probable deepening in the European crisis over the next 12 months is likely to be associated with a continued marked weakening in the Euro. It is also likely to be associated with heightened risk aversion in global financial markets and with rising borrowing costs for corporations and households. This heightens the probability that the Eurozone debt crisis could cause the global economy to relapse into recession.

A disturbing aspect of the Eurozone crisis is that it is occurring against the backdrop of very weak public finances in the major industrialized countries in general and in Japan, the United States and the United Kingdom in particular. This constrains the room for fiscal policy maneuver in the event of a renewed global economic recession, which raises the real risk of a period of global deflation.



4 Managing talent

Managing talent continues to be at the forefront of business concerns, rising from Number 7 in 2009. This risk features in the majority of our sector radars.

Companies are concerned not only about the search or “war” for global talent, but also about retaining much-needed talent. Restructuring in the downturn has been tough on human capital. In addition, compensation issues in the financial sector remain unresolved and continue to attract public criticism.

Baby boomers’ retirement is now posing the most worrying threat to skill sets in the labor force. This demographic time bomb is ticking steadily and poses the greatest threat to the engineering sectors such as oil and gas, mining and metals, power and utilities, and automotive because skills are not being replaced in the workforce by new graduates. One panelist noted: “Fewer students in advanced countries are now studying engineering and many of the best of those are then seduced by the financial advantages of City [of London] positions. There will be a grave shortage of skilled engineers to bring about the changes to real assets that are needed.” This problem will be exacerbated as new low-carbon technologies are created.

Poor public image was a concern expressed by many interviewees. One panelist commented, “The pervasive negative picture that is painted, both in terms of environmental impact and the long-term future of oil as an energy source, are discouraging potential future employees, particularly in the high-tech areas of the business. The oil and gas industry needs to continue to sponsor education programs to secure the skills that the industry needs.” Similarly, a panelist for the automotive sector, David Cole, Chairman of the

Center for Automotive Research, wrote, “The auto industry must improve its image and help people at all levels understand the importance of the industry, the skills required and that it is no longer a low-tech industry.”

In the banking sector, managers are thwarted in their search for talent by the now limited ability to attract top performers with competitive compensation. One panelist noted how he had seen many bankers leaving to set up boutique banks that may be less regulated. He forecast a return to 1970s-style investment banking with less profitable mainstream investment banks complemented by a range of boutique banks.

Companies can mitigate such risks through measures such as partnering with universities to fund students and posts, providing job placements and supporting joint project work. Measures such as these may help in some cases to improve sector images among young graduates and ultimately attract them to that sector.

Organizations also can review their retirement policies. Governments are already reconsidering retirement ages and companies can do the same by encouraging older workers to stay on, through a number of measures ranging from remuneration, flexible working time and other benefits, to simply promoting a culture that embraces older workers.

Lastly, with cost-cutting and restructuring measures, some remaining employees will have found themselves taking on new responsibilities for which they have little training or direct experience. Creating high-quality training and development for existing staff and new recruits will help to build up the skill sets that companies lack.



Nigel Lucas, Consultant to the Power & Utilities Industry and Former Professor of Energy Policy at Imperial College of Science, Technology and Medicine, United Kingdom

The developed world faces huge internal and external challenges – an aging population, a more diverse and less instinctively cohesive society, diminishing resource availability, climate change, a waning industrial presence, the challenge of the BRICs, and the legacy of the global financial crisis. Its best assets to confront them are the region's physical capital, which remains immense, its pluralistic and democratic societies and its knowledge – its intangible capital. But these assets are now under stress and need to change and adapt.

Change implies innovation which is brought about by four factors: finance, research infrastructure, knowledge, and, above all, people. Yet, the demographic structure of the developed world is unfavorable to innovation. There is an increasing demand for innovation in areas such as health and social services, but its supply is restricted by an aging workforce with skills that do not match these developing needs.

The options are clear. We need to:

- ▶ Train new graduates that meet the demands of industry today and that can adapt to the challenges of the future

Managing science and technology talent

- ▶ Retain the best scientists and technologists by creating attractive working environments and conditions
- ▶ Increase the benefits of mobility by encouraging movement across countries and companies
- ▶ Attract and retain good people from abroad – we need to outsource innovation where it makes sense
- ▶ Provide good opportunities for re-skilling the existing workforce and encourage companies to enhance in-house training
- ▶ Increase expenditure on research and development, particularly in the private sector

It's fairly easy to list the menu but more difficult, of course, to cook the dishes.

Change brings not only threats, but also opportunities. If firms can adjust and adapt, then they can create profitable knowledge-intensive businesses in health, agriculture, infrastructure, renewable energy, energy efficiency, and mitigation of climate change, all of which have strong export prospects.

Renewable energy is a good example. A big deployment of renewable energy will be facilitated by the smart grid and the super-grid, so we already have two significant areas where there needs to be a big deployment of talent. However, there are structural obstacles to address. Since privatization, electrical utilities have largely withdrawn from R&D and training as a consequence of the obsession with shareholder return. Even contractors are unlikely to have contracts for more than five years, which has a depressing effect on

the investment that they are prepared to make in their skills. Of course, any sensible business will take a long-term view, but the regulatory environment in which it works should also be conducive to high skill levels.

In design, construction, project management, smart metering, software, and high-voltage electrical engineering there are gaps in available skills. The most able graduates often find engineering an unattractive option. The need for mathematics makes it difficult – salaries are low and its status is lower than other professions. Even those who do make it to engineering courses often find that their mathematical skills will earn more in financial institutions than in working on a smart grid.

There is no easy solution, but for a start, we need better coordination among schools, universities, business and government. We must stimulate young people to see engineering and technical innovation as critical – and we must reward them accordingly. Industry must be motivated to create better opportunities for employees to enhance skills. Business and universities must work together to make graduates more relevant to industry without destroying the theoretical foundations that permit them to move and adapt. Governments and institutions must create the enabling environment for knowledge-intensive activities and innovation. Countercyclical investment in these critical areas will enable an exit from the present economic crisis with the strength that comes from greater sustainable growth and a larger number of more relevant jobs.



5 Emerging markets

With the emerging markets driving the global economy, traditional concerns about their economic volatility and political risk were in abeyance this year. In the new millennium, the top risks to the global economy tend to originate from developed countries: the global financial crisis originated in the US and the sovereign debt crisis originated in Europe. “[Emerging market risk] is fairly low on my list because the current high-volume market areas have been in so much turmoil,” noted one automotive sector panelist.

In that case, why did risks relating to emerging markets rise up the risk list this year, from a below-the-radar concern in 2009, to the fifth risk for 2010? The strategic challenges posed by these markets appear to be the main source of concern. With emerging economies dominating global growth and indebted OECD economies expected to grow slowly for years to come, succeeding in emerging markets has become a strategic imperative. “You need to be able to do it to get scale,” commented an Ernst & Young technology sector executive. (On the upside, for companies that have successfully established a large commercial presence in emerging markets, the global economic recovery is already well under way.)

Of course, acquiring market share should be easier when a market is emerging than when it is mature. And there are numerous acquisition opportunities in the form of firms hit by the financial crisis or local operations divested during the crisis. But the strategic risks associated with these markets remain very high.

While emerging markets today seem more stable than developed markets in many respects, political risk concerns were not totally absent from this year’s interviews. Some executives worried that a backlash against globalization could prove to be a slow-burning phenomenon and that trade barriers could rise to imperil globalization strategies. An oil and gas commentator, noting that future energy demand would be concentrated outside the OECD, expressed concern that international oil companies would be prevented from accessing emerging market consumers by political barriers and thus confined to upstream operations.

But overall, the concerns that compelled the rise of this risk from 12th in 2009 to 5th in 2010 were strategic. These strategic concerns include the impact on developed markets of the emerging markets’ rise. “Chinese companies may increasingly seek to change from an export-based model to offshore operations,” a consumer goods panelist contended.



Paul Clark, Insurance Sector Leader for Asia Pacific, Ernst and Young

The emerging markets have “emerged,” accounting for roughly half of global output and nearly all of global growth. For companies that have a large presence in emerging markets, the world looks different. While many rich countries are still wary of recession, in many emerging markets recovery is not tentative or distant – it is robust and began months ago.

Despite these attractions, companies can still struggle to achieve good results for their emerging markets business activities. This is particularly true in the insurance sector, where companies face a number of risks – although these are by no means confined only to this sector:

Risk 1: joint venture performance. In the insurance sector, because of regulatory restrictions, emerging market entry tends to be executed via a joint venture (JV) with a local partner. Therefore, international insurance companies face all the risks normally associated with a JV – needing to ensure that goals and business drivers are aligned, creating good communication structures and ensuring that contributions are mutually understood. The restrictions imposed can create an additional layer of complexity when considering alignment that needs to be carefully understood and addressed.

Risk 2: equity outcomes. Developed-market companies are familiar with partnerships, but this partnership

Insurance in emerging markets

knowledge does not necessarily transfer to emerging economies. Companies are accustomed to working with manufacturer-distributor relationships and often think emerging market JVs are based around similar dynamics. However, a formal JV is different because there is an outcome based on equity ownership (i.e., the performance of the entity as a whole), not just respective roles in the value chain. This is doubly true because an emerging market JV typically is not a 50:50 relationship, but rather a minority share for the international firm. Acknowledging this up front can be a true differentiator as to whether the JV succeeds or not.

Risk 3: unrealistic expectations. When entering emerging markets, companies are often forced to adopt an unfamiliar market position and go in with unrealistic expectations. They are usually big players in their home market, so they are used to having large market shares. They have paid a lot for their local acquisition, so (rightly) they expect a lot. In reality, often what they have paid for is the market and the specific entity's growth profile. It's common to see new entrants as a fifth or sixth player in the market, which will be their position for a while – albeit with good growth. So companies need to think carefully, and for the long term, about how to ensure growth. In emerging markets, remembering the basics and having patience regularly pays dividends.

Risk 4: unfamiliarity. All of the above issues are compounded by the problems of working in foreign countries, including customs, culture, language, and different regulatory systems and working practices. One emerging market is not

the same as another. Successful companies tailor their approach to the market.

To manage these risks and improve the chances of success, consider:

- ▶ **Building relationships in advance.** Companies that spend a significant amount of time early in the process planning and building relationships with regulators, potential partners and other market participants often make better investment decisions and perform better as a result.
- ▶ **Looking for balance.** Companies need to attain the correct balance between expat expertise and local knowledge. This needs to be taken case by case. My experience suggests that companies generally have been more successful when they support local management instead of bringing in expats.
- ▶ **Staying put through the lean times.** Nothing builds credibility with customers, regulators and partners like sticking around when times are tough. All too often we see companies change tack and exit the market. In a business such as insurance, reputation is a crucial and often under-utilized asset.

Successful companies are those that have all made it past the risks, maintained realistic expectations, built strong relationships and been sensitive to local conditions. They have been in emerging markets for a long time and have stayed through thick and thin, even when others have pulled out. As a result, companies can achieve excellent reputations among regulators, existing partners and indeed potential JV partners. They are well-positioned to reap the rewards that emerging markets can offer.



6 Cost-cutting

The challenge of cost control remains at sixth place on the risk list, unchanged from last year. However, the concerns underlying the high placement of this risk changed in 2010. This year, the executives we interviewed were less worried about cost control to maintain financial health during the downturn, and more worried about commodity price inflation and pressure from low-cost competitors.

Concerns about commodity prices dominated. Last year, the executives we interviewed expected that the 2008 fall in commodity prices would prove a “temporary respite,” as we wrote in our 2009 report. Still, the pace of the price inflation in commodities was surprising, with iron ore contract prices doubling in early 2010 before falling back. “Some commodities can be hedged, but steel is an area of concern,” wrote one head of internal audit at an automotive company. The head of strategy at a consumer products company advised that long-term solutions were needed: “Firms could reduce this risk through hedging but should also try to reduce their exposure to raw materials, for instance by economizing on energy usage.” Executives in the oil and gas sector also worried about rising commodity prices, even as labor constraints eased somewhat.

Another reason for the importance of cost-cutting is the threat of price wars. Emerging market producers are now leaders in a number of sectors, their rapid growth fueled by booming home-market economies. “Margin pressure is intense. Cost control is essential,” noted one CEO. Technology executives noted that some of the rising stars of the sector are emerging competitors with very

low-cost bases. The chief economist of a medical devices company spoke of a race to the middle, with “high-end innovation companies from developed markets trying to make their products more affordable, while low-end companies from emerging markets are trying to innovate up the price curve.”

Of course, developed market companies are not the only ones that need to worry about cost control. Large percentage increases in wages at leading Chinese electronics suppliers made global headlines in early 2010. “Rising inflation and labor costs in Asian markets in particular will materially affect the viability of particular markets,” noted Dr. Jonathan Reynolds, Academic Director of the Oxford Institute of Retail Management, at the University of Oxford.

Other executives sounded warnings about over-zealous cost control, a theme that has also emerged in previous years. In particular, media executives worried that efforts to reduce the cost of content could lead to diminished content quality and loss of customers.

Cost control was a theme in the public sector as well. The new UK government “will find itself between a rock and a hard place in doing enough to satisfy investors in gilts and sterling that they have a convincing plan to reduce the public sector deficit, while at the same time supporting the recovery of the economy,” noted Geoffrey Fitchew, Chairman of the Insolvency Practices Council.



Ben van Gils, Global Power & Utilities Leader, Ernst & Young

Ben has extensive experience advising clients on the structuring of international power generation and distribution activities and is responsible for coordinating Ernst & Young's services to the power and utilities industry worldwide.

While many industries are postponing major capital projects in the current economic climate, the power and utilities sector does not have this luxury. It stands on the verge of a massive capital deployment that cannot wait. Developed countries need to urgently upgrade aging infrastructure, while developing countries need better access to power, gas and water to sustain economic growth.

The International Energy Agency (IEA) projects that at least US\$13.7 trillion¹ must be invested between now and 2030 to cover the basic demand for power, with trillions more required to support the industry's low-carbon transformation.

Success, therefore, will come down to deploying capital efficiently – keeping the cost of capital as low as possible and keeping construction costs and schedules under control. This is no small feat – a 2002 study revealed that 9 out of 10 transport infrastructure projects across the world exceeded their initial cost expectations.²

Smart meters, large offshore wind farms and next-generation nuclear power plants are just a few examples of the new types

Doing more with less: efficient capital deployment in power and utilities

of projects power and utilities are undertaking. Many of these projects have never been done before and therefore contain the risk of “first of its kind” costs and delays.

So what can be done? To improve their ability to bring projects in on time and on budget, power and utilities must address three key areas:

- ▶ Funding
- ▶ Contract risk
- ▶ Construction risk

Funding

Capital markets have improved since the worst of the credit crunch, but securing funding at a reasonable cost for the scale of investment required can still be an issue.

To address this, rigorous value-for-money criteria must be adopted to develop robust business plans that reflect the risks of scenarios such as changing regulatory environments, volatile commodity prices and an uncertain cost of carbon. Contingency funds must be re-assessed. Too high a contingency and the project may fail to meet the value-for-money threshold required by investors, regulators and consumers, but too low and you run the risk of runaway costs.

Partnering can be an effective way to share risk and reduce the cost of capital – especially in the power and utilities industry, where government support mechanisms exist to support the transition to a green economy.

Contract risk

The importance of structuring contracts so that risk is allocated to the party best able to manage it cannot be overstated.

Power and utilities companies typically use a complex network of contractors on major projects, and there is significant potential to release value locked up in underperforming contracts. Contractors' incentives should be aligned to the project owners' objectives, and benchmarking can be used to identify underperforming contracts as well as to negotiate regulatory settlements.

Construction risk

Some of the most common risks during construction result from a lack of flexibility. Delays will occur, but they matter less when they have been expected and planned for. Experienced project managers will understand their contractors and anticipate where bottlenecks are likely to occur.

People risks are also an issue. With so many major projects in the power and utilities sector, there is a real risk of utilities competing for a limited supply of qualified engineers.

Conclusion

Controlling costs on major infrastructure projects will be critical to the success of power and utilities companies. The immense scale of the capital outlays they must undertake means that capital efficiencies will take on a new importance. Those who adopt leading practices to address financing, contract and construction risk will be more able to deliver projects successfully.

¹ *World Energy Outlook*, International Energy Agency, November 2009.

² Flyvbjerg et al, “Underestimating Costs in Public Works Projects,” *Journal of the American Planning Association*, Vol. 68, No. 3, Summer 2002 (available from <http://flyvbjerg.plan.aau.dk/JAPAASPUBLISHED.pdf>).



7 Non-traditional entrants

The risk posed by non-traditional entrants fell by two places, from fifth in 2009 to seventh this year. This fall was caused by two trends, one cyclical and one structural.

The cyclical trend is that the financial crisis has increased risk aversion and made it harder to raise capital. This has weakened emerging firms that sought to expand on the back of high leverage. As a result, some sectors that last year worried about non-traditional entrants are this year more complacent. “We’re not seeing much evidence of other [financial services] players looking to enter the [investment management] space,” noted Anthony Kirby, Director of Regulatory and Risk Management at Ernst & Young.

The other trend is structural: with the passage of time, many “non-traditional entrants” have become leading players in their sectors. Our interviews focus on the largest global firms in each sector, and in some sectors “non-traditional entrants” (such as emerging markets multinationals) have achieved a strong presence. In many cases, executives of these firms, based as they are in high-growth markets, are less concerned about the competitive threat from other rising firms. (This is not always the case – for instance, one executive from an emerging market oil and gas company precisely echoed the top concerns of his international oil company peers, noting that the rise of emerging market companies was forcing a shift to politically-motivated partnership strategies.)

In several sectors, the global recession increased the threat posed by non-traditional entrants. “[Private-label goods produced by retailers] increased market share in 2009 due to the economic crisis when consumers looked for value propositions,” noted the head of strategy at a global consumer products company. The rising power of retailers in the sector and the growth of store-brand goods have moved many consumer product categories “in the direction of commodities,” noted another executive in the sector.

In other sectors, the recession seemed to have little impact on the pace of transition. In media and entertainment, the market power of new entrants bringing new technology continues to rise. In telecoms, the risk of “losing ownership of the client” to non-traditional entrants remained firmly at the top of the 2010 sector risk list. Other sectors also worried about new tech entrants: “The entry of non-traditional players from industries including retail, technology and financial services will present new competitive challenges in life sciences,” noted an Ernst & Young life sciences sector executive.

A new phenomenon this year was a feeling among some executives that incumbent firms, having had some years to adjust to the rise of emerging markets multinationals, have been able to shore up their positions. In the automotive sector, “traditional manufacturers and suppliers have improved so much that the bar has been raised for all emerging market producers,” wrote an automotive sector commentator. Whether this confidence will hold beyond 2010 remains to be seen.



Carolyn Buck Luce, Global Pharmaceutical Sector Leader, Ernst & Young

Carolyn Buck Luce is responsible for acting as business advisor to and coordinating the Ernst & Young worldwide relationship with global pharmaceutical corporations.

With several critical business risks bearing down on pharmaceutical companies in recent years – the fast-approaching “patent cliff” (when many of the most lucrative drug patents will expire), decreasing research and development productivity, pricing pressures, globalization and shifting demographics – the industry has been actively exploring new business models. The result has been a transformation from the long-standing, vertically integrated blockbuster model – one we call Pharma 1.0 – to today’s diversifying of products and markets and restructuring of the operating model to go from managing for top-line growth to operating for bottom-line returns – a Pharma 2.0 world.

The pharmaceutical industry is now on the cusp of its biggest transformation yet, to Pharma 3.0. New trends, such as health care reform, health information technology (IT), personalized medicine and the rise of data-empowered “super-consumers” are creating radical changes as the value proposition moves from developing drugs to delivering “healthy outcomes.” Healthy outcomes entails improvements in the health status of individuals, groups or populations – driven by better patient

Pharma 3.0: reframing the innovation challenge

results, wider access to care and a greater ability to meet unmet needs – attributable to human interventions.

In Pharma 3.0, many non-traditional players – companies that historically have not participated in the health care space – are being lured by the sector’s financial potential. Health care is a large (and largely recession-resistant) sector poised for rapid growth because of aging populations, growing incomes (and growing waistlines) in developing countries, increasing emphasis on life-long wellness and prevention, and improved access to medical treatments for underserved patients.

As a result, we are seeing electronic and mobile health firms, retailers, financial services institutions, consumer products companies, data management, IT and telecommunications firms and non-profit organizations all jockeying for position in various ways. For example, cosmetics companies are eyeing the intersection between their traditional offerings and health and wellness. Large retailers are looking at in-store medical clinics, low-price prescription programs and the electronic health records market. Mobile telephone manufacturers and operators are developing ways to access the complex emerging markets using mobile devices for health education, data collection and monitoring and tracking disease outbreaks. And food companies are exploring ways to leverage their distribution channels and infrastructure, such as temperature-controlled trucks and FDA-compliant food storage facilities.

The quest for innovation is no longer just about the pipeline, but about how to do business. Growth will come not only from

business development but from business model development. The winners will look beyond “what is invented here” to what is done in other industries. Pharma companies will have to learn to become a critical component of someone else’s business model in order to leverage each other’s assets and attributes. There will be new risks to be managed – not just the development and regulatory risks of the past, but the commercial risks of doing business differently as the model moves from product-centricity to customer-, patient- and payor-centricity.

Pharmaceutical companies and new entrants alike will have to step outside their comfort zones. Pharma 3.0 will be about co-creating value for customers – patients, payors and governments – as well as for non-traditional business partners. This new way of innovating will produce numerous new challenges, not the least of which will be extending many of the enterprise business processes that contribute to value and mitigate risks to include the new “extraprise” of partners.

In fact, Pharma 3.0 casts a different light on many traditional, transaction-related challenges and competencies. Building complex collaborations with non-traditional partners to develop new products and markets is difficult enough on its own. But Pharma 3.0 requires companies to merge business development acumen with strategy and innovation in a commercial development process of rapid prototyping out in the open. The challenges and business risks are significant, but so is the potential reward: serving larger populations of patients in more efficient and effective ways by delivering real improvements in health outcomes.



8 Radical greening

Radical greening – environmental regulation, consumer demands and strategic responses – remains a pressing long-term issue across the majority of sectors, but in the current economic climate, environmental issues have slipped to eighth place from fourth last year.

With the public's increasing awareness of climate change, companies must invest resources in developing effective business plans to maintain their corporate image and lessen environmental impacts by becoming more sustainable. Moreover, in a world where there has not yet been coordinated global political action and there remains little hope of it in the near future, it will be up to the private sector to innovate and find ways in which to work with the public to reduce environmental impacts.

While some companies are helping to shape government policy on this issue, and so are ahead of the curve, other companies are finding that different pressures take precedence. Interviewees in many sectors argued that this risk will rise again in the future, and that successful companies will be those who put environmental policy at the top of their agenda and adapt their business to that goal. A consumer products commentator argued, "As growth resumes and environmental degradation continues this will re-emerge as a very powerful force in shaping business."

However, another panelist emphasized that radical greening is "as much an opportunity as a risk." This can be said for many of the risks, but there is a clear opportunity here for companies to influence and reduce their customers' emissions, by enabling and encouraging new and more energy-efficient ways of living and working. For example, the real estate sector requires a new generation of buildings with significantly lower carbon and energy

footprints which could imply functional obsolescence of all but the most recent, or recently upgraded, commercial buildings. Likewise, in the telecoms sector, participation in smart grids, lower-consumption handsets, and more energy-efficient outsourcing could create opportunities for companies to gain market share.

In other sectors, companies need to prepare for shifts in regulation. For example, regulators in the insurance sector may, in the future, interfere with or prohibit risk-commensurate pricing, which could ultimately force insurers to withdraw from climate-related risk markets.

Companies also need to prepare for the possibility of carbon-trading schemes. Most industrial countries have already implemented carbon-trading schemes, or soon will. Depending upon the particular business sector, the cost effects of such measures or carbon taxes could be very substantial – up to 10% increases for transportation related sectors, up to 30% increases in the electricity sector, and up to 50% or more in certain carbon-intensive industrial sectors, were figures cited by one interviewee.

These kinds of challenges will require companies to make more complex decisions concerning their capital spending, production procedures and installed technology, but they also might require some companies to develop management competencies in new areas of expertise.



Liz Barker, Senior Consultant, Oxford Analytica

We are all well aware of the threat of climate change and the need to reduce our impact on the environment. Yet there remains a considerable amount of inertia among companies, politicians and households when it comes to taking active steps that can make a difference.

However, a new sub-discipline in the field of economics may have something to offer to companies wishing to lead in making their environmental strategies effective. Drawing on insights from psychology, sociology and neurology, behavioral economics argues that people rarely behave in a “rational” way; rather, their actions are affected by habits, social norms, aversions to loss, inertia, altruism and poor self-control.

Behavioral economics can explain much about the failure so far to “green” our lives and our business activities. It suggests that people are more likely to respond to calls for change on behalf of the environment if they feel and see that changes in their behavior will make a tangible difference and if the effort they have made is acknowledged. Given that climate change is a global problem with considerable scope for free-riding on others’ efforts to reduce carbon emissions, this is difficult. Further, many of us are confused or fatigued by the seemingly endless and conflicting information on the subject and unmotivated by a problem that seems distant, both geographically and in terms of

“Greening” behavior

time. This last point is a major challenge, as people often place a greater value on the present than the future. To be successful, measures to reduce our impact on the environment will need to take into account some of the main tenets of behavioral economics:

Loss aversion. People often are more likely to respond to the threat of losing something than to the prospect of gain – financial or non-financial. Pre-pay meters in Alaska typically reduce electricity consumption by 15%, suggesting that saving money already committed is a greater incentive than reducing a bill that is yet to arrive.

Inertia and habits. People are governed by habits rather than conscious decision-making. Seatbelt use is now a habit for most of us, but it has taken several decades to get there. Much of the behavior that affects the environment is habitual, so making changes will depend on creating structures that make people reconsider their behaviors. “Nudges” – highlighted in research by Richard Thaler and Cass Sunstein – frame choices to gently push people into making better decisions. For example, decision-making could be made easier for consumers by using “opt-out” systems as opposed to “opt-in.” Carbon offsets are currently an add-on to the price of a flight, but they instead could be included, with an option to opt out. Other tools to reduce inertia are education, access to information and the ability to measure our activity. Simply being able to gauge the extent of our actions, in this case the impact of emissions, has been shown to alter behavior. Smart meters that translate energy used directly into monetary cost provide easy access to information in a form people can understand. Similarly,

many car users have found by-the-minute fuel consumption information a powerful motivator to drive more economically. Pay-as-you-drive insurance matches a driver’s premium to the mileage, monitored by GPS or service station inspections.

Peer awareness. The ability to assess our actions against those of others can also help to change behavior. Studies have found that people are more likely to try to reduce energy costs when they are aware of how their energy consumption compares to others. A study of a California energy company whose bills showed the average amount paid in the neighborhood found that those customers above the average were more likely to reduce their consumption. However, those who used below-average amounts became more lax in their energy use unless incentivized by a small reward such as a smiley face on their bill. Other studies have found that it is possible to persuade households to reduce water consumption simply by telling them that their neighbors approve of and care about such behavior. Shaming devices have been implemented in some German cities: drivers entering “environmental zones” have to display a colored sticker according to how polluting their vehicle is, with the highest pollutants banned from entry if air pollution is already bad that day.

Companies are gradually realizing the importance of understanding the psychology of human behavior in devising efforts to improve our environment. But much more can be done to integrate lessons from behavioral economics. In the future, successful environmental strategies will be those that work with the characteristics of individual behavior to design products and services that assist people in making good environmental decisions.



9 Social acceptance risk and corporate social responsibility

In the wake of the financial crisis, a new risk has emerged for 2010. Social acceptance and corporate social responsibility (CSR) are now firmly on company and government agendas. This risk encompasses a wide range of issues in the public eye, from the reputation of banks and asset managers to transparency and accountability in government, to the social license to operate in sectors such as mining and metals and oil and gas, and the public acceptance of technologies such as nuclear generation in power and utilities.

In the space of a few years, banks have come to be portrayed as villains, with media allegations of excessive compensation and pursuit of profit at the expense of the taxpayer and consumer. Some interviewees argued there is now an ethical standard created by public pressure that cannot be ignored, regardless of legal outcomes. Whether because of ethics or politics, or a combination of both, the risk of unwittingly triggering a backlash has risen in recent years.

Another prominent area in which firms need to work to gain the trust of the public is their environmental impact. For example, the power and utilities sector in many geographies faces serious problems getting energy development plans formally accepted.

Politicians and regulators respond to public pressure and, public opinion. Energy policies and development approvals can be driven by perceived risks and not necessarily by actual risks. According to one power and utilities sector executive, the public regards coal as a “dirty” fuel, even though technology can now strip out the damaging pollutants, whereas for nuclear power, as the time since the last accident increases, the perceived risk is falling. Indeed, nuclear power has strong public support in most areas where it currently provides significant employment.

Companies need to take account of public viewpoints and rather than dismiss them, work to better inform the public through transparent activities and careful PR management. One interviewee mentioned a novel approach by a utility firm with an onshore wind development that planned to provide the local community with an additional turbine of its own, to use for free energy and revenues to spend within the community. In the future, more companies may need to take such measures as a matter of course.



David Harrison, Global Oil & Gas Center Markets Director, Ernst & Young

David has more than 20 years of experience working in and advising leading organizations in the oil and gas industry.

The recent spill in the gulf of Mexico has implications for the offshore exploration and production industry that go well beyond the region, and the cleanup and liability debates that seem likely to run for some time. Wherever the industry operates, all stakeholders will want to be reassured that the potential for a recurrence has been absolutely minimized and that, if a leak was to occur, it could be stopped and cleaned up within a short period of time.

Offshore oil and gas resources are an important part of the energy mix and seem unlikely to be ignored or banned in the longer term. In addition to existing offshore fields, there are significant new reserves residing in deep and/or frontier waters off Brazil, West Africa, Southeast Asia and Oceania, as well as the Arctic and Antarctica. However, the industry license to operate in a number of existing and new areas is likely to be under threat until confidence is fully restored. The causes of the Deepwater Horizon incident need to be fully understood and measures need to be put in place to reduce the chances of a recurrence. The industry needs to convince regulators and stakeholders that the lessons have been learned in terms of incident response and that any future incident could be resolved quickly, safely and with minimal leakage.

CSR: the implications of the Gulf of Mexico spill for offshore drilling

For this to happen, the industry needs to address these areas:

1. Risk assessment of current offshore operations.

All offshore operators should complete a full technical assessment of their current offshore facilities. The root causes of the Deepwater Horizon incident will need to be examined closely, and company procedures evaluated in light of the learnings. This will include looking at all critical equipment in terms of type, age, service history, etc. In addition, an assessment of ongoing operational procedures with regard to the regular testing and maintenance of this critical equipment should be undertaken. This assessment also should include evaluating potential upgrades or additional equipment that could be deployed to reduce the risks in this area, even if such upgrades or equipment are not necessarily required by the regulator. Finally, a review of the contractual relationships that exist between partners and contractors should be undertaken to make sure that they support the highest levels of safe operation.

2. Risk assessment on future offshore developments.

When organizations are considering entering into new offshore ventures there are a number of areas in the investment process that seem likely to come under increased scrutiny:

- ▶ Technologically ground-breaking projects need to consider how to deal with a catastrophic failure and whether there are clear action plans and the supporting technological capabilities to manage this.
- ▶ There will be an increased focus on partner and contractor expertise in the

types of project that are undertaken.

- ▶ Partner and contractor financial strength and their ability to fund cleanup and liability costs in a worst case scenario will be scrutinized.
- ▶ The area being explored will need to be considered in terms of its proximity to major population centers or areas of commercial or natural importance.

3. Incident response.

Incidents of this type tend to result in technological advancements. It is clear that there will be significant lessons coming out of this incident that further the understanding of how best to stop a deepwater leak and manage the cleanup. But it is also clear that incident response techniques and technologies have not advanced as fast as those related to deepwater exploration, drilling and production. These lessons should be shared across the industry, which already supports its members when a disaster occurs. This collaboration should be applauded and encouraged but may need to go a step further.

One solution may be the development of an industry-funded deepwater incident response team that could be mobilized globally to manage a deepwater incident, wherever in the world it might occur. Another could entail additional industry funding (e.g., with governmental organizations and/or academic institutions) for research and development related to response and recovery techniques and technologies. Together, these initiatives would help reassure regulators and stakeholders that deepwater exploration and production is sustainable and, while acknowledging that it contains inherent risks, that these risks are manageable.



Mike Elliott, Global Mining & Metals Sector Leader, Ernst & Young

Mike has over 30 years serving clients in the sector and has participated in many of the large transactions, IPOs and privatizations that have transformed the industry. Mike also has extensive global experience having advised mining clients in Australia, New Zealand, South Africa, China, USA, Papua New Guinea, Zimbabwe and Colombia.

Sustainable development entails three fundamental components: environmental protection, economic growth and social equity. For mining and metals companies, operating as part of a society and host community in an acceptable manner, and contributing to sustainable development, are important elements in maintaining a social license to operate. Losing that license will result in a loss of access to resources, so mining and metals companies need to actively manage a range of issues, including employee and community health and safety, the environment, and community development.

Recently a number of mining accidents in the United States, Russia, South Africa and China have highlighted the importance of mine safety and with it the risks to life, profits and reputation that can ensue from the failure to manage the safety of workers in mines. Failure to prevent such accidents can have a negative impact on company reputation and be very costly in terms of payouts to the families of miners killed or injured in accidents or explosions.

Maintaining a social license to operate in the mining and metals sector

Despite recent accidents, it does appear that mining and metals companies are making strides in reducing the number of fatalities at their mines or in their plants. In 2009, the United States recorded 34 fatalities at its mines, down from 52 in 2008.¹ In South Africa, mine fatalities have decreased from 221 in 2007 to 165 in 2009.² In China, the number of coal miners who died in the course of work was still high in 2009 at 2,631, but lower than the peak of 6,995 deaths in 2002.³

The elimination of workplace injuries and deaths remains a fundamental objective for mining and metals companies, governments and local communities. Prevention of injuries and deaths through the implementation of robust management systems and processes, compliance with occupational health and safety regulations, and the creation of a strong safety culture within organizations can result in the commercial benefits associated with improved safety performance. These include reduced downtime, a motivated workforce, a full complement of staff and improved relationships with government regulators and local communities.

An ongoing area of difficulty in relation to obtaining and maintaining a social license to operate can relate to access to land and related land disputes between mining and metals companies and local communities. Such disputes can delay or even prevent projects from proceeding. Similarly, difficulties can arise in relation to the environmental impacts of new and existing mining and metals operations. Issues such as impact on biodiversity, water extraction, water pollution, air emissions (including greenhouse gas emissions), soil contamination, waste management and

land rehabilitation following mining and metals operations are often points of concern for local communities, regulators and international non-government organizations.

There has been an increased focus on community investment that creates sustainable benefits for the host community. Community investment funds and foundations have increased in prominence at many mine sites in developing countries. These are often funded with a percentage of profits in good years, providing a solid investment base and a source of income for community development initiatives in years of lower prices.

The responsibility of mining and metals companies to host communities was very evident in the aftermath of the Chilean earthquake. In addition to cash donations, mining companies voluntarily agreed to raise royalty rates for the next few years to assist with post-earthquake reconstruction. Although an eye should be kept on corporate costs, we believe that the increasing amount devoted to the areas of sustainable development related to mining and metals production is money well spent, assisting in developing and maintaining relationships with key stakeholders and maintaining social license to operate.

¹ "Mining fatalities fall to all time low," Mine Safety & Health Administration, 1 April 2010.

² "South African mining deaths on decline, says trade union," www.miningweekly.com, 28 April 2010.

³ "Chinese coal miners rescued in rare happy ending," *IHS Global Insight*, 6 April 2010.



10 Executing alliances and transactions

Unsurprisingly, risks related to alliances and transactions, after falling one place from 2008 to 2009, fell a further two places in 2010. This fall is linked to the dramatic decline in merger and acquisition activity, as finance has become costly.

This year, rescue mergers remained a hot topic, with firms in sectors hard-hit by the credit crunch often forced to conduct due diligence after the fact, following rapid mergers. A new issue for 2010 is the potential difficulty of managing transactions that could be triggered by the regulatory responses to the financial crisis. As David Scott, banking sector leader for Ernst & Young, commented, "Looking forward, regulatory agendas may force firms to spin off derivatives operations to subsidiaries. This will require robust change management." Other banking sector executives noted the regulatory challenge to integrated investment banking, and possible forced reductions in bank size or "dividing lines between different types of banking activity."

A number of industry trends continued despite the recession, and these trends helped keep risks relating to transactions within the global top 10. For instance, it remained crucial for firms to succeed in emerging markets (Number 5), and hence transactions in emerging markets continued despite the downturn. "Major M&A activity is taking place abroad with some US media companies making large investments in Eastern and Western Europe," commented Alvin Lieberman, Executive Director of the Entertainment, Media & Technology program at New York University's Stern School of Business.

Similarly, in the technology sector, the need to respond to technology convergence was unabated. "Technology convergence means that new competencies are needed. If you don't have them, you're probably going to have to buy them, given the speed of change," argued the head of external affairs at a European technology firm. Risks relating to such acquisitions also remain high, as an Ernst & Young technology sector executive reminded us: "The challenge is that M&A can put you into areas where you haven't played before."



A Erika Schraner, *Transaction Integration Services Leader for the Technology Industry, Ernst & Young*

Erika is experienced in buy-side operational due diligence, M&A integration and sell-side operational carve-outs. She has more than 17 years of experience, including three years in Switzerland, on cross-border transactions and global business transformation.

B Joe Steger, *Global Technology Industry Leader for Transaction Advisory Services, Ernst & Young*

Joe is experienced in buy-side and sell-side advisory and financial due diligence. He has 28 years of experience, comprising 14 years with a transaction advisory focus, including three years in Japan, and a record of guiding technology companies through cross-border and multinational deals.

Mergers and acquisitions (M&A), joint ventures and alliances are linked to overarching industry dynamics. Recent transaction activity – fueled by the drive to gain competitive advantage and abundant available cash – demonstrates the rise of three interrelated megatrends:

- ▶ “Mobile everything” drove most of the technology deals for the last year, bringing computing and information management power on any device, anywhere, anytime.
- ▶ The “blurring of everything” refers to the globalization and convergence of technology industry sectors, of technology enabling other industries and of technology platforms

Technology transactions are on the rise, despite inherent risks

(smartphones, netbooks, tablets and “pay as you go” internet-based cloud computing services).

- ▶ “Smart everything” refers to information gathered from smart stand-alone and embedded devices and information generated through social networks.

Integration effectiveness

These megatrends are forcing technology companies to think strategically about M&A, joint ventures and alliances – translating into a holistic approach to transaction integration. Leading technology companies are addressing integrations earlier than the historical norm – during target selection and throughout the entire acquisition process – and are thinking deeply about how the culture, products and services, sales and supply chain (virtual or physical) fit to enable the right integration. This requires an integration strategy that achieves the optimal balance between scope (stand-alone or integrated), speed and operational model. As technology companies seek to transform themselves and achieve growth through strategic transactions, prior “all or nothing” integration strategies are evolving to more complex, hybrid models.

New markets, unfamiliar rules

Technology as an enabler of innovation across industries has started to “blur into” those industries, often through transactions. Consequently, the key challenge of assessing a potential target’s risks and benefits is complicated by the unfamiliar territory of a new market.

Valuation volatility

Recent volatility in equity markets is reflected in fluctuating transaction

valuations. The total value of all disclosed-value deals for the first quarter of 2010 fell 66% from the fourth quarter of 2009, and the average value per deal fell 56%.¹ Yet both were up significantly compared to the prior-year period. This volatility makes valuing transactions difficult. Transformative deals promise new revenue streams from unprecedented combinations of technology roadmaps, access to new markets and accelerated cost synergies. These dynamics represent further challenges to realizing transaction values.

Regulatory uncertainty

The United States, United Kingdom and China have all announced reviews of their M&A guidelines in the last year. Given all the scrutiny to which large strategic deals are subjected, there is increasing risk to achieving goals. Even when a deal is approved, there is a risk of reduced deal value if the approval process drags on.

Transactions on the rise

Despite these risks, we expect global technology transaction activity to increase. The top 25 technology companies by market capitalization have increased their cash, short-term and long-term investments by an astounding 33% in the last year, to US\$350 billion.²

The need to put that cash to work for shareholders, combined with the rise of the three megatrends, points to increased transaction activity to grow revenue and achieve new levels of innovation.

¹ “Global technology M&A update: January–March 2010,” Ernst & Young website, <http://www.ey.com/GL/en/Industries/Technology>

² “Ernst & Young analysis of Capital IQ data,” accessed 23 April 2010; market capitalization based on top 25 companies reporting quarterly financials.





Below the radar – the next five

In each sector, we asked our interviewees to identify not only the top 10 risks, but also the risks sitting just below the radar, which may emerge to top the risk lists in years to come:

- 1 Regulation and compliance
 - 2 Access to credit
 - 3 Slow recovery or double-dip recession
 - 4 Managing talent
 - 5 Emerging markets
 - 6 Cost cutting
 - 7 Non-traditional entrants
 - 8 Radical greening
 - 9 Social acceptance risk and CSR
 - 10 Executing alliances and transactions
-
- 11 Inability to innovate
 - 12 Maintaining infrastructure
 - 13 Emerging technologies
 - 14 Taxation risk
 - 15 Pricing pressures
 - 16 Resource scarcity
 - 17 Consumer demand shifts
 - 18 Global (re)alignment
 - 19 Reputation risks
 - 20 Energy shocks
 - 21 Supply chain and “extraprise”
 - 22 Managing new business models
 - 23 Capital allocation
 - 24 Intermediary power
 - 25 Shifting demographics



11 Inability to innovate

Inability to innovate rose from the 18th risk on our 2009 list to Number 11 in 2010 (the first below-the-radar threat). This issue is relatively constant in some sectors. (In the technology sector, “without innovation you have nothing,” as a European mobile telephone company executive reminded us.) In other sectors the issue has risen as technology has become more important in products and business models. “The rapid development of science areas relevant to consumer products – biotechnology, genomics, neuroscience, nanotechnology, information technology – has opened up tremendous opportunities for new product development,” noted a former chief economist of a global consumer goods company.

In life sciences, the end of the blockbuster drug model has created significant uncertainty about the best innovation strategies. Expected payoffs from improved R&D methods may take years to emerge, meaning that it may be unknown for some years whether new innovation strategies have been successful. In addition, untested innovation models are being put in place: “There is an increasing trend towards open innovation and R&D in a non-competitive or collaborative way, using non-traditional alliances,” noted an Ernst & Young life sciences sector executive. Other life sciences executives worried that an increasing reliance on outsourced research may leave life sciences companies ill-equipped to evaluate risk/benefit issues for new products.

In other sectors, a number of innovation-related themes emerged.

One of the most popular themes was the internationalization of R&D activity, especially to emerging markets. As global companies seek to capitalize on the growth of these markets and to draw on a truly international pool of ideas and talent, the ability to nurture a culture of innovation in diverse geographies will become increasingly important.



Vincent de La Bachelerie, *Global Telecommunications Sector Leader, Ernst & Young*

Vincent de La Bachelerie has been involved in the telecommunications sector for 18 years. He has extensive experience working with large telecom groups. He also has participated in other projects for telecommunications operators including consulting and advisory work, merger and acquisition projects and valuations.

Telecommunications is a sector in the midst of rapid changes – yet, for many established industry players, change is a force that is as disruptive as it is liberating.

We are now seeing structural shifts in how customer expectations are generated and how these needs are met, whether through the rise of cloud computing or the convergence of mobile devices and web functionality. For operators, this means the route to incremental revenue growth now lies in their ability to exploit new business models and adapt to the changing industry landscape. This can pave the way for a wider suite of services while also providing new ways of interacting with customers. So far, players from outside the sector have been the real catalysts of new customer experiences, as illustrated by the proliferation of internet-based services and mobile application stores. At the same time, telcos see themselves

Innovation in telecommunications is the next big challenge

facing the paradox of customers expecting more and more bandwidth at a flat fee.

A widening ecosystem – where sectors are more interdependent than before – means operators must reposition themselves to engage with new customers, suppliers and stakeholders. The ability to drive communities of innovation has never been more critical. Application development is an area where network owners can make up lost ground by boosting their credentials as potential application programming interface (API) partners. The same ethos applies to various “smart” initiatives where operators need to engage with a new range of upstream partners, from utilities to advertisers. Even in the legacy access markets, innovative network-sharing models require a new type of dialogue between rival operators.

Improved external behavior goes hand-in-hand with deeper internal capabilities. Strategic hires from outside the telecommunications sector are important as operators look to grow competencies in areas such as digital media, mobile payments and IT services.

Even so, making the most of new opportunities is not without pitfalls. Although operators can take advantage of their billing relationship with the end user and make use of the customer information they own, not all new avenues will be easy to negotiate. Targeted advertising services will raise concerns around digital privacy, while reliance on partnerships complicates the value proposition in new product areas.

In addition, decision-making and execution have to evolve if operators are to follow a more innovative strategic agenda. For example, entering adjacent markets means distinguishing effectively among various options such as identifying a bolt-on acquisition, striking a new partnership or licensing third-party technology.

At the same time, operators must balance the need to innovate with evolving pressures on their legacy business. Meeting demand for high-speed data in both fixed and mobile applications will require high levels of investment in a cost-constrained environment, and business units may need to be restructured to meet the demands of competition, regulation and convergence.

In light of these challenges, innovation will be delivered through a subtle combination of rationalizing the existing business and exploiting new technology cycles with an expanded range of products and services.



Mark Borao, Media & Entertainment Advisory Leader, Ernst & Young

Mark focuses on digital, new media and customer strategies. His more than 20 years of experience include digital asset management, contract, rights and use management, sales and distribution, licensing, ad sales optimization and royalties processing in the motion picture and music industries.

The digital evolution

The explosive pace of change brought by the digital evolution is having a profound effect on media and entertainment (M&E) companies. Shifting consumer demands, coupled with rapidly changing technology, are forcing M&E companies to reevaluate their strategies. In Ernst & Young's 2010 study, *Poised for digital growth: preserving profitability in today's digital world*, interviews with CFOs from 75 leading M&E companies indicated that technology change would have the greatest impact on the industry in the next few years.

As consumer choice expands, the concept of ownership will also undergo a transformation. In the not-too-distant future, "anytime, anywhere" content will usher in a brave new world where consumers no longer own content on a single device. Instead, they will buy the lifetime rights to a piece of content – a song, movie, TV show or game – that they can use anytime, anywhere, and on any device.

Migrating to digital strategies

While companies are still eager to protect

Digital transformation through innovation

their traditional revenue streams, they know they must innovate to survive long term. M&E companies need to make sure their media assets are available for digital distribution. Otherwise, they will not be able to satisfy consumer demand, which ultimately puts their very survival in jeopardy. However, many M&E companies realize their digital offerings, monetization strategies, organization, processes and tools are not up to the task of supporting the new digital business models.

The digital transformation

The digital transformation of M&E companies will focus on three areas: intellectual property (IP) management, digital supply chain management and monetizing and distribution strategies with consumers.

► Intellectual property management

IP management is crucial for M&E companies as their revenues are based on increasing the value of their IP assets. Physical and digital rights are not the same thing, and M&E companies are working to make sure that a contract can be exploited regardless of its format.

M&E companies are devising systems and processes that span the entire IP lifecycle. A critical part of this is developing and deploying back-end systems that improve the accuracy and transparency of data.

► Digital supply chain management

M&E companies are also focused on building an effective digital supply chain that manages media assets throughout the enterprise. These processes provide a framework for storing, cataloging and integrating digital assets so they can be easily found and distributed across a growing number of media platforms.

An important digital supply chain component is Digital Asset Management (DAM). Although M&E companies are putting DAM systems in place, many of them are not "rights aware" (i.e., who can sell what to whom). DAM must be integrated with IP systems so the company knows where and when specific assets can be sold. This reduces the risk a company will sell something it is not supposed to. Greater visibility to IP assets and rights also helps a company exploit the assets that it does own.

► Connecting with the digital customer

M&E companies are also exploring how they go to market. As consumer behaviors shift, they will increasingly seek a direct relationship with their customers. The business-to-consumer model requires a new understanding of the customer. Marketing to audiences based on demographics (e.g., age, income) will still exist. But because consumers' physical and digital lives are often very different, M&E companies must use a whole new set of psycho-graphic metrics to find, target and market to consumers. However, M&E companies must exercise great care: such data is needed for relevant targeted marketing, but companies must avoid any real (or perceived) invasion of privacy or other misuse of data, which could damage their brand and reputation.

Positioned for successful transformation

Creating the right digital business model won't happen in a single stroke. Some successes and failures will be immediately evident. Others won't. But innovative companies will continue to push boundaries, take risks and transform themselves for the digital world. Success demands it.



12 Maintaining infrastructure

The second below-the-radar risk has also risen significantly from 2009, from 20th to 12th on our list. This is somewhat surprising – as an automotive sector CEO we interviewed pointed out, changes to infrastructure happen slowly, which ought to give companies time to react.

However, the number of infrastructure-dependent sectors participating in our global survey is significant, and in these sectors, higher costs of capital and the dire state of public finances are sources of concern. This held true for power and utilities, oil and gas, automotive, telecoms, and real estate, as well as, of course, the public sector. In many of these sectors, tremendous infrastructure upgrades are needed to meet environmental or technological challenges, and failing infrastructure may result in sharp declines in the value of current and future investments. It is unclear where the capital needed for infrastructure upgrades will come from.

Several analysts, including Daniel Malachuk, an independent consultant and former executive at CB Richard Ellis, reminded us that numerous sectors now depend on optimized global supply chains. Infrastructure failures could threaten the sourcing networks, in which numerous companies have invested heavily.



Martin Blaiklock, Consultant, Energy & Infrastructure

Because the financial crisis began with the mortgage sector – a long-term business being funded from short-term capital – much of the political response focused on the housing market. But, like housing, infrastructure assets are investments whose cost recovery comes over a long period, and they, too, need to be funded with long-term capital.

When the full impact of the crisis hit, the availability of long-term capital from the private sector largely evaporated. Investors now have limited time horizons of around five to seven years that are simply too short for many infrastructure projects. Further, commercial banks have reduced loan maturities by half – more than 10 years is the exception rather than the rule – while doubling margins and halving the amounts they are prepared to lend. Many banks have either withdrawn from this sector or chosen to limit new business to existing clients.

But there is some hope. For those with long memories, market conditions today for project finance are reminiscent of those that prevailed at the end of the 1980s, and we managed to pull through those. It is also worth noting that no project-financed infrastructure deal – those in which investors and lenders rely on project cash-flows for returns on their capital – has gone bankrupt as a result of the financial crisis. This demonstrates

Long-term challenges to infrastructure finance

that the rigor applied during the structuring of such deals has some long-term benefit and value, which should be a source of confidence for the sector.

Infrastructure's future may be less bleak than it appears. In emerging markets, where infrastructure development is generally accepted as being an essential driver for economic growth, the development banks, supported by bi-national funds and export credit agencies, are attempting to fill the gap left by reluctant private investors. Although these institutions can sometimes be bureaucratic and cumbersome, there is no alternative for sponsor governments.

In developed markets the picture is different. Many governments are now suffering from their public expenditure in recent years, often directed at short-term social programs rather than long-term infrastructure investments. Further, the value of public-private partnership (PPP) structures has been called into question. Fairly or not, off-balance-sheet mechanisms have been brought into disrepute. This has created an impasse, as governments have no spare cash for infrastructure, and the private sector has mainly withdrawn access to financing.

The way forward is to restore the availability of private funding for infrastructure investment. This is more desirable than direct government funding, as such deals tie in asset maintenance over the whole project life cycle, whereas publicly funded projects tend to suffer cost over-runs and cutbacks in maintenance.

To make the private model work, governments need to provide visible

support to the sector. Although up-front cash is not an option for most, guaranteeing long-term maturities of debt is one option, provided the contingent liabilities this creates are properly identified and managed. Tax breaks or tax credits for long-term investors and lenders provide another. The US already has a program like this for nuclear power and renewable energy that is beginning to demonstrate the desired results. Other governments should be following this path before long.

Several other key risks need to be addressed. Most infrastructure projects have their costs and revenues – or payments, if they are structured on “availability” mechanisms – in local currency. If the currency of finance, debt and equity is in a “harder” currency, it can create significant risks for government. Long-term local capital markets need to be developed to mitigate this risk.

In addition, the financial profligacy of the last 10 to 15 years has led many governments to undertake infrastructure expenditures via off-balance-sheet agencies such as municipalities or corporatized state entities, which in reality are controlled and owned by government. Just as banks have had to clean up their balance sheets following the financial crisis, governments will need to do likewise to regain market confidence. This could have repercussions for attitudes toward infrastructure investment.

A long-term risk for all these developments that is often overlooked is the lack of qualified engineers to design, build and operate infrastructure projects in the future, however they are funded. Governments must address this issue urgently.



13 Emerging technologies

Placed fourth below the radar in 2009, emerging technology risk is now at Number 3. Many panelists cited this as a notable risk and it was certainly a common theme across many sectors. Variations on this theme ranged from risks posed by high-frequency trading in the financial sector to managing social media effectively in consumer products, and from developing low-carbon technologies and alternative propulsion systems in the automotive sector to biotechnology and “e-healthcare” in life sciences.

New technologies such as digitization and social media will increasingly affect sectors such as life sciences, consumer products and government. These advances create new strategic risks. For example, because the data are owned by many different market participants, data monitoring and security are increasingly important (indeed, data privacy features on the risk list for the first time this year, although still just below the top 25).

For other sectors, such as media and entertainment and technology, digital media is now an established part of the strategic landscape, although the viability of revenue streams from digital content remains unclear and companies must strike a balance between traditional and digital media.

It is rare that disruptive innovation does not make an appearance in a sector risk commentary. In power and utilities, for instance, low-carbon technologies are booming, smart grids are much anticipated, and the impact of electric car adoption is much-studied. However, each of these new technologies creates uncertainty, and many require further investment to make them more effective and economically feasible.



Dr. Anthony Kirby, Regulatory and Risk Management Director, Ernst & Young

Anthony is the Investment Management Sector lead for the EMEA Financial Services Risk and Regulatory advisory capability and runs the Risk Management for Asset Managers Campaign.

High-frequency trading (HFT) has been a key innovation for trading markets during the past decade. It refers to any trading strategy that uses fast computers, sophisticated algorithms and low-latency connections to execute millions of buy and sell orders in short periods. Receiving data electronically, computers determine timing, price or quantity of an order, then “ping” a trading venue within milliseconds to gauge the availability of liquidity and/or determine the direction of trades – all before a human trader is even aware of the opportunity.

The significant entry cost involved deters all but a handful of market makers who offer liquidity to the market by generating and executing orders automatically. The dozen or so players who dominate HFT already represent 60% to 65% of flow in the United States and an estimated 25% to 30% of daily stock trades in London, according to a study conducted by Ernst & Young in 2009. These pioneers have invested millions of pounds in super-fast computers, complex event processing, state-of-the-art algorithms and ultra-low latency networks. One system facilitator recently boasted a “round-trip time” – the time it takes to send an order to a venue

Will innovation in trading technologies enable asset managers to benefit from better trade transparency, or render such regulatory concepts redundant?

and confirm the same – of just 16 milliseconds.

These high-frequency traders foster intense competition for their order flow between exchanges, resulting in greater liquidity, more choice and lower fees. Yet some asset managers are beginning to doubt whether additional choice and liquidity translates into better cost-effectiveness for the end client.

Last year, the SEC took steps to end flash trading – a practice in which traders use HFT to allow select players to see their orders 30 milliseconds ahead of the rest of the market. More recently, it indicated the need for more fundamental changes to US trading rules in the wake of the “flash crash” incident on 6 May 2010, in which the Dow Jones Industrial Average lost 9.2% of its value in a 5-minute period as some 30 S&P 500 Index stocks fell by 10% or more. Although many of the losses were recovered by the close of trading, the sudden movement was accompanied by a drain of liquidity that alarmed the market.

In response, the SEC plans to introduce rules that would halt trading in individual stocks if their price moves by more than 10% in a 5-minute period. The stock-by-stock circuit-breaker rule is planned to go into production as early as December 2010. In conjunction with other regulators, the SEC is also considering whether a market-wide circuit breaker could be used to cancel trades in case of significant market instability.

Europe can take temporary comfort from that fact that flash trades are not a feature on its exchanges. However, an

apparent lack of knowledge about how far these innovations could influence transactions in the region has amplified complaints from European investors that these new practices will undermine the notion of a market that is fair for all.

It is already clear that HFT has introduced the impact of cutting-edge technology into markets whose conventions are still governed by established practices – and at a cost that limits the benefits to a small number of very large players. It is not surprising that regulators and other market participants are questioning the wider value of trading techniques whose high speeds can render them opaque and make them so potentially disruptive.

Yet there is a real danger of inappropriate, overly broad or even counterproductive regulation if the actual usefulness of HFT is not fully understood. There is still much confusion about the advantages and dangers involved. Terms such as “flash trading” and “sponsored access” have been juxtaposed with phrases like “market manipulation” in media coverage, triggering a broad degree of concern that has already reached Congress.

A root and branch review of how HFT operates within markets may take time, but it is a wiser course of action than hurriedly enacting legislation under some political pressure that could have unintended consequences in the longer term. There needs to be consultation between lawmakers, regulators and the industry to ensure that any new rules not only protect the investor but also are proportionate in serving the broader market purpose.



14 Taxation risk

The threat of substantial increases in taxation in coming years poses a new risk for 2010. Several sectors mentioned this as a cause for concern, including the government sector but also the financial and oil and gas sectors.

The size of public sector cuts required is unlikely to be achievable without cuts in major “front-line” services. More than one government sector interviewee argued that governments will need to “come clean” about this as early as possible to retain the public’s trust. As countries try to reduce their budget deficits and debt, few sectors will be immune from the possibility of increased levels of taxation over the next 5 to 10 years.

Businesses will face a host of challenges as a result. If sector profits are good, the sector may become a tempting target for increased taxation. Increased company rates have a number of clear implications for firms, not only by reducing profits, but also by damaging companies’ ability to invest for the long term. Further, reduced public services through diminished infrastructure investment (see BTR Number 2) and fewer university graduates (see Number 4) also could have indirect implications for companies.



Alessandro Cenderello, Government & Public Sector Market Leader, Ernst & Young

When the global financial crisis froze the credit markets in late 2008 through 2009, the governments of most major economies built comprehensive stimulus programs to restore investor confidence. The huge expenditures and hefty tax cuts succeeded, but at the cost of massive, unsustainable budget deficits.

With public deficits running as high as 12% of GDP, many governments are now trying to reverse course. Where governments lowered taxes and spent more money last year, they must raise taxes and spend less money this year – an equally necessary but more politically painful task.

In order to restore market confidence in the sustainability of sovereign debts, most of G20 countries have committed to plans to accelerate the pace of consolidation of their fiscal deficit. Whilst most of the consolidation will mean severe cuts in public expenditure and programs, some controversy still remains as to the extent to which this objective can be achieved through tax increases. Some countries have already declared their intention to raise V.A.T., at the same

Taxation: handle with care

time as others are considering the introduction of levies for the banking sector or on international financial transactions.

Aside from the complexity of global coordination on these issues, taxes often can't be raised without damaging the economy, and programs can't be cut without affecting citizens or harming part of the economy. Therefore, any short-term fiscal consolidation will have to go hand-in-hand with bold structural reforms required to restore sustainable long-term economic growth.

Thus, in order to keep the need for tax hikes and spending cuts to an absolute minimum, tax authorities are under tremendous pressure to improve their tax systems to make the collection process more efficient and keep the additional taxes from hampering the recovery.

Enhancing collection is fairly straightforward, and there are many good examples for authorities to use as benchmarks. More complex is the question of how to adjust the tax regime. Tremendous repercussions on revenue, the economy and society can result not only from the absolute level of taxes but also from the way in which different instruments are structured and how they interact. In the present emergency, it would be easy to panic and throw out years of careful policy design embedded in the systems, which encourage families to save and work and firms to invest and innovate.

The policy issue is particularly challenging for tax authorities because they must now think globally as well as locally. In the past, governments tended to be able to set their taxes at any level they wanted until the public protested or the rates became so high they discouraged production. But smart corporations today design operations with an eye on global tax efficiency, and any changes in tax terms can have a drastic impact on the location of future facilities and other investments. Not surprisingly, tax policies have become an important source of national competitive advantage and are therefore more difficult to change.

So is the choice either to keep taxes low and face a potential loss of investor confidence in the country's creditworthiness, or to raise taxes high enough to reduce the debt and risk driving taxpayers away to more tax-friendly countries? No. The real choice is whether to succumb to pressures to make hasty, potentially flawed decisions or to design tax policies carefully enough that the trade-offs between revenue enhancement and business encouragement are all based on thoughtful analysis and scenario-planning and are clearly understood.



15 Pricing pressures

At fifth in our below-the-radar risk list is a new risk for 2010: pricing pressures. These pricing pressures are in large part a consequence of several challenges higher up on the risk list: the rise of low-cost emerging markets competitors, the growing importance of price-sensitive emerging markets consumers and the penny-pinching behavior that has accompanied a global recession.

These trends, coupled with rising commodity prices, put pressure on many firms to reduce costs (Number 6) and to optimize their pricing strategies to gain every last morsel of value. For instance, “competition for market share in a low-inflation environment makes raising prices very hard to achieve, even when input prices are rising,” as one consumer products executive put it.

Other pricing pressures come from cash-strapped and increasingly unpopular governments facing public protests. These governments have attempted to cut or regulate prices paid for life sciences products, or threatened intervention in power and utilities tariffs or energy markets. With many developed country governments facing huge deficits, and a public backlash escalating, such political pressures on pricing may rise further on the risk list in years ahead.



Thomas Bishop, Strategy Group Executive Director, Ernst & Young

Thomas has 12 years of advisory experience across the consumer products and retail industries. He leads strategic projects that tackle core issues from pricing and trade spend optimization, retail and sales strategy development to channel, product and customer strategy.

Global recession, smarter consumers and a shift in the retailer-manufacturer relationship have made effective pricing strategies and execution more important than ever before. "To say that consumers will return to historic norms is disingenuous" – this was the recent assessment of William Johnson, Chairman, President and CEO of Heinz, and a view that is almost unanimously shared across the consumer products sector.

Consumers have undoubtedly reset their perceptions of value and price as a result of the global recession. Not only are most consumers now more sensitive to price, having adopted a deal-seeker mentality, but they are now far more savvy. They are comfortable with mixing value and premium purchases, knowing when to buy private-label brands, when to stick with their trusted mainstream brands or when to trade up and treat themselves. In short, manufacturers are having to work far harder to convince consumers to buy their products. Even so, a clear understanding of a brand's price-value

Getting the price right

positioning in the marketplace represents a key leverage opportunity for manufacturers.

In tandem with this shift in consumer behavior, retailers have also moved to exert greater influence over branded manufacturers. In Europe, some retailers are negotiating harder and often on an international basis. A large supermarket chain, for instance, is demanding one price for brands across several countries. Retailers are also rationalizing product ranges to reduce complexity, simplify the shopping experience and free up shelf space for their own private-label ranges. And the competition from highly credible private-label brands has intensified significantly over the course of the recession. In highly developed private-label markets, penetration is already high (United Kingdom, 39%; Germany, 34%) and far higher in highly commoditized categories. In the United States, private-label penetration has now reached 20%, significantly higher than before the recession.

So how can manufacturers respond to these pressures through their pricing strategies, at a time when incremental price increases are no longer a viable route to drive top-line growth?

- ▶ Addressing the issue that pricing is "equal to value" is crucial. Having an intimate understanding of a brand's value proposition, both from a qualitative and quantitative perspective, is key to setting the appropriate price point. In spite of the current climate, gaining this brand clarity could result in price points being moved up as well as down.

- ▶ Developing a rigorous analytical understanding of how consumer prices drive volume – be it absolute price, relative price versus the competition, or identifying a brand's price threshold.
- ▶ Understanding the pricing waterfall to identify areas of excessive spend, which then can be either reinvested in the business or dropped to the bottom line. These amounts typically can be between 1% and 5% of net revenue.
- ▶ Getting smarter with trade marketing by focusing relentlessly on the ROI associated with this spend. Manufacturers need a crystal-clear understanding of promotional events by brand, size, event type, account and season. This means having the right systems, processes and evaluation techniques, scaled and sized appropriately to an organization's resource and capabilities.
- ▶ Building a revenue management function in the organization. This group would typically have a central strategic element along with an in-market component. The central function would focus on driving common processes across business units, developing analytical tools to enable fact-based decision-making and implementing measurement criteria (KPIs) to evaluate progress and business impact, while the in-market group would focus on price and trade execution.

Finally, and crucially, manufacturers need to forge a strategic and highly collaborative relationship with retailers with a common purpose of optimizing category growth.

Appendix: Participants

We interviewed more than 70 knowledgeable commentators, representing 14 industrial sectors and the global sector leadership of Ernst & Young. The participants were selected for their positions as leading commentators in their fields.

We gave 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 experts – listed below – who agreed to be named.

Antonio Cortina Garcia, Deputy Director, Research, Grupo Santander
Al Koch, Vice Chairman and MD of Alix Partners

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

Annet Aris, Adjunct Professor of Strategy at INSEAD and McKinsey

Ashish Arora, Professor, Fuqua School of Business, Duke University, US

Avinash Persaud, Financial consultant and Chairman of Intelligence Capital

Bernd Gottschalk, President of the German Association of the German Automotive Industry

Christopher O'Brien, Director, Centre for Risk and Insurance Studies, Nottingham University Business School

Christopher Parsons, Professor of Insurance, Cass Business School, City University London

Colin Lizieri, Grosvenor Professor of Real Estate Finance, University of Cambridge

Daniel Hofmann, Group Chief Economist, Zurich Financial Services Inc.

David Cole, Chairman, Center for Automotive Research

Geoffrey Fitchew, Chairman, Insolvency Practices Council, UK

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Joel D. Aberbach, Distinguished Professor of Political Science and Public Policy, and Director, Center for American Politics and Public Policy, University of California and Los Angeles, US

Jonathan Lipkin, Head of Research, Investment Management Association, UK

Jonathan Reynolds, Academic Director, Oxford Institute of Retail Management, Fellow of Green Templeton College and Lecturer in Management Studies, Saïd Business School, University of Oxford, UK

Joseph Lampel, Professor of Strategic Management, Cass Business School, City University London

Julian Lee, Senior Energy Analyst, Centre for Global Energy Studies

Keith Mansford, former President of Research and Development at Beecham Pharmaceuticals and Smith Kline Beecham, and Chairman of Mansford Associates

Mark Salmon, Advisor to the Bank of England and Director of the Financial Econometrics Research Centre, Warwick Business School

Martin Blaiklock, independent consultant, energy and infrastructure project finance

Martin Vasey, independent power and utilities sector consultant

Michael A. Crew, CRRI Professor of Regulatory Economics and Director, Centre for Research in Regulated Industries, School of Business, Rutgers University, US

Neil De Koker, President and CEO, The Original Equipment Suppliers Association

Nelson Phillips, Professor of Strategy and Organisation Behaviour, Imperial College London

Nigel Lucas, independent consultant, power and utilities sector

Peter Linneman, Principal of Linneman Associates, and Professor of Real Estate, the Wharton School of the University of Pennsylvania, US

Robert Wescott, Founder and President, Keybridge Research LLC, Washington DC, US

Ryan Calo, Fellow, Stanford Law School Center for Internet and Society, US

Soumitra Dutta, Roland Berger Professor of Business and Technology, INSEAD, France

Stephen Satchell, University Reader and Fellow of Trinity College, The Faculty of Economics, University of Cambridge, UK

Svetlozar Rachev, Co-founder of Bravo Risk Management Group, Chief-Scientist at FinAnalytics and Professor and Chair of Econometrics, Statistics and Mathematical Finance, School of Economics and Business Engineering, University of Karlsruhe, Germany

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