



KNOWN UNKNOWNNS

Predicting is always difficult, especially
where the future is concerned,
but here are 10 trends that may
shape your business



1 Risky business

Many boards have recently looked as alert to peril as the dinosaurs just before a meteor smashed into Mexico 65 million years ago. CFOs believe such crises prove that risk management should be a strategic partner in a business, but how do they convince managers?

Programs to align risk controls to business needs – and software to aggregate, measure and assess risks – will help. But René Stulz, professor at Ohio State University in the U.S., says risk managers must change tack. He says firms misjudge known risks (by relying on past data or not sensing the correlation between different risks), don't realize how fast risk can change, and don't communicate risks properly to management. Stulz says “scenario analysis focusing on possible financial crises” modelled on economic analysis, not past crises, is essential in the finance sector.

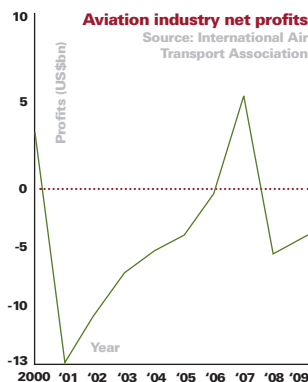
Creating a culture where risk is factored in, not by bureaucrats wielding fancy software but managers on the front line, won't be easy or quick. But it's better than the alternative.

2 Plane truth

When Boeing's Dreamliner 787 takes to the skies in 2010, it could do for airlines what Intel did for PCs. John Quelch, professor of business administration at Harvard Business School, says: “The ‘Dreamliner’ brand will be as prominent on fuselages as ‘Intel Inside’ on PCs.” He says Dreamliner may have a bigger influence on passengers' choice of flight than the airline.

Despite delays, Boeing has already sold 900 Dreamliners. Airlines have been tempted by low fuel consumption (20% less on long haul than 767s), higher cabin pressure (the journey should feel nicer) and gust suppression technology to reduce motion sickness.

With Dreamliner, Boeing is pioneering a collaborative development process in which its partners share the risk, design burden and virtual development. If it works, this process could save Boeing money and time developing the heirs to Dreamliner and may give it an edge over Airbus.



3 Developing Bransons

Where is the Brazilian Richard Branson? If developing economies are to create the next Virgins, they need the support networks that made Silicon Valley an engine of innovation.

An American non-profit organization called Endeavor is trying to rectify that. CEO Linda Rottenberg believes the best way to fight poverty is to select and mentor entrepreneurs in developing nations. Since 1997, Endeavor has put 409 entrepreneurs in touch with CEOs, ministers and investors in their own markets and elsewhere.

This is good news. A Fulton School of Engineering study found a 5% drop in new ventures equated to a 3% fall in GDP growth. Each Endeavor entrepreneur typically creates 118 jobs and their combined sales now stand at US\$2.51bn (€1.93bn). Brazilian wind-turbine-blade maker Tecsis, mentored by Endeavor, has won a US\$1bn (€670m) deal to supply GE.

Only 44 Fortune 500 firms are based in developing economies. Some *pro bono* advice from business leaders may help improve that tally.



4 Silicon Valley blues

As the joke goes, Silicon Valley wasn't founded on ICs (integrated circuits), but on ICs (Indians and Chinese) who started one fifth of America's high-tech firms.

U.S. IT is reeling from tough H1B visa quotas for highly skilled foreign workers, the credit crunch and fewer new arrivals from Asia. In 2003, 195,000 H1B visas were issued; 2008's quota (65,000) was reached after a day. Bangalore's 'Silicon Ghat' and Hetal, the boom city at the heart of China's new Silicon Valley, look increasingly attractive to skilled workers.

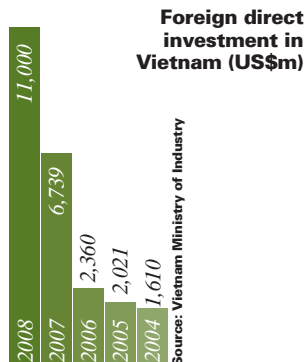
There are now 253 million Chinese online, compared to 190 million Americans. In 2007, American investors pumped US\$616m (€416m) into Chinese IT start-ups, suggesting China could use U.S. finance to grow an Intel or Google. In contrast, Silicon Valley venture capitalist Sequoia recently held a summit to suggest U.S. start-ups cut costs. Wannabe IT tycoons were greeted with a tasteful slide of a gravestone bearing the words: "RIP good times".

5 Vietnam

Inflation nearly hit 30% this year, but foreign direct investment in Vietnam will still soar by 37% to a record US\$11bn (€7.4bn) in 2008. For companies with stickability and a long-term view, this could be the time to invest. Prices are relatively low and GDP growth – expected to reach 5% in 2009 – is still strong.

Vietnam has stability, an increasingly well-educated workforce, labor costs about half those in China's coastal industrial zone and booming agribusiness, gas, oil and tourism industries. Mobile phone use is set to double by 2010. As a nation, Vietnam has renewed entrepreneurial zeal, with private start-ups abounding

The state, which controls 38% of GDP, plans to sell 1,500 more state enterprises by 2010. Bureaucracy, corruption, poor regulation, and a creaking infrastructure will deter some, but GE began making turbines here in the spring. The risks are large but so, GE believes, is the opportunity.



6 Head count

What does your head office cost? A simple question, but in Maxxim Consulting's 2008 survey of 20 large British firms, only four CEOs knew the running costs of – or the staff numbers at – their HQs.

In good times, head offices grow organically. Typically, doubling a company's size increases head office staff by 75%. Scrutinising head office costs could save money and improve morale but there are risks to be weighed.

A 2004 study of 600 global corporations found no strong evidence that smaller HQs improved financial performance. If too many functions are dispersed, managers may miss a strategic opportunity.

Savings may offset some risks associated with a loss of control. Just by deciding its HQ would only support core businesses, one multi-national cut head office costs by 50%.

Having halved its head office staff since 2007, UK technology company Smiths Group now publishes its HQ costs. Such transparency may help morale. Financially trivial expenses can have a large symbolic value, and hiding them fuels suspicion.

7 Shipping

Using shipping to 'green' your global distribution channels will be much harder than you might have assumed. If shipping were a country, it would be the sixth largest emitter of CO₂ in the world. UN research says emissions from shipping are almost double that for aviation – three times higher than thought.

Shipping emissions are expected to double by 2020. A 'green gauge' for ship designers, new targets for ship recycling and tighter rules for sulfur and nitrogen-oxide emissions will hardly placate eco-warriors. Mandatory EU emissions standards caps, which are likely over the next few years, will be a more positive step.

What can the industry do? New water resistance technology could cut fuel usage. Under California's new rules, ships must use diesel – not highly polluting bunker fuel – to power auxiliary engines in port. The U.S. Navy is developing kite-powered cargo ships that could use 30% less fuel. If progress isn't rapid, shipping miles could eventually become as controversial as air miles.



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Software is the new weapon of choice



Militaries will always use sophisticated machinery, but software is starting to take over. Even the traditional big-ticket items — aircraft, ships and submarines — rely on software for their effectiveness. Take the Joint Strike Fighter, a multi-role stealth aircraft under development for U.S. and other forces, at a cost of US\$300bn (€233bn). The aircraft looks impressive, but as the project matures, block upgrades to its software package will make its sensors and weapons much more effective.

If the software doesn't work as designed, billions of dollars worth of equipment might not do the basic job it was bought for. Australia's Collins-class submarines couldn't use their weapons properly for years after a series of software failures. Of course, that sort of problem can — and frequently does — afflict hardware development. But changing hardware is more costly and time-consuming than changing software, so the Joint Strike Fighter is likely to be the first of many similar developments.

Software is much more important because intelligence analysis is so fiendishly complex. Finding and tracking terrorist groups, drug cartels and people-traffickers involves sifting through vast amounts of data — most of it innocuous and irrelevant. Only cleverly designed software (running on large, fast computers) can do the job.

None of this comes cheap. Software bugs on your home PC are one thing. On a battlefield, where the outcome might be life or death, they are a different matter. The level of redundancy and reliability mandated for such systems ratchets up cost. And the military often wants it all and wants it now. The 'spiral development' model — in which supplier and customer consult to evaluate early results and identify trouble spots — has been accepted by the Pentagon, but is hardly universally understood.

Economics dictate that software will eat into defence budgets once reserved for hardware. As U.S. defence expert Norman Augustine says: "Software is difficult to grasp, weighs nothing and obeys the second law of thermodynamics — it always increases.

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Structural defects

Gridlocked roads cost the U.S. economy US\$78bn (€61.3bn) a year in wasted fuel. India's straining infrastructure, which hasn't grown as fast as its economy, costs the nation at least 1.5% of GDP a year.

These are just two examples of a global crisis. A report estimates that the world must spend US\$40 trillion (€27 trillion) on infrastructure over the next 25 years if cities — now home to over half of humanity — are to maintain power, water and transport. Public investment is now being resumed as treasurers prime the economic pump.

The row over who runs projects — state or business — is a false dichotomy. A more fruitful tack might be to analyze good private-public relationships. The state could lead more lightly and make better decisions, while companies should realize that current incentives can encourage cost overruns.

Infrastructure can offer five-year returns of 8-13% if projects run well. If they don't, gridlock could spread from roads to economies.

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African agriculture

Like Danish author Karen Blixen, Daewoo Logistics Corp now has a farm in Africa. The Korean conglomerate has long had a profitable commodities division which trades in crops like cereal and rice. Worried by volatile prices and security of supply, it aims to grow 5.5 million tonnes of corn on a million-acre plantation in Madagascar by 2023.

Other companies and countries will follow suit. China, whose trade with Africa will reach US\$100bn (€67.5bn) in 2008, is poised to invest, as are Kuwait and Saudi Arabia, both as short of arable land as South Korea.

Some African leaders, frustrated by 20 years of slow manufacturing growth, now look to agriculture, seeking investment to improve infrastructure and supply chains. Angola offers farmland for development, while Ethiopia is open to foreign investors.

African agriculture may not be an obvious priority, but Daewoo's deal could be the catalyst for more foreign firms to work with the continent's economies.



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