Painful return to reality beckons

Huge challenges face chemical companies as central bank stimulus comes to an end and markets return to supply and demand fundamentals

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The flow of artificial stimulus money is drawing to an end

PAUL HODGES INTERNATIONAL ECHEM

Slowly but surely, reality is returning to oil and feedstock markets. Brent crude prices are returning to their historical level of around $25/bbl and price discovery is returning to currency markets, with the dollar rising strongly against most other major currencies. Yet there is no going back to the future in terms of demand.

Instead, a paradigm shift is under way in this vital area. For the first time in history, domestic demand growth in most countries is being driven by the needs of the lower-earning, lower-spending "New Old" 55+ generation. As the chart shows, 1bn people are becoming "New Olders" between 2000-2030. By then, they will be more than one in five of the global population. In export markets, China's New Normal economic policy has become the basis for its Five-Year Plan for 2016-2020. This sets out a clear pathway towards self-sufficiency in many value chains, meaning that the country will no longer provide a home for surplus domestic product.

Consensus wisdom has thus failed us, yet again. But as I have long feared, it will be chemical companies and investors who have to bear the costs of this failed analysis. The coming year is therefore likely to prove very uncomfortable:

- Boards that have sanctioned export-oriented projects are going to have to consider whether to proceed, or cut their losses. They face binary decisions, with no middle ground.
- Can they be sure that these projects can instead be sustained by increases in domestic demand? And are they really clear about the potential drivers for this demand in the future? The *Financial Times* summarised new research from the US-based Pew Foundation thus:

"Companies struggle to adapt to an over-60s group that is set to drive half of all US spending growth" (Middle class meltdown, 10 December 2015).

PUMPING UP PRICES

This is the Great Unwinding of policy maker stimulus in action, as I have described in previous issues (*ICIS Chemical Business* 3-9 November 2014 and 2-8 March 2015). The problem we face is that over the past decade, via ever-increasing amounts of stimulus and quantitative easing, the world's major central banks have deliberately pumped up prices for financial assets. The aim of this money-printing was explained by then US Federal Reserve Chairman Ben Bernanke in the *Washington Post* on 3 November 2010.

> **"Higher stock prices will boost consumer wealth and help increase confidence, which can also spur spending"**
> **BEN BERNANKE, 2010**
> Chairman (then), US Federal Reserve

"Higher stock prices will boost consumer wealth and help increase confidence, which can also spur spending. Increased spending will lead to higher incomes and profits that, in a virtuous circle, will further support economic expansion."

Their economic models assured them, despite all evidence to the contrary from the real world, that stimulus could somehow return us to the demand levels seen during the Baby-Boomer-led Super Cycle. They believed they had become modern "Masters of the Universe", able to control an economy of 7.3bn people with just the touch of a money-printing machine.

Now, the hollowness of this claim is being exposed, as markets return to being based on the fundamentals of supply and demand, rather than tidal waves of central bank liquidity. The end result is that companies face chaos in both feedstock and product markets. And this chaos could take a long time to resolve itself. This is why we are publishing with ICIS, a major new study that addresses the five critical questions which will dominate every company's agenda in the next few months:

- Can businesses still plan ahead for demand by simply using a relevant multiple for each product in relation to an IMF GDP growth forecast?
- Can companies continue to assume that oil prices will inevitably return to recent highs, or are prices more likely to stabilise at the $25/bbl level seen before 2004?
- Do China's New Normal policies mark a complete change of direction from its previous role as the manufacturing capital of the world?
- Will today's globally ageing population maintain the same levels of demand for autos, housing, or electronics as in the past?
- Should companies focus on new growth areas for demand, in potential megatrend areas such as water, food, shelter, health, mobility and the environment?

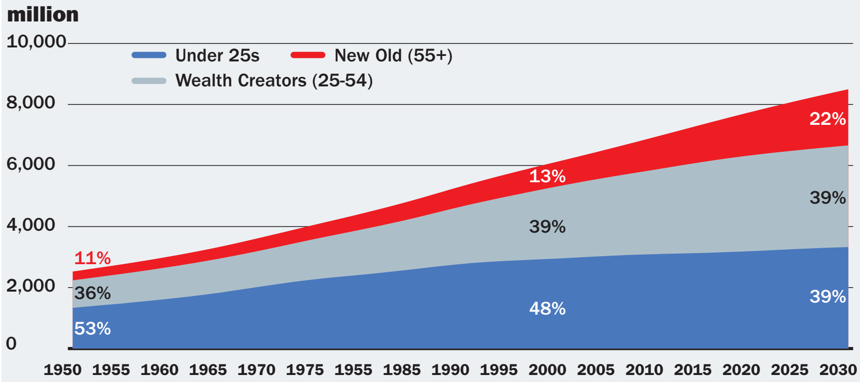
NO MIDDLE GROUND

My key concern is that this chaos will create winners and losers. There will be no middle ground. Winning companies will accept that the world is moving into a New Normal which will be quite different from previous experience. Losers will cling vainly to the hope that change is not inevitable, and that the world will return to the comfortable Old Normal, where constant demand and robust profits were the norm. The year 2015 has thus proved to be the tipping point that I foreshadowed in last year's outlook:

"The first of these transformational changes is the supply glut that now exists in all the major energy markets – oil, gas, coal and renewables. The second is China's emergence as an exporter rather than importer of petrochemical and refinery products. The third is the reduction in global growth prospects caused by the impact of today's ageing global population and high levels of unemployment among young people. The fourth is technologically driven, as 'the internet of things' becomes as ubiquitous as the smartphone." (*ICIS Chemical Business*, 5-11 January 2015)

Of course, all those who claimed oil prices could never fall below $100/bbl, and that China's double-digit economic growth would

GLOBAL POPULATION SEGMENTS, 1950-2030 (MILLIONS & %)



SOURCE: pH report, UN Population Division

continue for decades, will now rush to claim that they always knew the stimulus programmes would fail. In a world dominated by 140-character tweets, and sound-bite news, they imagine no-one will challenge their new claims. But the old phrase "once bitten, twice shy" comes to mind. Ask to see examples of what they were saying a year or even six-months ago on the subject, before agreeing to follow their advice this time around. Having argued with conventional wisdom for some time, I can guarantee you will quickly unmask most claims to have foreseen today's chaotic reality.

My major concern is the vacuum created by the failure of the stimulus policy to produce the promised results. What is your business to do now, faced by overcapacity in most feedstock and product markets? How can you quickly reposition to open up sustainable new revenue and profit streams? What do you have to do to survive and prosper in this New Normal, when risks are mounting all around you?

ROADMAP FOR THE FUTURE

This is the value proposition for our new Study. We aim to answer the key questions for your business, and provide a roadmap for the future:

- What would be the consequences of $25/bbl oil prices for new olefin and derivative projects – both shale-driven US projects and China coal-to-olefins?
- What is the potential impact on cracker operations and petrochemical/polymer margins of on-purpose propylene production via propylene dehydrogenation from low-cost LPG?
- What does the potential arrival of the "peak car" moment in the global autos market mean for propylene and butadiene (BD)?
- What will be the impact of oversupplied refining markets on the current by-product status of benzene and on key derivatives?
- What is the demand outlook for derivative markets such as purified terephthalic acid (PTA) that are now suffering major oversupply? Is this a wake-up call for other value chains?
- What do these developments mean for inter-polymer competition?

Equally important is that we will then be able to identify your key strategies, in four critical areas:

- How can producers and consumers position themselves to not only survive in this uncertain world, but also build profitable new businesses?
- How can they create more service-based businesses responding to the megatrends of food, water, shelter, health and mobility to establish sustainable profit streams?
- How can companies develop successful pilot programmes to tap the potential of the major growth taking place in the world's New Old 55+ generation?
- How can investors model the impact of these developments on future cash and revenue flows, and build their confidence over future investment returns?

We are living in very uncertain times. Past performance is no guarantee of future success but it remains the best guide we have. I therefore hope we will have the opportunity to help you overcome current challenges, and build a profitable business for the future. ■

Winners and losers in the New Normal

With major structural changes underway in the global economy, only chemical company leaders who are prepared to think creatively will succeed and grow their businesses

PAUL HODGES INTERNATIONAL ECHEM

Four transformational changes are underway as we enter 2015. As a result, the global economy is now firmly headed in a New Normal direction. Companies and investors can therefore no longer rely on traditional "business as usual" strategies. Future winners will recognise the need to change their business models to reflect the challenges and opportunities ahead. Losers, however, will suffer setback after setback, until finally they are forced to recognise the hard way that the Baby-Boomer-led economic SuperCycle disappeared some years ago.

The first of these transformational changes is the supply glut that now exists in all the major energy markets – oil, gas, coal and renewables. The second is China's emergence as an exporter rather than importer of petrochemical and refinery products. The third is the reduction in global growth prospects caused by the impact of today's ageing global population and high levels of unemployment among young people. The fourth is technologically driven, as "the internet of things" becomes as ubiquitous as the smartphone.

Separately, these changes are already creating major disruption in the global economy. The OPEC oil producer cartel tried to hold prices for as long as possible, before Saudi Arabia's oil minister reminded his colleagues that "the market will decide". Similarly China has abandoned its vast stimulus programme, having quantified $6.8 trillion of "wasted investment" from its 2009-2013 spending.

Ageing populations create a different challenge, as we discussed in the ICIS-published *Boom, Gloom and the New Normal* eBook. As the chart shows, 1.8bn people, nearly a third of the world's adult population, will be over the age of 55 by 2030 due to increasing life expectancy and the decades-long collapse in fertility rates. Ageing populations create a paradigm shift in demand patterns, with people's needs reducing along with their incomes as they enter retirement. Unfortunately, young people's spending power is also under pressure from high unemployment and housing costs, as well as the burden of tuition fees.

Nissan

Nissan is relaunching the low-cost Datsun brand for emerging markets

The critical first step is to abandon today's silo-based mind-set that currently constrains our creativity

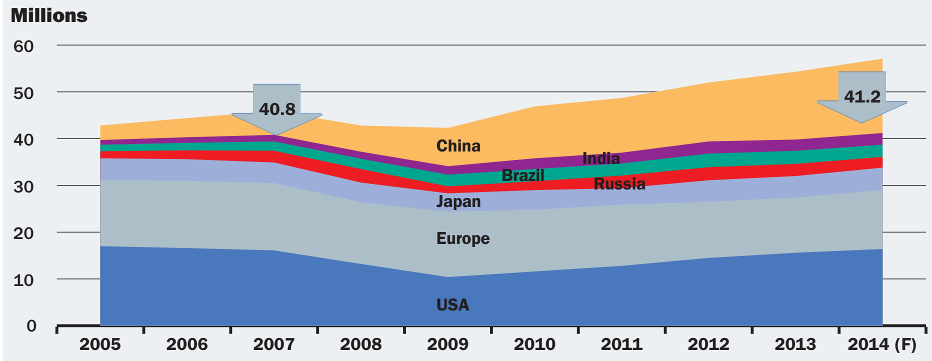
"The internet of things" is creating another paradigm shift, as the digital and physical worlds converge. The opportunity is to develop smart, connected products, with capabilities far beyond current levels. As management experts Professor Michael Porter and James Heppelmann have described in the Harvard Business Review ("How Smart Connected Products are Transforming Competition", November 2014), this has enormous implications for the chemical industry, which currently relies on delivering physical products for its revenue and profits.

Developments in the auto industry highlight the scale of the challenges and opportunities that these transformations are creating in downstream markets:

- Young people's attitude to cars is undergoing major change in the developed world. They often see car ownership as unaffordable, while the advent of social media and greater environmental awareness reduce its perceived benefits. Thus in the US, only four out of five young Americans aged 20 – 29 held a driving licence in 2010
- Demand for cars is also weakening at the other end of the age spectrum. Parents drive less once their children leave home, and their mileage reduces still further on retirement. German data shows almost a 50% reduction in annual mileage between the ages of 30 and 70 years. The US shows similar patterns.

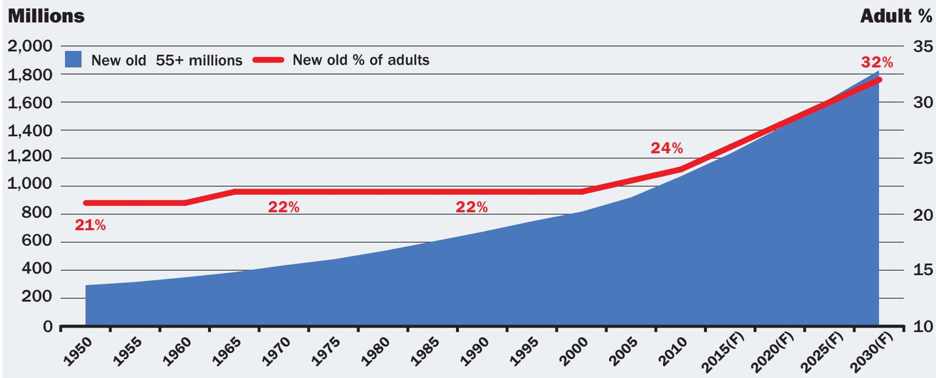
Taken together, these developments make it almost certain that we have reached peak car sales in the West. Median age is already past 40 years in most countries, and in the US the ageing Baby Boomers are now reversing their earlier flight to the suburbs, which had vastly increased demand for new homes and cars. In Japan, the case study for ageing populations, annual car sales peaked as long ago as 1990.

PASSENGER CAR SALES IN THE SEVEN MAJOR MARKETS 2005-2014(F)



SOURCE: Iec Analysis, National Auto Manufacturer Organisations

NEW OLD 55+ POPULATION AND PERCENTAGE OF ADULTS, 1950-2030(F)



SOURCE: IeC; UN Population Division

Adults = 20 years and over

Contrary to popular belief, it is also most unlikely that demand in the emerging economies will somehow pick up the slack. China's new leadership have recently highlighted how their predecessors' stimulus spending resulted in $6.8 trillion of "wasted investment" between 2009-2013. It is most unlikely they will repeat this mistake by introducing similar stimulus in future. And without China, there would have been no overall increase in global car sales in recent years, as the chart shows.

China's wasteful lending programme trebled its annual car sales to nearly 15m after 2007, as people rushed to spend the wealth created by the property bubble that it created. But total sales in the other six major markets were virtually unchanged over the period, with 2014 sales forecast at 41.2m versus 40.8m in 2007. The bursting of China's lending and property bubble means future spending will instead depend on incomes once more. As these are just a tenth of those in developed countries, growth levels will inevitably be much lower than in the past.

Two key conclusions result from these developments in terms of the impact of the four transformations on future auto industry demand trends:

- Future sales growth will be in the low-cost sector. Renault/Nissan are already developing global leadership in this field. Renault's Dacia sells at just €7,000 ($8,700) in the West, and Nissan are planning a $3,000 model in their Datsun range for developing economies.
- The sharing economy has arrived. The impact of smart, connected products can be seen in the growth of car-sharing and taxi apps such as Uber. As BMW have noted, the auto industry is now following the example of the music industry. "You used to have to buy an album, now you can pay per play."

NEW BUSINESS MODELS REQUIRED

These developments highlight the need for new business models as we move into the New Normal. The good news, however, is that lower energy prices will allow companies to refocus on affordability as the key driver for future sales. US ethane and propane markets have already signposted this shift, and as Shell Chemicals CEO Graham van't Hoff told the European Petrochemical Association last October, An "efficient refiner would switch his attention to aromatics and discover growth and margins from petrochemicals".

But simply producing cheaper products will not create the necessary platform for future success. As Prof Porter reminds us, the development of the necessary smart, connected products requires a complete change in mindset, based on a more service-driven approach. And anyone who ignores this trend will soon find themselves under major pressure from another of the transformations, namely China's emergence as a net exporter rather than importer of many products.

China now suffers from major over-capacity in both refining and petrochemicals as a legacy of the stimulus programmes. Closing these unwanted plants will prove difficult, due to the need to maintain employment. And at the same time, it is continuing to build new petrochemical capacity based on coal, due to the need to boost employment away from the major cities and to reduce current dependence on imported oil and gas.

Trade data shows that, almost unnoticed, China has already become a net exporter of products such as PVC, where it was previously the world's largest importer. Similar developments are underway in polyester with terephthalic acid. China is also fast becoming a net exporter of gasoline and diesel for the first time in history. In turn, of course, this means that companies need to urgently review plans for new investments. The financial disaster facing the mining industry is a timely warning of the problems caused by over-optimistic assumptions about Chinese demand levels.

Change is never easy, particularly when existing business models have served us well until recently.

But we cannot simply bury our heads in the sand and ignore these transformational changes now underway in energy markets, demand patterns, China's economy and information technology. The future will be very different, and we need to adapt or die.

Our industry has, of course, seen many such transformational changes in the past, and there is no reason to think we cannot rise to the challenge again. The opportunity ahead is to create new, more service-oriented business models that will prove sustainable in terms of future revenue and profit flows as well as environmentally.

The critical first step is to abandon today's silo-based mind-set that currently constrains our creativity. Instead we need to think 'outside of the box', and follow the example of previous generations who saw the opportunity to create not only petrochemicals and plastics, but also pharmaceuticals and agrochemicals. There is an exciting future ahead of us in the New Normal, for companies with the vision and commitment to embrace it. ■

Paul Hodges is chairman of International eChem (IeC), trusted advisers to the chemical industry and its investment community. With John Richardson, he authored 'Boom, Gloom and the New Normal', published by ICIS. Board-level strategy workshops are available to help companies exploit today's new opportunities. Visit www.iec.eu.com/strategy-development

Alamy

Policymakers are like ostriches with their heads in the sand over the impact of demographics

Plan for a volatile world

While policymakers argue about the impact of stimulus measures and when to adjust them, they ignore the demographic trends that are really driving economies

PAUL HODGES INTERNATIONAL ECHEM

We are living in an increasingly volatile and uncertain world – as Unilever CEO Paul Polman has described – where complexity and ambiguity are rising all the time. Last year's Outlook was titled "Global economy faces tough 2013" (7-13 January 2013), and today, most people would now accept this as a fair summary of the outcome. But a year ago, most policymakers were remarkably upbeat and convinced full recovery was "just around the corner".

This followed the pattern seen since September 2009. Then the G20 group, comprised of the world's richest nations, met in the US and issued a statement congratulating themselves on having delivered "the largest and most coordinated fiscal and monetary stimulus ever undertaken" – and claiming that "it worked".

Today, life is therefore becoming increasingly difficult for company boards and business managers. Policymakers continue to believe that a lack of liquidity is at the heart of today's problems. They argue that the 2008 crisis broke some of the key plumbing in the financial system. And it needed a power hose filled with $33 trillion (€23 trillion) of global liquidity to flush through it and unblock the problem areas.

They admit they underestimated the scale of the problem back in 2009, but now they believe they have finally resolved it through their own version of "shock and awe". Thus central banks in all the major Western countries are lining up to tell us that recovery is really now underway. Investors certainly want to believe them and have taken stock prices to record levels in many major markets, including the US.

Of course, not every stock market collapse leads to a recession. But neither does every market peak lead to economic recovery. So while companies clearly have to take account of policymakers' optimism, experience tells us to be cautious about believing they can deliver everything they say. This is the problem that Polman has identified, that we are living in what he has named a "VUCA" world, where volatility, uncertainty, complexity and ambiguity dominate.

SCENARIO PLANNING IS VITAL

Scenario planning has thus become an essential tool for survival. The range of outcomes is now so vast and the consequences of each so different, that it would be foolish to wait until we know with confidence what is going to happening. Boards need to accept that the world has likely changed. They need to focus on the new opportunities that are developing, and plan ahead to mitigate the major challenges that may be emerging.

We would therefore like to propose one highly-relevant scenario for boards to consider – the Demographic Scenario – alongside their current Recovery Scenario. This was first summarised in our ICIS-published eBook "Boom, Gloom and the New Normal: How Ageing Populations are Changing Demand Patterns, Again" in 2011. Its core argument is now receiving more and more attention as business managers come to the conclusion that continued blind faith in policymakers' Recovery Scenario is misplaced.

Today we would argue that the world has arrived at a critical T-junction. As PIMCO, the world's largest bond fund managers describe it, we are approaching a moment "where markets realise that the policy Kings/Queens have no clothes… and that monetary and fiscal policies cannot produce the real growth that markets are priced for". It leads PIMCO to the sombre conclusion that "global economies and their artificially priced markets are increasingly at risk".

What would your business do if this analysis proves correct? Are you prepared for further disappointment, of the type that has become routine over the past few years?

PIMCO, with $2 trillion of assets under management, cannot be easily dismissed as just a lunatic fringe.

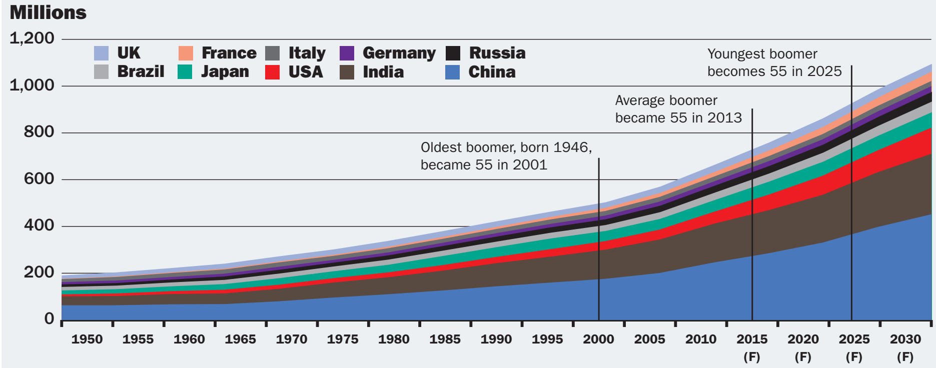
We would argue the businesses need to see the Recovery Scenario as just one potential outcome among many. We also believe it is critical they take account of the Demographic Scenario, and the challenges and opportunities that it presents. It is based on the common-sense idea that demographics are the fundamental driver for demand. This is quite different from policymakers' assumption that fiscal and monetary policy can always deliver constant growth.

DO NOT IGNORE DEMOGRAPHICS

The Demographic Scenario focuses on the rapid population-ageing now underway in all major economies. Consumer spending is key for economic growth, accounting for between 60-70% of GDP in Western countries. And the plain fact is, as government statistics confirm, that household spending peaks by the age of 55 years and then declines. Thus we argue that today's ageing populations cannot possibly sustain the SuperCycle levels of demand seen when the Baby Boomers were younger and in their prime wealth creation mode.

The chart shows the dramatic change now underway in the age profiles of the adult population (over 20 years old). It focuses on the world's 10 largest economies, which between them represent two-thirds of global GDP.

NEW OLD 55+ POPULATION IN THE TOP 10 ECONOMIES 1950–2030 (F)



SOURCE: IeC analysis; UN Population division data

The forecasts have to be accurate, as only those already born can possibly join this age group by 2030. It highlights how:

- The numbers of those in the New Old 55+ generation rose slowly between 1950-2000
- But since then, those numbers have been rising sharply, and will have doubled to 1.1bn by 2030
- Japan shows the largest increase, from 38% of the adult population to 54%; the US rises from 29% to 41%; even India rises from 17% to 25%
- China will see the most dramatic rise, doubling to 41%, as its fertility rate averages 1.1 babies per woman

The reason is the ageing of the Baby Boomers, those born in the world's great fertility boom between 1946-1970. The oldest Boomer turned 55 in 2001, and the average Boomer followed them in 2013. Now the rest are joining the New Old; the youngest Boomer turns 55 in 2025.

The Demographic Scenario thus provides conclusive evidence to explain why growth is now slowing sharply. It also explains why inflation has largely disappeared despite all the monetary stimulus. Deflation is far more likely to occur when a population is ageing, as older people already own most of what they need and so represent a replacement economy.

Deflation makes it sensible to pay down debt, because the real value of borrowing increases. It also makes sense to delay purchases for as long as possible when prices are falling. This postponement will anyway be essential for the New Old because their incomes will decline as they approach retirement.

Worryingly also, deflation will make it very hard to repay the vast debts built up in many countries by policymakers' efforts to create their Recovery Scenario.

Oil prices are another key area likely to see major change under a Demographic Scenario. They have been at record-high annual levels since 2011, supported by the liquidity flow created by the central banks.

But this means they are well above their true value versus natural gas. Oil's energy value is six times that of gas, so its price would normally be around $30/bbl with US gas prices at today's $4/MMBTU.

Consumers are thus busy switching away from oil to gas wherever they can, accelerating the existing secular trend in this direction. Further volatility is now almost inevitable as today's mispricing is creating an oil supply glut in the US.

Production is back at 1989 levels, while inventories are well above historical levels. World markets are already feeling the pressure, as US producers argue for a repeal of the 1975 export ban, while Iran, Iraq and Russia are lining up to increase their exports.

Boards may naturally want to believe that this time the Recovery Scenario will deliver on its promise. But today's VUCA world may well continue to upset conventional wisdom. Those who have prepared in advance for the Demographic Scenario will then prove to be the winners. ■

ECONOMY

FUTURE TRENDS IN AUTOS

THE AUTO Industry will see major disruptive change under the Demographic Scenario. This creates four key questions for boards to consider.

What happens if:

- New Olders decide not to bother owning a car, given they will use it even less than the general average of just one hour per day?
- The "design to cost" model for suppliers – pioneered by Renault's Dacia range – proves equally successful in Nissan's launch of its $3,000 Datsun range?
- The percentage of young Western men taking the driving test continues to steadily reduce due to their lack of interest in car ownership?
- Car-sharing and the concept of "pay to use" continue to grow exponentially, as seems likely with the support of companies such as Mercedes and BMW?

Paul Hodges is chairman of International eChem (IeC), trusted advisers to the chemical industry and its investment community. With John Richardson, he authored "Boom, Gloom and the New Normal", published by ICIS over the past year. Board-level strategy workshops are available to help companies exploit today's new opportunities. Visit **www.iec.eu.com/strategy-development**

Global economy faces tough 2013

Demographic changes mean that the global chemical industry must prepare for years of slow economic growth

PAUL HODGES INTERNATIONAL ECHEM

Renewed global recession appears to be the major risk facing us at the start of 2013. The International Monetary Fund (IMF) has already warned that "the risks for a serious global slowdown are alarmingly high." It added that this would mean a recession in wealthy nations and a "serious slowdown" in emerging nations.

Europe provides clear evidence for the IMF's concern, with most commentators now assuming the eurozone is already back in recession. Borealis CEO Mark Garrett went further when warning: "I believe Europe has entered a 10-year stagnation period, just like the Japanese have suffered."

Equally, China's new leadership is clearly worried about the economy. Premier-designate Li Keqiang told China's National Congress in November that "the period ahead is full of unprecedented risks and challenges."

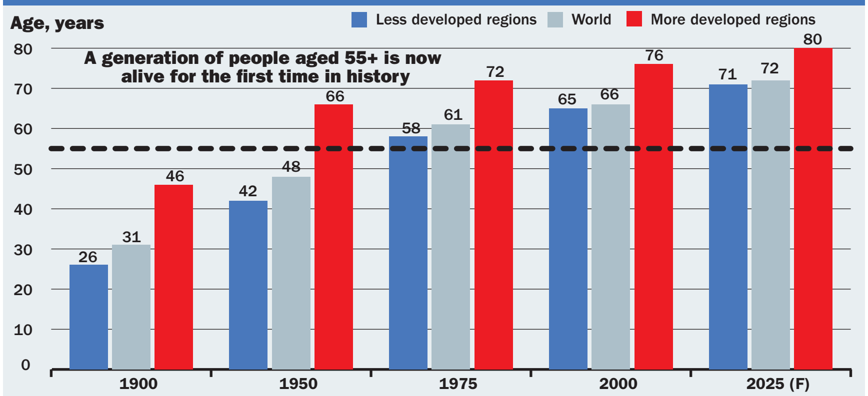
The US remains more optimistic, and certainly its shale-gas-based move towards energy independence is potentially game-changing for the manufacturing industry. But its consumers still suffer from the fact that oil prices have been at record average levels for the past two years. Today's cost, amounting to 5% of global GDP, has historically always led to a global downturn. It is also hard to believe the US could somehow remain buoyant if both Europe and China weaken.

Thus we appear to be fulfilling my forecast of four years ago ("Checklist for Survival", ICB January 5-11 2009), which advised CEOs and boards "to prepare for a marathon not a sprint" in dealing with the aftermath of the 2008 crisis. Equally, few would now argue


Rex Features

Better healthcare means people are living longer, and that impacts the economy

LIFE EXPECTANCY AT BIRTH, 1900-2025



SOURCE: IeC; Maddison, UN Population division

with my then highly controversial suggestion that it was "unlikely that governments will quickly find a 'magic bullet' to quickly correct the causes of today's problems".

Policymakers now find themselves in a deep hole. They have tried stimulus and liquidity programmes, as well as tax cuts and austerity packages. It would be humiliating for them to now accept the simple truth that demographic changes, particularly the ageing of the Baby Boomers, are the cause of the current slowdown in global growth. They may well therefore end up going full circle in 2013 with another, even larger, G20-type stimulus package.

DEMOGRAPHICS IS KEY

Boards clearly need to be alert to this possibility. But they cannot afford to indulge in wishful thinking about the potential success of any new stimulus. After all, consider the old adage, "A good definition of insanity is doing the same thing over and over again, and expecting different results." Instead, executives need to reflect on the fact that if there were no people, there would be no chemical industry and no global economy. Companies that continue to ignore this demographic truth are asking for trouble. The key to future success will be to instead identify how to profit from the two great growth opportunities presented by today's changing demographics.

The first of these requires further analysis of the so-called 'population explosion'. The world's population seems set to rise from today's 7 billion to 9 billion in 2050. But the phrase is completely misleading. Women in virtually every country in the world are actually now having fewer children. Globally, UN data shows that the average woman has just 2.5 children today compared to five children in 1950. Instead, we are benefiting from a 'health explosion' caused by advances such as the use of chlorine in drinking water and healthier lifestyles.

As the chart shows, these mean that an entirely new generation, the New Old 55-plus cohort, is now alive for the first time in history. Just a century ago, life expectancy was only 46 in the West and 26 in less developed regions. Even in 1950, only Westerners could expect to live into their 60s. Yet today, Westerners live to around 80 years, and those in emerging economies to 65. Globally, average life expectancy has already more than doubled to 66 years, from 1900's average of only 31 years.

This is a truly historic moment, and should be cause for major celebration. Instead, we appear to be doing our best to snatch defeat from the jaws of this famous victory, by focusing on the inevitable slowdown that it is causing in global growth.

Older people consume less, as they usually need to buy only replacement products once the kids have grown up and left home. Equally, today's New Old know their pensions were originally designed to finance only a few years of retirement, not decades. So they have to reduce spending today to compensate. Thus it is no surprise that growth has now gone L-shaped, as Western household consumption accounts for 40% of the global economy (as described in "Demographic Slowdown Hits Company Results", ICB 26 November 2012).

As John Richardson and I highlighted in our free ebook Boom, Gloom and the New Normal, companies now need to refocus their strategies on the opportunity to meet the needs of this New Old generation. They already account for an unprecedented 29% of the Western world, 272m people. And by 2030, their numbers will have risen by 34% to 364m. Their future needs for water, food, health, shelter and mobility will be key to the future growth for any company operating in the Western world.

Thus 2013 provides a wake-up call for everyone, including policymakers. It marks the critical moment when the average Boomer, born in 1958, joins the New Old generation. There is no going back to the economic supercycle that developed when the Boomers were in their peak consumption period between 25 and 54 years old. Equally, the generation following them is much smaller and so cannot possibly compensate for their parents' slowing demand.

The second great opportunity is for those focused on the emerging economies. They need to ignore the wishful thinking that these countries have magically now become middle class overnight and can seamlessly replace lost demand in the West. As Asian Development Bank data shows, only 45 million Chinese earn more than $20 (€15.50)/day ($7,600/year). And even this would hardly rank them as middle class in the West.

Twenty years ago, 60% of China's population earned less than the $2/day poverty line. But today, there are nearly a billion Chinese earning in the $2–$20/day bracket, most of whom now have some spending money for the first time in their lives. They are part of a large and fast-growing global market of low-income consumers. Companies that focus on meeting their needs will have decades of success ahead of them.

My suggestion as we enter 2013 is therefore that companies embark on a fundamental change in mind-set and culture. They need to be aware of the risks of major economic disruption and guard against these as well as they can. But at the same time, they need to move beyond the short-termist approach of financial markets that has created today's economic cliff.

As Harvard University Prof Michael Porter argues, our "field of vision has simply been too narrow" and has meant "companies have overlooked opportunities to meet fundamental societal needs." Technical and business model innovation is now essential, if companies are to instead profit from the two major growth markets now starting to dominate Western and emerging economies. ■

Keep up with the fastest-growing region of the world. Read John Richardson's Asian Chemical Connections blog. **icis.com/blog**

Paul Hodges is chairman of International eChem (IeC), trusted advisers to the chemical industry and its investment community. With John Richardson, he co-authored "Boom, Gloom and the New Normal", published by ICIS over the past year. IeC/ICIS now offer strategy workshops to help boards tackle the demographic issues. Visit iec.eu.com/strategy-development.

Alamy

Welcome to Austeria

As policy-makers continue to make huge mistakes around the world, the chemical industry can look forward to a tough 2012 and beyond

PAUL HODGES INTERNATIONAL ECHEM

New Year is a time for looking forward, as well as back. It is now three years since the Great Recession began. I wrote then that "downturns are not much fun. There will be rallies along the way, of course. But it is unlikely that governments will find a "magic bullet" to quickly correct the causes of today's problems" (*ICB, January 5–11 2009*). Sadly, there seem few reasons to change that analysis today.

The key question, of course, is whether we can expect much improvement in 2012. Here, the signs are not promising. Policy-makers did a good job in averting global financial meltdown in September 2008. But since then they have struggled. Instead, we have had a » series of stimulus initiatives that appeared to provide short-term relief, but ended up creating ever-larger debt problems. Examples include:

- In the West, "cash for clunkers," quantitative easing versions 1 and 2 (QE1, QE2), bailouts of the bank and housing markets, and the current Operation Twist.
- In emerging economies such as China, major increases in bank lending, plus subsidies for purchases of autos and household goods.

Policy-makers thought these measures would somehow restore confidence and provide the "escape velocity" needed to return us to steady growth. But the only result has been it is eurozone countries such as Greece and Spain that are now in trouble, instead of banks such as Lehman Brothers.

Companies cannot ignore the impact of policy-makers' actions. We all suffered last year as the US Federal Reserve's misguided QE2 program led to a 70% rise in oil prices, via the supply of $600bn of liquidity to the high-frequency traders who now dominate financial markets. Chemical companies were left to pick up the pieces, as perceived demand first soared and then collapsed:

- Buyers were forced to buy forward in the first quarter to protect their margins.
- They then spent the summer trying to reduce their inventories to more "normal" levels, as oil prices stabilized.
- Finally, in the fourth quarter, these sustained high oil prices led consumers further to cut back discretionary spending on the products that drive chemical industry demand.

As the great investor Warren Buffett once observed after a period of poor performance, it would have been better if US Federal Reserve governors "had regularly snuck off to the movies" instead of turning up to the office.

Scenario planning will therefore continue to be critical in 2012, but not the scenario planning of the supercycle years, when executives could usefully spend time debating whether ethylene growth rates might be 4.2%, or perhaps 4.5%, or maybe only 4%. The history of the past three years teaches us that the margin of uncertainty has greatly increased.

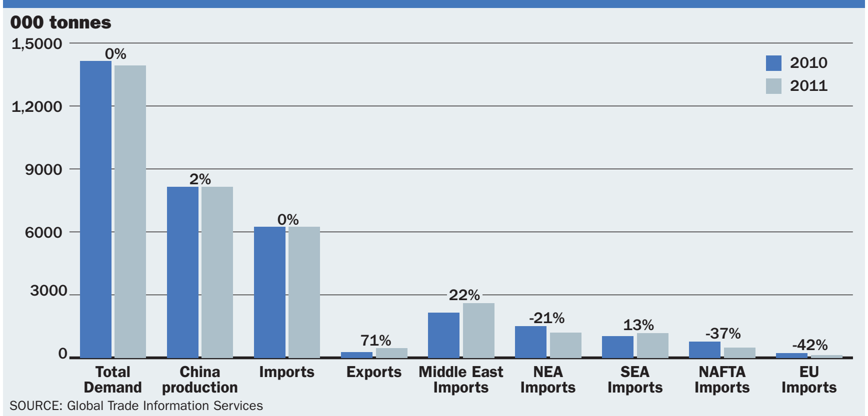
More and more Western governments are now replacing stimulus programs with austerity. Taxes are rising and spending is being cut, while high levels of unemployment create a further drag on the economy. So companies need to consider a downside scenario in which growth remains below previous levels for some years to come. Equally, they need to worry about what may happen in China.

It gave powerful support to chemical demand in 2009–2010, as the government doubled bank lending and focused on supporting housing and auto markets. These are core demand sectors for chemicals. Polyethylene (PE) demand in China thus jumped by 53% in 2008–2010, from 11.7m tonnes to 17.9m tonnes. China's lending surge naturally led to a rapid rise in inflation. By July 2011, food price inflation reached 13% and the price of pork had risen by 57%. China is a relatively poor country – 96% of the population earns less than $20/day – according to the Asian Development Bank. So the government had no choice but to reverse course:

- Bank lending in January–October was down by 29% versus the same period in 2009.
- Prices for new suburban apartments in major cities such as Beijing and Shanghai fell by 30–50% in the third quarter, as lack of credit led to forced sales by developers.
- PE demand stagnated, with volumes during January–October 2011 at 2010 levels

There has also been a significant switch in the pattern of China's PE demand during the past three years. Domestic production continues to rise, as Sinopec realizes its ambition to become the world's largest ethylene producer by 2014. But following 2008–2010's growth, import volumes have fallen back to 2009 levels. The pattern of imports is also changing. No longer does China's "rising tide float all boats". Instead, as the chart based on Global Trade Information Services data shows, China is preferentially sourcing from the Middle East (net imports up by 22% versus 2010) and Southeast Asia (up by 13%). China and the Middle East have a strategic corridor as China needs energy imports and the Middle East needs markets for its production. Southeast Asia benefits from its free-trade agreement with China. But net Northeast Asian imports are down by 21%, those from NAFTA down by 37%, and from Europe down by 42%.

CHINA PE DEMAND WAS FLAT IN 2011 ('000 TONNES)



SOURCE: Global Trade Information Services

PROTECTIONISM ON ITS WAY

This highlights major changes in global trade patterns. The Western baby boomers (born between 1946 and 1970) sparked a consumption boom as they entered the 25–54 age group. This led to an economic supercycle, and a massive expansion in world trade between 1980 and 2005. Now the boomers are entering the 55+ age group, when people typically spend less and save more.

Sadly, the failure of policy-makers to understand the impact of this changing demographic has led to growing Western disillusionment with the concept of free trade and outsourcing, and each failed stimulus program adds to the disillusion. This leads to a growing risk that populist politicians will aim to reverse direction. With unemployment uncomfortably high in most Western countries, they have plenty of potential support.

High and unpredictable oil prices also make outsourcing costs much higher than in the 1990s, when companies began to develop this strategy, while rising wages in emerging economies have further eroded cost advantages. Countries such as China must move from export-driven growth strategies, and focus on improving living standards.

We are seeing a generational shift in trade and demand patterns. The world will be very different in a few years, as described in the new *Boom, Gloom And The New Normal* eBook, co-authored with ICIS journalist John Richardson. Flexibility must be the name of the game in 2012. It could be a very tough, and unpredictable, year.

But it also offers unparalleled opportunities, for companies prepared to look forwards rather than backwards. 272m people in the West are now over 55 years old, and they constitute 29% of the population. Equally, millions of people in the emerging economies are now climbing out of poverty, and have a few dollars to spend for the first time in their lives. These major changes are creating the growth opportunities of the future, for those with the vision to grasp them. ■

Paul Hodges writes the ICIS Chemicals and the Economy blog and is co-author with ICIS director John Richardson of eBook *Boom, Gloom And The New Normal*, available for free monthly download at www.icis.com/NewNormalebook

Time is ripe to plan for uncertainty

With austerity measures kicking in globally, a slowing Chinese economy and permanent lower growth in Western countries, now is the time to budget for uncertainty

PAUL HODGES INTERNATIONAL ECHEM

The year 2010 was better than many had expected. It began with a boost from restocking, after inventories had been run down quite dramatically in the fourth quarter of 2009. It then received further support from the continuing government stimulus programs around the world, which were focused on key areas for chemical demand such as autos, housing and electrical appliances.

But as the graph opposite from the American Chemistry Council shows, global operating rates (OR%) have still not recovered to previous "normal" levels. They have certainly improved from the all-time low of 77% seen in December 2008, but are now only back to 2002–2003 levels, at 87%. This is well below the 92–94% range seen in the boom years between 2003 and 2007, and also below the levels seen during most of the period 1989–2003.

The good news is margins have generally been much stronger than normal at such low operating levels. This has been down to a variety of causes, such as lower refinery OR% and lower oil demand reducing feedstock availability, along with a relatively high level of forces majeures. But these are supply-driven constraints and are therefore inherently unstable.

The key question is what happens next? The chart shows three possible directions:

- A **Base Case**, where OR% maintain the improvement since 2008.
- An **Upside Case**, where they continue to improve and deliver a full recovery.
- A **Downside Case**, where they fall back again as demand growth stalls.

This is also the focus for my new White Paper: Budgeting for Uncertainty. It presents a completely fresh picture of the major changes now underway in consumer markets in both the emerging and Western economies. Its analysis provides compelling evidence that we are moving to a "New Normal" in terms of chemical demand patterns.

ECONOMIC DRIVERS

The driver for this move towards the New Normal is that Western societies have started to save more and spend less, under the impact of the economic crisis. And this trend is now set to accelerate as Western governments abandon stimulus measures. It is clear that their focus is instead on austerity measures such as spending cuts and tax rises.

In turn, this is forcing governments in emerging economies to abandon their current


Rex Features

export-driven development model. Instead, they now have to focus on building domestic demand, if their GDP is to continue to grow.

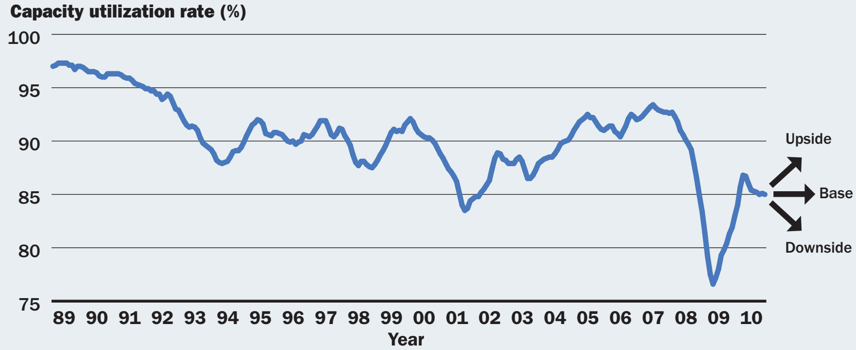
Thus we are now in a major period of transition for both emerging and Western economies, and this has enormous implications for chemical demand. If companies understand the transition now underway and they are quick to adapt to it, OR% could maintain current levels, or even improve. But if they simply assume that we are returning to the consumption patterns of the 2003–2007 boom years, then we are likely to be disappointed.

Over the past two years, China has been the prime engine for the recovery in global chemical demand. And the changes underway highlight the enormity of the transition. They are secular in nature, not just cyclical. This is why I have subtitled the White Paper: the Difficult Transition Ahead, as we Enter the New Normal

For a start, it is clear that the government is now rolling back its emergency programs, introduced after the crisis began in the second half (H2) of 2008. It doubled bank lending to \$1.4 trillion (€1 trillion) in 2009, equal to one-third of GDP. And it introduced a \$580bn stimulus package, worth another 13% of GDP. This did the job, on a temporary basis, in keeping China's vast population employed.

But, in turn, it led to rampant speculation. Property prices in Hong Kong, for example, have risen by 50% since the end of 2008, owing to flows of hot money from the mainland. Inflation has also risen sharply, to 5.1% in November. So now the government has begun to slow the economy. Interest rates have already begun to rise, while property loans were cut back for November and December.

CAPACITY UTILIZATION IN GLOBAL CHEMISTRY



SOURCE: American Chemistry Council

Even more importantly, the government clearly understands that its export-driven economic model needs to change. Instead of catering to the demands of wealthy Western consumers, it is starting to redirect the economy towards the domestic market. So the 2011–2013 period is likely to see slower GDP growth in China and a major shift in demand patterns.

This new strategy was highlighted in July by Yi Gang, deputy governor of the central bank. "China's future economic growth will definitely gradually slow down," he warned. "The issue … is the quality of growth, which is why we now have to carry out structural adjustment and transform our development model."

The driver for this move… is that Western societies have started to save more and spend less

China's planned transition is not unique. Similar changes are underway in many other emerging economies. In India, for example, the auto company Tata has introduced its new Nano range, which retails for only \$2,250 and aims to create a new market by encouraging customers to "trade up" from motorbikes. And its high fuel economy of 73 miles per gallon means it uses much higher levels of polymer than many larger Western autos. Equally, Hindustan Lever (part of the global Unilever group), has highlighted the potential scale of the opportunities in detergent and other markets that are starting to develop.

ENTERING THE NEW NORMAL

But most chemical demand is focused on Western markets. My first White Paper, Budgeting for a New Normal, argued that these were seeing major changes in demand patterns. And a year later, it is clear that some important chemical industry markets, such as US housing, have indeed now entered the New Normal.

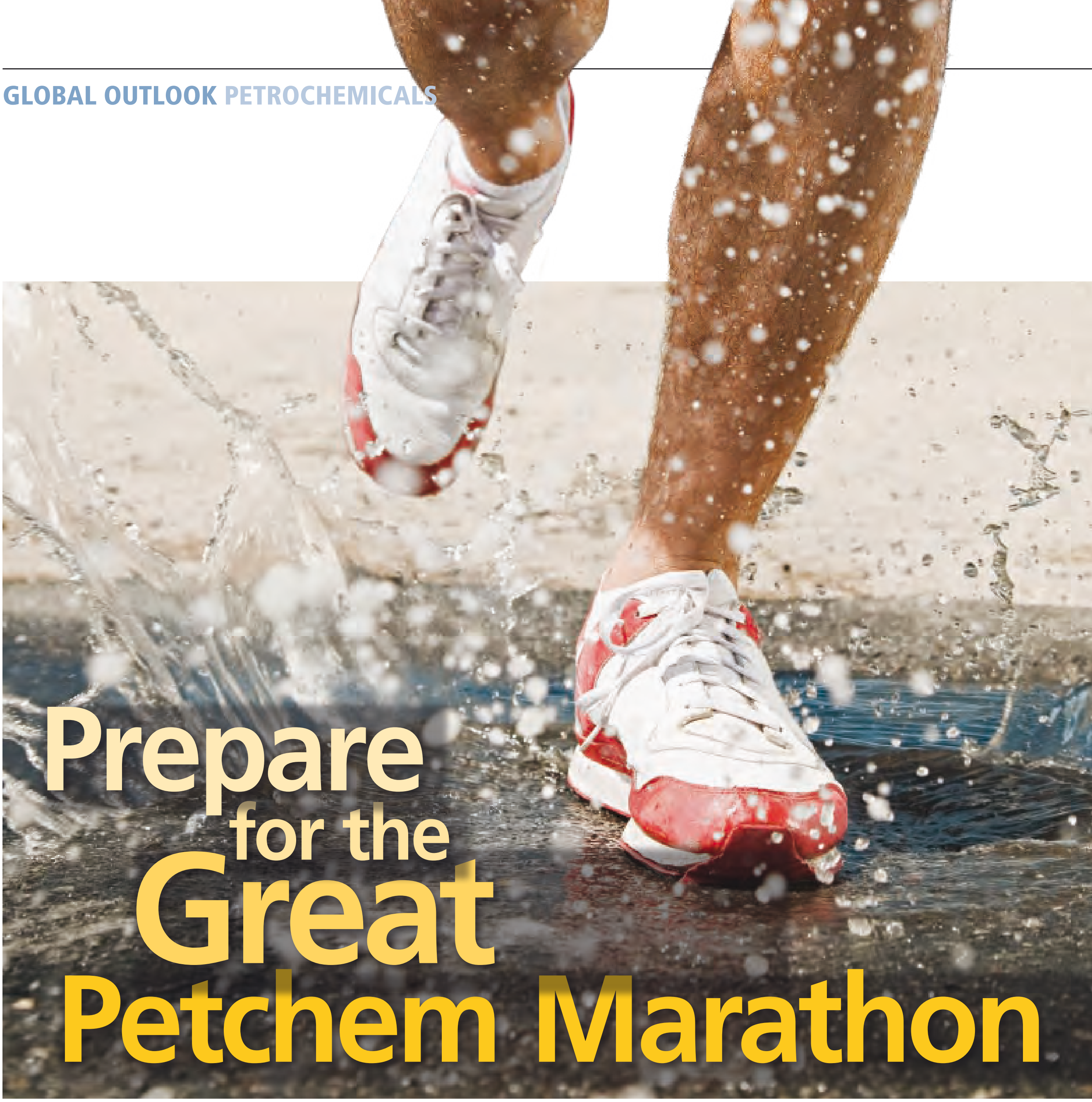
US housing, for example, used to be a \$35bn market for chemicals, with up to 2.2m housing starts a year, each worth \$16,000 in sales. Now it is worth just \$10bn, with recent starts only around 600,000. Plus, there is increasing evidence that families are starting to share homes again, as children find it too expensive to live on their own and grandparents worry about the costs of residential care.

This is quite a shift from the boom years, when consumers often defined themselves by the price of the car they drove or the size of the house they owned. Instead, as global research firm Datamonitor explains, people are becoming more focused on family and friends. And their values are shifting toward more long-term concepts such as sustainability and carbon footprint, rather than short-term consumerism. Trustworthiness and performance are also becoming increasingly important.

My research for the new White Paper has highlighted the potential scale of the changes now underway in Western and emerging markets. The New Normal represents a major challenge to existing chemical and polymer demand patterns. But the industry has faced similar challenges in the past and adapted its offerings successfully. I am also convinced that the New Normal offers significant opportunities for far-sighted companies to achieve major gains in terms of both profit and market share.

Budgeting for a New Normal aroused enormous interest around the world, and I hope Budgeting for Uncertainty will help you to understand the potential impact of these changes for you and your business. ■

Paul Hodges is chairman of UK consultancy International eChem, www.iec.eu.com. His new White Paper: Budgeting for Uncertainty – the Difficult Transition Ahead, as we Enter the New Normal is available free at **icis.com/newnormal**



REX FEATURES

Prepare for the Great Petchem Marathon

A real change for the chemical industry means executives must prepare for a marathon with short sprints

Consultant's corner

PAUL HODGES
INTERNATIONAL E-CHEM

TODAY'S ECONOMIC environment is the third extended downturn that I have suffered in my working life. My first experience was from 1980 to 1985, when oil prices peaked at $95/bbl in today's money, and the global economy slowed dramatically. The second was from 1990 to 1994, when a slow economy was accompanied by rising levels of over-capacity. The key lesson from these experiences was that extended downturns, such as today's, usually mark a transition period from one set of business conditions to another. In the 1980s, we went from rampant inflation, peaking at over 15% in many countries, to a more stable and open world economy, where the role of manufacturing was downgraded. After the early 1990s, we moved towards globalization, accompanied by the growth of financial services as a key part of the economy.

I suspect that a similar paradigm shift is now under way, and that some recent "certainties" will be reexamined. As a result, the 2010s may well be a "new normal," with lower growth rates and less leverage, along with a renewed focus on the importance of technology in solving major world problems, particularly in the form of "cleantech."

This concept of a transition means that companies need to think in terms of running a series of sprints, within the context of a marathon. Simply firefighting through today's immediate problems is unlikely to be enough. Managers must also make a judgment on what new products and services will be required when better conditions return.

The benefit of this approach is that it provides each employee with a clear direction. In turn, this sustains confidence, and helps to create the motivation required to overcome the inevitable setbacks that occur during difficult times.

Such individual resilience is essential when things don't always go as planned, and bad news seems to predominate. In turn, this helps one to adopt a flexible mind-set, which accepts challenges to established thinking, and takes onboard new ideas and concepts in a constructive way.

My suggestion is that there are five key issues that need to be tackled within the overall marathon, as summarized in the chart. These all have some short-term and some long-term components within them. They build on the "CEO's Checklist for Survival" that I proposed a year ago (*ICIS Chemical Business*, January 5, 2009).

RESTRUCTURING

Restructuring is the obvious first one. During good times, business models often become more opportunistic. But my experience is that when profits tumble, it is critical to refocus. As Steve Pryor, president of ExxonMobil Chemicals, advised at EPCA last October, businesses now need to be "tightly integrated to maximize the value of every molecule and minimize costs."

Senior managers also need to think about industry restructuring issues, particularly in petrochemicals. New capacity now coming on stream in the Middle East and Asia means that we will have record levels of overcapacity in the building block products such as ethylene and propylene by 2012.

Commercial strategies need to be re-examined. Companies have already begun to develop new ideas to cope with increasing levels of volatility in oil, currency and other key markets. They also need to plan for a changing market environment.

What would be the impact on your business of a steadily tightening oil market in the next few years, for example, where supply failed to increase in line with demand growth? This is a real risk, given the increasing cost and difficulty of bringing new oil and gas fields online.

Equally, what might be the opportunities from a move towards a low-carbon economy? Automotive markets will need new products and services if higher fuel economy standards are to be met. Construction, another critical market for chemicals, will need products with greater efficiency and insulation. Managers need to start to develop these new offerings now, if they are to position themselves for future growth.

SUPPLY CHAIN

The supply chain is another key area. Major value leakage can easily occur if feedstocks, raw materials and final products don't move efficiently and at lowest cost to the customer. And given the fundamental uncertainty about likely demand levels, and the timetable for full economic recovery, a partnership mode is essential. By this, I don't just mean discussing your plans with your key partners, I also mean working together to identify ways of turning problems into opportunities.

A true partnership also means that you may sometimes give up a potential short-term profit to help a partner. Over time, your expectation is that this "investment in the future" will gain a good return.

But in difficult times, companies must be absolutely clear about who are their real partners. They need to be sure that their strategies are really linked, and that they will be repaid.

"During good times, business models often become more opportunistic

TECHNOLOGY

Technology is often overlooked as a key differentiator in today's more commoditized markets. As a result, maintenance spending can be seen as a soft target when it comes to making cutbacks. But profitability is reduced when plants don't operate as planned. And unplanned outages not only upset customers, but can provide critical volume for an otherwise struggling competitor.

Companies also need to try new production technologies. It is strange, for example, that so much chemical manufacturing is still based on centuries-old batch process technology. There must surely be opportunities for companies to investigate new continuous processes, that will enable them to operate more flexibly and sustainably, as well as at lower unit cost? When recovery arrives, those companies who have continued to invest for the future are likely to have real competitive advantage.

SIZE AND SCALE

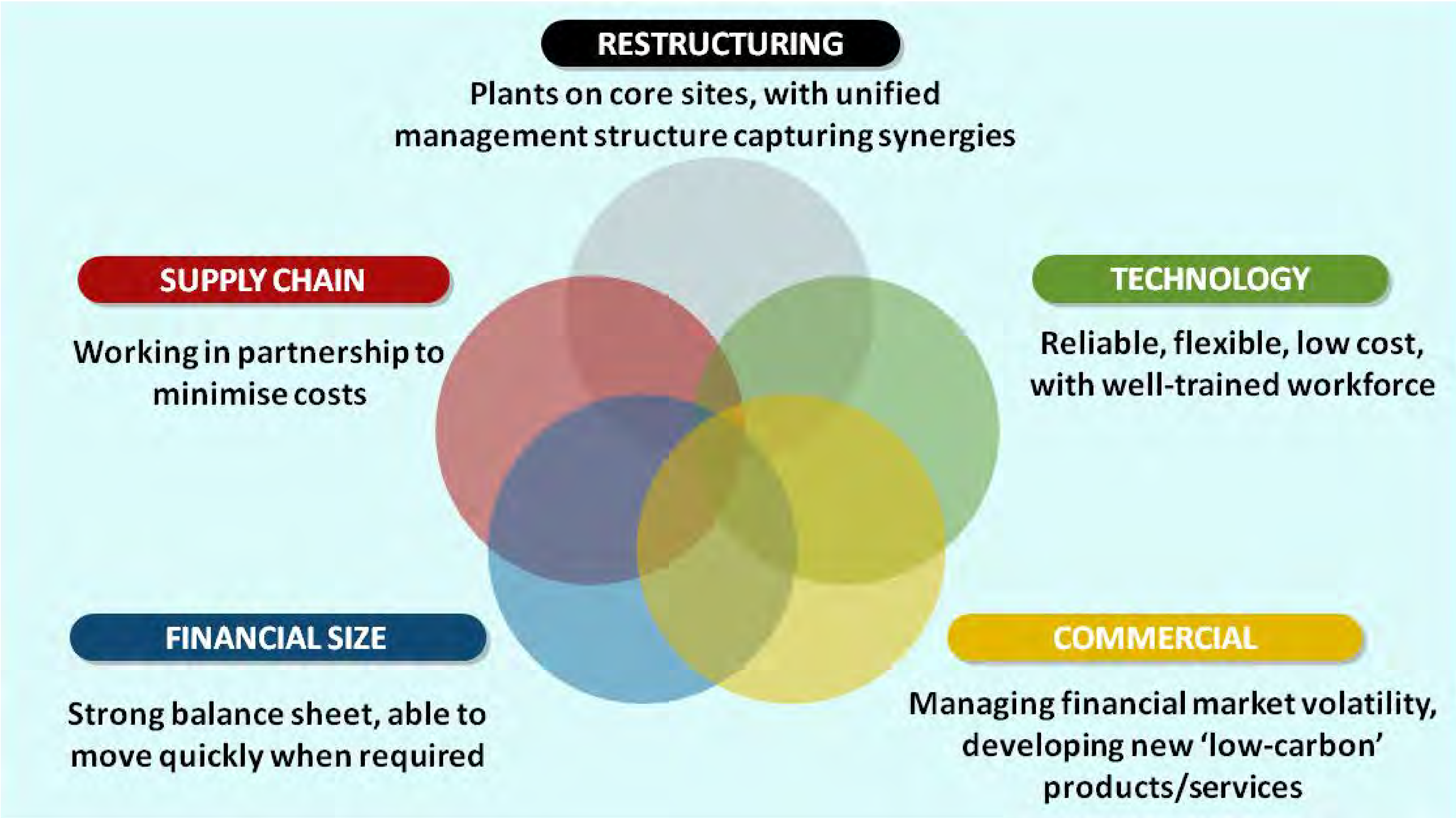
Financial size is the fifth of my key issues. Scale of operations has always been an important differentiator. In some market conditions, being small and agile can be a great advantage. In more recent years, being midsize was of benefit, as companies had sufficient scale of maneuver, but didn't suffer the dead weight of corporate overheads. Having to seek approval for everything is not the best way to motivate your employees to succeed.

But what was wrong for one era, may be right for another. And my guess is that more consolidation will take place over the next couple of years. The return of real growth in the economy, even if only on a "new normal" scale, will put great pressure on working capital. And with the world's financial system likely to remain on life-support, larger companies with a strong balance sheet will have a clear advantage.

In summary, then, my expectation is that 2010 is likely to be a period of transition. Margins will remain under pressure, and real growth is likely to be slow. The temptation for managers will be to maintain a purely short-term focus, and a silo mentality. But as I have seen at first-hand, this can easily create a vicious circle, and cause the business to lose its way.

Instead, my suggestion is that executives should try and balance today's immediate priorities with future needs. Hopefully, the five areas I have outlined above might provide some useful pointers as to priorities. In the 1990s we were taught to "Think global, act local." A motto for the 2010s might instead be: "Think about tomorrow, and act today." ■

» Paul Hodges is chairman of International eChem, www.iec.eu.com, advisers to the chemical industry and its investment community. Read more of Paul Hodges' wise words at his ICIS Chemicals and the Economy blog. www.icis.com/blog


RESTRUCTURING
Plants on core sites, with unified management structure capturing synergies
SUPPLY CHAIN
Working in partnership to minimise costs
TECHNOLOGY
Reliable, flexible, low cost, with well-trained workforce
FINANCIAL SIZE
Strong balance sheet, able to move quickly when required
COMMERCIAL
Managing financial market volatility, developing new 'low-carbon' products/services

Checklist for survival

The recession will be worse than most people in the chemical industry have experienced. To survive, CEOs will need to be prepared for the worst

PHOTOLIBRARY

Consultant's corner

PAUL HODGES
INTERNATIONAL ECHEM

LAST MARCH, I advised CEOs to develop contingency plans to survive a "serious downturn" (see *ICIS Chemical Business*, March 31, 2008). My experience of previous downturns in 1980–1983 and 1990–1992 led me to warn that "if a serious downturn is underway, then time will be of the essence in ensuring business survival."

Since then, my worst fears have been realized. A financial tsunami swept through world financial markets in the autumn. Major banks failed, and had to be nationalized in the US and Europe.

The Dow Jones suffered its largest one year loss to date. It fell more, from its 2007 peak, than in the 12 months following the 1929 collapse.

Every recession is different, and it is important to focus on the key risks that companies now face. It is also critical to remember that there are very few places to hide from the downturn.

Specialty companies, just as much as those producing commodities, are all being affected by the falloff in demand and margins.

What should CEOs do now? The *Financial Times* recently provided some good headline advice, as follows:

Manage your cash. Don't spend unnecessarily.

Keep a strong balance sheet. Have as little debt as possible.

Price your products competitively. Be imaginative in your approach.

Keep faith in the future. Don't abandon all new developments.

I would add to this one key question. "Is your business robust enough to survive an extended period of low volumes and margins, against a background of tight credit markets, and continuing volatility in oil and currency markets?"

I would place this question at the top of the agenda for your next board meeting, and ask your colleagues to come properly prepared to discuss it from their own business and functional perspectives.

I would hazard a guess that you will all be horrified, by the end of the discussion, at the amount of work that lies ahead to ensure your company's survival.

FRESH APPROACH

This is not to suggest that your company has been badly managed in the past. It is just to highlight the completely different approach that is required to survive a major downturn.

We have been fortunate, over the past 16 years, to have suffered only minor "dips" in demand, as in 1997–1998, or 2001–2002. This meant that companies were able to focus on growth, and could set "stretch targets" for their key executives and employees.

But every silver lining has a cloud. This is that today, companies and their senior managements are relatively unprepared for the arrival of a major downturn. Everywhere one looks, there are signs of distress in key chemical markets – whether in housing, automobiles, or even agriculture. Plus, banks are still being forced to deleverage after the "liquidity party" from 2003–2007, and so even good quality borrowers are finding it difficult to access cash.

Yet there are very few senior managers still around, like me, who have hands-on experience of actually managing a business through a major recession. We can see the warning signs, and know what levers to pull. We also know what levers will not work anymore. Younger managers will learn quickly what needs to be done, but they will need help to go up the learning curve as quickly as possible.

CEOs, therefore, have a critical role to perform in today's market conditions. It is up to them to ensure that their board colleagues carefully consider my key question. They must then create a suitable restructuring team to develop and implement the solutions required. They must also take ownership for its work, by ensuring that the task force reports directly to them.

This team must contain all the main functions, so that its proposals can encompass commercial, technical and financial options. It must also be separate from line managers, who will still be responsible for operating the business on a day-to-day basis. Otherwise, its work will be drowned out by a mass of "urgent" issues, and it will not get to grips with those that are truly critical for survival.

It would also be sensible to ensure the team is challenged in its thinking by an informed "outsider." Otherwise, there will be a natural temptation to downplay some of the risks, rather than confronting them and looking for solutions.

In addition, CEOs have to become highly visible around their companies. Employees are understandably shell-shocked at the moment by what has happened.

They are alert to signs of panic or confusion among senior management. And they are personally worried about their own jobs and finances.

CEOs can't wave a magic wand to address these concerns overnight. But it is critical to maintain employee confidence by properly acknowledging their concerns, so that they know you have "heard" them. This will also stand you in good stead, if and when you have bad news to give them about job losses and closures.

Equally, CEOs need to support their chief financial officers by personally maintaining relationships with key bankers and financial advisers. They also need their confidence maintained. Rumors can start very quickly when financial markets are nervous, and it is important that all lines of communication are kept as open as possible.

CEOs also have to develop their own work-life balance.

Downturns tend to be drawn out, and this one could easily last beyond 2010. So they need to prepare for a marathon, not a sprint. Equally, the CEO must lead by example if the management team is to remain fresh and alert for the problems and opportunities that come its way.

> "There are very few senior managers still around… who have… experience of… a recession

Downturns are not much fun. There will be rallies along the way, of course. It is quite possible that we will see one in the next few months, as the recent wave of destocking and fire-sales comes to an end down the value chain.

But it is unlikely that governments will find a "magic bullet" to quickly correct the causes of today's problems.

Resilience is therefore the key issue for 2009. My dictionary defines this as "the act of rebounding, or of springing back." And this truly describes what is going to be required in 2009, after the awful end to 2008 that we have just suffered.

I hope that the above ideas will be helpful to all readers of the magazine, as this process gets underway in their businesses. ■

CHECKLIST FOR SURVIVAL

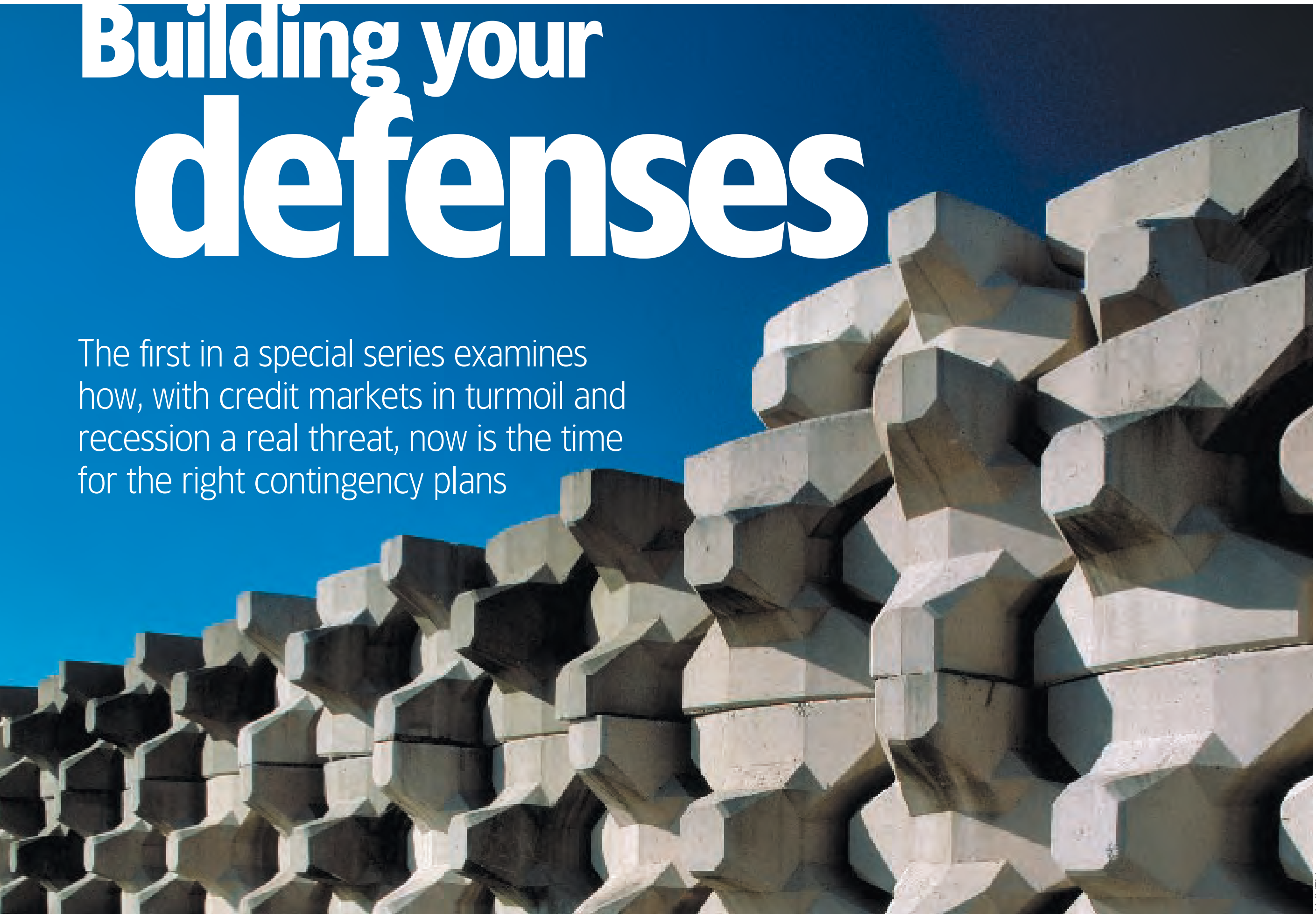
Each company will develop its own priorities for survival. But an action plan for the restructuring team should probably include the following key issues:

- Ensure the 2009–2011 budget is truly realistic in terms of likely volumes and margins
- Identify sensible options for cost cutting to ensure that the budget will be met
- Closely monitor performance of key customers and suppliers for signs of financial stress
- Increase earnings visibility by routinely hedging key currencies and raw materials
- Accelerate development of new products that can quickly contribute to the bottom line
- Watch the cash position like a hawk – and ensure it is monitored for signs of slippage
- Consider the worst-case scenarios and prepare contingency plans in case they occur

Paul Hodges is chairman of International eChem, an adviser to the chemical industry and the investment community. His ICIS Chemicals and the Economy blog has been widely recognized for its success in correctly forewarning ICIS readers of the global financial crisis. Contact **phodges@internationalechem.com**

Building your defenses

The first in a special series examines how, with credit markets in turmoil and recession a real threat, now is the time for the right contingency plans



ALAMY

Consultant's corner

PAUL HODGES
INTERNATIONAL ECHEM

IMAGINE THAT you had come into work this morning and learned that a major customer had gone bankrupt overnight. Unfortunately, according to your sales team, a new consignment had just been delivered yesterday to their warehouse. And when you call your credit manager to see what can be done, he tells you that the company was already three months late on payment.

Contingency planning has gone out of fashion in recent years, as executives have focused on meeting "stretch targets" for increased profits instead. Today, however, it may well be about to make a comeback. It is 16 years since the Western world last had a full-blown recession. And many managers have forgotten, or have never known, just how bad things can get.

Of course, some argue that things are different now, and that all-powerful central banks will ensure that the world avoids a serious downturn. Therefore, they argue, companies should still focus on meeting the stretch targets, and hope to take advantage of more cautious competitors.

I disagree. In my Chemicals & the Economy blog last August, I marveled as Citigroup's CEO announced that they were "still dancing" in spite of recent credit market problems. That CEO lost his job by the end of the year, after a \$10bn (€6.4bn) fourth-quarter (Q4) loss. And since then, the problems in financial markets have been increasing.

Stock markets are also sending out warning signals.

Compare the rise in crude oil prices over the past six months to changes in share prices for major specialty and commodity companies such as Switzerland's Ciba, Dow Chemical of the US, Germany's BASF and Saudi Arabia's SABIC.

The oil price increased by 40% over the period, badly impacting some producers. Worst hit has been Ciba, whose share price is down over 30%. It recently reported that sales prices had only increased by 1% in 2007, while raw material costs had risen by 3%. This is clearly unsustainable, and the company said it is now being forced to "walk away from less profitable business."

More recently, Dow has also seen its share price slip. It reported in January that Q4 had seen the "highest-ever increase in purchased feedstock and energy costs." These were up \$850m versus Q3, causing "margin-squeeze" in both performance and commodity businesses alike.

Unlike Dow, BASF has the prop of a major oil and gas business, which accounted for

50% of its Q4 profit. But its North American chemical business saw sales down by 11%, and profit down by 64%. The share price's earlier outperformance has disappeared, as investor concern has grown.

IGNORE AT YOUR PERIL

Investors in SABIC initially ignored signs of a downturn, pushing the share price up by nearly 70%. Clearly, they thought that SABIC's advantaged feedstock position in Saudi Arabia would compensate for any downturn. But this optimism didn't last, and the share price is now well below its highs, even after the recent rally. Investors have really been rather slow to spot the growing problems caused by higher oil prices. Based on data from the new ICIS pricing Weekly Margin service for European polyethylene (PE), it shows how the ethylene margin fell from nearly €600/tonne in early 2007 to around €100/tonne in December 2007 (see graph, right).

The high density polyethylene (HDPE) margin fell from €200/tonne to €125/tonne over the same period. Seasonal trends and slightly firmer prices have helped both margins to recover in recent weeks, but they are still well below 2007 levels.

Of course, the higher oil price is not the only problem being faced by the industry. Housing is an enormously important market, with the American Chemistry Council estimating that each new house uses $16,000 worth of chemicals. So the fact that US housing starts are now less than half their peak level in 2006 is very bad news for chemical demand.

In addition, the associated subprime crisis has now become what the Bank of England has called the "largest-ever peacetime liquidity crisis." Surveys of chemical company chief financial officers show that credit is already less available in the US and Europe.

So what can companies do to better position themselves in case the downturn continues or worsens? This is where contingency planning becomes so important. The first step is for senior management to review the outlook and take a view on the likely length and depth of the potential downturn. Experience of previous recessions in 1980–1983, and 1990–1992 suggests that it would be prudent to plan for it to extend to 2010, as a minimum.

In terms of depth, a range of scenarios might be developed, to include a mild and a more major downturn. Overcapacity is looming in most petrochemical products, due to new plants coming on stream in the Middle East and Asia.

The Ciba example shows that specialties and fine chemicals are also hit by higher oil prices. These act as a tax on consumers, causing demand to shrink. As a result, market share objectives often become paramount during major downturns, and profit suffers.

Once senior management has finalized its preferred scenarios, they then need to establish a task force to develop the necessary contingency plans. All main functions need to be represented, and proposals should be developed that cover commercial, technical and financial options. This needs to be done quickly, while line managers continue to operate the business on a day-to-day basis.

One of the benefits of the team approach is that it stimulates proactive financial management across the functional silos. Better management of working capital is one obvious example of a cost-saving measure. But credit managers can also provide regular reports to sales teams, for example, to highlight potential problem industry segments. In addition, they can develop special monitoring programs for individual customers.

LEVERAGE = RISK

The recent trend for highly leveraged private equity deals poses an exceptional level of risk for their suppliers. During a boom, a company with 90% debt would see its return on equity hit a fabulous 126%, if profits rose by 30%. But in a bad year, where profits fell by just 10%, the company would be bankrupt.

Equally, the team needs to see what internal actions can be taken. Cost reduction will inevitably be part of the program, but contingency planning should be more imaginative than a typical budget exercise. For example, managers also need to be quizzed on whether new products or plant processes can be fast-tracked to increase sales or reduce costs.

In a year, the optimists may have been proven right. Today's problems may appear as a minor hiccup. But if a serious downturn is now under way, then time will be of the essence in ensuring business survival. And those companies with robust contingency plans will find themselves with a major advantage.

Unfortunately, the example with which I started this article is not hypothetical. Last month's US bankruptcy of Plastech Engineered Products seems likely to cause several major companies, and many smaller ones, to lose significant amounts of money. So time spent today on preparing contingency plans, before similar problems impact your company, may well prove to be the best investment you can make this year.

HDPE (INJECTION MOLDED) CALCULATION BASED ON GERMAN CONTRACT VALUES

"Last month's US bankruptcy of Plastech seems likely to cause several major companies to lose money

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