Demand – the new direction for profit

The supply-led business model – build capacity and wait for demand to catch up – will no longer work in today's low- or no-growth marketplace

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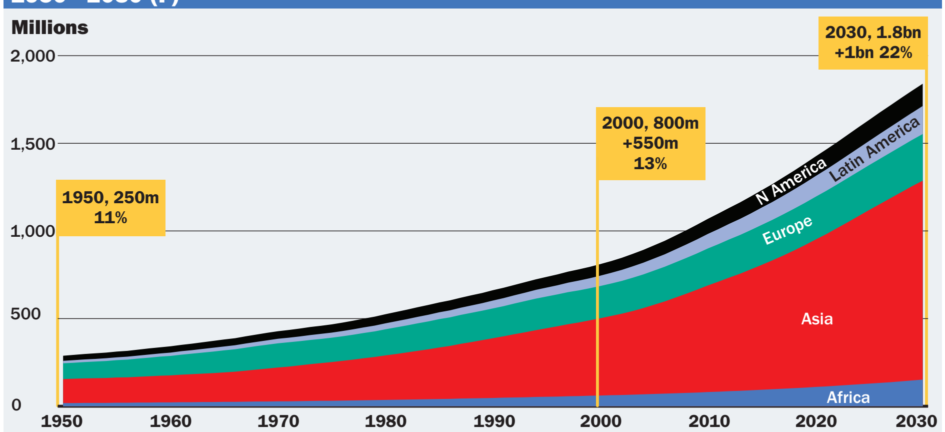
A paradigm shift is underway in global petrochemical and polymer markets. Previously successful business models, based on the supply-driven principle, no longer work. As our new study, "Demand – the New Direction for Profit", explains, companies now need to adopt demand-led strategies if they want to maintain revenue and profit growth.

This requires a complete change of mindset. Your board can no longer assume that demand for your products will grow at an agreed multiple of an IMF GDP forecast for the global economy. This business model was very successful during the Baby Boomer-led economic Supercycle, when the US economy suffered just 16 months of recession between 1983 and 2007. But today, this model is broken:

- The boomers are now moving out of the 'Wealth Creator' 25–54 age group, when spending and incomes tend to rise exponentially as people move forward in their careers and often settle down and have children
- They were then the largest and richest generation in history, but their key characteristic today is that they also have the longest life expectancy. On average, a 65-year old Western Boomer can hope to live for 20 years – a century ago, total life expectancy was only 50 years.

Across the world, one billion people are now moving into the 'New Old' 55+ age group, when spending and incomes start to decline quite sharply. New Olders already own most of what they need, and their incomes decline as they move into retirement. And by 2030, they will account for more than one in five of the global population – nearly twice the ratio seen during the Supercycle itself.

NEW OLD 55+ POPULATION BY MAJOR CONTINENT % OF GLOBAL POPULATION, 1950 - 2030 (F)



SOURCE: International eChem pH Report, UN Population Division

Demographics are destiny, and the unique phenomenon of the New Old generation is having a major impact on global demand patterns. This is being reinforced by the collapse in global fertility rates, which have halved to just 2.5 babies per woman since 1950, dramatically reducing the relative size of today's Wealth Creator generation. As a result, the world has reached a "demographic cliff", which is creating a "demand cliff" for the global economy.

This means we can no longer rely on the "build it and they will come" supply-driven business model that has proved so profitable until recently. Anyone opening up new capacity today may have to wait a very long time before demand catches up with the new supply.

China's slowdown since 2013, and the consequent collapse of oil and commodity prices, exemplify the problems being created in feedstock and product markets. Their chaos is being intensified by the 'Great Unwinding' of the central banks' stimulus policies. They had hoped to counter the demographic slowdown by printing electronic money and introducing zero interest rates. China was the poster-child for this experiment:

- Its leadership panicked in late 2008, as it feared the loss of tens of millions of jobs in its export-oriented economy, as Western demand collapsed
- It doubled lending to \$20tn in 2009, and nearly trebled it to \$28tn by 2013 – causing a vast bubble to appear in China's property market
- This made the US subprime bubble look modest by comparison, as house price-to-earnings ratios reached 14:1 in 'Tier 1' cities

But the bubble began deflating in 2013, with the appointment of President Xi Jinping. His 'New Normal' policies represent a paradigm shift away from the stimulus-led growth of the 'Old Normal' economy. He realised that China's economy could implode if it continued down this path. His clear intention is instead to build a services-led economy based on the mobile internet. In turn, commodity and oil prices have collapsed as it becomes clear to investors that China's demand is no longer likely to grow at double-digit levels for decades to come.

IN THE EYE OF THE STORM

Sadly, the petrochemical and polymer industry is in the eye of this storm.

The US alone has planned to invest \$164bn in export-oriented expansions. These were based on two seemingly plausible assumptions: that growth in China and other emerging markets would remain robust; and that oil prices would command a premium to their relative energy value to natural gas. Neither assumption seems so plausible today. Yet it is too late to turn back the tide of expansion, as much of this new capacity is already close to completion. And at the same time, China is moving rapidly towards self-sufficiency in the key chemical value chains.

The propylene value chain is likely to be the key player as this drama plays out. The reason is that China's new 2016–2020 Five Year Plan calls for its C3 self-sufficiency ratio to rise from 67% today to 93% by 2020. Major expansions are underway in both on-purpose propane dehydrogenation and coal-to-olefins plants to meet this target. Polypropylene production, for example, grew 23% between 2013 and 2015, leading to a 5% decline in its imports.

What will happen as China moves closer to its self-sufficiency target?

China has never focused on profitability as a core objective for its petrochemical industry. It is most unlikely to act as a disciplined Western producer and reduce operating rates to balance the market. Its aim is instead to maximise employment and increase living standards – and thus preserve communist party rule.

The C8 chain provides a clear warning of what lies ahead. China was the world's largest PTA importer in the world as recently as 2012, importing 5m tonnes. But recent capacity expansions reduced these volumes close to zero by 2015. Similar developments have also taken place with PVC in the C2 chain, where net imports have collapsed from 1m tonnes to zero between 2010 and 2014.

So although PE is currently an island of calm, logic suggests it will soon be affected by China's drive to increase its C2 self-sufficiency from 49% to 62% by 2020. Already, its PE imports have become focused on the Middle East and southeast Asia. And no doubt the growing surplus of PP will lead to further volume losses as inter-polymer competition increases. This does not bode well for US producers needing to develop major new PE export volumes.

This is why we argue that winners in this New Normal world now need to abandon their hopes that stimulus programmes will restore former demand patterns. As German finance minister Wolfgang Schauble warned at last month's G20 meeting: "The debt financed growth model has reached its limits. It is even causing new problems, raising debt, causing bubbles and excessive risk taking, zombifying the economy....and may have laid the foundation for the next crisis."

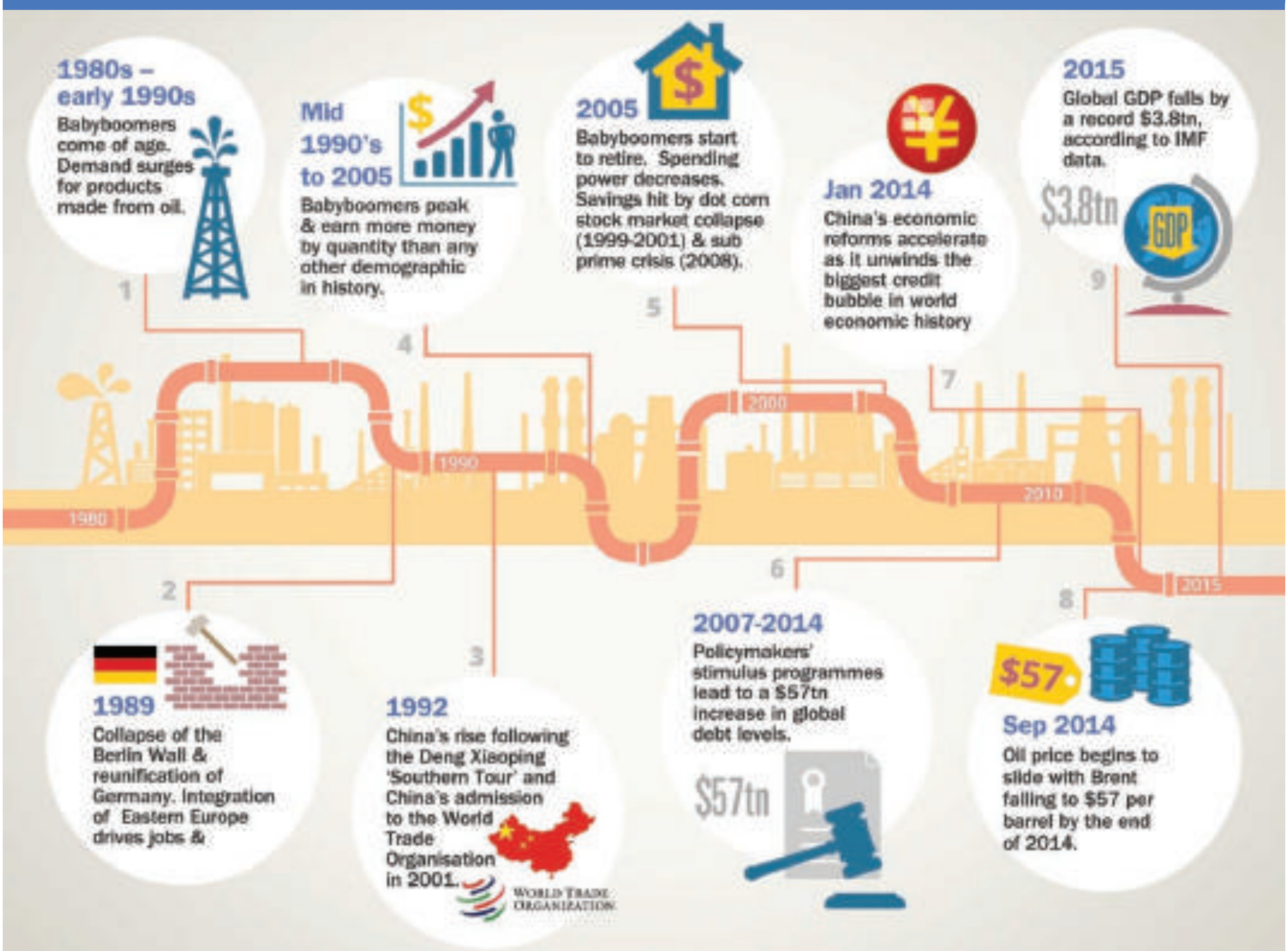
Instead, companies need to return to the demand-led business models that proved so successful before the Supercycle. This is why we focus in the study on highlighting practical examples of major new opportunities that could start to be exploited today. ■

Paul Hodges is chairman of International eChem, John Richardson is a consultant with ICIS Consulting. They are joint lead authors for the new ICIS/IeC Study: Demand – the New Direction for Profit **Visit icis.com/scenariostudy**

NEW STUDY IS A PRACTICAL GUIDE TO GROWTH

Demand – the New Direction for Profit" is an intensely practical guide aimed at seasoned executives looking to find new ways to grow their business. Its analysis is based on the hands-on expertise of the International eChem and ICIS teams. Its core message of paradigm shift will be critical to future profitability for your company over the next five to 10 years, wherever you operate in the value chains. But the good news for potential winners is that the New Normal world is now open for business. Visit icis.com/scenariostudy. ■

THE RISE AND FALL OF THE ECONOMIC SUPER-CYCLE



Scenario Study

DEMAND – THE NEW DIRECTION FOR PROFIT

FIVE Key questions it will help you answer:

1. What are the myths that have brought us to this point?

2. The collapse of oil prices – what does this mean?

This new Study is the culmination of five years of ground-breaking forecasting work and provides a critical assessment of the present economic landscape and a roadmap for navigating towards future profit and growth.