This is the end of constant growth

Income levels and age range will drive future demand patterns globally. Company managements in the petrochemical sector will have to adjust

PAUL HODGES INTERNATIONAL ECHEM

Fewer babies, and more older people, means less consumption. You cannot turn 55 year olds back into 30 year olds. That, in a nutshell, is why today's globally ageing populations are creating major changes in demand patterns.

Household consumption is more than 60% of GDP in all developed countries, and also the key driver for future growth in emerging economies. So the growth of the New Old 55+ generation, alongside the dramatic drop in the number of babies being born, is creating an unprecedented paradigm shift in the global economy.

The key starting point is the way global life expectancy has increased by 50% over the past 50 years, while global fertility rates have halved. The average person can now expect to live to 70 instead of 47, while each woman has just 2.5 babies. Dramatic change is thus under way in demand patterns as a result:

- The post-war babyboomers were the largest and wealthiest generation in history. But they are now entering their low-spending and low-earning years as they retire and join the New Old 55+ generation.
- Today's Wealth Creators aged between 25-54 years are a much smaller generation. Their spending power therefore can't compensate for the decline in New Old consumption.
- The future Wealth Creators being born today are an even smaller generation, particularly in the emerging economies, where women are also now choosing to have fewer babies.

BABY BOOMERS AND THE SUPERCYCLE

The chemical industry has played a critical role in enabling this increased life expectancy, via the development of a wide variety of products:

Rex Features

In the New Normal, the largest and wealthiest generation is earning and spending less

- Chlorine's use for water disinfection eliminated killer diseases such as cholera, typhoid and dysentery, and underpinned the growth of the chlor-alkali industry.
- The development of antiseptics led to the pharmaceutical industry, while pesticides helped the development of agrochemicals. Polymers also became key to food production and storage.

In turn, the arrival of the Boomers in their wealth creating years created a 25-year chemical SuperCycle from 1983. Demand grew exponentially at a multiple to GDP, as the drop in fertility rates also freed many women to join the labour force.

High-priced items such as cars and houses became much more affordable as dual-income households became common. New markets also developed as working women with children needed – and could now afford – more labour-saving devices for the home.

But now Western populations are ageing fast. Today's much-discussed "population explosion" is really better described as a "health explosion" where people live longer but have fewer children. This has two major implications for future demand:

- Developed economies will see much lower growth overall. Smart companies will focus on the currently unmet needs of the New Old, who are already 40% of the adult population.
- Emerging economies will have to refocus

TYRE DEMAND IN THE NEW NORMAL

The US auto market demonstrates the way demand patterns no longer relate to GDP growth in the New Normal.

People are driving less. The average American drove 6% fewer miles in 2011 than in 2004. The reasons for this change vary with both age and income:

- Younger people aged 16-35 drove 23% fewer miles in 2009 versus 2001, as car ownership and insurance have become less affordable.
- The New Old drive less once the kids leave home. Their mileage then drops further when they retire and no longer drive to work.
- Affordability issues also mean that 1 in 8 Americans are now driving with a bald tyre.

For decades, the average American replaced one tyre per year, or all four tyres every four years. But today, this ratio has already fallen 8% to 0.92, and will probably fall further in the future – no matter what happens to GDP.

These trends are not unique to America and western countries, and are already impacting the emerging economies.

away from exports to domestic consumption. Their growth will also slow sharply as their incomes are a fraction of those in the west.

So what does this mean for your business today? It means a complete change in terms of the key profit drivers. A low-cost supply position will no longer be the critical factor.

Instead, the winners will be those companies that best understand the implications of today's changing demand patterns. The US shale gas market provides an excellent example of the new focus that is now essential.

Amid the excitement, few have noticed that US ethylene production in 2012 was still 7% below its 2004 peak.

Being low cost has not delivered increased sales. This raises a previously unthinkable question: Can the proposed 10m tonnes/year of new ethylene capacity actually find customers?

This highlights how survival in the New Normal requires a laser-like focus on end-users. The key to future success is the development of products that track growth in personal consumption, both by age and income level.

Official data for US household spending illustrates the criticality of age range:

■ Wealth Creators spend an average of $48k in the 25-34 age range. Their spend then increases to $58,000 in the 45-54 age range, as the kids grow up and income levels increase.

■ But spending then drops on joining the New Old, and is just $45,000 in the 65-74 age range. The New Old mainly buy replacement products, as incomes fall during retirement.

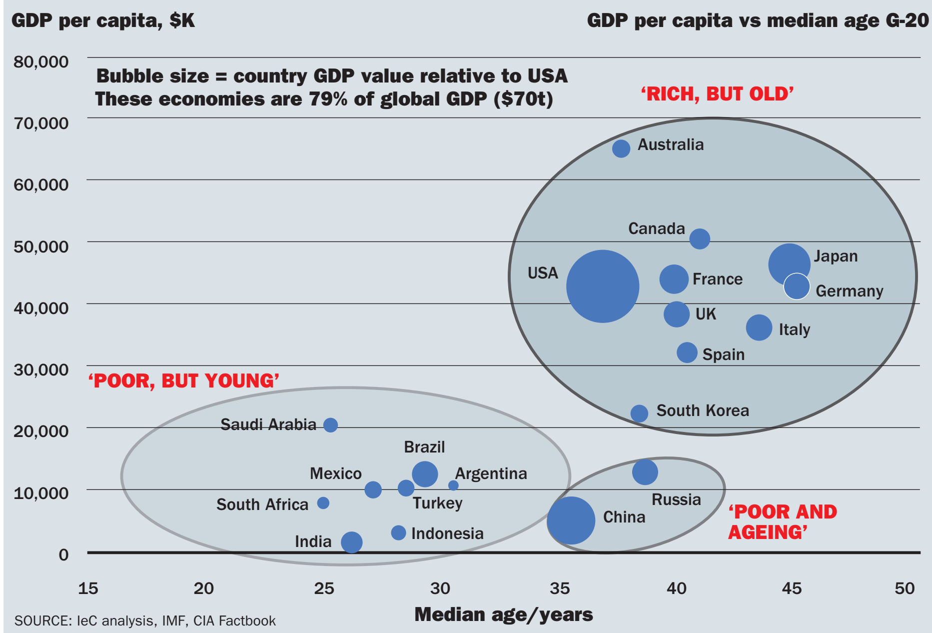
Equally, emerging economy data highlights the importance of small changes in income on demand. The vast majority live on less than $5/day. But the 3 billion earning $1-5/day represent potentially large and profitable markets.

■ The 1.6bn earning $1-3/day need entry-level products that meet basic needs, such as single sachets of soap.

■ The 1.4bn living on $3-5/day are an even bigger opportunity in terms of both market size and range of products. They need better housing and healthcare, as well as basic consumer goods such as bicycles and mobile phones.

Successful SuperCycle strategies now need fundamental review to make them fit for purpose in the New Normal. Megatrend concepts such as urbanisation and infrastructure development are still relevant. But they need to be reinterpreted from this new perspective.

FUTURE GROWTH DEPENDS ON INCOME LEVELS AND AGE PROFILES



SOURCE: IeC analysis, IMF, CIA Factbook

AGE RANGE AND INCOME ARE KEY

The G20 countries represent 79% of the global economy and the population is clearly divided into three separate groups:

■ Rich but old. 1bn people live in the wealthy western countries, with GDP/capita around $45,000 and median population age of 40 years. These markets will be driven by the growth of the New Old generation, who are typically asset-rich but cash-poor.

■ Poor but young. 4.8bn live in emerging economies, with GDP/capita around $4,000 and median population ages under 30 years. Product development must focus on income levels.

■ Poor and ageing. 1.5bn live in China and Russia with GDP/capita around $7,000, and median population ages approaching 40 years. They require basic products that meet the needs of their rapidly ageing populations.

These changes create enormous challenges for even the best-managed companies. But every challenge is also an opportunity. The key is to take the advice of statesman Winston Churchill, who wisely remarked: "The farther back you can look, the farther forward you are likely to see".

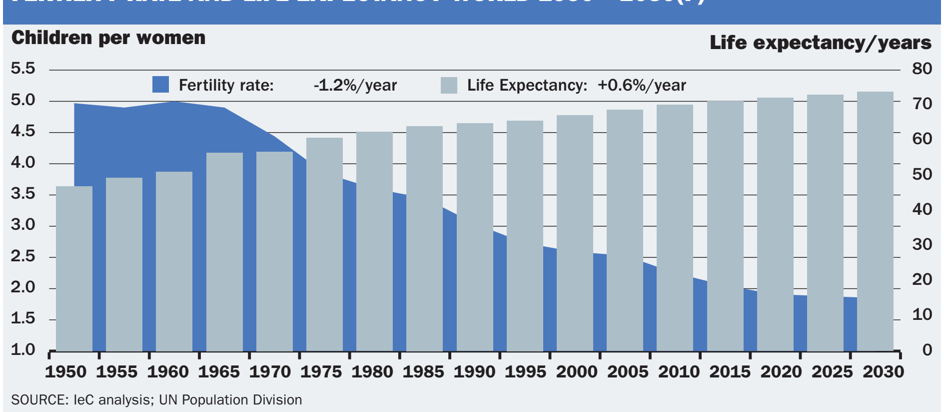
The SuperCycle was fun while it lasted, but sadly it also meant that we became too complacent about the future.

Affordability, not value added, has to be the core focus as we develop new products and services to meet today's emerging needs in the areas of food, water, shelter, health and mobility.

The transition offers us the chance to reinvigorate our thinking, and refocus on new opportunities. The great companies of the future will be those that best meet this challenge. ■

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. IeC/ICIS now offer board-level strategy workshops to help companies exploit today's new opportunities. Visit www.iec.eu.com/strategy-development.

FERTILITY RATE AND LIFE EXPECTANCY WORLD 1950 – 2030(F)



SOURCE: IeC analysis; UN Population Division