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Feature Article

Purchasing in a Volatile, Uncertain, Complex and Ambiguous (VUCA) World — Aging Western baby boomers are changing chemical demand patterns — again.

In this article, International eChem Chair Paul Hodges highlights some key findings to this effect (past factors, the new normal and forward-thinking ideologies) from his organization's new e-book, *Boom, Gloom and the New Normal*.

Purchasing in a Volatile, Uncertain, Complex and Ambiguous (VUCA) World

Aging Western baby boomers are changing chemical demand patterns — again.

By Paul Hodges

Today's economic environment presents the chemical industry with its most difficult challenges for a generation. Oil and feedstock prices are high and volatile. Demand patterns in key sectors, such as housing and autos, are uncertain. Financial markets have become more and more complex. And, key indicators are ambiguous about the outlook.

Unilever CEO Paul Polman summed up the position best: "I use the term 'VUCA' to describe the world — volatile, uncertain, complex and ambiguous. It's very difficult for people to get a total picture."

Yet, a "total picture" is, of course, what chemical sourcing professionals are expected to develop and maintain.

The Old Picture

This is the rationale for my organization's (International eChem) new e-book, which is available as a free download on our website: *Boom, Gloom and the New Normal: How the Ageing of the Western BabyBoomers is Changing Chemical Demand Patterns, Again*. Its core argument is that demographics drive demand.

As a result, we can expect growth rates to be slower in the Western economy, and for many of the products supplied by the chemical industry. Core markets, such as housing and autos, are already seeing these effects in action. Yet at the same time, these changes are also creating new opportunities for forward-looking chemical companies.

Twenty-nine percent of the Western population — 272 million people -are already benefiting from an extra decade or more of life expectancy, compared to previous generations. They are in the new 55+ cohort and have money to spend. Yet, most companies insist on living in the past when it comes to providing them with products and services.

To this end, the publication highlights how Western births jumped 15 percent between 1946 to 1970, versus 1921 to 1945. By 1982, the babies born during this period were beginning to reach the 25- to 54-year-old "wealth creator" age group in large numbers. This demographic is recognized by consumer marketers as the period of peak demand; it is when people are typically settling down, having children and moving ahead in their careers. The boomers thus spurred a 25-year economic "super cycle," especially in sectors of key importance for the chemical industry — autos and houses, in particular.

This super cycle can be seen in the official figures from the U.S. National Bureau of Economic Research. Its data show that the United States was in recession for just 16 months between 1982 and 2007. This was different from the experience of the previous century, when a typical cycle lasted four to five years and was often followed by a lengthy downturn. Since 2007, of course, we have begun to move back into a much more volatile economic environment.

U.S. housing starts show the impact of this shift in demand. Each new house constructed uses US$15,000 of chemicals, according to American Chemistry Council (ACC) data — including plastic for sidings, pipes and cables, plus coatings, adhesives and fiber upholstery. Housing starts peaked at 2.2 million a year in 2006; but, since 2009, they have remained at historical lows of less than 800,000. This makes today's market worth $12 billion versus its $33 billion peak.

Similarly, U.S. auto sales averaged between 15 million and 17 million a year from 1995 to 2007. ACC data suggest each new auto uses an average of $3,636 of chemicals, including antifreeze, plastics for dashboards and other parts, rubber tires, coatings, adhesives and upholstery fibers. But, since 2009, sales have averaged around 12 million autos per year. Thus, the market is worth $44 billion today versus $58 billion in terms of chemical products.

Additionally, the boomer generation created the phenomenon of pent-up demand. If policymakers raised interest rates, then people only deferred their purchases. Their children were still growing, and new boomers were continually entering the wealth-creator cohort. So, demand recovered sharply when rates were reduced again to more affordable levels.

Companies thus became bolder with their investments; there was little risk in bringing on new capacity ahead of demand. In fact, the theme from Kevin Costner's 1989 baseball movie "Field of Dreams" summed up the key dynamics: If you build it, they will come. Contrary to previous experience, executive boards of chemical companies soon realized that being overly cautious was the key risk when planning for new capacity. Most chemical products are linked to personal consumption; so, the growth of the boomers meant companies could count on steadily increasing demand for most products.

Further support for economic growth came from the rising number of women in the labor force, as old barriers were removed.

Additionally, a dramatic increase was taking place in Western life expectancy, which rose 18 percent between 1950 and 2000, from 66 years old to 78 years old. Chemical and pharma companies played a major role in this welcome advance. Not only did they develop new life-saving products, they also facilitated major improvements in food safety and crop yields.

The earlier introduction of chlorine into drinking water showed what could be achieved by the application of science. It removed the threat of cholera and typhoid, which decimated populations in the past. Now, vaccines (which were supported by the development of a wide variety of new medicines) enabled mass immunization programs. This helped to prevent the onset of many diseases while, at the same time, new treatments were developed to help mitigate the impact of others.

In addition, the widespread adoption of plastics helped reduce the incidence of food poisoning and other threats to life. Better storage and handling meant the food chain became safer. Equally, the development of improved crop varieties allowed the expanding population to be well-fed, despite the fears of latter-day Malthusians that population growth would inevitably lead to widespread starvation. Malthus' 200-year-old warning became highly topical in 1972, with the publication of *The Limits of Growth* by a group of scientists from the Massachusetts Institute of Technology for the influential Club of Rome organization. Ironically, its core argument was being disproved even as the report itself gathered global attention.

The New Normal

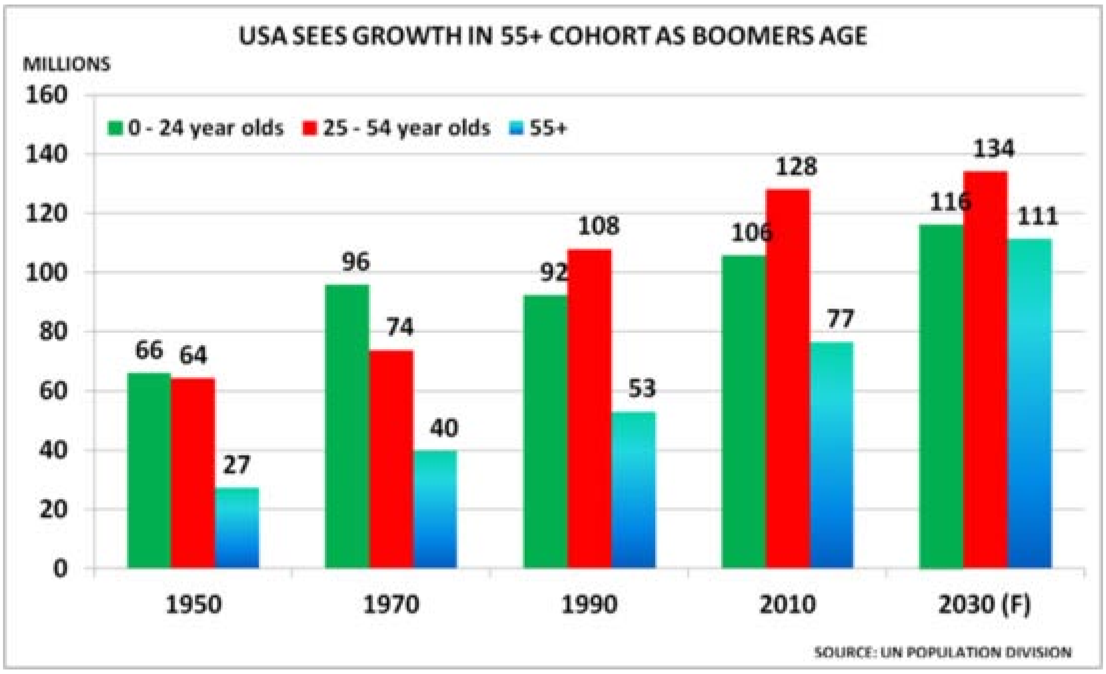
Now, this virtuous circle is coming to an end.

Since 2001, the oldest boomers (those born in 1946) have been moving out of the wealth creator cohort. Next year, the average boomer will be leaving it. The best efforts of policymakers and central bankers cannot turn back this tide. As such, demand patterns are changing once again. The boomers no longer need new and bigger homes or autos. And, the growing pension crisis — caused by a failure to adjust savings rates and retirement ages for increasing life expectancy — means that most of the 55+ generation simply have to cut back their expenditures and focus on real needs rather than wants.

Surprisingly, though, this critical insight has not yet entered the thinking of many chemical companies, which continue to focus on the wealth-creator market — even though this has already gone ex-growth due to the Western post-boomer generation being some 16 percent smaller. They seem to believe that somehow there will soon be a return to the days when steadily increasing demand for housing, autos and other consumer-related products would guarantee profitability for any moderately successful business.

Yet, the evidence to the contrary is unassailable. Only those already alive can possibly enter the wealth creator cohort by 2030. And, United Nations (U.N.) forecasts show there will be only 369 million Westerners in this cohort by then, versus 392 million in 2010.

At the same time, U.N. demographers expect the number of 55+ individuals to jump 34 percent by 2030, from 272 million to 364 million. Equally important is increased life expectancy, which means that 70 has already become "the new 60" as far as people's physical well-being and mental status are concerned.



The position in the U.S. is very similar. As the chart shows, the number of wealth creators is already plateauing; by 2030, there will be 134 million versus 128 million today. But, the number of new 55+ will jump 44 percent to 111 million, from 77 million today.

This new 55+ faction will likely have lower spending power than when they were in the wealth-creator cohort as they move from salaries to pensions. Also, they probably haven't saved enough to finance their extra decade or so of life expectancy versus previous generations. Many people assume they'll sail off into the sunset on retirement, and that $100,000 of savings (the average in the 55-64 age group) is a fortune. But, when it has to cover a possible 20 years of retirement, it falls far short of what they need to fulfill their expectations.

Even so, the 55+ cohort will still have some money — and, there are an awful lot of them in that demographic. So, if companies were to focus on their needs, they'd be a potential gold mine.

When determining what these needs are, the first point to consider is that although they won't be able to afford many of the "wants," by comparison, our research for the book shows that the needs of this new 55+ generation aren't restricted to pharmaceutical and traditional "age-related" products. The boomers have always thought of themselves as being different from their parents' generation. Thus, they continue to be active consumers for a wide variety of products and services.

Another factor behind their needs is the fact that their kids will have mostly grown into adulthood by then. This will affect the ways in which they choose to spend their money, especially with regard to housing.

Lennar, for example — the third largest home builder in the U.S. — is seeing considerable success with its new "NextGen" housing developments. These are not the "granny apartments" of old, but instead offer the senior generation their own separate living spaces, alongside their adult children. This provides the new 55+ constituency with the reassurance of being looked after if they become ill. In turn, they can supervise their grandchildren while the parents are at work.

From the sourcing professionals' viewpoint, the rise of the new 55+ generation represents opportunities, as well as challenges. Markets are seeing much greater volatility, as demand patterns change. There is also more uncertainty as the needs of the new 55+ group aren't well-understood. In turn, this creates more complexity around the outlook. There is also more ambiguity, as markets ebb and flow in new directions.

This is the VUCA world described by Unilever's Paul Polman. It requires companies to develop their own VUCA plan in response — a *vision* of how the world may change; an *understanding* of what this may mean for the products with which they are involved; *clarity* over future sourcing strategies and tactics; plus, *agility* to respond to unexpected.

Moving Forward

What is already clear, four years into the financial crisis, is that there is no going back to the world of the boomer-driven super cycle. The winners in the new normal will be those who refocus *today* on the new economic and social trends that are already starting to drive future growth.

***Paul Hodges** is chair of International eChem (*www.internationalechem.com*) , advisers to the chemical industry and its investment community.* Boom, Gloom and the New Normal: How the Ageing of the Western BabyBoomers is Changing Chemical Demand Patterns, Again *sets out the key issues as related to the global transition toward a new, more demand-driven world — including detailed case studies and critical success factors for future product and service offerings. More details, and free download options, can be found at* www.new-normal.com*.*