

# Fortnightly Thoughts

July 13, 2016

Issue 107

## Why you need to know more about Gen-X

In this edition of Fortnightly Thoughts we shine a light on the sometimes overlooked, but economically important cohort known as Gen-X. We interview demographics expert Neil Howe and have contributions from our analysts on how the differences of the Xers impacts autos, asset managers, retailers, advertisers and elections.

The generation that is rarely discussed, but accounts for over 25% of consumption in the US, is Gen-X (those between the ages of 36 and 51 in 2016). It sits right in the center of the consumption sweet spot and therefore matters to DM economies.

But it is different from the Boomers. It is smaller and less well off. It has only seen average real income growth of 1.8% pa between ages 34-43 vs. the Boomers at 3% pa for the same age group, and it hasn't benefitted in the way that the Boomers did from asset price inflation. As the average Xer now resides in their mid-40s, time is running out to build up savings.

All of this implies that they won't consume in the same way as the Boomers, partly because they can't and partly because their preferences and attitudes are different. They prioritize spending on their families (children, housing etc.) and are faced with higher costs for things like education, healthcare and property, but they are under-indexing on things like autos.

This generation is also seen as resilient and pragmatic which matters not just for consumption, but also for their impact on the world given that Xers are moving into leadership positions, both within companies and countries.

***EXCERPT: This report is a modified version of Goldman Sachs Research's original published July 13, 2016.***

### What's inside

<b>Why you need to know more about Gen-X</b> our lead article on a generation that matters	2
<b>Interview with...Neil Howe:</b> Author and Demographics expert	6
<b>Demographic and behavioural change for retail?</b> Richard Edwards on the weakness in UK apparel retail	9
<b>Investing in a more risk-averse generation:</b> Alex Blostein on the implications for asset management	10
<b>The pragmatic auto consumer:</b> Our US autos analysts on why Gen-X are buying fewer cars	12
<b>Selling to Gen-X:</b> Drew Borst pays attention to the neglected generation	13
<b>The return of the generation gap in politics:</b> Alec Phillips on US politics	14

#### Hugo Scott-Gall

hugo.scott-gall@gs.com  
+1 (212) 902 0159  
Goldman, Sachs & Co.

#### Sumana Manohar, CFA

sumana.manohar@gs.com  
+44 (20) 7051 9677  
Goldman Sachs International

Goldman Sachs does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to [www.gs.com/research/hedge.html](http://www.gs.com/research/hedge.html). Analysts employed by non-US affiliates are not registered/qualified as research analysts with FINRA in the U.S.

# Why you need to know more about Gen-X

## It could be you

If you are a member of Gen-X then you might want to look away now as here are words typically used to describe a generation that attracts little attention between the might of the Boomers and the sparkle of the Millennials: Xers are described in a 2011 Journal of Behavioral Studies in Business article as “pessimistic, skeptical and disillusioned” and there are numerous observations coalescing around this theme. But on the other side of the equation they are also seen as resilient, self-starting and bottom-line focussed.

So why write about this rather overlooked cohort? Because Gen-X represents approximately 25% of current consumption in the US. The mid-point of the Xers in developed markets is about 44 years old which is right in the sweet spot of consumption i.e. when people spend the most. But that is only part of the picture as they have lower household wealth and savings rates and haven't benefitted from the asset inflation the Boomers saw. Plus they have less time ahead of them than the millennials to build up sufficient savings. Thus what they spend, how they spend it and their likely inability to fully seize the consumption baton from the Boomers are all very important for the levels and components of consumption.

## X marks the spot

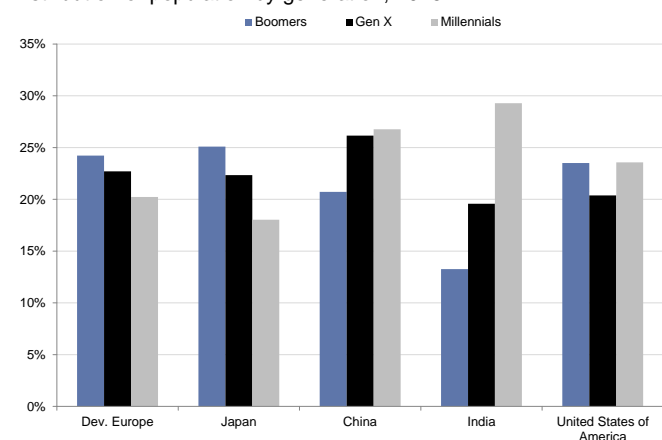
Generational definitions are not set in stone (our definitions are in the box below). This is an important point as these are just somewhat arbitrary definitions and what we are really discussing is the early-middle aged and middle-aged population who have a different outlook on life and financial situation than late-middle aged and older people. It is likely that an older Gen-Xer has more in common with a young Boomer than he or she does with a younger Xer who in turn has more in common with an older Millennial.

## Who is who?

	Silent	Baby Boomers	Gen X	Millennials
<b>Birth year</b>	1928-1945	1946-1964	1965-1980	1981-2004
<b>Age</b>	71 - 88	52 - 70	36 - 51	19 - 35
<b>US</b>	9%	24%	20%	24%
<b>Europe</b>	13%	24%	23%	20%

Source: Pew Research.

## Distribution of population by generation, 2015



Source: UN.

## Smaller but important

The Xers are a smaller cohort than the Boomers or the Millennials at 62 mn members versus 73 mn and 75 mn in the US, whereas Europe is slightly different in that Xers are smaller than the

Boomers, but actually bigger than the Millennials. The reasons for Gen-X's smaller size is partly definitional, but also because fertility rates fell in the US with annual births falling from around 4.2 mn in 1960 to 3.2 mn in 1970.

## A tough beginning...

Although Xers are in the zone where earnings peak, their spending power is less than that implies. Why so? Firstly their disposable income hasn't grown in the way that the Boomers' did because their real income growth has been sluggish at best. If we take the average Gen-X and the average Boomer in the US and the average annual growth in real income for ages 34-43 years for each generation, it has been materially different: 3% pa vs. 1.8% pa. It's a similar story when you look at the real GDP growth both cohorts have either enjoyed in the case of the Boomers or experienced in the case of Gen-X: 3.3% pa vs. 1.7% pa for both between ages 34-43. And unfortunately for Gen-X the same story plays out in asset price inflation which was a transformative tailwind for the Boomers.

## Not your father's housing market

The picture darkens if you consider when Gen-X was likely to make its first home purchase or when had it built up enough savings to invest in equity markets. If the average Xer bought a house when they were 30, then in the US that meant buying in 2003, only 4 years ahead of the fall in US house prices. Rather than just the change in house prices between the mid-2000s and today, it is the far greater oscillation in prices than the previous generations experienced that may have scarred Xers. This is notable especially given that when they were buying houses, the average loan-to-value ratios were higher, implying higher debt levels.

Pew Research estimates that Xers lost approximately 45% of their net wealth between 2007 and 2009. Millennials have no doubt been impacted by observing these asset price falls, but they typically have much less invested (home ownership is markedly lower) and have cautious attitudes towards debt (63% of US Millennials don't have a credit card). And they, unlike Gen-X, still have a long time left to build wealth. The midpoint of Gen-X only has 20 years left if you assume retirement at 65.

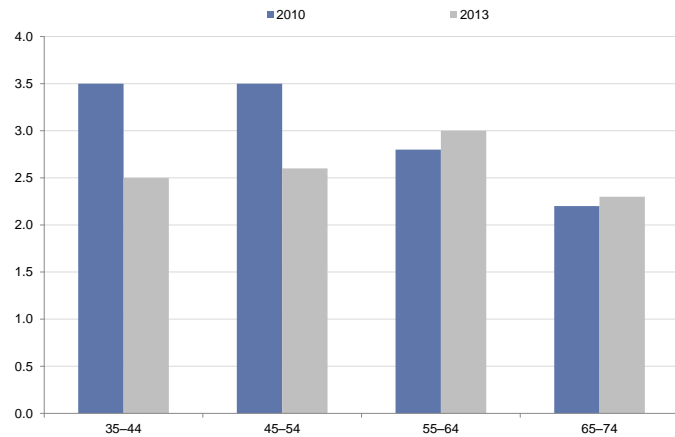
Some help could arrive for the younger Xers from their Boomer parents in the form of inheritance. Using ICI data for those who invest in mutual funds in the US 43% of those over 70 years old have investments excluding their main residence worth more than \$500,000. For Gen-X it is only 22%. Therefore it is likely that there will be an inheritance benefit for older Xers, but it is hard to precisely calculate what that would be given assumptions on tax rates and whether it passes through a generation to the children of the Xers. The average family net worth for 65+ in the US is c.48% greater than the average family net worth for all age groups in the US.

## ... a tough end

As consumption growth in the US has historically been in part fuelled by borrowing, looking at changes in credit card debt by age groups is fascinating. What stands out in the next chart is that the amount of credit card debt for 34-54 year olds has fallen by 29% from 2010 to 2013. But for older generations it actually grew by 5-7% which suggests a rosier consumption picture for Boomers vs. Gen-X.

**Older borrowers**

Median value of credit card debt for households in the US by age groups (thousands of dollars)

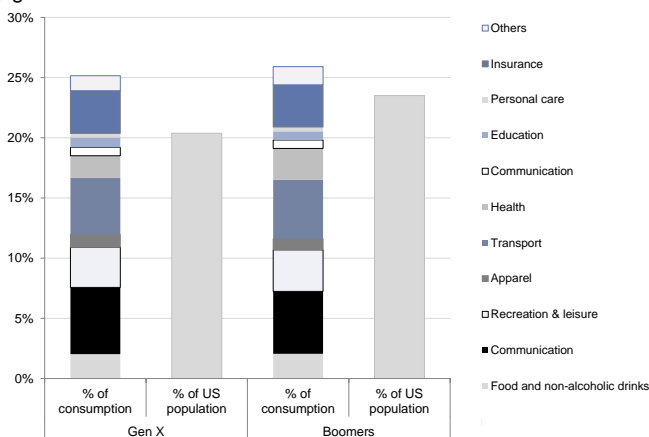


Source: Federal Reserve.

Given that Xers will have greater responsibility for their own retirements, they need to increase their savings rate. It also seems likely that retirement will be delayed as is happening now for the Boomers (65+ participation rates in the US have gone up from 14.4% in 2004 to 18.6% in 2014. The US Bureau of Labor Statistics also projects that it will go up to 21.7% by 2024). To add to this, the age dependency ratio, which is the number of people over the age of 64 compared to the working age population, was as low as 15% in 1960 and is now at 22% in the US, implying that Xers will receive less from the government during their retirement (net of their taxes) versus the Baby Boomers.

**Boomers vs. Xers**

Share of total consumer expenditure in 2015 and % of US population, by generation



Source: BLS.

**The consumption sweet spot**

The reason that this matters is that peak consumption by an individual is in the band of 45-54 years old in the US and is higher in the UK at 30-49 years old. We estimate that Gen-X is responsible for over 25% of US consumption currently. That shows their disproportionate economic importance. Therefore they really matter. So, even though they are smaller than the Boomers they are still a key demographic to target or sell to, but as see Drew Borst's piece on advertising argues Madison Avenue dedicates little of its collective time to them.

**Taste shifts**

Where Xers are spending more relative to Boomers is the following: eating out, mortgages and other housing costs, personal services, education and apparel. Why this is so is a mixture of tastes and priority shifts e.g. the importance they attach to their children and also eating out as an experience, but also some of it is imposed by price inflation which applies to things like property and education costs. For instance, education costs in the US have risen by 3.8% pa over the last 10 years and by 5% pa over the last 20 years. This enforced shift leaves less for other things and there is evidence that Gen-X is shying away from some Boomer status symbols.

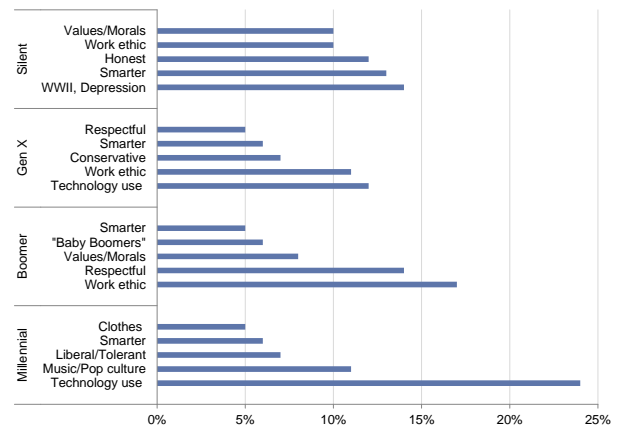
**Social media usage**

Xers are a hybrid of Millennials and Boomers when it comes to social media. Today's Gen-X have the same social media penetration rates as Millennials did 5 years ago, with the catch-up being fastest for older Gen-X (see chart on page 5). This has implications for how to communicate with Xers as they still use traditional media e.g. TV, but are increasingly active in social media as well.

**Pragmatism and resilience**

The next chart shows some of the key attitudes of Gen-X compared to other generations. In our interview with Neil Howe on page 6 we discuss his theory of generational turnings; how each generation is shaped by the prevailing economic conditions and social attitudes, but also by what's gone before and in particular their parents. The increase in spending on their children by Gen-Xers' parents can be seen as a reflexive response to the relatively little time and money Gen-X had spent on them. The attitudes of resilience and pragmatism with a lack of idealism that Gen-X displays is not surprising in Neil's generational context but it does have implications for what sort of leaders Xers are and will be. His answer? Xers will make good leaders for the challenges of the world they find themselves living in (spoiler alert he believes we are in a crisis phase where Xers' pragmatism will be critical). And if not as leaders then they are clearly important in choosing leaders. Also, Alec Phillips explores the role of Xers in the forthcoming US election on page 14.

**Pew survey: What makes your own generation unique?**

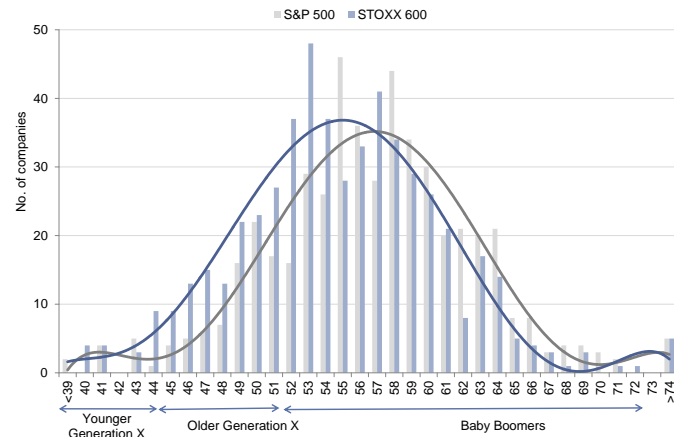


Source: Pew Research.

Surprisingly, when we look at the distribution of European and US CEOs by age, European CEOs are slightly younger. The median age for the US is 57 meaning that Gen-X isn't running the C-suite yet, but will be soon. What their more parsimonious proclivities will mean for capex, M&A and cost cutting remains to be seen.

**Boomers run the C-Suite**

Age distribution of S&P500 and STOXX600 CEOs



Source: Bloomberg.

**Gen-X and investment implications**

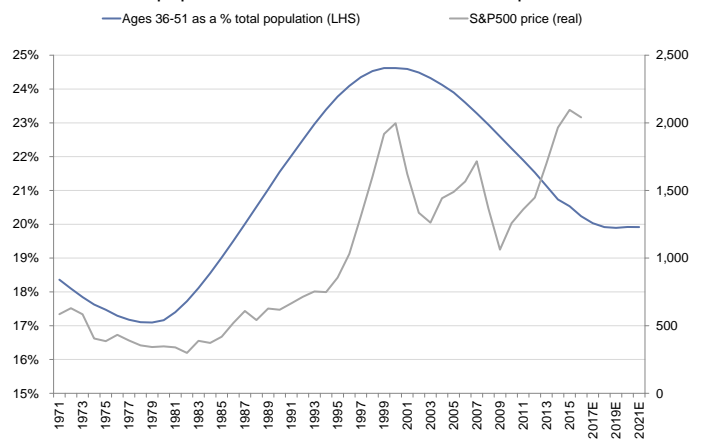
Gen-X is not usually a generation that is specifically targeted by brands and it is a difficult generation to sell to as they are a mix between analog and digital. This is why Drew Borst highlights that TV advertising is still effective with this cohort on page 13. They are also a more conservative, frugal generation, reflecting our US analysts' argument that they spend less on cars versus their Boomer parents (page 12). Focusing on what they spend on, either more or less relative to the Baby Boomer generation reveals both the differences in priorities and economic conditions; many of the things they consume disproportionately more revolves around the family – children, housing, appliances, apparel and travel. Therefore the outlook for Gen-X matters most to sub-sectors like home improvement, autos, consumer durables, apparel and leisure. It is particularly important to understand where their tastes, and the value they place on brands, have and could change. There is a history of companies launching brands targeting this age group that

didn't last long e.g. American Eagle Outfitters and its Martin + Osa store chain, Gap with Forth & Towne and Abercrombie & Fitch with Ruehl No. 925. The Millennial disdain for established brands is often debated, but it's a similar story with Gen-X, raising risks to companies supplying high-ticket consumer goods.

One final thought around the Xers is the broader demographic backdrop. When working age populations as a percentage of the total shrink it has typically been seen as a headwind for economic growth and growth in savings. As countries age they typically experience lower growth and lower risk appetites which can have implications for how much and how people invest.

**Extrapolating?**

Share of 36-51 population in the US vs. real S&P 500 performance



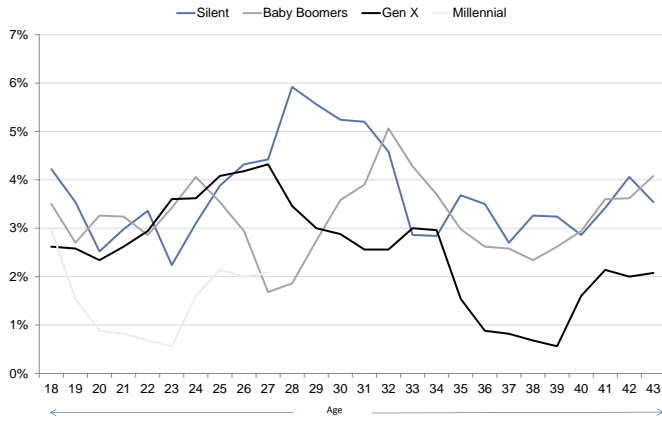
Source: Robert Schiller, UN.

# Six generational charts

The first four charts depict economic conditions in the US and the UK when the different generations entered their formative years

## Unexceptional growth

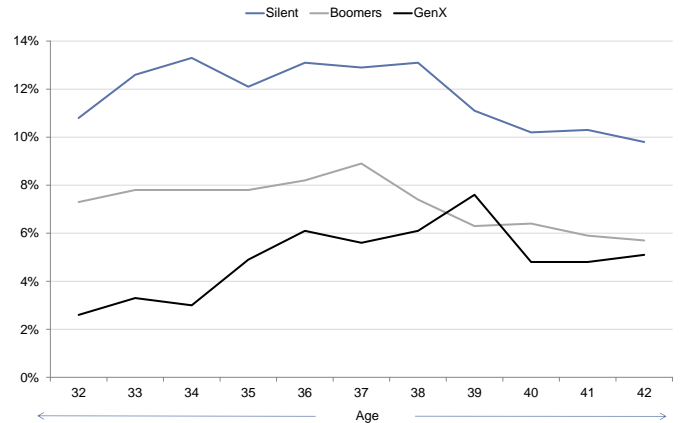
US real GDP growth yoy



Source: Federal Reserve.

## Hard to save

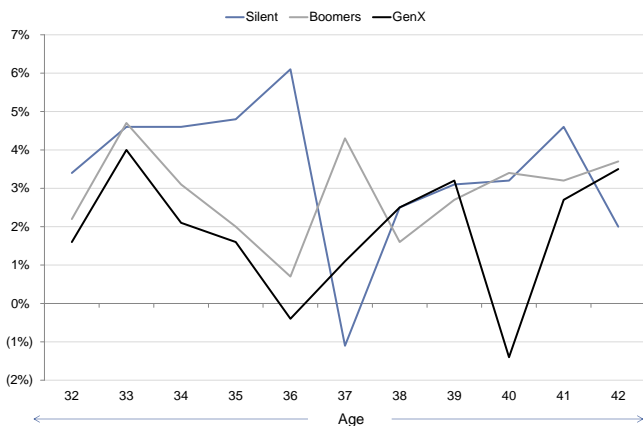
US savings as a percentage of real disposable income



Source: Federal Reserve.

## More downs than ups

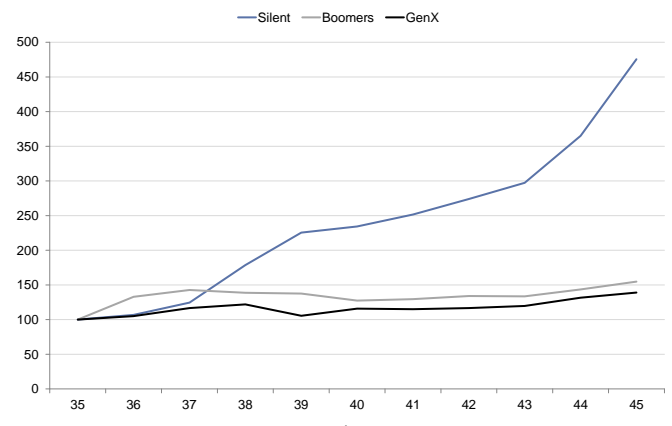
US real disposable income growth yoy



Source: Federal Reserve.

## Being there

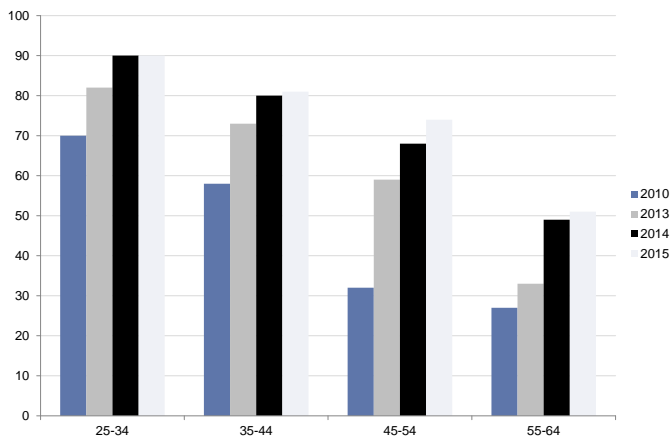
UK house prices, indexed



Source: ONS.

## The hybrid generation

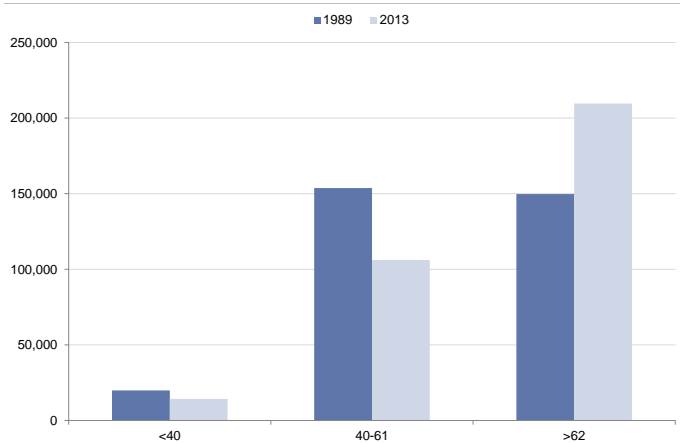
% of people having a social media profile by age group



Source: Pew Research.

## A step down

Median wealth of US families, US\$



Source: Federal Reserve.

# Interview with...Neil Howe

Neil Howe is a renowned author and speaker on economic, demographic, and social change in America. He is the nation's leading authority on today's generations: who they are, what motivates them, and how they will shape America's future. Howe coined the term "Millennial Generation" and has written over a dozen books on generations, many of them with William Strauss, including *Generations and Millennials in the Workplace*. Howe is currently a senior associate at the Center for Strategic and International Studies and the Global Aging Institute.



## Can you give an overview of your generational theory and the place of Gen-X within that?

First, let's define what a generation is. It's a group of people born over a span of about 20 years or so, who share common beliefs,

attitudes and behaviours. They also share a common age location in history. For example, the G.I. Generation came of age during the Great Depression and World War II, while Boomers (roughly half of whom were literally children of the G.I. Generation), came of age during the mid-'60s to the early '80s, a time of tremendous turmoil and upheaval in societal conventions. The G.I.s were shaped by D-Day and one of the major national crises in American history. Boomers were shaped by Woodstock and one of major awakening eras of American history. Small wonder they turned out so differently.

Gen-Xers were the children of that awakening period, which is instrumental in understanding their behaviour. Throughout history, generations born during Awakenings, we call them "Nomads", grow up amid social and cultural upheaval. They are generally left on their own by adults who are busy trashing old norms and exploring new values. Xers started coming of age themselves as adults after the Awakening ended in the early Reagan years.

The generation following Xers was Millennials, who benefited from a large-scale shift toward child protection in early-'80s America. This was a far cry from Xers' childhood as latchkey kids. In fact, hands-off childrearing, the sort that Xers experienced, is one aspect of being raised in an Awakening era, something that Nomadic generations typically experience as children.

Let's also take a look at the other kinds of generations. Apart from Nomads, we define three other archetypes in our theory: Heroes, Artists, and Prophets. Hero archetypes are born after Awakenings and are raised at a time of increasing protectiveness toward children, for example the G.I. Generation, The Silent Generation is of the Artist type, which is raised during a Crisis era. Prophets, like the Boomers, are raised just after the end of a Crisis era, when child rearing becomes more indulgent.

A generation can also be defined based on what it missed. Even the oldest of the Silent missed any memory of the Roaring Twenties; their earliest childhood experiences were of the Great Depression. Boomers just missed World War II. Gen-X missed the American High and cannot recall the watershed moment of Kennedy's assassination. Finally, even the oldest Millennials can't recall any of the social and family experimentation of the Consciousness Revolution, nothing before "Baby on Board" bumper stickers and new "family values" moral panic over the welfare of children.

## Can you talk about some of the factors that have shaped behaviour for Gen-X?

Consider the childhood environment when Gen-X first arrived in the early '60s. It was a time when divorce rates accelerated, fertility rates plummeted and schools no longer seemed to work. The old joke is that Xers are the first generation people took pills not to have children. There was a society-wide hostility to children during this period, they were an annoyance and, well, we all knew (from reading the "Population Bomb") that there were way too many of them, anyway. Many of the most popular movies of the time, like Rosemary's Baby, The Exorcist, and The Omen depicted evil children.

While their parents were busy trying to discover themselves, Xer children were left with latchkey guides to take care of themselves. Ebbing confidence in institutions meant that kids trusted nothing and nobody, giving rise to this generation's trademark cynicism and resilience. From early on, they understood that focusing on the bottom line was more important in life than ideals. This materialistic focus shows up in the pop culture of the Xer teen era with songs like Madonna's "Material Girl."

Likewise, a UCLA college freshman survey running since 1967 has asked fresh students around the country whether it is more important to develop a meaningful philosophy of life or to be financially well off. The ratio of responses in favour of a meaningful philosophy of life had been around 3:1 to 4:1 until the late '60s, when Boomers were still freshmen, but in the mid- to late '70s shifted in favour of being financially well off by a ratio of about 2:1.

Of course, since every generation spans roughly 20 years, there are differences between "first waves" and "last waves" of the same generation.

For example, the first wave of Xers born in the '60s came of age during the Reagan years. They prioritize self-sufficiency, the bottom line, and a scathing (anti-Boomer) scepticism toward grand ideals. They are also very attached to individualism, free agency, and deregulation. In fact, people born in the '60s are actually among the most partisan birth decade born in the 20th century. Fully 63% of all Americans who are born between 1961 and 1971 and who have ever served as a U.S. governor or a member of Congress are Republican. (This imbalance is outmatched only by people born in the 1910s, who came of age at the height of the Great Depression and who later leaned very heavily Democratic.)

But as we move to the last-wave Xers born in the '70s, we see a clear shift toward being more Democrat-aligned. And so, even within the same generation, we meet contrasts like we see with Xers: the Reagan versus the Clinton wave; or the Atari versus Nintendo wave.

Today, first-wave Xers are reaching (belatedly) the age of national leadership. And just look at the 2016 primary race. While on the Republican side, we saw many prominent Gen-X names, including Paul Ryan, Chris Christy, Marco Rubio, Nikki Haley, Bobby Jindal, and Scott Walker, there were barely any Gen-X candidates on the Democratic side. The average age of Republicans in Congress has

also been declining substantially over the past few years as Xers move into leadership positions, while on the Democratic side, the average age continues to rise.

**Given the socio-economic circumstances that they have faced, do you think Xers consume differently versus previous generations?**

To understand the effects of generational shifts on consumption, we need to consider three factors: the demographic volume or density of their birth cohorts, their spending power, and their attitudes.

Population density increases as we go from first-wave to last-wave Boomers, born in the late 1950s. It decreases rapidly again in the mid-1960s, which gave rise to the term “baby bust” to describe most of Generation X.

To be sure, some of the population decrease attributable to the fertility decline was made up for by heavy immigration. In fact, Gen-X is the largest immigrant generation (not just in absolute numbers, but per capita) of any generation born in the 20th century. Yet overall, the population pyramid today still shows a huge bulge at the top made up of Boomers, an inward Gen-X bust crescent further down, then a second bulge of Millennials in young adulthood. The peak Millennial birth years are 1990 and 1991, which forms another outward protruding bulge.

Over the next fifteen years, the crescent indentation comprised of mid- to late-wave Xers will be moving up as they get into their 50s and 60s, causing sizable declines in the number of people in this age group. On the other hand, we will get a lot more people in their late 30s and early 40s. Implications? Keep in mind that the mid-life age bracket historically constitutes a large chunk of all consumers of the highest profit-margin goods and services, be it cars, houses, boats, appliances, or vacation homes. This is the “luxury” bracket. Declining numbers per cohort in this high-margin age bracket will put plenty of stress on corporate income statements, whose margins right now are already eroding.

But that’s not all. Not only will numbers decline in this age bracket, but per-capita ability to spend as well. As Xers move into midlife, we’re going to see in this age bracket a sizable drop in median household net worth. Their incomes will be constrained, and their purchases will be further constrained by their desperate need to save more before they retire. In short, we’re going to see, finally and at the prime of life, that much-heralded reversal in upward generational economic mobility that economists have for so long talked about.

**So it is true, then, that Gen-Xers represent the first downwardly mobile generation in the economy?**

Almost. It’s more accurate to say they are the first full generation to experience a significant decline in real median household net worth when compared to the prior generation at the same age.

Cohort by cohort, when you look at the data, the downturn actually started a bit earlier. It started with late-wave Boomers, those born in the mid- to late-1950s. Compared to first-wave Boomers, they were hit much younger by the turmoil of the ‘60s and came of age at an unluckier economic moment, not the go-go late ‘60s, but the stagflation late ‘70s. They were more numerous, which bid down entry-level wages. And they were less well educated by almost every measure. College completion rates declined, particularly for males born in the late ‘50s. From first wave to last, Boomer SAT scores fell for 17 consecutive years, reaching an all-time low for the birth cohorts of 1960-61.

By the time Xers came along, the ‘80s recovery had brought new job growth, but also rising interest rates for student loans and mortgages. Further, when the Rust Belt was being disbanded or outsourced in the ‘80s, we saw the introduction of two-tier wages where only older workers would have their wages preserved. This too was unprecedented, and the only way Xers could get ahead was by spurning institutions that protected older incumbents and relying instead on themselves. These circumstances really shaped their collective persona. Unlike Boomers, they didn’t bemoan the injustice of their fate or hide behind a toney yuppie façade. Xers got to work, took chances, and never assumed that anyone was there to look after them.

Along the way, Gen-X has become the most spread-out generation in terms of income and wealth distribution. The combination of eroding youth safety nets, a disappearing middle class, high immigration, a tough childhood, and free agency has shaped the Gen-X mindset. They were considered hopeless slackers, and many Xers took this to heart. They knew that they would never be admired as a group by older people. They also knew (and were constantly told) that most of them would never inherit the American Dream. So naturally, few of them had much interest in identifying with their generation. They embraced a maverick outsider role, and cultivated their individuality. Each Xer hoped to be the exception, the one who broke the odds and turned out a winner. All this stands in stark contrast with Millennials. While young Millennials have the collective confidence that they’re all somehow going to get ahead, that wasn’t the case with young Xers, who always suspected (to use the Wayne’s World line) that “we are unworthy.”

Two other watershed events that shaped Generation X were the big market crashes: the dot.com bubble burst and the crisis of 2008. The latter was a real call of reckoning for this generation. The drop in median household net worth from 2007 to 2010 in the Gen-X age bracket far exceeds that of any other generation. Young-adult Xers bought late into the stock market and late into the real-estate market. And in real estate they typically bought into exurban locations where the prices fell the fastest. So yes they were the biggest losers. By 2010-11, Xers were far more likely than other generations to be underwater on their mortgages, which remains true today. To some extent, Xers still remain trapped in houses that cost too much, in student loans they’re still paying off, and in an income-asset-debt vice that is hard to escape in the absence of significant inflation. In the wake of the Great Recession, we have seen the emergence among Gen-Xers of what I call the “new frugality.” Millennials, traumatized by seeing what debt had done to Xers, have become so averse to debt for this very reason. Apart from student debt (here Millennials feel they have no choice) every other form of debt (credit card, auto, and housing) has been declining swiftly for Americans under age 30 over the past decade.

The debt burden of Xers also means they’re less likely to be able to “catch up” and save for retirement than Boomers with higher net worth. Indeed, Xers are the ones we have to worry about when it comes to long-term economic prospects. Most Boomers are old enough and financially healthy enough to retire with sufficient accumulated wealth, while Millennials are still young with time left to increase net worth. Xers, on the other hand, are much less prepared for retirement today than their parents were 25 years ago. A key statistic from the Fed’s Survey of Current Finances: For households age 40-49, the median net worth in 2013 was roughly US\$100k; in 1989, it was slightly over US\$150k (in 2013 dollars).

### How different are Xers from other generations in their attitude toward work and family?

A remarkable thing about Xers is how they're behaving as parents. Being afterthoughts when they themselves were kids, they are diligently trying to compensate, some might say overcompensate, in raising their own kids. With their titanium-alloy baby carriages and their GPS tracking devices sown into their kids' clothing, Xers have in fact become the most protective generation of parents in living memory. They're raising their kids (late-wave Millennials and now post-Millennials) very differently to how they were raised.

Also, Xers are beginning to move into positions of power in the corporate sphere. Many founded, and now lead, some of Silicon Valley's biggest companies. Their general lack of confidence in the future of the global economy makes them focus more on the bottom line than the top line. They are pragmatic deal-makers and a ruthless generation of cost cutters.

Xers are also big on DIY employment, with a much higher propensity than other generations to stay home with kids and participate in the gig economy instead of the conventional labour market. They are often willing to move to Sun Belt states that are taxed less, and to piece together their own living wherever they go. The result is that, while Boomers past age 60 are working more than ever, the employment-to-population ratio between ages 25 and 54 remains well below its earlier 2007 high-water mark.

This adaptability also allows Xers to depend more, without stigma, on help from their extended family. Today's renaissance in extended-family living is indeed a profound social trend in America, and it is being manifested most clearly by Millennials, who have always been on pretty good terms with their parents. The share of 25- to 34-year-olds living with parents or older family members has increased from 11% in 1980 to 24% in 2014.

Many Xers have parents still better off financially than they are; the net voluntary subsidy flow between generations is now hugely from old to young, the opposite of what it was doing 40 years ago. The Silent Generation, who constitute the parents of most first-wave Xers, are so well off financially that we are seeing an unprecedented aging of wealth in the United States today. In 2013, the median net worth of households over age 65 was more than double that of all younger families.

I digress, but this is why the Silent Generation is often called "the lucky generation" by demographers like Richard Easterlin and Elwood Carlson. When the Silent were young adults, America's elderly were so destitute they were deemed to be a major target of JFK's and LBJ's "war on poverty." It's nice to go through life always doing well relative to people who are older and younger than you. It seems so effortless. As Woody Allen once put it, "Eighty percent of life is just showing up", a joke that leaves Xers shaking their heads in incomprehension.

So even as first-wave Xers approach retirement age, many remain dependent on their parents for direct subsidy to keep their mortgages going and to send their children to college. I tell financial service companies, by the way, to spend less time marketing to the parents of nuclear families and more time marketing to the grandparents of extended families, where many of the real decisions are still being made.

### So what lies ahead for Gen-X?

In our generational theory, we outline a recurring cycle of four turnings or seasons of history, a High (era of strong institutions), an Awakening (when institutions are attacked), an Unravelling (when

institutions are weak) and a Crisis (when old institutions die and new ones are born). We identify the period in America beginning around 2008 as a new Crisis era. This is a period in which the pace of history quickens, economic and political institutions are torn down and rebuilt, and the very survival of the nation ultimately feels under urgent threat.

On average in recent history a turning lasts around 22 years, so we're only a part of the way into the current Crisis era. We expect enormous financial turbulence and political upheaval in the years ahead. This uncertainty makes the November elections even more important. People want security and for leaders to assert authority during a Crisis era. The current mood is remarkably similar to what we saw in the '30s.

One of the positive aspects of Fourth Turnings, which we have seen throughout American history, is that families become stronger and generations work together in the face of danger. Unlike the G.I. generation, which in its maturity built up America's infrastructure but remained culturally alienated from their own kids, Boomers are prioritizing family solidarity. Millennials know that Boomers have zero reputation for building anything (they're better known for demolishing things), but they admire Boomers' vision and values. So most Millennials remain personally close to their parents.

In a Crisis era, young people tend to turn away from personal risk taking. So while young Boomers were clearly a generation willing to take staggering risks (not just sex, drugs, and rock 'n roll, but crime, suicide, cigarettes, booze, and self-inflicted accidents), Millennials are reversing most of those trends. They are turning out to be remarkably cautious in their lifestyle choices. Bars and nightclubs are closing across America today. Why? Millennials aren't going there. They're too dark and dangerous, and besides, you can't even take a good selfie in them!

This backdrop should lead to a really interesting era ahead, and I think Xers are a key linchpin in deciding its fate.

In a famous Time magazine cover from the fall of 1990, Xers were shown as glum-looking kids dressed in black, all looking in different directions. That image reflected the fact that few Xers really thought of themselves as a generation at the time. In fact, at the time when we coined the term "Millennial" in our book on generations, Gen-X didn't even have a name yet. They were the thirteenth generation since the era of America's founding fathers, and so we just called them "13ers." Doug Coupland's novel Generation X, which named the generation, came out a year or two later.

Think of that: Millennials were actually named before Xers were. That's how overlooked this generation has been. If we rank generational names by the frequency with which they are mentioned in the recent earnings calls of S&P 500 companies, the highest number of mentions is for Boomers, closely followed by Millennials. Generation X? A distant third.

But increasingly, Xers are going to become leaders with power as Boomers age further into elderhood and Millennials start to climb the managerial ladder. Being pushed to the curb so many times has given Xers a real sense of how life works. They are good at navigating risks, and their grit should serve them well as they make white-knuckle decisions. I think history will show that Xers will demonstrate common sense and good judgement as they take the helm of our country at a critical time.



# Demographic change in UK retail?

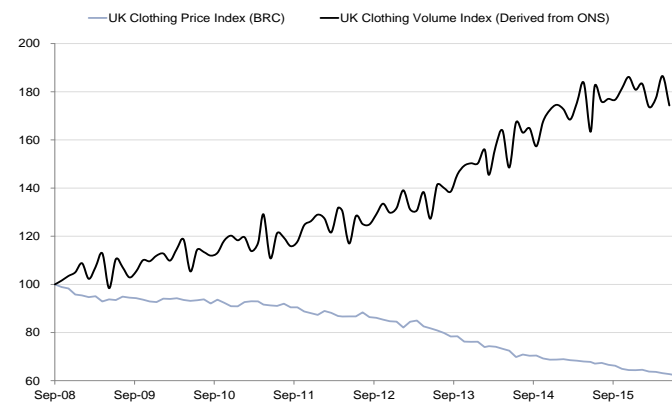
**Richard Edwards, our European Retail analyst, explains the weakness in UK apparel retail**

## An evolution in UK consumer behaviour?

Over the last 12-18 months, the UK apparel market growth rate (+2.5% pa 2006-15) has moved into decline as average selling prices (ASPs) have continued to fade (c. -5% 2006-15 CAGR) but volume growth trends have slowed. In overview, the ASP declines over the last decade have been primarily driven by consumer trade-down activity to lower priced apparel, leading to an acceleration in clothing market volume growth trends, notably benefiting the discount clothing retailers.

**UK apparel market has seen trading-down activity drive strong volume growth trends...**

UK clothing market ASP vs. volumes growth trends, 2008-16



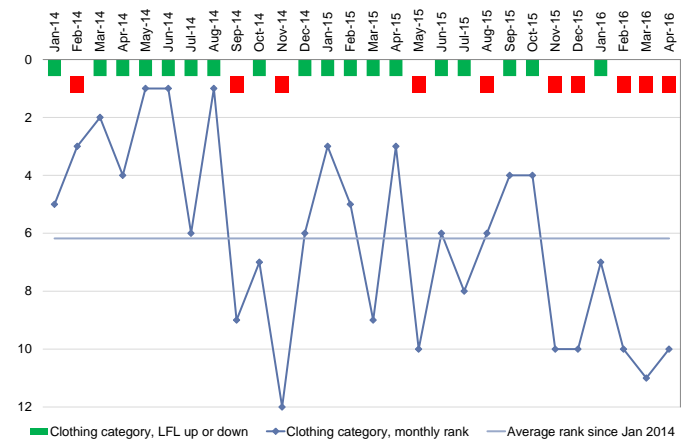
Source: ONS, BRC.

However, despite recent moderate disposable income growth trends, the UK clothing market has unusually underperformed the broader non-food retail sector over the last 18 months. This could be explained simply by a prolonged period of adverse weather, albeit the clothing sector's underperformance has been reasonably consistent since September 2014. We argue that while weather patterns have not helped, 21 months seems too long a period for clothing underperformance to be explained by weather alone. Other explanations used by the industry are that consumers have got 'enough stuff' (so called stuffication) and buying ever greater volumes of clothing is getting harder / undesirable.

Alternatively, there is the Millennial consumer explanation, which suggests that consumers are more interested in experiences, family and the home, than collecting ever more clothing and shoe options. The latter seems to fit the data (see below) to the extent that the strongest performing non-food retail categories over the last 18 months have been home-related (and in particular furniture), while clothing performance has been deteriorating.

However, stalled volumes have driven clothing market underperformance for the last 21 months...

UK clothing market growth ranking (1 = low, 12 = high)

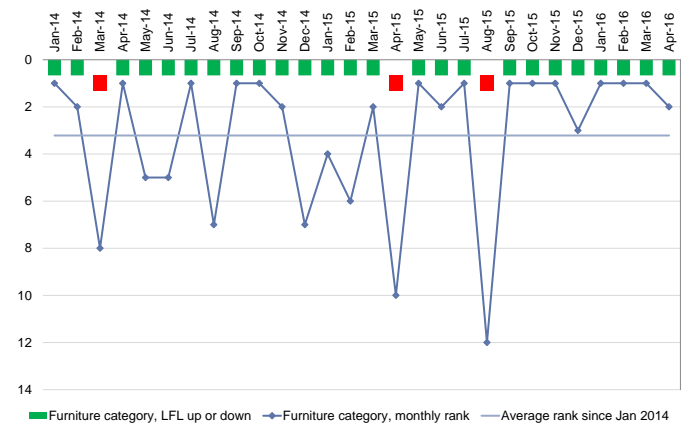


Source: BRC.

In conclusion, while an explanation for the recent decline in the UK clothing market may in part be weather-related, the declining growth pattern now appears sufficiently consistent to suggest that consumer behaviour is also evolving. Taken in combination with the current online channel shift, and related store-based sales cannibalisation, we argue that the outlook for European apparel retailers is getting more demanding by the day, especially for the less differentiated formats.

**...with stronger consumer spending in experience and home-related retail categories**

UK furniture market growth ranking (1 = low, 12 = high)



Source: BRC.

**Richard Edwards**

European Retail and Luxury Goods analyst

email: richard.edwards@gs.com  
Tel: +44-20-7051-6016

Goldman Sachs International

# Investing in a more risk-averse generation

## Alexander Blostein, our US Asset Managers analyst, discusses the implications of Gen-X for his sector's growth profile

### Overview

Generation X looks to be positioned at a marked savings / wealth disadvantage to the Baby Boomers and Silent / GI Generations. According to the Investment Company Institute, there is a US\$3 tn gap in mutual fund assets and 50% less in the median account between Generation X and Baby Boomers. We attribute this divergence to weaker market performance and fewer years to compound returns for the majority of Generation X investors. We believe that Gen-X will have to increase its savings rate over time to compensate this delta, while low interest rates and rich equity valuations may compound this problem near term. In terms of asset allocation, Generation X portfolios favour ETFs and balanced funds, primarily Target Date funds, more than other demographics, which we believe will lead to organic growth divergence across the asset management industry.

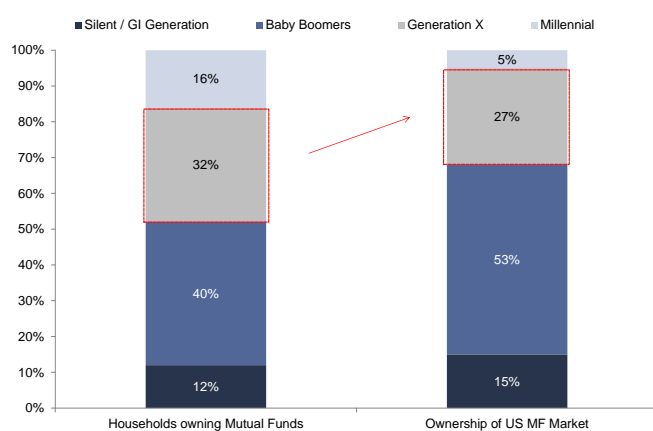
### Background

For background on the data below, we utilized the Investment Company Institute's 2016 Factbook to analyze mutual fund ownership across the US. The Factbook defines the four major demographic groups as:

1. The Silent /GI Generation (born 1904 to 1945)
2. Baby Boomers (born 1946 to 1964)
3. Generation X (born 1965 to 1980), and
4. Millennials (born 1981 to 2004).

From an age perspective, the Silent / GI Generation comprises ages 71 and older, Baby Boomers range from 70 to 52, Generation X from 51 to 36 and Millennials from 35 to 12 (however ICI data only includes responses from individuals over 18 years of age).

**Gen-X owns c.27% (US\$3.3 tn) of US mutual fund assets despite having a 32% share of households that own funds**  
Ownership of US mutual funds by household and AUM



Source: ICI.

### Weaker markets and fewer years = US\$3 tn gap between Boomers and Gen-X

According to the Investment Company Institute (ICI), US households own 89% of the US mutual fund market, or roughly US\$12.3 tn at the end of 2015. Generation X households own

c.27%, or US\$3.3 tn of US mutual fund assets, despite accounting for roughly 32% or 17 mn of the 54 mn US households that invest in mutual funds. That compares to the Baby Boomers, which own the largest share of the US mutual fund market (c.53%/US\$6.5 tn). Overall, Baby Boomers have a 13% share advantage or c.US\$3.2 tn in AUM over Generation X, despite only having 8% more households.

We attribute the lower level of AUM compared with the Baby Boomers to two main drivers: (1) shorter investment periods; and (2) lower market returns. On average, Generation X investors purchased their first mutual fund shares in 1998, or roughly 18 years ago, compared to Baby Boomers who purchased their initial funds in 1991 or roughly 25 years ago. Put simply, Baby Boomers have had seven additional years to compound returns. Additionally, market returns have not been as favourable to Generation X as for Baby Boomers. Using a blended index of 60% S&P 500 and 40% Barclays Aggregate as a performance proxy, we estimate that the annualized return for Gen-X portfolios is 6.2% since 1998, versus 8.6% annualized for Baby Boomers, since 1991. On a cumulative basis, this translates into roughly a 3x return for Gen-X versus 8x return on their initial investment for Baby Boomers.

Bear markets such as the technology bubble and Global Financial Crisis certainly played a role in the reduced returns, and looking ahead, the lower for longer rate environment may also compound Gen-X's problems, forcing higher savings rates or increased equity allocations.

Obviously, differences in savings rates, reinvestment rates and asset allocation decisions over these years can dramatically alter the performance of individual investors, but in aggregate, the data suggests that Boomers enjoyed a much more robust beta environment than Gen-X, further solidified by seven additional years of compounding.

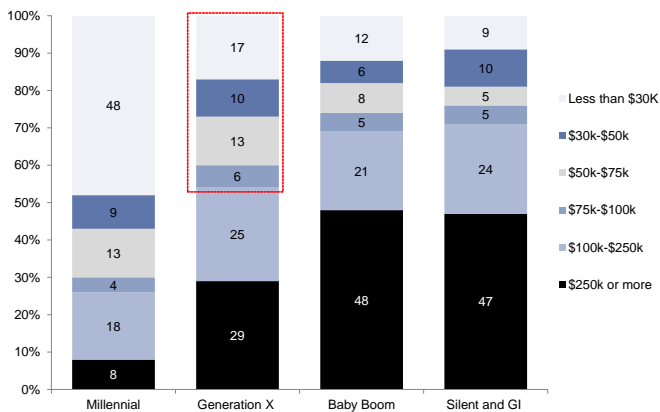
### Increased savings needed to remedy low account balances

**According to ICI, 46% of Generation X households have less than US\$100k invested in mutual fund assets. When we look across the entire distribution, the median Gen-X household has roughly US\$100k invested in mutual funds, 50% less than the median Baby Boomer and Silent / GI Generation. Furthermore, 17% of Gen-X households hold less than US\$50k in mutual fund assets vs. 18%/19% for Baby Boomers and Silent / GI Generation respectively.** On the high-end, only 29% of Gen-X households have more than US\$250k in mutual funds vs. 48%/47% for Baby Boomers and the Silent / GI Generation respectively. We believe that Gen-X investors will be forced to either save more or lower their retirement spending / lifestyle as a result of lower wealth accumulation. Although many individuals may inherit wealth from Baby Boomer and/or Silent / GI Generation family members, the uncertainty of amounts and timing will likely force higher savings in the near term. Rising consumption patterns and uncertainty surrounding healthcare spending may exacerbate the need for Gen-X members to start saving more in the near term. While household wealth is much higher than these balances, owing to other assets such as housing, CDs, etc., we believe this represents the vast majority of liquid savings earmarked for retirement, largely held in tax deferred plans such as IRAs and 401(k)s. That said, low interest rates and the fact that Generation X members have lived through volatile equity markets might make them reluctant to invest more in the capital markets, which makes achieving higher real asset balances more challenging.

For the asset management industry, we believe smaller client accounts among Gen-X investors will likely require increased distribution and investor education efforts to reach the broad market. Additionally, shelf space in 401(k) markets and IRA distribution will be critical to success as we anticipate that Generation X members will likely increase savings primarily through tax- pre-tax income being diverted into tax-deferred accounts.

As a result, 46% of Generation X households have less than US\$100k invested in mutual funds

Household mutual fund assets



Source: ICI.

**ETFs, Target Date funds favoured by Gen-X**

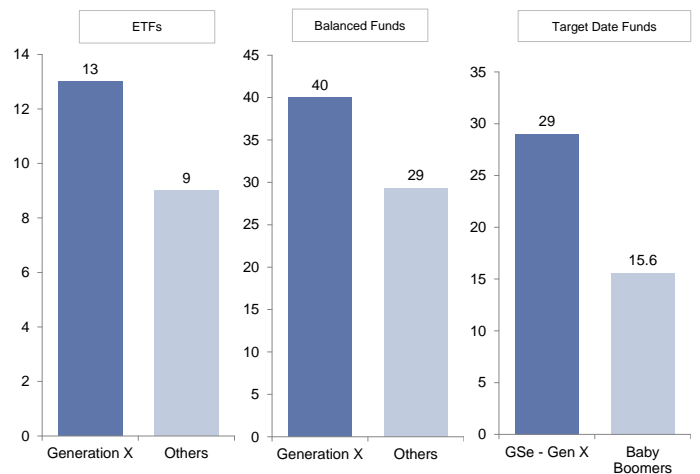
Across the different generations, asset allocation differences exist where one might expect: Baby Boomers and Silent / GI Generation households hold more bonds / less equity investments than younger generations. **But putting that aside, we highlight two major differences between Generation X investors and other demographics (both young and old). First, Gen-X households have the highest utilisation rate of ETFs, with 13% of households owning ETFs vs. a 9% average for other generations.** Given that the average Gen-X investor started investing in 1998, it makes sense that their allocations somewhat match the rise in popularity of ETFs over the past 20 years. Additionally, weak active equity performance since the Global Financial Crisis likely also contributed to higher demand for ETFs as cheap beta exposure produced similar returns.

**Secondly, Generation X favours balanced/ multi-asset funds more than other demographics, specifically Target Date funds. For balanced funds broadly, ICI data shows that 40% of Gen-X households own balanced funds vs. 29% for other demographics.** Further, we utilise ICI’s 401(k) allocation data which shows that Gen-X accounts have an average allocation of 29% to Target Date funds vs. 15% for Baby Boomers. Monetary policy uncertainty, search for yield and high equity valuations have all likely contributed to increased demand for multi-asset / Target Date strategies which will likely continue for the foreseeable future.

For the asset management industry, investor preference for ETFs and balanced funds, particularly Target Date funds, is a trend that will likely lead to further growth divergence given few firms have scale in both businesses. Specifically, the top-3 ETF providers have 70% global market share, making it difficult for other firms to access the growing demand. On the Target Date side, we estimate that the top-3 providers in the US have 76% market share. Overall, we believe the rising popularity of ETFs and balanced strategies, particularly Target Date funds will lead to greater growth divergence across the industry with fewer firms being able to grow organically.

**Generation X investors favour ETFs and balanced funds more than peers, particularly target date funds vs. Boomers**

Household ownership (%) of ETFs and balanced funds; GSe 401(k) Target Date allocation %: Gen-X & Baby Boomers



Source: ICI, Goldman Sachs Global Investment Research.

Alexander Blostein / Grayson Barnard, CFA

US Asset Managers

email: alexander.blostein/grayson.barnard@gs.com Goldman, Sachs & Co.  
Tel: +1-212-357-9976/+1-212-357-7512

# Gen-X: The pragmatic auto consumer

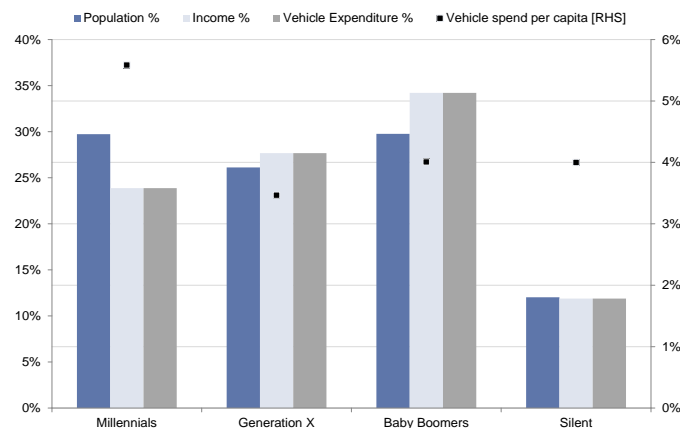
## Our US Autos analysts highlight the under-indexing of Gen-X autos spending

### Digitally naturalized, not native

Bookended by Baby Boomers and Millennials, Generation X suffers not only from definitional limitations impacting size, but also from a bifurcated history with technology. Marked by self-reliance and independence, this group grew up to appreciate technology as it progressed whereas the Baby Boomers had to work to acquire it and Millennials were effectively born with tech integrated into their lives; as a result, Gen-X lies as a digitally inclined segment, but blends traditional media channels with the more modern digital channels. So while they have adapted to the increasing digital economy as tech progressed, with one foot in the past and one in the future, marketing organizations see a more complex equation to solve when targeting this group. And considering the smaller relative size to their predecessors and the digital natives behind them, and a lack of extroversion relative to other generations, Gen-X offers little in the way of upside to target, given the need for multiple platforms – pushing marketers (auto companies among them) to focus on the larger demographic groups that can be easier targets (Millennials through digital media and Baby Boomer's through traditional outlets –radio, print, and TV). This has effectively helped drive the tag-line of the forgotten generation.

### Statistically small population size drives under-indexed auto sales for Gen-X

Mix of population, income, and expenditure on new vehicles across generations (2014)



Source: US Census Bureau, Goldman Sachs Global Investment Research.

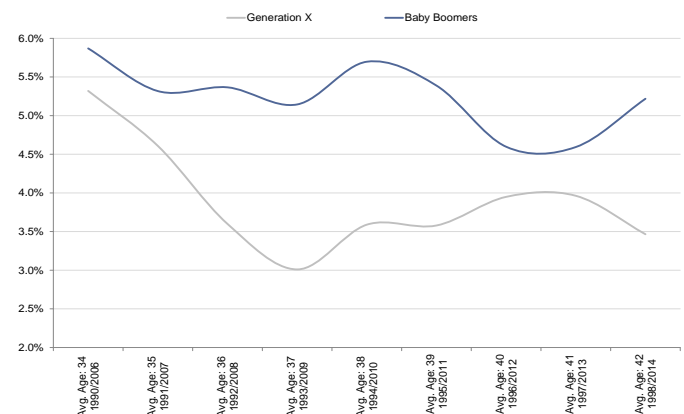
### A closer look at the specifics –smaller population equals smaller relative auto purchases.

At 26% of the US population, Generation X under-indexes to both Baby Boomers and Millennials at 30% each (as above). In fact, over the past decade Gen-X has represented an average 27% of the US population, relative to Baby Boomers at 31%. And once the Millennial population picked up in 2010, both cohorts have overshadowed Gen-X in terms of significance. The smaller relative size in turn drives lower demand for new vehicle purchases, with Gen-X representing only 28% of total US sales, lower than the 34% of the Baby Boomers, but higher than the Millennials at 24%. This is a trend that has held for the past decade, with Gen-X averaging 27% of new vehicle sales, Baby Boomers averaging

33%, and Millennials averaging 24%. Interestingly, Millennials did overtake Gen-X back in 2012, making up 30% of new vehicle purchases vs. Gen-X at 25%. Even so, the larger sized Baby Boomers with a much higher share of income have continued to carry the US auto industry for the past two decades.

### Across the same age range, Gen-X has underspent its Baby Boomer predecessors

Share of per capita income spent on new vehicles by Gen-X and Baby Boomers



Source: US Census Bureau, Goldman Sachs Global Investment Research.

### Punching below their weight: Gen-X pragmatic when it comes to their wheels

The other interesting trend for Gen-X is the proportion of their income that is spent on new vehicles. As shown in the first chart, vehicle spend as a percentage of income lags Baby Boomer peers and even the Silent generation. This is partially due to Gen-X's higher average income levels more recently (Gen-X per capita income surpassed Baby Boomers for the first time in 2014). However, as automobile purchasing patterns vary over a person's life cycle, we compare similar age groups across the Baby Boomers (1990-1998) and Gen-X (2006-2014) on a per capita basis over time. This effectively captures and compares purchasing patterns by the two groups during average ages from 34 to 42. We find that while spending as a percentage of income did go down over time for both age cohorts (as incomes rose), Gen-X underspent the Baby Boomer generation by an average 130 bp during similar average ages in their life cycle (as above).

So, even as Gen-X has aged, it has not been spending as much as its predecessors on new vehicles. We believe this reflects the nature of the economic cycle experienced by Gen-X, which has left much deeper financial scars and a tougher job market from 2006 to 2014, relative to Baby Boomer peers during the 1990s. As a result, we believe Gen-X displays a more pragmatic buying behaviour when it comes to new vehicle purchases, allocating a higher percentage of income to other priorities. Extrapolating this to future demand, we do not expect to see a material positive inflection in new vehicle buying behaviour from Gen-X.

Patrick Archambault/David Tamberrino, CFA

US Autos and Auto Parts analyst

email: [patrick.archambault/david.tamberrino@gs.com](mailto:patrick.archambault/david.tamberrino@gs.com) Goldman, Sachs & Co.  
Tel: +1-212-902-2817/+1-212-357-7617

# Selling to Gen-X

## Drew Borst, our US Media analyst, pays attention to the neglected generation

### “I don’t get no respect!”

Gen-X is the Rodney Dangerfield of generations: “I don’t get no respect!” Demographers sometimes refer to Gen-X as the lost generation or transitional generation. The Pew Research Center called Gen-X, “America’s neglected middle child.” This starts with its size, or lack thereof. Gen-X, totalling 62 mn, is dwarfed by its two siblings, with the Millennials at 75 mn and Baby Boomers at 73 mn.

But it goes beyond mere population size. Demographers consider Gen-X less distinctive, less interesting and less dynamic than Millennials or Boomers. Gen-X is not easily categorized and, unlike its two siblings, Gen-X was never galvanized by a single social or political issue. Boomers were defined by the civil rights and women’s movements, and by questioning authority. Millennials are the digitally-native generation that harnessed technology and social media to drive a socially progressive agenda, like ushering in gay marriage. Millennials are also a supremely self-confident bunch, undoubtedly aided by the ceaseless research and media attention.

In many ways, Gen-X is the mirror image of Millennials. Gen-X suffers from an inferiority complex. While Millennials are heaped with praise, Gen-X is slapped with a multitude of negative labels, like slackers, baby busters, the latch-key generation, and the “Why-me” generation.

Gen-X came of age amid a multitude of negative trends and events. For starters, there was the rising divorce rate, which begot the “latch-key” generation label. The divorce rate peaked in 1980, when many Xers were moving into the formative teens. The crime rate was also on the rise in the 1980s and 1990s, peaking in 1992 when Xers were in their mid-teens to mid-20s. There was the 1980s AIDS spurt, the 1987 stock market crash and the 1990 Persian Gulf War. All of this weighs on the psyche of Gen-X and it should come as no surprise that Gen-X is generally a cynical group.

And given this profile, maybe it is no wonder that Madison Avenue gives Gen-X no respect, even though Gen-X, at 37-51 years of age currently, is squarely in Madison Avenue’s vaunted adult 18-49 (A18-49) target demographic. Here, Gen-X is once again disadvantaged by its comparative size. Within the A18-49 demo, the Millennials actually comprise the majority of the population, at 61%, versus Gen-X at 39%.

In addition to size, Millennials command so much attention from Madison Avenue because their media habits are changing rapidly and differ from the rest of the US population.

For starters, Millennials under-index on traditional pay TV services offered by cable, satellite and telco providers.

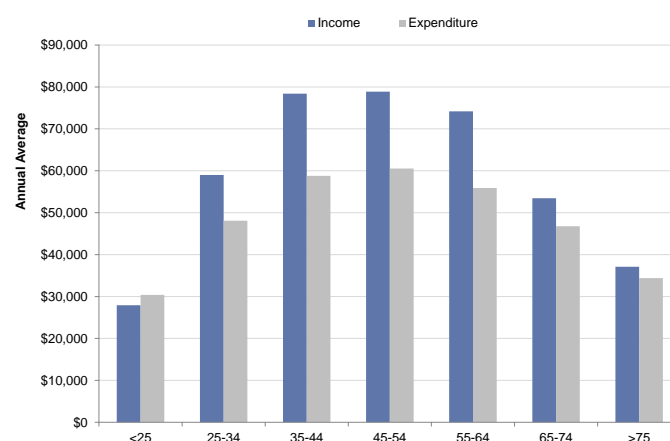
Next, Millennials over-index on “new” technology that, in many cases, is a substitute for traditional TV. From subscription VOD services (e.g., Netflix) to smart TVs to tablets and smartphones, penetration of these devices and services is consistently higher among Millennials compared to the total population.

As a consequence of these two trends, the Millennials consume much less live TV than the rest of the population. Needless to say, live TV is still the bedrock of TV advertising. Millennials consume an average of 2.5 hours of live TV per day, which is 53% less than the average for the rest of the adult population of 5.35 hours. Compared to Gen-X, Millennials watch 35% less live TV. Gen-X falls right in the middle of Millennials and Boomers.

It is surprising that marketers give Gen-X short shrift because this generation is now peaking in terms of income and spending. According to the Bureau of Labor Statistics, Gen-X (35-54) has the highest income and consumer expenditure of any age cohort (below). Gen-X average income is 33% higher than Millennial and expenditures are 24% higher. Gen-X accounts for 31% of total consumer spending vs. its 20% share of the US population.

### At the top

Income versus expenditure for US by age group



Source: BLS.

Maybe there is hope yet for Gen-X to get some respect from Madison Avenue. The advertising industry’s obsession with age and gender demos is fading in favour of behavioural targeting. With behavioural targeting the data, like purchasing power, trumps axioms and stereotypes like A18-49. Demographic targeting is imprecise and wasteful next to behavioural targeting, where online publishers use web-browsing behaviour to increase advertising effectiveness. TV advertising must develop the tools to compete against online behavioural targeting or TV advertising itself runs the risk of become an anachronism.

### Drew Borst

US Media and Advertising analyst

email: [drew.borst@gs.com](mailto:drew.borst@gs.com)  
Tel: +1-212-902-7906

Goldman Sachs & Co.

# The generational gap in politics

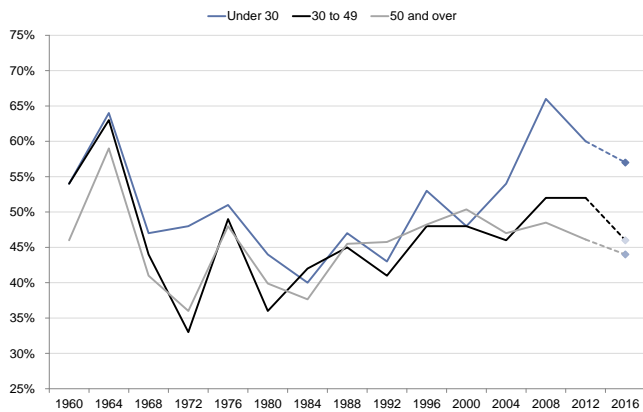
## Alec Phillips discusses the impact of demographics on US politics

### The return of the generational gap in US politics

Not long ago, political preferences did not vary much by age. However, differences across generations have become more prominent, with a modest gap in political preferences between the old and young appearing in 2004, and growing significantly wider in 2008. The gap narrowed slightly in 2012, but recent polling suggests that the pattern may hold once again this year, with voters under 30 supporting Democrats in much stronger numbers than older voters, including Gen-X (shown, along with the oldest portion of Millennials, in the middle age group in the exhibit below).

### Voting share

Democratic vote share by age group



Source: New York Times, Roper Center, Gallup, Public Policy Polling.

The transition of Generation X from youth to middle age may be one piece of the puzzle. When Gen-Xers began to reach voting age, they were more Republican-leaning than the Baby Boomers who came before them, or the Millennials who followed. A common potential explanation is that the period during which Gen-Xers came of age included two fairly popular Republican presidents (Reagan, 1981-1989; Bush, 1989-1993). Recent academic research has attempted to link these two factors more directly, by using the president's approval rating during a cohort's formative years to predict partisan leanings. The formative years are subject to interpretation, though one analysis finds that ages 14-24 are most important, with age 18 the single most important year; not surprisingly, political developments after age 45 are demonstrated to have little effect.

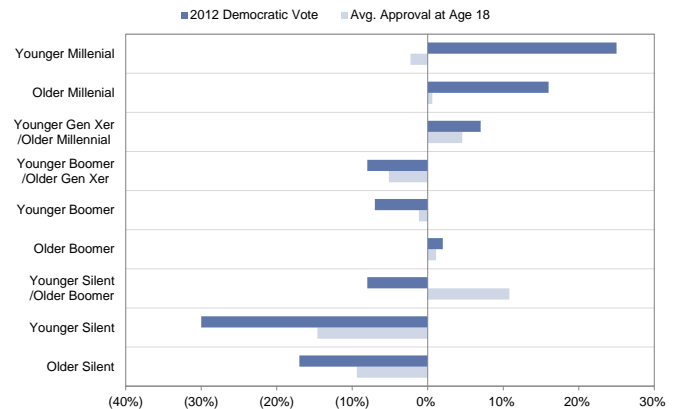
Of course, generations are not monolithic. Public opinion polling from the Pew Research Center that breaks down voting intentions in the 2012 and 2014 elections by birth year suggests that older Gen-Xers had more in common with younger Baby Boomers in the last few elections than they did with younger Gen-Xers, who were more Democratic leaning and whose politics more closely resemble Millennials.

The next exhibit breaks down each generation into two or three pieces, organized by the presidential term in which they reached age 18, and the approval rating of that President organized by Democratic advantage (for example, a popular Democratic president produces a positive score; an unpopular Republican president would also produce a positive score, while a popular

Republican would produce a negative score). The oldest Gen-Xers came of age during the Reagan/Bush years and have tended to lean Republican since then. By contrast, the youngest Gen-Xers did not reach age 18 until later in the Clinton administration, along with the oldest Millennials. In both cases, the political sentiment during their formative years is in line with their recent political preferences.

### Political preferences

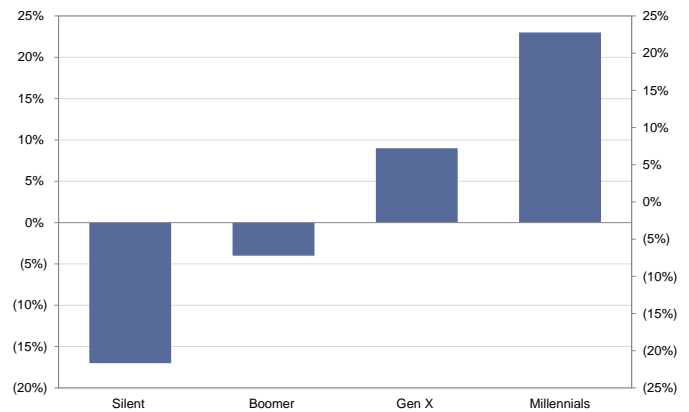
Approval rating of the President by Democratic advantage for an average 18 year old vs. all ages



Source: Pew Research Center. The American Presidency Project at University of California Santa Barbara. Goldman Sachs Global Investment Research.

### Election polling

June 2016; Clinton minus Trump



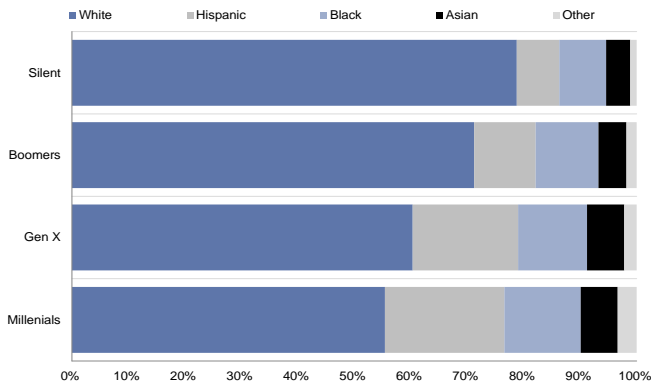
Source: Quinnipiac Poll, June 29, 2016.

However, taken together Generation X appears to lean Democratic (exhibit above) in recent polling, perhaps slightly more than might be expected given their prior voting behavior, and looks likely to support Sec. Clinton over Mr. Trump in November's Presidential election.

There are likely a variety of factors at play behind Gen-X's previous Republican leanings and their current net Democratic support, but we note three considerations: first, Generation X is much more racially and ethnically diverse than prior generations (following exhibit). In the last several elections, non-white voters have been strong supporters of Democratic candidates, on average; this pattern may be obscuring some of the generational influence.

**Population diversity**

Racial and ethnic distribution of population by generations



Source: Current Population Survey, May 2016.

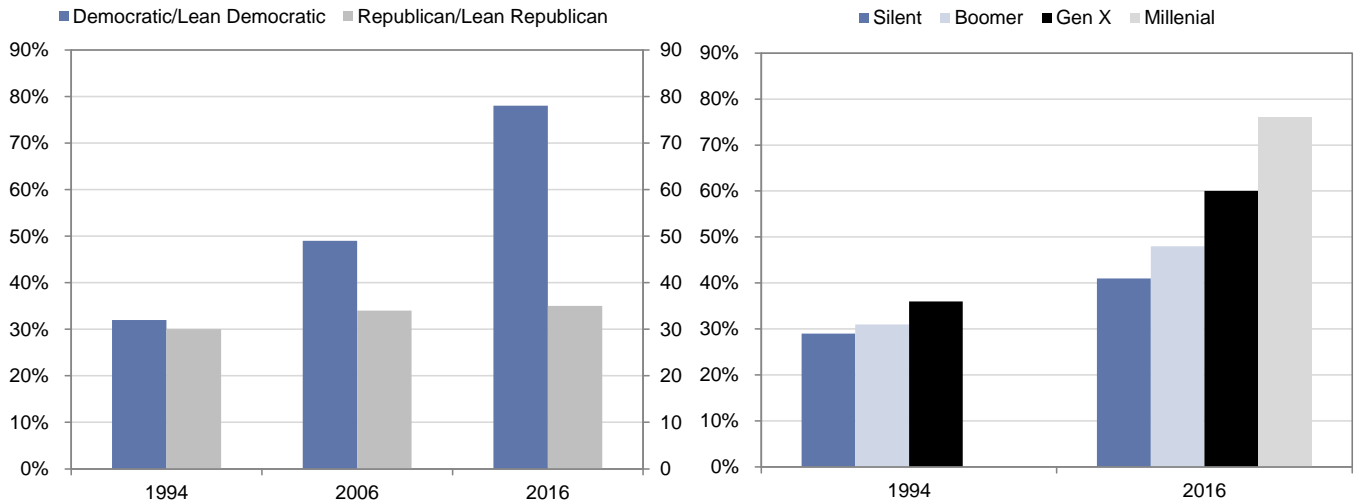
Second, Gen-Xers might have less in common with Mr. Trump on policy than they have had with prior Republican presidential candidates. For example, Gen-Xers have been more focused on the budget deficit and the fiscal situation than any other generation (Mr. Trump’s plans would be costly, according to most independent analyses), and they have generally supported a more internationalist approach, including greater support for the wars in Iraq and Afghanistan than any other generation and net support for

free trade agreements. On immigration, a key issue for Mr. Trump, Gen-Xers see more benefits to immigration than prior generations, though not as much as Millennials. However, a significant partisan divide has opened up on the issue, where none really existed when Gen-Xers started voting a quarter-century ago (final exhibit). The divergence on issues like this one might explain why Gen-Xers seem to be supporting Democrats to a greater degree than they did in the past.

Third, and perhaps most importantly, the partisan differences between Gen-X and other generations have faded somewhat since Gen-Xers first began to vote. In 1992, Generation X was split roughly equally between Republican-leaning voters and Democratic-leaning voters; older generations were all more heavily Democratic-leaning. However, while the older generations have become more conservative, Xers have become more Democratic leaning: 49% identified as Democratic-leaning in 2016, compared with 38% Republican-leaning. This may partly reflect the fact that older Xers were more conservative than the young end of the generation, so the generation as a whole shifted Democratic as its voting age population grew. It may also reflect national sentiment, since some similarities are seen across generations; for instance, all generations leaned a bit more Democratic around the time of the financial crisis. Regardless, it suggests that Generation X might help the Republicans a bit less this year than they have in some previous elections.

**Survey conducted by Pew Research**

Percent who say immigrants strengthen the country due to their hard work and talents



Source: Pew Research Center.

**Alec Phillips**

US Economist, Washington Research

email: [alec.phillips@gs.com](mailto:alec.phillips@gs.com)  
 Tel: +1-202-637-3746

Goldman Sachs & Co.

## Disclosure Appendix

### Reg AC

We, Hugo Scott-Gall, Sumana Manohar, Richard Edwards, Alexander Blostein, Bernard Grayson, Patrick Archambault, David Tamberrino and Drew Borst, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

I, Alec Phillips, hereby certify that all of the views expressed in this report accurately reflect my personal views, which have not been influenced by considerations of the firm's business or client relationships.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

### Investment Profile

The Goldman Sachs Investment Profile provides investment context for a security by comparing key attributes of that security to its peer group and market. The four key attributes depicted are: growth, returns, multiple and volatility. Growth, returns and multiple are indexed based on composites of several methodologies to determine the stocks percentile ranking within the region's coverage universe.

The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

**Growth** is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

### Quantum

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

### GS SUSTAIN

GS SUSTAIN is a global investment strategy aimed at long-term, long-only performance with a low turnover of ideas. The GS SUSTAIN focus list includes leaders our analysis shows to be well positioned to deliver long term outperformance through sustained competitive advantage and superior returns on capital relative to their global industry peers. Leaders are identified based on quantifiable analysis of three aspects of corporate performance: cash return on cash invested, industry positioning and management quality (the effectiveness of companies' management of the environmental, social and governance issues facing their industry).

## Disclosures

### Coverage group(s) of stocks by primary analyst(s)

There are no coverage groups associated with the analyst(s).

### Company-specific regulatory disclosures

The following disclosures relate to relationships between The Goldman Sachs Group, Inc. (with its affiliates, "Goldman Sachs") and companies covered by the Global Investment Research Division of Goldman Sachs and referred to in this research.

Compendium report: please see disclosures at <http://www.gs.com/research/hedge.html>. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research.

### Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global coverage universe

	Rating distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	31%	54%	15%	66%	60%	50%



As of July 1, 2016, Goldman Sachs Global Investment Research had investment ratings on 2,963 equity securities. Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure required by the FINRA Rules. See 'Ratings, Coverage groups and views and related definitions' below. The Investment Banking Relationships chart reflects the percentage of subject companies within each rating category for whom Goldman Sachs has provided investment banking services within the previous twelve months.

### Price target and rating history chart(s)

Compendium report: please see disclosures at <http://www.gs.com/research/hedge.html>. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research.

### Regulatory disclosures

#### Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; for equity securities, market making and/or specialist role. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director, advisory board member or employee of any company in the analyst's area of coverage. **Non-U.S. Analysts:** Non-U.S. analysts may not be associated persons of Goldman, Sachs & Co. and therefore may not be subject to FINRA Rule 2241 or FINRA Rule 2242 restrictions on communications with subject company, public appearances and trading securities held by the analysts.

**Distribution of ratings:** See the distribution of ratings disclosure above. **Price chart:** See the price chart, with changes of ratings and price targets in prior periods, above, or, if electronic format or if with respect to multiple companies which are the subject of this report, on the Goldman Sachs website at <http://www.gs.com/research/hedge.html>.

#### Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** Goldman Sachs Australia Pty Ltd and its affiliates are not authorised deposit-taking institutions (as that term is defined in the Banking Act 1959 (Cth)) in Australia and do not provide banking services, nor carry on a banking business, in Australia. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act, unless otherwise agreed by Goldman Sachs. In producing research reports, members of the Global Investment Research Division of Goldman Sachs Australia may attend site visits and other meetings hosted by the issuers the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting. **Brazil:** Disclosure information in relation to CVM Instruction 483 is available at <http://www.gs.com/worldwide/brazil/area/gir/index.html>. Where applicable, the Brazil-registered analyst primarily responsible for the content of this research report, as defined in Article 16 of CVM Instruction 483, is the first author named at the beginning of this report, unless indicated otherwise at the end of the text. **Canada:** Goldman Sachs Canada Inc. is an affiliate of The Goldman Sachs Group Inc. and therefore is included in the company specific disclosures relating to Goldman Sachs (as defined above). Goldman Sachs Canada Inc. has approved of, and agreed to take responsibility for, this research report in Canada if and to the extent that Goldman Sachs Canada Inc. disseminates this research report to its clients. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited, Research Analyst - SEBI Registration Number INH000001493, 951-A, Rational House, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India, Corporate Identity Number U74140MH2006FTC160634, Phone +91 22 6616 9000, Fax +91 22 6616 9001. Goldman Sachs may beneficially own 1% or more of the securities (as such term is defined in clause 2 (h) the Indian Securities Contracts (Regulation) Act, 1956) of the subject company or companies referred to in this research report. **Japan:** See below. **Korea:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **New Zealand:** Goldman Sachs New Zealand Limited and its affiliates are neither "registered banks" nor "deposit takers" (as defined in the Reserve Bank of New Zealand Act 1989) in New Zealand. This research, and any access to it, is intended for "wholesale clients" (as defined in the Financial Advisers Act 2008) unless otherwise agreed by Goldman Sachs. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in the Russian legislation, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian legislation on appraisal activity. **Singapore:** Further information on the covered companies referred to in this research may be obtained from Goldman Sachs (Singapore) Pte. (Company Number: 198602165W). **Taiwan:** This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. **United Kingdom:** Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Conduct Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to

herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

**European Union:** Disclosure information in relation to Article 4 (1) (d) and Article 6 (2) of the European Commission Directive 2003/125/EC is available at <http://www.gs.com/disclosures/europeanpolicy.html> which states the European Policy for Managing Conflicts of Interest in Connection with Investment Research.

**Japan:** Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer registered with the Kanto Financial Bureau under registration number Kinsho 69, and a member of Japan Securities Dealers Association, Financial Futures Association of Japan and Type II Financial Instruments Firms Association. Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax. See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

### Ratings, coverage groups and views and related definitions

**Buy (B), Neutral (N), Sell (S)** -Analysts recommend stocks as Buys or Sells for inclusion on various regional Investment Lists. Being assigned a Buy or Sell on an Investment List is determined by a stock's return potential relative to its coverage group as described below. Any stock not assigned as a Buy or a Sell on an Investment List is deemed Neutral. Each regional Investment Review Committee manages various regional Investment Lists to a global guideline of 25%-35% of stocks as Buy and 10%-15% of stocks as Sell; however, the distribution of Buys and Sells in any particular coverage group may vary as determined by the regional Investment Review Committee. Regional Conviction Buy and Sell lists represent investment recommendations focused on either the size of the potential return or the likelihood of the realization of the return.

**Return potential** represents the price differential between the current share price and the price target expected during the time horizon associated with the price target. Price targets are required for all covered stocks. The return potential, price target and associated time horizon are stated in each report adding or reiterating an Investment List membership.

**Coverage groups and views:** A list of all stocks in each coverage group is available by primary analyst, stock and coverage group at <http://www.gs.com/research/hedge.html>. The analyst assigns one of the following coverage views which represents the analyst's investment outlook on the coverage group relative to the group's historical fundamentals and/or valuation. **Attractive (A).** The investment outlook over the following 12 months is favorable relative to the coverage group's historical fundamentals and/or valuation.

**Neutral (N).** The investment outlook over the following 12 months is neutral relative to the coverage group's historical fundamentals and/or valuation. **Cautious (C).** The investment outlook over the following 12 months is unfavorable relative to the coverage group's historical fundamentals and/or valuation.

**Not Rated (NR).** The investment rating and target price have been removed pursuant to Goldman Sachs policy when Goldman Sachs is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances. **Rating Suspended (RS).** Goldman Sachs Research has suspended the investment rating and price target for this stock, because there is not a sufficient fundamental basis for determining, or there are legal, regulatory or policy constraints around publishing, an investment rating or target. The previous investment rating and price target, if any, are no longer in effect for this stock and should not be relied upon.

**Coverage Suspended (CS).** Goldman Sachs has suspended coverage of this company. **Not Covered (NC).** Goldman Sachs does not cover this company. **Not Available or Not Applicable (NA).** The information is not available for display or is not applicable. **Not Meaningful (NM).** The information is not meaningful and is therefore excluded.

### Global product; distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; in Canada by either Goldman Sachs Canada Inc. or Goldman, Sachs & Co.; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

**European Union:** Goldman Sachs International authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman Sachs AG and Goldman Sachs International Zweigniederlassung Frankfurt, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also distribute research in Germany.

### General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division. Goldman, Sachs & Co., the United States broker dealer, is a member of SIPC (<http://www.sipc.org>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

The analysts named in this report may have from time to time discussed with our clients, including Goldman Sachs salespersons and traders, or may discuss in this report, trading strategies that reference catalysts or events that may have a near-term impact on the market price of the equity securities discussed in this report, which impact may be directionally counter to the analyst's published price target expectations for such stocks. Any such trading strategies are distinct from and do not affect the analyst's fundamental equity rating for such stocks, which rating reflects a stock's return potential relative to its coverage group as described herein.

We and our affiliates, officers, directors, and employees, excluding equity and credit analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.

Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options disclosure documents which are available from Goldman Sachs sales representatives or at <http://www.theocc.com/about/publications/character-risks.jsp>. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data available on a particular security, please contact your sales representative or go to <http://360.gs.com>.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, 200 West Street, New York, NY 10282.

© 2016 Goldman Sachs.

**No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group**