The Glory Days For Affluent Consumers

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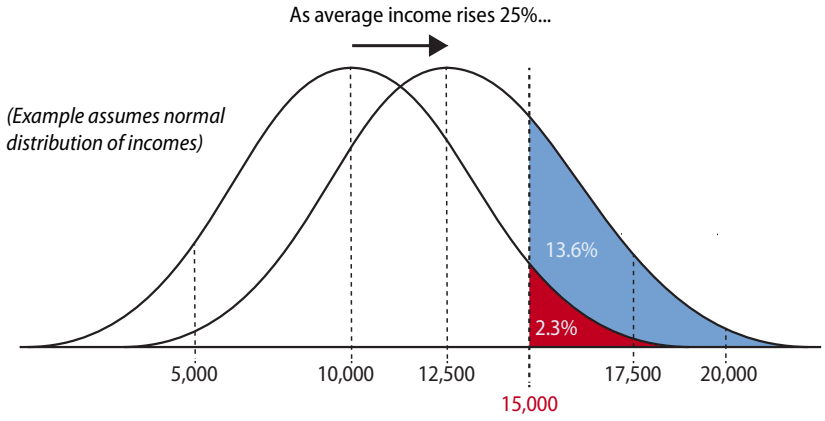
The pattern of Chinese consumer spending is changing once again. After years of fast growth, some products are now fading while others are booming: soft drink sales might be slowing, but fresh coffee sales are rising 20% annually. To separate the winners and losers, we at Gavekal have long used the concept of the "acceleration phenomenon": a sharp acceleration in consumption of particular goods and services that happens when lots of households cross the threshold of affordability together. Our model shows that the acceleration phenomenon in China is currently at its peak for what we define as "affluent" consumers. Such households are now driving explosive growth in things like in foreign travel, SUVs, and health food; growth which could last until 2018 or so. For more mass-market purchases like basic sedans, domestic travel, and many consumer appliances, the acceleration phenomenon has already ended, and as a result they are converging on slower growth rates. Therefore the time to capitalize on the surging numbers of newly-affluent Chinese households is now.

Illustrating the acceleration phenomenon

Why growth in some markets can be much faster than total income growth



...the share of the population with incomes above US$15,000 jumps nearly 7 times, from 2.3% to 15.9%

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Consumption thresholds help explain why growth in some goods is so much faster than the aggregate

An acceleration in growth happens when lots of households cross a threshold together

This framework for analyzing consumer spending is based on the observation that the propensity to spend on some goods does not rise smoothly with income, but moves in steps: households just above a certain income threshold are much more likely to buy, for instance, a car, than households just below it. This step-change in consumption is what generates the acceleration phenomenon. Markets for individual goods and services can grow many times faster than average income when lots of

households are crossing the right threshold. How this works in theory is shown in the diagram, using a stylized income distribution and an arbitrary threshold of US$15,000: a given rise in average income produces a much faster rise in the population above the threshold. Yet it's important to stress that the acceleration phenomenon has no effect on the growth of income or spending *in the aggregate*. For every market that is accelerating, another is decelerating. So the acceleration phenomenon does not say anything about how fast China's total consumer spending will grow, or how quickly it makes the transition to a consumer-led economy. Rather, it is a way of understanding which product markets are likely to outperform or underperform due to the effect of households crossing income thresholds.

The acceleration phenomenon is a tool for picking winners and losers; it does not say anything about total growth

To apply this theory to China's reality requires the actual income distribution (which does not follow so smooth a curve as in the diagram) and the relevant income thresholds. We constructed a model of the household income distribution, using official household survey data from China's National Bureau of Statistics and the World Bank along with some significant adjustments of our own (see the technical appendix for details, and **Accelerating Into Affluence** from 2013 for an earlier analysis of the acceleration phenomenon). We then projected the income distribution out to 2025 using three scenarios of overall GDP growth: 1) a high-growth scenario in which the government keeps GDP growth at 6.5% until 2020, after which it slips to 6% by 2025, 2) a central, medium-growth scenario in which GDP growth slows gradually to 5% by 2020 and 3.5% by 2025, and 3) a low-growth scenario in which GDP growth falls to 3% in 2020, and further to 2% by 2025.

The three types of consumers

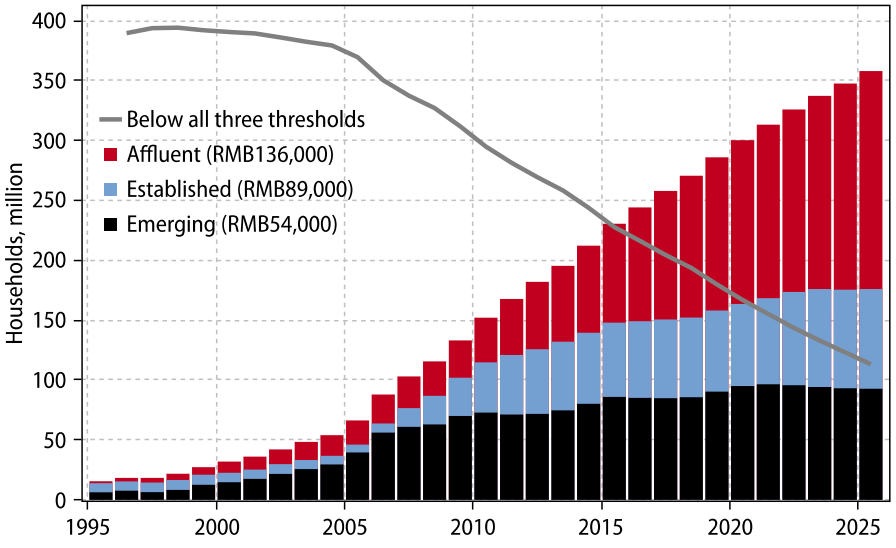
The Chinese households participating in the modern consumption economy can be divided into three groups

We use three income thresholds that can be linked to broad categories of goods and services, adapted from research by the Boston Consulting Group. Households earning more than about RMB54,000 (at constant 2015 prices) a year qualify as "emerging" consumers; at this income level they start to purchase basic conveniences such as white goods. Once a household earns more than RMB89,000 a year, it enters the "established" consumer category, where purchases of cars, branded consumer goods, and packaged food and drinks pick up. At RMB136,000 a year in income, households qualify as "affluent" consumers, and spending on travel, recreation, higher-end goods, and services takes off.

In 2015, we estimate there were roughly 86mn emerging consumer households, 62mn established consumer households and 82mn affluent consumer households; a further 228mn households, mostly in rural areas, fall below these thresholds and thus do not participate much in the modern consumer economy. In the central scenario of a moderate GDP growth slowdown, by 2020 emerging consumers would make up 95mn households, established consumers 69mn and affluent consumers 137mn. Affluent consumers are the fastest-growing group of Chinese households in any scenario; even very low GDP growth would lead to only a slightly smaller future affluent population. The key to the acceleration phenomenon is pinpointing when growth in each group is fastest.

Affluent households are now the fastest-growing consumer group

Number of households in each income group; projections for medium growth scenario



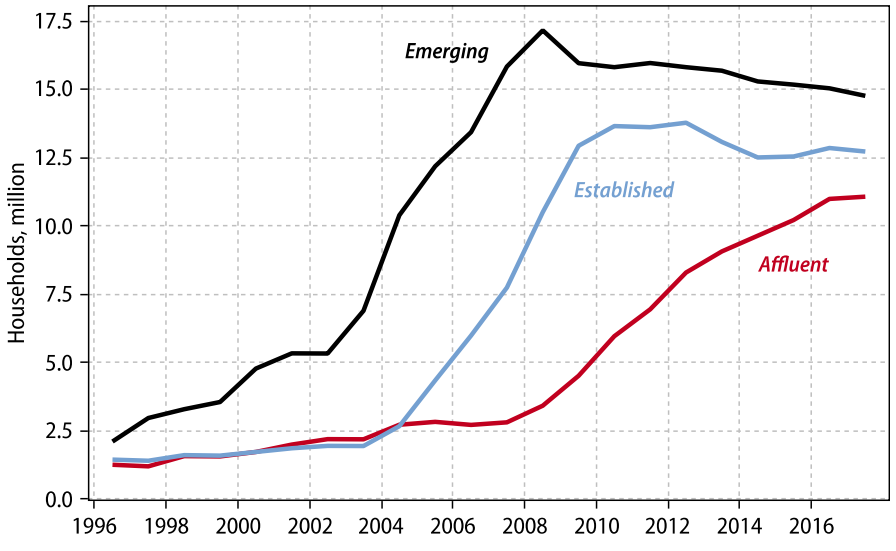
Gavekal Data/Macrobond

Affluent households will be the fastest-growing consumer group even if GDP growth slows sharply

Affluent consumers are only the latest group to experience the acceleration phenomenon. The first wave was focused on emerging consumers: it got started in the early 2000s and reached its peak around 2007, with 16mn or so households a year crossing the threshold. As income growth continues, new households are continuing to cross this threshold in fairly large numbers, but the pace has clearly slowed. The second wave of the acceleration phenomenon was only about three years behind the first wave, with established consumers seeing their peak growth around 2010-12, with 14mn or so households crossing the threshold. Entrants into affluent consumer status have been steadily rising in number for years, and in 2016-17 are close to their peak rate of roughly 11mn households a year.

The three waves of the acceleration phenomenon

Number of households crossing each income threshold, 5ycma



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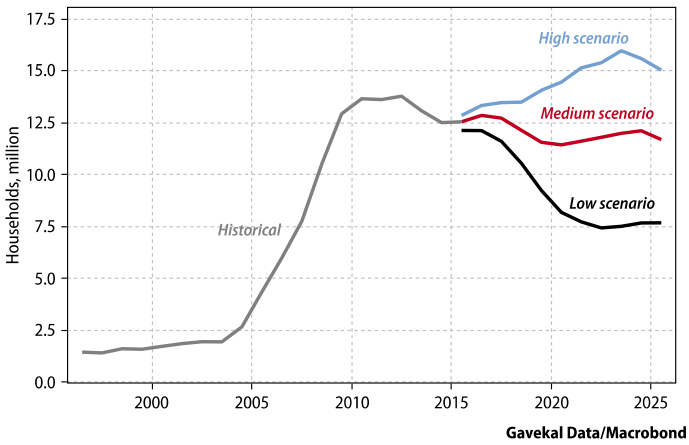
Acceleration has moved from emerging and established consumers on to affluent consumers

The acceleration phenomenon for affluent consumers is near its peak now, and it will slow as GDP growth does

So where does the acceleration phenomenon go from here? Our projections indicate that the latest wave will be past its peak within a few years. The acceleration phenomenon is sensitive to GDP growth, and in the pessimistic scenario of 3% growth by 2020, the number of households crossing both the affluent and established thresholds would decline markedly. In the more consensus scenario of a gradual slowdown to 5% growth by 2020, the acceleration phenomenon for affluent and established consumers still drops off, but less dramatically. Only in the very optimistic scenario of no growth slowdown at all by 2020 do we see the acceleration phenomenon reaching new heights (the acceleration phenomenon for emerging consumers is over in all scenarios). It's important to note that the acceleration phenomenon is really about growth rates and not levels: in all three scenarios the total number of affluent households continues to grow, but the rate of growth differs. It is this change in the growth rate that is what drives the acceleration and deceleration in the growth of the things these consumers are buying.

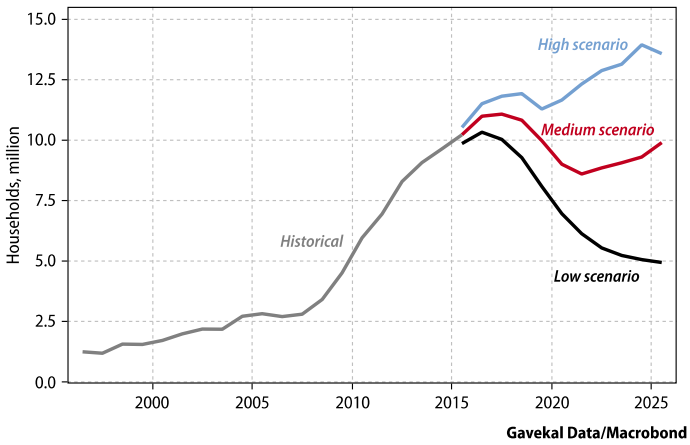
The acceleration in established consumers is likely past its peak

Households crossed established income threshold, 5ycma, by growth scenario



The acceleration in affluent consumers will likely peak soon

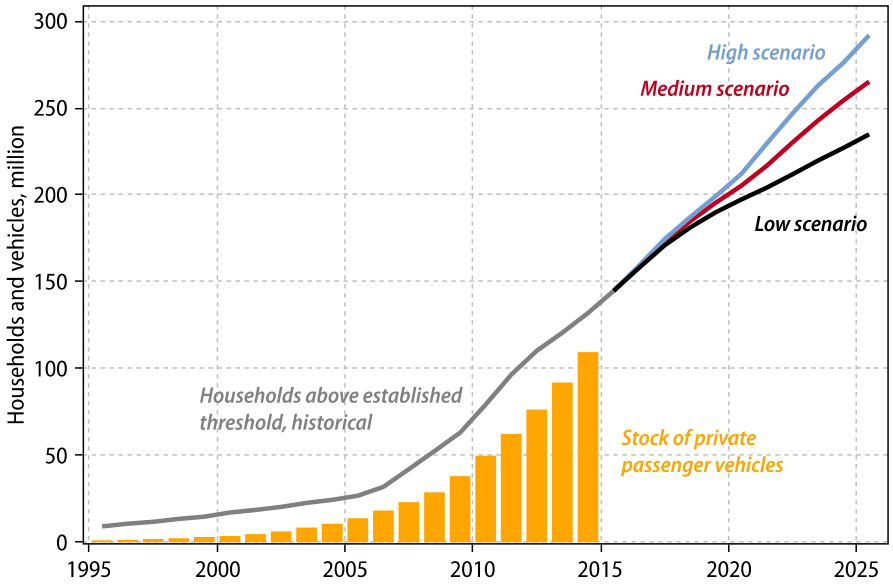
Households crossing affluent income threshold, 5ycma, by growth scenario



The acceleration phenomenon in established consumers drove the big surge in car sales

The acceleration phenomenon is very helpful in understanding big recent changes in consumer markets. Take cars, the iconic modern consumer good. China's car market began a rapid expansion a decade ago, with annual passenger car sales rising from 4mn in 2005 to 14mn in 2010, and reaching 21mn in 2015. The main reason was clearly that many more people could afford cars, as households with incomes above the established threshold rose from 27mn in 2005 to 79mn in 2010 and 145mn in 2015. If this income group continues to be roughly the potential market for autos, then the next 10 years will look quite different. This population was 5.5 times larger in 2015 than it was in 2005; but from 2015 to 2025 the size of this group will not quite double, with our growth scenarios pointing to compound growth of 5-7%. Under reasonable assumptions for the replacement of old cars and the number of two-car households, this translates into compound annual growth in new auto sales of just 3.3% in our medium growth scenario, compared to 18% over the last 10 years. Thus auto sales growth is likely to slow further from the current pace of 7-8%, unless carmakers can dramatically lower prices or encourage households to replace their current vehicles more rapidly.

The addressable market for passenger cars will rise 5-7% annually



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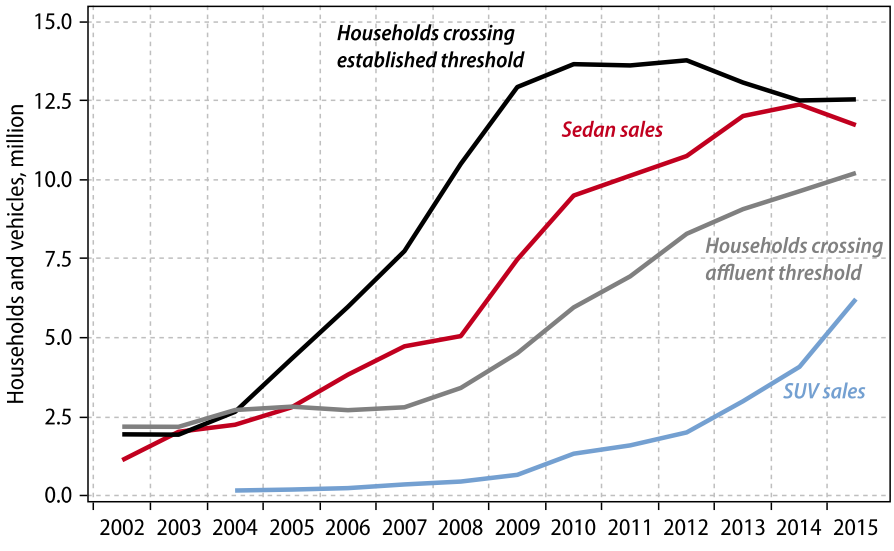
The market for cars will continue to grow, but with acceleration now over, growth will converge to a slower rate

The acceleration phenomenon is also useful for understanding shifts within markets as new consumers emerge. Cars are again an excellent example. Growth in sedan sales has slowed since 2010, a shift that coincides with the peak of the acceleration phenomenon in established consumers. As the acceleration phenomenon has started to emerge in affluent households, sales of SUVs have exploded from 1.3mn in 2010 to 6.2mn in 2015. Not all of the shift of market dynamism from sedans to SUVs is a function of income growth—more affordable models have also helped. But SUVs are still at least 40% more expensive than sedans, so rising incomes clearly play a big role. As the acceleration phenomenon shifts, the torch of growth has been passed to higher-income consumers.

Established households buy sedans, affluent households buy SUVs

Number of households crossing thresholds (5ycma) vs. auto sales



CEIC, Gavekal Data/Macrobond

The rise of affluent consumers helps explain the recent surge in SUV sales

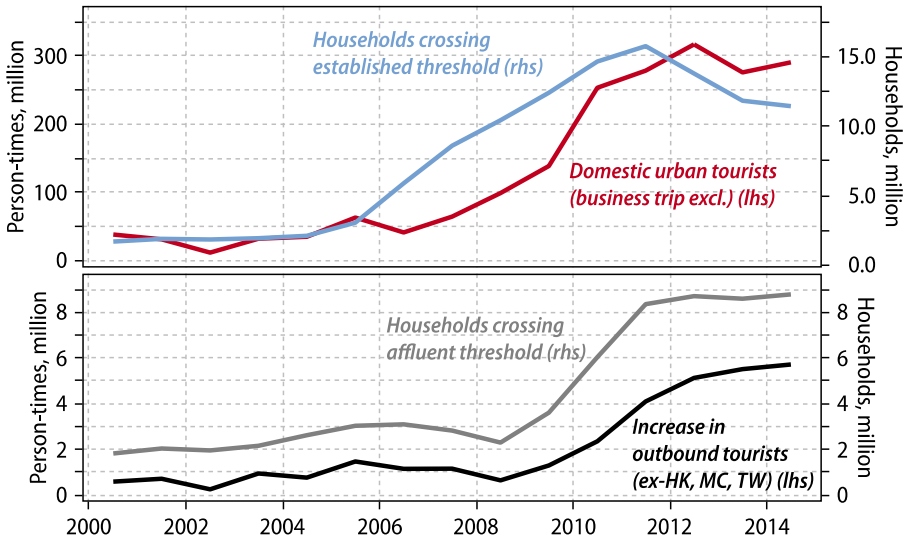
A similar dynamic is also playing out in tourism, one of the biggest consumer services. Growth in domestic tourism started to take off as established consumers went through the acceleration phenomenon. Domestic tourism excluding business trips was about 500mn trips a year in 2005, and then increased by 40-60mn trips a year to 2008. Growth then exploded, with the increase averaging around 250mn trips a year to 2012—just as households crossing the established threshold accelerated from 3mn a year in 2005 to around 14mn a year in the 2010s. Since 2010, growth in the number of established households has stopped accelerating. But growth in affluent households has accelerated substantially, and these consumers seem to thirst for the new experience of foreign travel. As households crossing the affluent threshold surged from around 2mn in 2008 to over 9mn since 2012, the annual growth in foreign tourists also surged from 0.6mn to nearly 6mn. Policies such as easier visa issuance from foreign countries certainly contributed to the acceleration in foreign tourism, but these moves were in part a response to a boom in demand that was happening already. The trajectory of the acceleration phenomenon should mean that foreign tourism has a few more years of rapidly accelerating growth left before it starts to cool down.

Growth in domestic tourism surged when acceleration was happening in established consumers...

...and with the acceleration in affluent consumers has come a surge in foreign tourism

Affluent households are driving the recent surge in overseas travel

Annual increase of tourist visits vs. households crossing thresholds, 3ycma

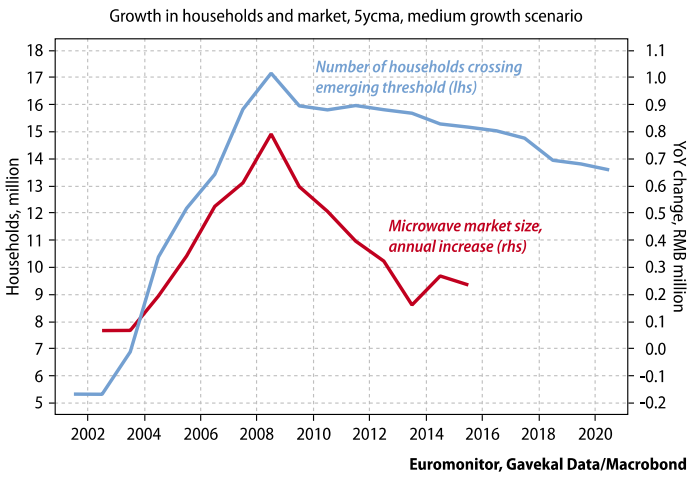


UNWTO, Wind, Gavekal Data/Macrobond

Yet what the acceleration phenomenon giveth, it also taketh away. Now that emerging and established consumers are past the peaks of their acceleration phenomenon, products associated with those income thresholds are no longer getting the same boost. So what happens to products that are on the wrong side of the acceleration phenomenon? They do not necessarily go into outright decline: after all, the overall income and spending power of Chinese households is still rising. But their growth is still likely to slow, at least in comparison to periods when the acceleration phenomenon was stronger. For instance, the acceleration phenomenon for

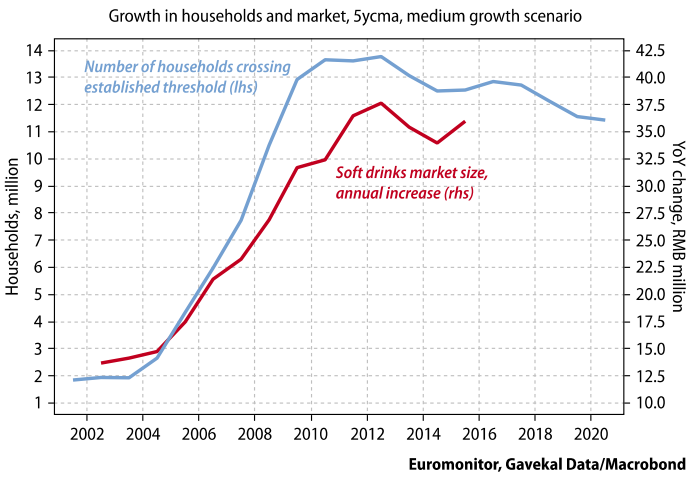
emerging consumers was associated particularly with the purchase of basic home appliances like microwave ovens. Now that the acceleration in such households is over, growth in that market has slowed. Similarly, the acceleration phenomenon for established consumers drove particularly rapid growth in many fast-moving consumer goods, like soft drinks and other bottled drinks, as well as higher-end home appliances. With the acceleration in established consumers coming to an end, the makers of such goods are struggling to adapt to a slower-growing environment.

Appliance growth has slowed as the acceleration phenomenon fades



Euromonitor, Gavekal Data/Macrobond

Soft drinks growth has slowed as the acceleration phenomenon fades



Euromonitor, Gavekal Data/Macrobond

In conclusion, the lesson is simple: those looking to profit from the rise of the Chinese consumer need to get on the right side of the acceleration phenomenon. Growth in total consumer spending will likely continue to slow along with the overall economy, making the rapid growth in markets for products and services driven by the acceleration phenomenon all the more valuable. Many mass-market consumer goods that have had recent fast growth are already starting to underperform as the boost from the acceleration phenomenon fades. So this means that things newly-affluent consumers like will outperform; in addition to foreign travel and fancy SUVs, this category should include higher-quality and more distinctive versions of many consumer products. Sales of affordable luxuries like chocolate, yoghurt and coffee are indeed outperforming more mass-market snacks and soft drinks.

Products that did well in previous waves of the acceleration phenomenon are now moving to slower growth

Our model shows this boom period for affluent consumers is probably now at its peak, though it will last for a few more years before it fades. This does not mean that the affluent consumer market retreats into irrelevance—far from it. From around 2022, our definition of affluent consumers will be the largest category of Chinese households, and will effectively become the mainstream of nationwide consumption. This group of modern, sophisticated consumers will continue to grow, as will their average income and purchasing power. However, the sharp surges in markets caused by new entrants into affluent status will be less evident. In China's more-affluent future, super-fast sales growth will be more driven by fashion, changing tastes, and the introduction of new products. In other words, China will increasingly look more like a developed consumer economy.

Rapid growth in things favored by affluent consumers will persist for the next few years

Technical appendix

The basis for our income distribution model is the official data on the income of urban and rural households from the National Bureau of Statistics' household survey. Historically, income distribution by quintile was reported separately for urban and rural households, but in 2013 the NBS also began reporting a unified nationwide income distribution. Unfortunately, this income distribution is less detailed than the combination of the urban and rural distributions, and also difficult to reconcile with those separate reports. Since we require as much detail as possible for our model, we continue to use the separate urban and rural income distributions rather than the unified one. We add additional detail from the World Bank's PovcalNet database, which has access to more NBS household survey data than other public sources. Although PovcalNet data is missing for some years, requiring interpolation, and is only available up to 2012, it allows a more finely grained picture of the income distribution: telling us, for instance, that the top 10% of urban households (or roughly the top 5% of all households) earn 28% of total household income.

However, the income reported in the household survey appears to be somewhat incomplete. In the national accounts, total household income ends up being 30-40% bigger than the total income implied by the household survey: in 2013, the flow of funds shows total household income of RMB35.7trn, while the household survey shows total income of only RMB24.9trn. There main difference between the two is that the household survey captures mainly cash income, while the flow of funds captures a broader range of compensation, including employee benefits, and has better sources for some income that is under-reported in the survey. The flow of funds should thus be the most accurate measure of total income, but it lacks data on the distribution of income. The difficulty then is how to allocate the additional income found in the flow of funds across different income groups, and there is no clear-cut method for doing so. The best source we could find was the work of Chinese economist Wang Xiaolu, who conducted private surveys to estimate the extent of household income not reported to the government, and estimated how the income distribution would change as a result.

We do not directly borrow Wang's results for two reasons. First, Wang's survey and methodology implies that total household income in 2008 was 30% higher than shown in the national accounts, and 70% higher than shown in the NBS household survey. This is simply implausible; while there is still some under-estimation of household consumption in China's national accounts, there is no credible evidence that such massive sums are going missing. Second, Wang's results imply an extreme level of income inequality that is also implausible. His income distribution gives a Gini coefficient of 0.65 for 2010, while the official household survey has a Gini of 0.46, and independent household surveys yield Gini coefficients of 0.50-0.58. Nonetheless, Wang's survey results at least provide some objective basis for understanding how much of the income missing from the household survey accrues to different groups. Our solution is to adapt Wang's adjustments, but constrain them so that the total household

income stays consistent with the national accounts. This reduces his adjustments by roughly half for most years. For instance, in our model around 40% of missing income is allocated to the top 10% of urban households in 2008, raising their average income by 207%, while Wang allocated 63% of missing income to that 10% of households, raising their average income by 320%. Our procedure yields a Gini coefficient of 0.57 for 2010, within the range of independent survey estimates.

After making these adjustments to the official data, we end up with per capita income by decile for each year from 1995 to 2015, deflated to constant 2015 prices. We then simulated a frequency distribution to estimate how many individuals would be at given income levels each year. We start with 20 data points (10 deciles each for urban and rural households), and interpolate data points between the average to generate a curve. Lacking detailed data on the top of the income distribution, we assume the top 5% of both urban and rural households follows an exponential curve; the income of the 96th percentile is 6.4% higher than the 95th percentile, the 97th 6.5% higher than the 96th, and so on up to the top 0.1%. Using this simulation we can then estimate the number of households above or below a given income threshold in each year, which is the basis of the acceleration phenomenon.

Finally, in our model we chose to set the "affluent" threshold as the highest income threshold. If we were to set an income threshold above "affluent," we could indeed show that the acceleration phenomenon has a next stage, as the number of households above that threshold will start to rise rapidly at some point. But it is not clear that already-affluent households make near-automatic purchases of a few types of goods when they achieve even higher income levels, in the way that they did when they could first afford a car or a foreign vacation. Ultimately, it is the association of these income thresholds with purchases of specific goods that matters, and this association becomes less strict as incomes get higher and choice and taste play a greater role. We think the acceleration phenomenon is best suited for capturing the dynamics of large numbers of people are entering the modern consumer economy; it becomes a less useful tool when most people are already part of the modern consumer economy.

A summary of the model income distribution

Millions of households in each group, 3ycma

	Below all thresholds	Emerging	Established	Affluent
2000	390.7	14.9	8.0	8.8
2005	366.4	41.7	7.1	20.6
2010	296.0	71.3	41.2	38.4
2015	229.2	83.7	61.8	83.4
2020 (medium scenario)	167.3	93.9	69.4	136.5
2025 (medium scenario)	118.2	92.9	82.8	177.0

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