

# Better Measurement of Internet Consumption Upgrade

William Cheng  
Alibaba Research Institute

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# Towards Better Measurement of E-commerce

① What do we measure with?

② What do we measure?



①

**What do we measure with?**

# E-commerce has provided a new angle to observe private consumption

Key statistics of internet usage in China and Alibaba retail ecosystem

**731 million**

internet users in China, equivalent to European population

**467 million**

shop on-line, more than US population

**493 million**

mobile MAUs of Alibaba retail ecosystem

**10 million**

merchants sell on Alibaba retail platform

**1 billion**

products are available on-line

**100 million**

products are launched on-line monthly

**¥ 3 trillion**

GMV of Alibaba, equivalent to Walmart's annual sales

**120,000**

transaction payments per second on Singles' Day Shopping Festival

# Key features of data on e-commerce platforms



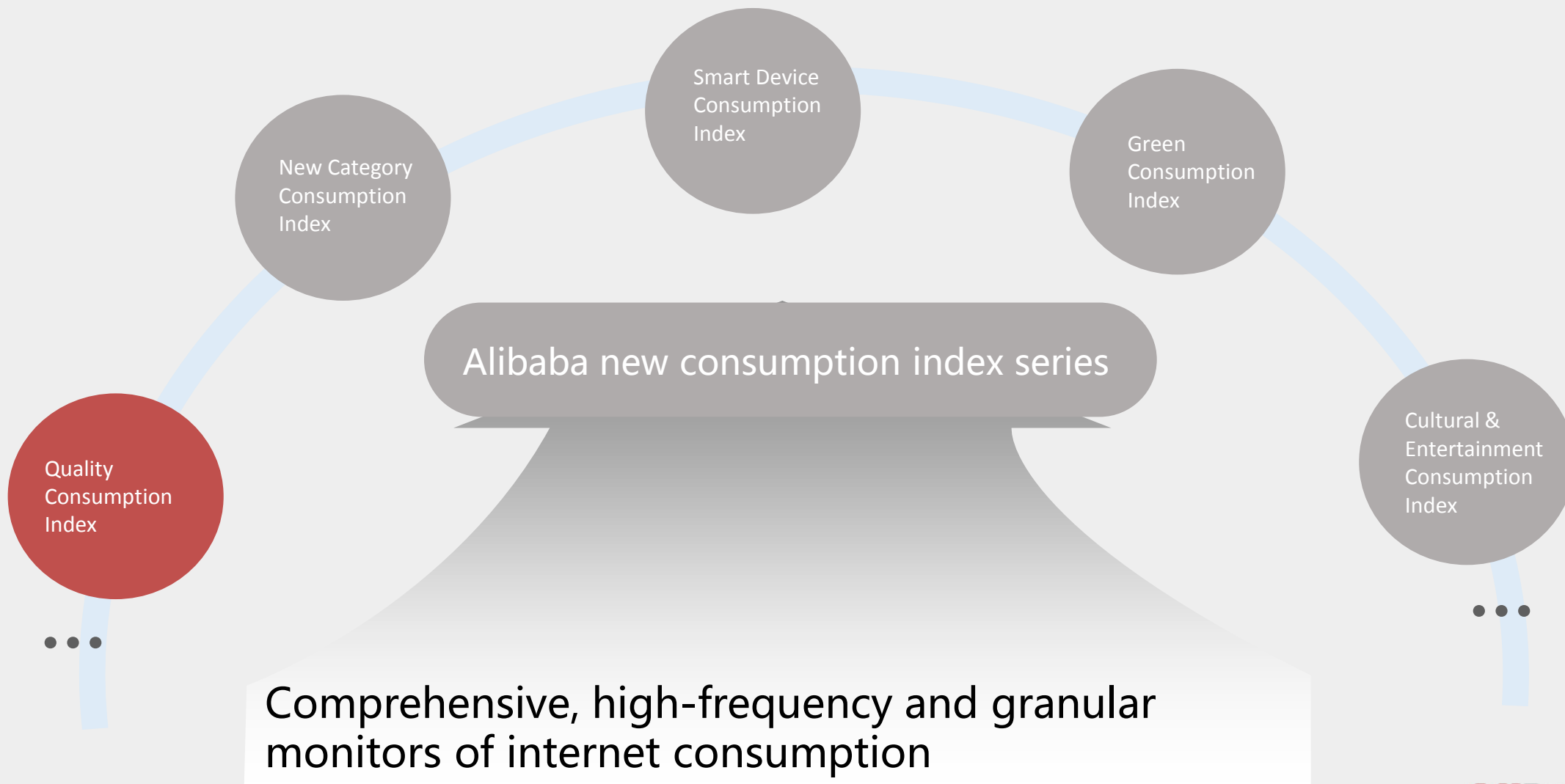
**Highly  
granular**

**Ultra-high  
frequency**

**Big data**

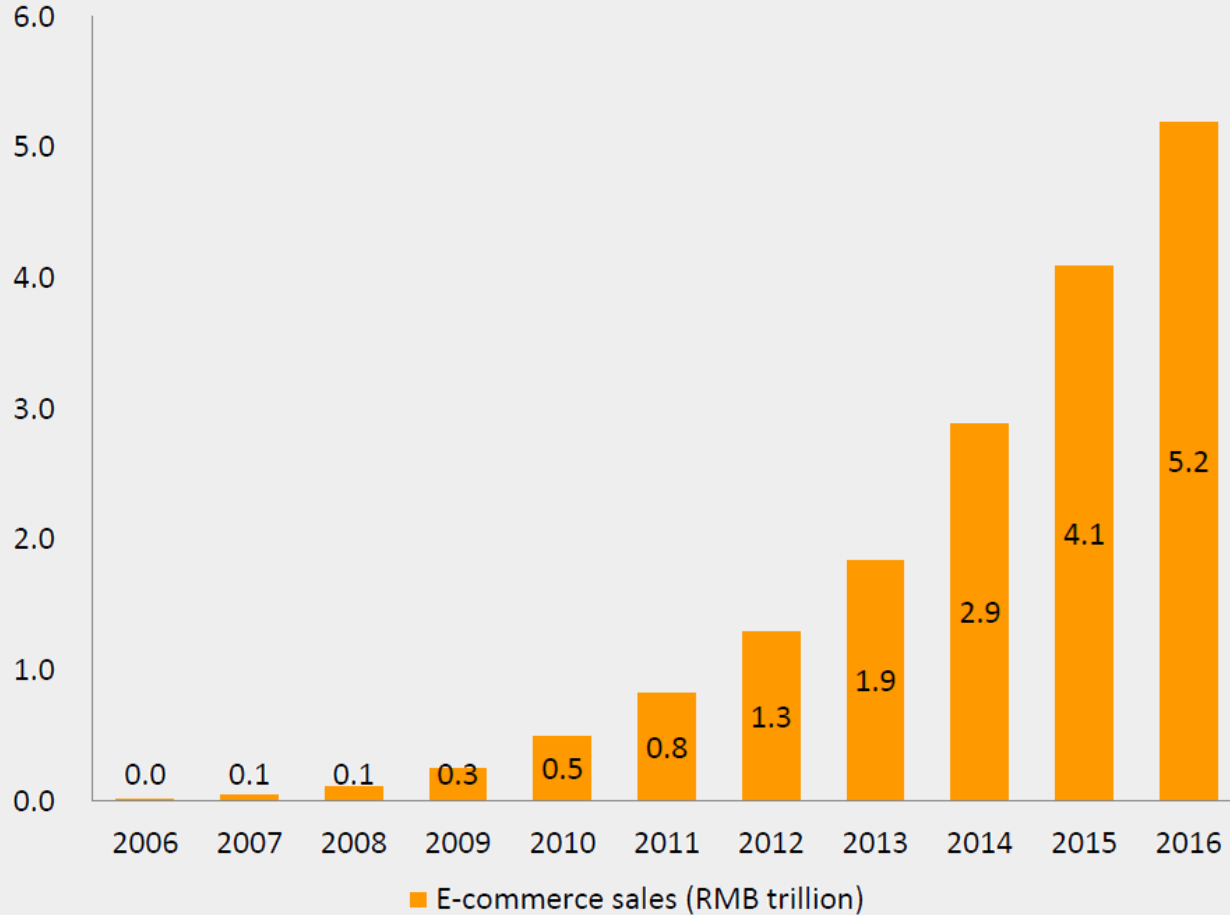
## ② What do we measure?

# Alibaba new consumption index series



# Why do we calculate Alibaba quality consumption index?

Size growth is important



Structure dynamics also matter

Sales of sweeping robots have grown by 30+ times in the past 5 years



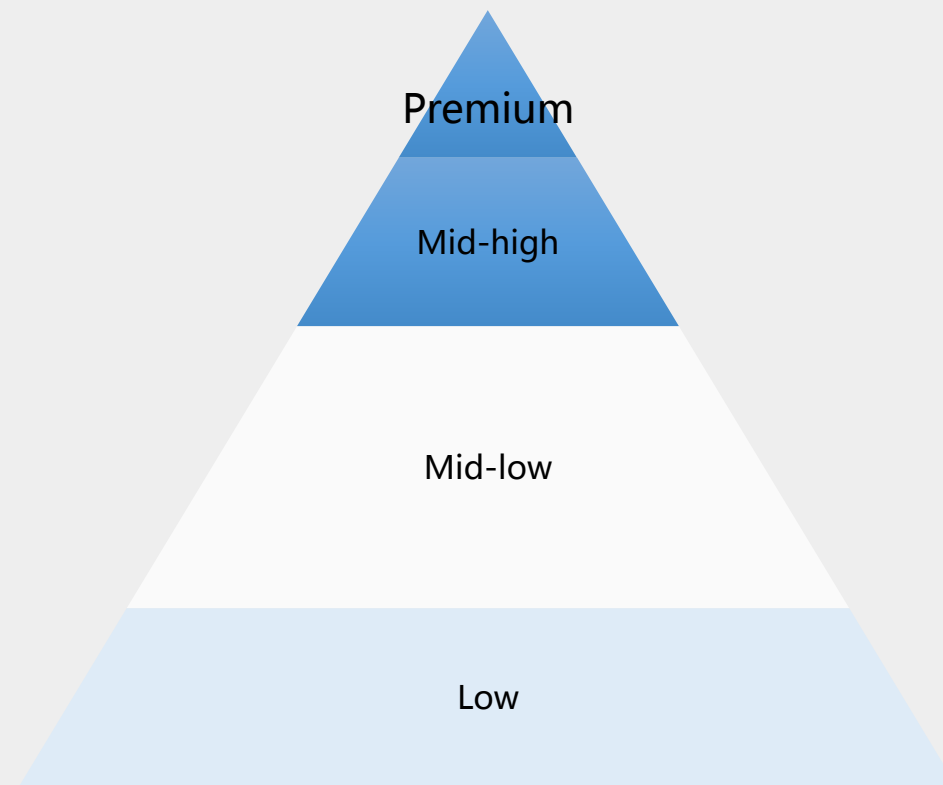


# How to define quality consumption?

Price cut examples (RMB)

	Washing machine	BB Cream	White alcohol	One-piece dress
Premium	3600	270	760	680
Mid-high	<b>2000</b>	<b>140</b>	<b>350</b>	<b>300</b>
Mid-low				
Low	870	70	120	110

Consumption distribution by price cut



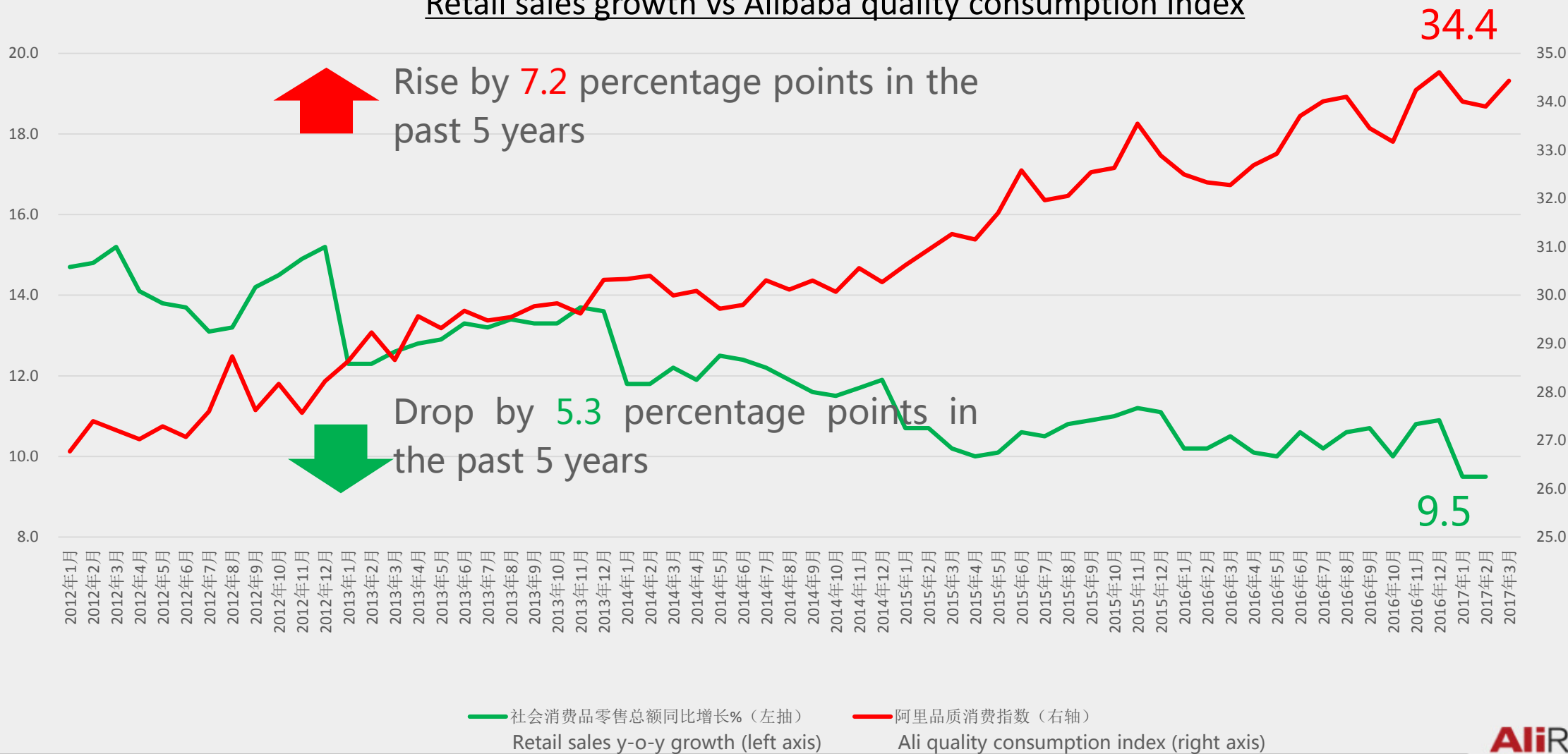
# How to calculate the index?

$$Quality\_index_t = deseason\left(\sum_{i=1}^n w_i \times Quality\_index_{it} \times 100\right)$$

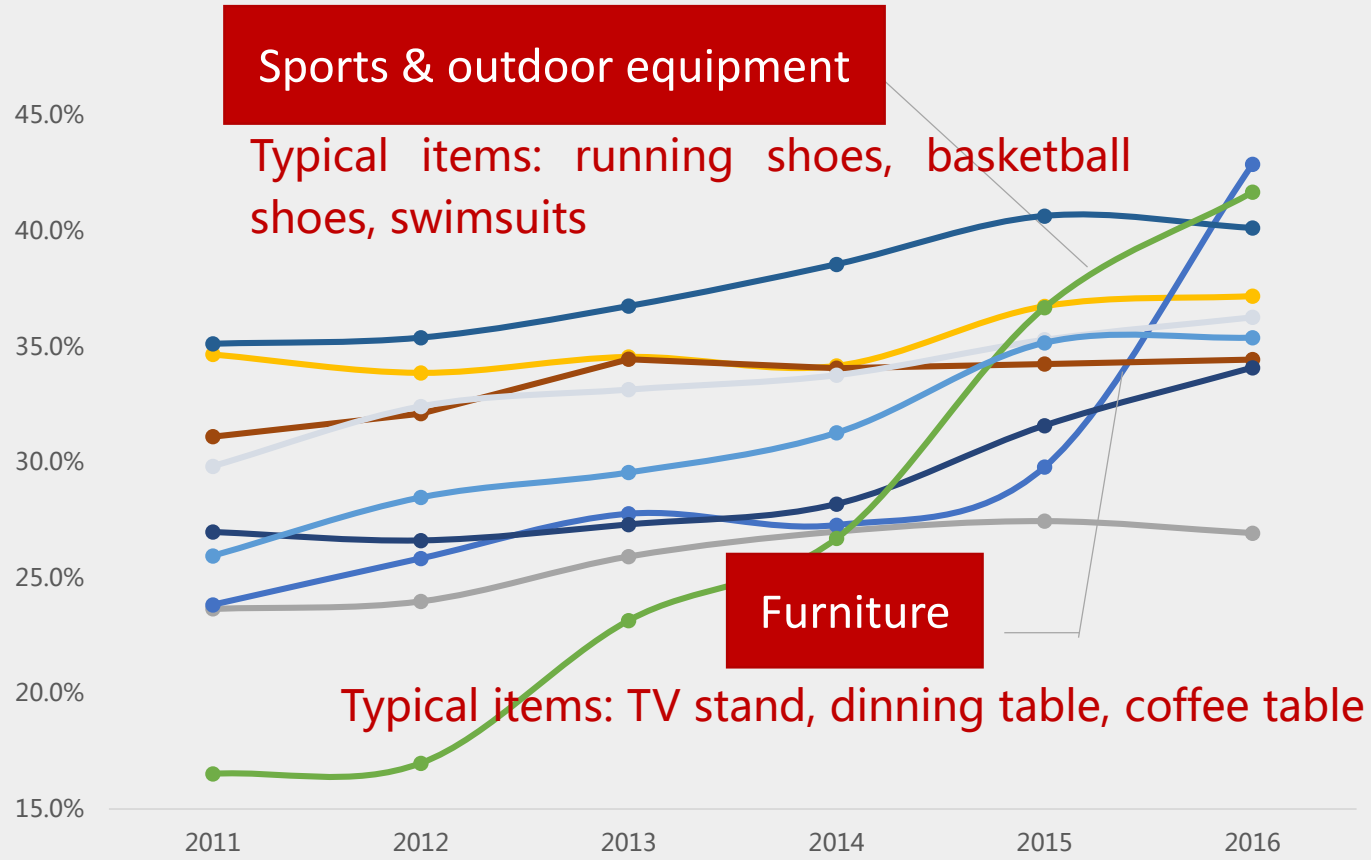
$$Quality\_index_{it} = \frac{\sum_{j=1}^n \left( total\_consumption_{\beta t, High} + total\_consumption_{\beta t, median-High} \right)}{\sum_{j=1}^n total\_consumption_{\beta t, All}}$$

# ~30% of internet sales are premium goods compared with ~20% five years ago

Retail sales growth vs Alibaba quality consumption index



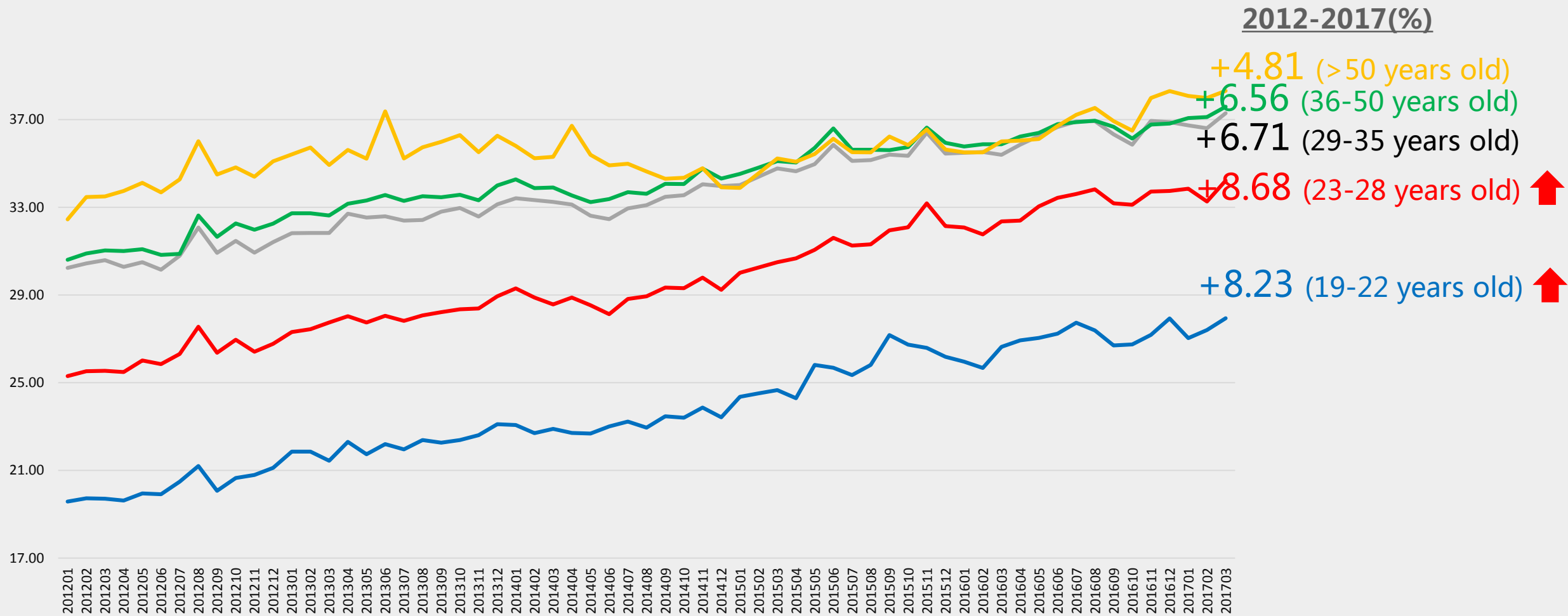
# Industry insights: Upgrade in sports & outdoor equipment and furniture outperforms



	2016 index change	2016 quality index
Furniture	13.11	42.91
Sports & outdoor	5.00	41.70
Mobile phone & CE	2.51	34.10
Small home appliance	0.97	36.28
Household products	0.44	37.20
Food	0.22	35.40
Mother & baby products	0.20	34.46
Apparel	-0.52	26.94
Cosmetics and personal care	-0.52	40.15

Index rises
  Index is stable
  Index drops

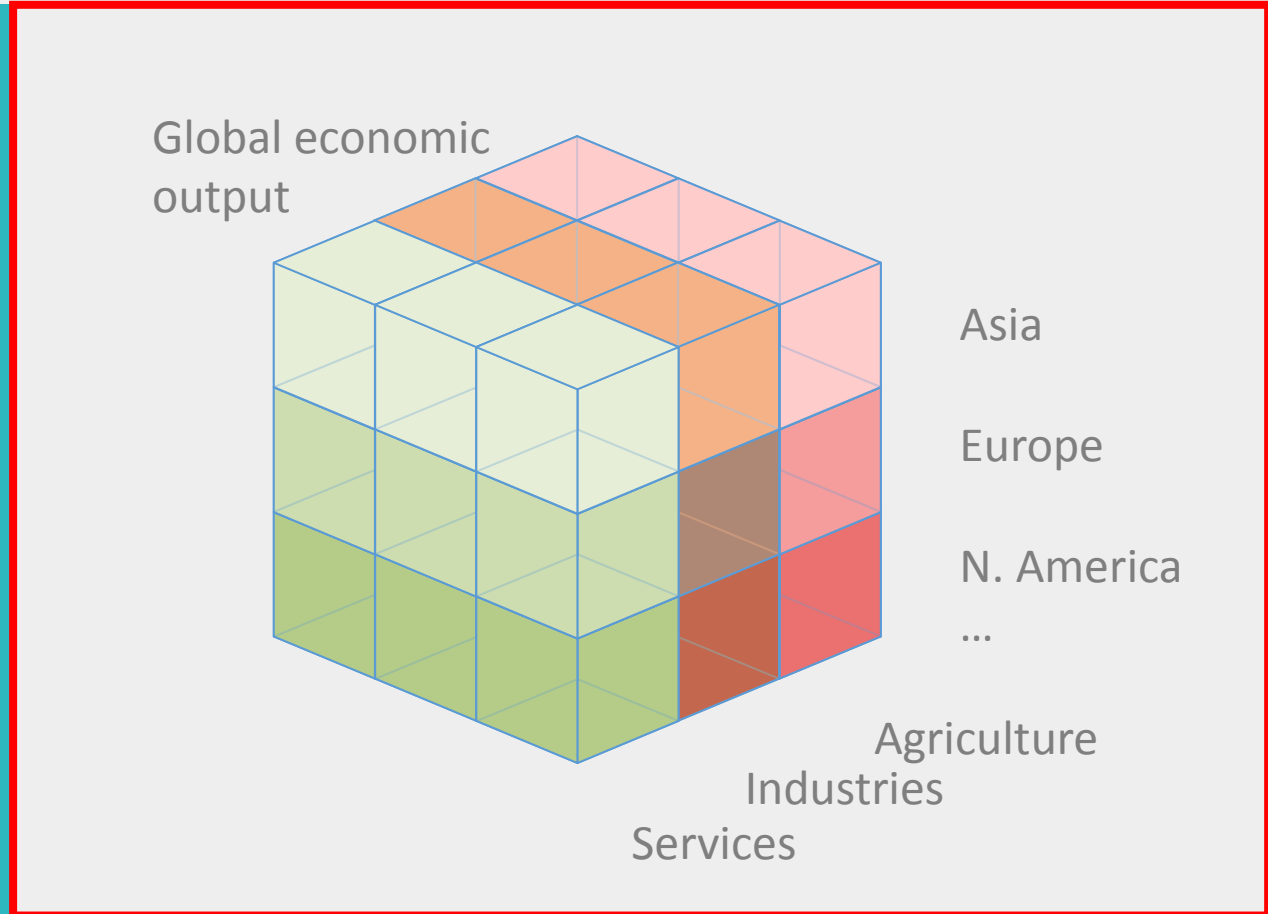
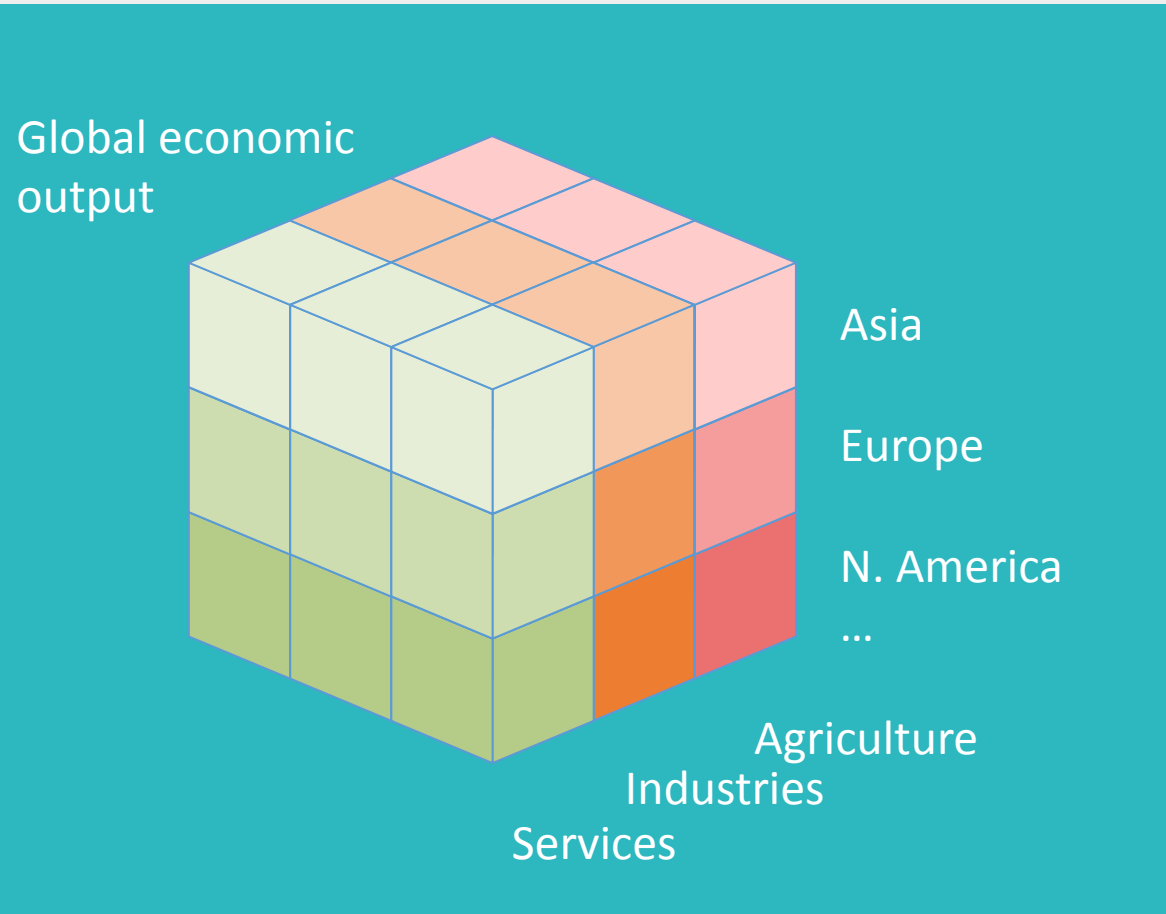
# Demographic insights: The pace of internet consumption quality upgrade of the young group is twice of the aged group, rising by 8.5% over 2012-17



# E-commerce is fast expanding its territory and ...



# ... needs the new statistical framework



Big data

E-commerce  
without  
boundaries







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