



Xiaomi – IPO Valuation

Market and Competitive Assessment

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Xiaomi: More Than a Hardware Company?

Xiaomi is a sprawling company centered on smartphones, but also sells hundreds of other products ranging from in-ear headphones to electric scooters

- Xiaomi currently has limited appeal, distribution and market share outside of China, India and Russia



- High quality, affordable phones sporting proprietary **MIUI OS** built on Android kernel
- Contributed **70%** of company revenues in 2017 at an **average ASP of \$135**
- Majority of volumes shipped are entry level Redmi phones
- Phones designed in-house with **Qualcomm chipsets**
- Introduced Mi 5C in Q1 2017 with eight core SoC designed in-house; one of 4 smartphone vendors with expertise to design proprietary smartphone SoCs



- **100 million connected devices** excluding smartphones and laptops as of March 2018
- IoT and lifestyle products contributed **20% of total revenues in 2017**
- Laptops, smart TVs, AI speakers and smart routers designed in-house
- Other product categories (air purifiers, fitness band, robot vacuum cleaner etc.) produced in collaboration with **~90 ecosystem partners**

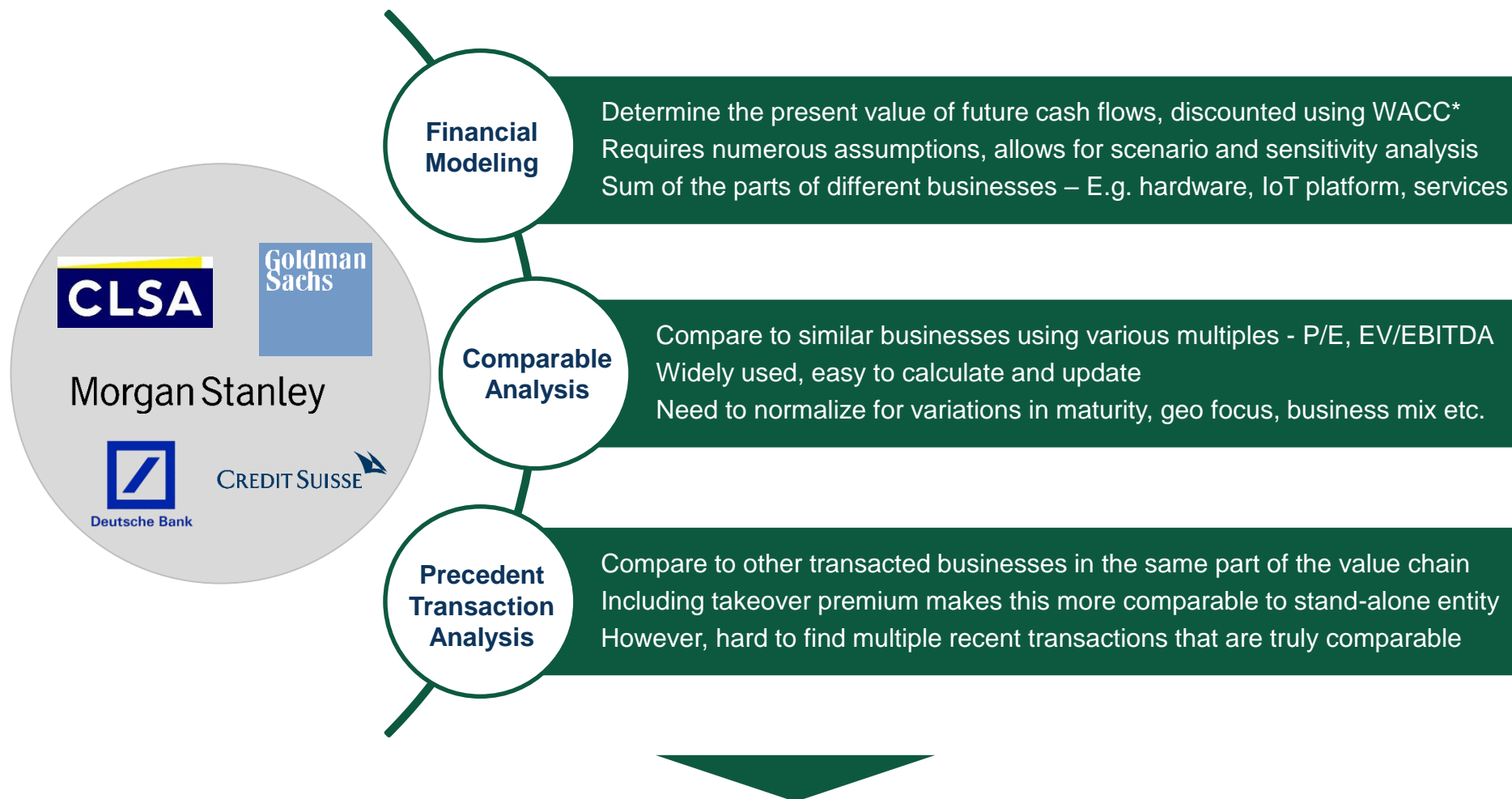


- **190M MIUI monthly active users** as of March 2018
- **18 apps with 50M+ MAUs** as of March 2018 including Mi App Store, Mi Browser, Mi Music and Mi Video
- **Advertising** services contributed **57%** of service revenues in 2017
- **Online gaming** revenue via sale of virtual currency contributed an additional **25%** of service revenues
- \$1.52B of service revenues in 2017 equate to approx. **\$9 per monthly active user**

IPO Valuation: Methodologies

Investment bankers will employ multiple methods to triangulate to a rational value

- Xiaomi has chosen Morgan Stanley, Goldman Sachs and CLSA to lead IPO process



IPO valuation is more of an art than science - Despite extensive valuation work performed by bankers, the issuer and bankers have a vested interest in underpricing it

Notes: WACC is Weighted Average Cost of Capital
Sources: CFI, FT, Bloomberg

Xiaomi Valuation Key Questions and Approach

Evaluate disparate business models with a sum-of-the-parts approach, identify comparables for each business unit and normalize for key identifiable differences

Key Questions

- What is the medium to long-term outlook for the smartphone market?
- How is Xiaomi positioned in this market and how defensible is their position?
- What is Xiaomi's opportunity for smart hardware?
- Is Xiaomi likely to succeed in offering an IoT platform and how likely are they to create significant revenue streams?
- What is the revenue and margin potential for the services businesses?

High-level Approach

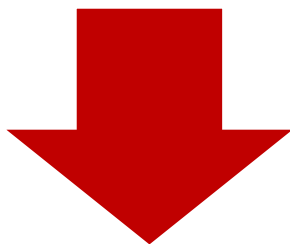
- Identify key market segments and determine medium-long term outlook for these markets
- Find comparable companies and drivers of valuation for each of the segments and/or overall business
- Index Xiaomi's business segments to comparable businesses (e.g. revenue, margin, growth rate, geographic exposure etc.) to determine corresponding valuation
- Model valuation based on most likely scenario, but also identify key sensitivity levers and impact on valuation

Market Forces Vs. Flawless Execution

While there are many unknowns with the IPO process, market maturity and middling profitability makes it challenging to support a high valuation

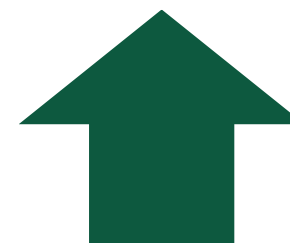
Xiaomi operates in a highly competitive market and most OEMs including Xiaomi have stumbled if not outright exited the market

- The smartphone market is mature and for the first time ever, declined in 2017. Increasing competitive intensity in a slow growth market is likely to make sustained growth a challenge
- Despite relying on ecommerce, Xiaomi realizes weak margins and will need to continue investing in new markets
- Consumer IoT is historically low margin, partly driven by excess capacity and has minimal uptake of recurring revenue services
- The likelihood of creating a high ARPU services business in International markets with well entrenched players is much lower



Xiaomi has had a dream run in 2017, breaking into new markets and regaining it's footing in the home market of China

- Flash sales and an ecommerce-centric model has allowed Xiaomi to quickly enter new markets and gain mind and market share
- By adopting an open innovation model, Xiaomi has leveraged the ecosystem around the high-tech hub of Shenzhen and launched 100's of IoT / Lifestyle products that would ordinarily not be possible
- Restricted access or outright censorship of Google and Apple services in China has enabled Xiaomi to develop a thriving app store and mobile advertising business

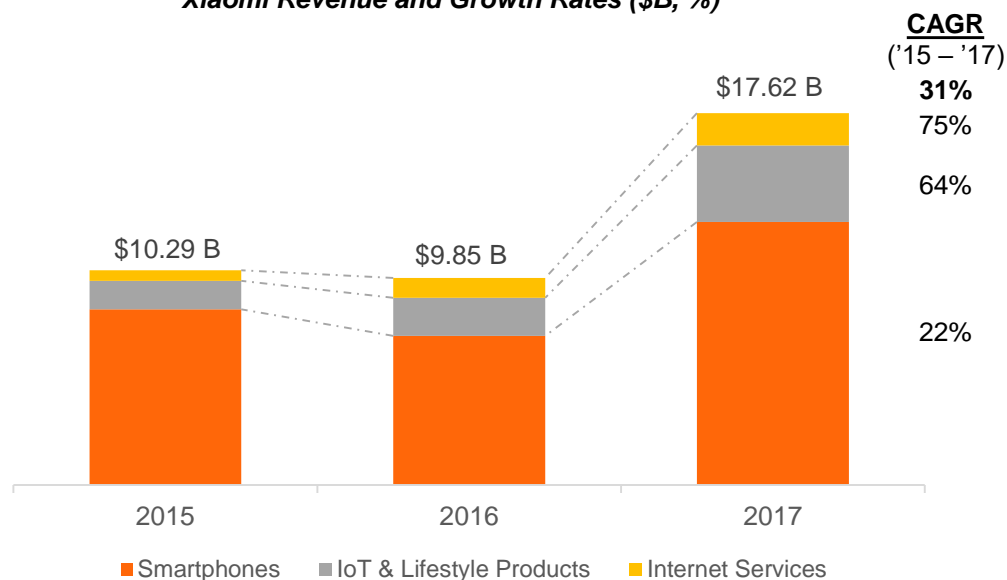


Xiaomi Historical Performance

After a disappointing 2016, Xiaomi roared back to life in 2017 and nearly doubled smartphone unit shipments and grew overall revenues by 67%

- o Marked shift from historical dependence on online flash sales to offline sales and international expansion drove 2017 performance

Xiaomi Revenue and Growth Rates (\$B, %)



Key Observations

- **International expansion** contributed to **50%** of 2017 revenue growth
- 2017 unit and revenue growth aided by:
 - o **Retail expansion** – 5.5x growth in Mi Home retail stores in China (331 at YE 2017 vs. 51 at YE 2016)
 - o Distribution to support **offline expansion** with distributor count growing 270% YoY to 1,100+
- Smartphone, IoT and lifestyle products had poor gross margins of 8-9%, while **services had 60% gross margins** in 2017
- **Investment gains** contributed approx. **\$1B** in 2017 reported operating profits

China (% of Total)	94%	87%	72%
Gross Margin	4.0%	10.6%	13.2%
Operating Margin*	-2.3%	1.7%	4.8%
Smartphone ASP	\$124	\$127	\$135
Service Rev. / MAU**	\$4.5	\$7.0	\$8.9

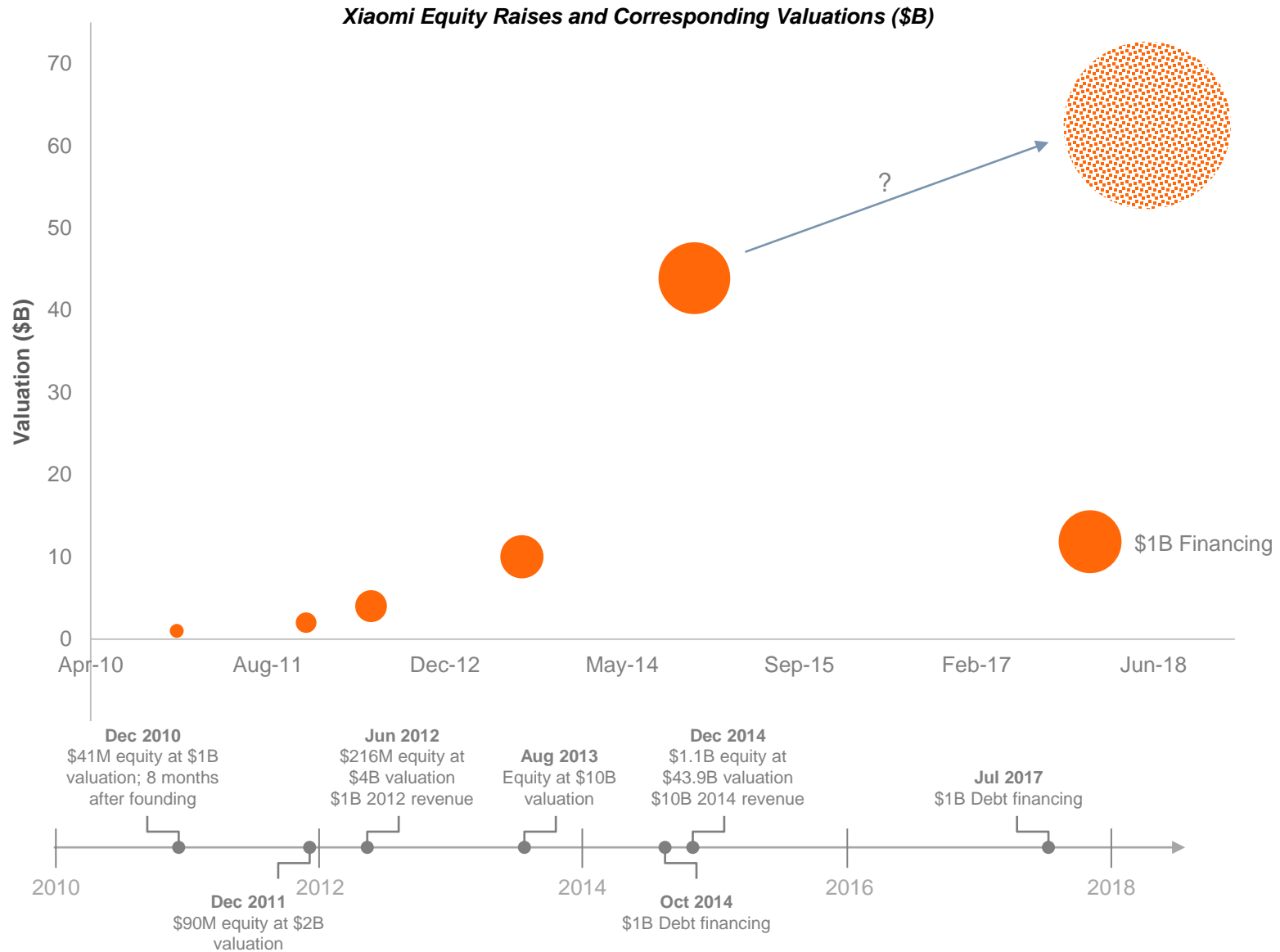
Notes: Operating margin adjusted for reported non-operating (e.g. investment) gains and losses

Revenue conversion done using EOY exchange rates, Service revenue per MAU calculated using annual revenues and year-end MAU counts

Sources: Xiaomi, x-rates.com, 3HA Research & Analysis

Xiaomi Valuation History

Xiaomi has raised approx. \$1.5B in equity and \$2B in debt financing, the latest of which was in July 2017



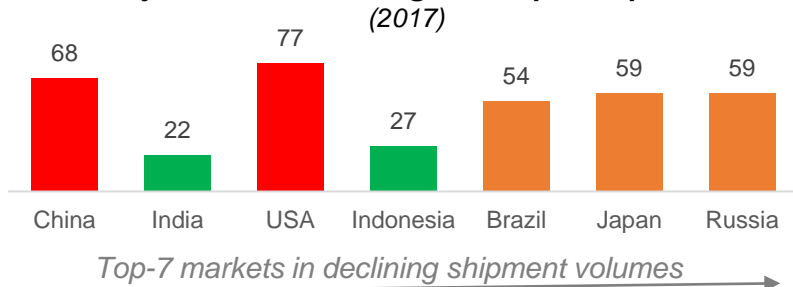
Source: Xiaomi, Crunchbase, Venturebeat

Smartphone Market Outlook

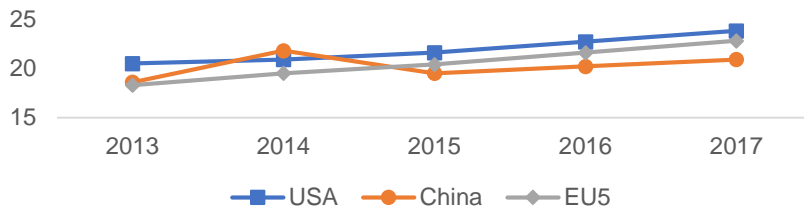
With high smartphone penetration across developed markets and China, worldwide shipments expected to grow sub 3% through 2022 driven by emerging markets

- Steadily declining ASPs driven by affordable phone sales in emerging markets will continue to pressure revenues going forward

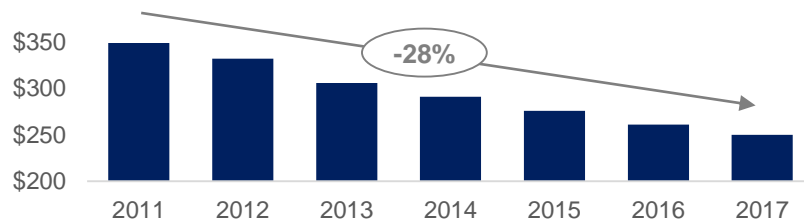
Most major markets have high smartphone penetration



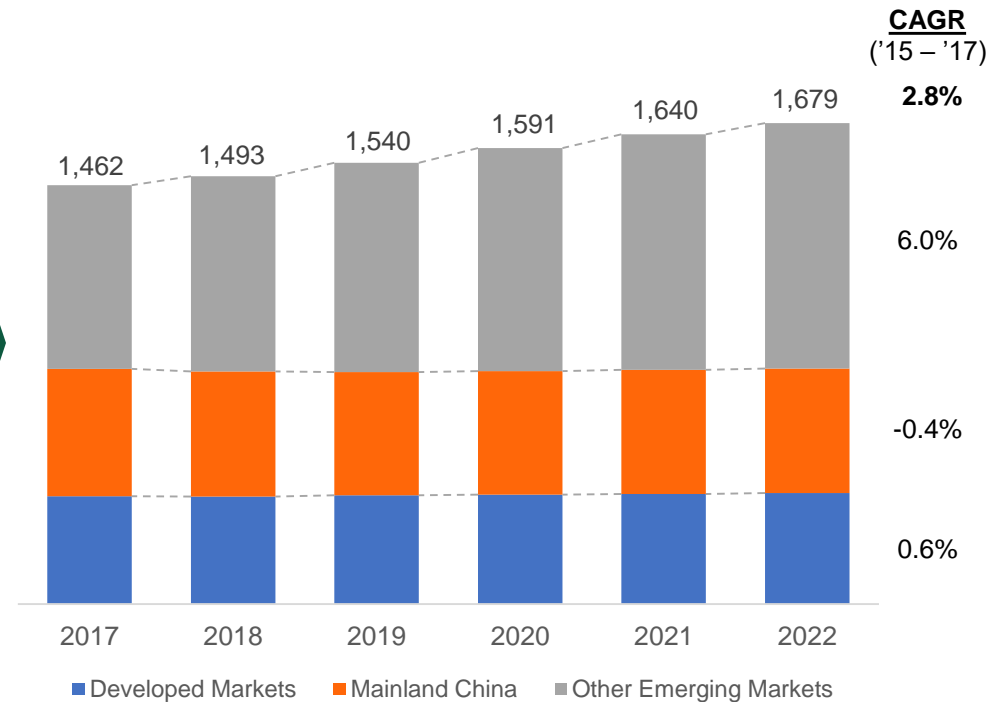
Replacement cycles are lengthening



Smartphone ASPs continue to decline steadily



Worldwide Smartphone Shipment Projection (Millions)



Xiaomi's international opportunity lies mostly in emerging markets of India, Indonesia and sub-Saharan Africa where smartphone penetration is low and iOS and Google services have not gained significant traction and loyalty

Note: Developed markets included US, W Europe, Japan, Korea, Canada and Australia
Sources: IDC, Statista, Pew Research, Kantar Worldpanel ComTech, 3HA Research & Analysis

Smartphone Market Profit Pools

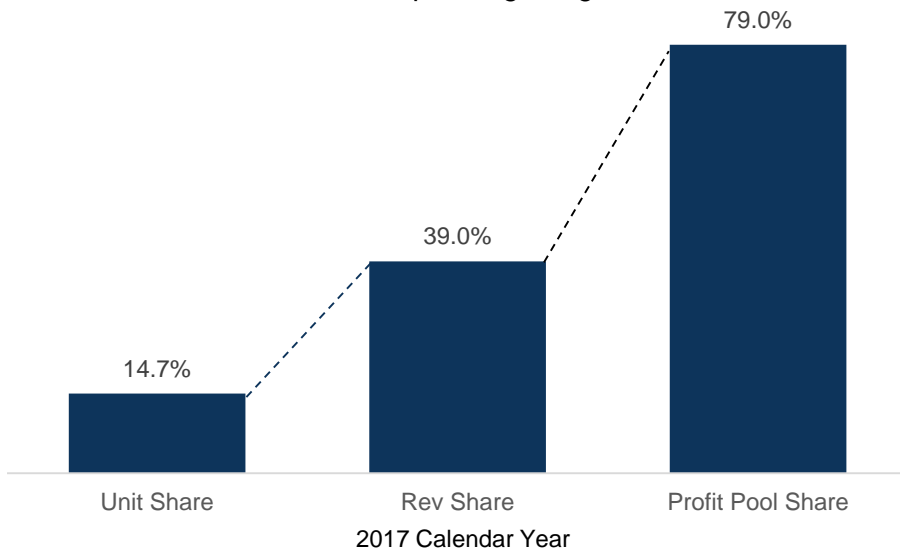
Primarily due to 3X+ industry ASP, Apple dominates revenue and profit pools

- Historically, no vendor other than Apple and Samsung have consistently generated profits from smartphones

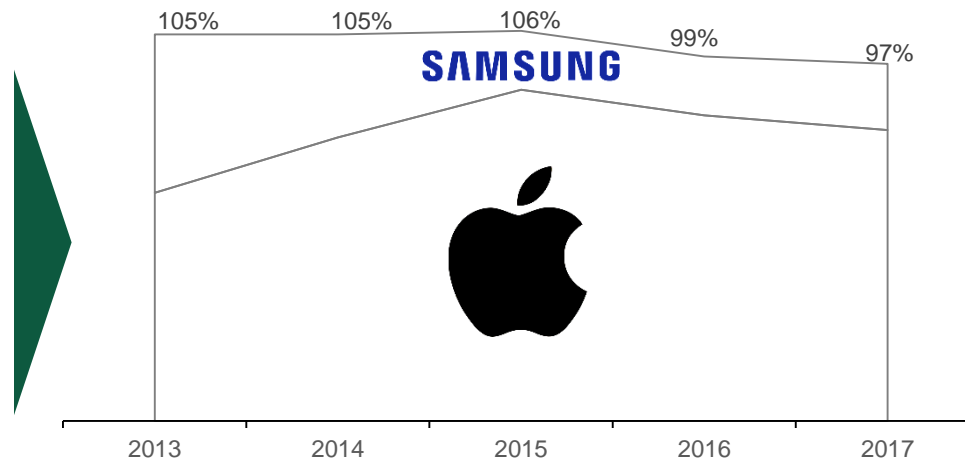
Apple's share of global unit shipments has remained steady at approx. 15%

	2015	2016	2017
iPhone Shipments (M)	231.5	215.4	215.8
Market Share	16.1%	14.6%	14.7%
iPhone ASP	\$672	\$647	\$688
iPhone Revenues (\$B)	155.5	139.4	148.5

However, due to ASP premium vs. other vendors, Apple consistently garners ~40% share of revenues and 75%+ share of operating margins



Apple and Samsung dominate the global smartphone profit pool and often exceed the industry's profit pool implying every other smartphone company has been losing money or operating at a breakeven level



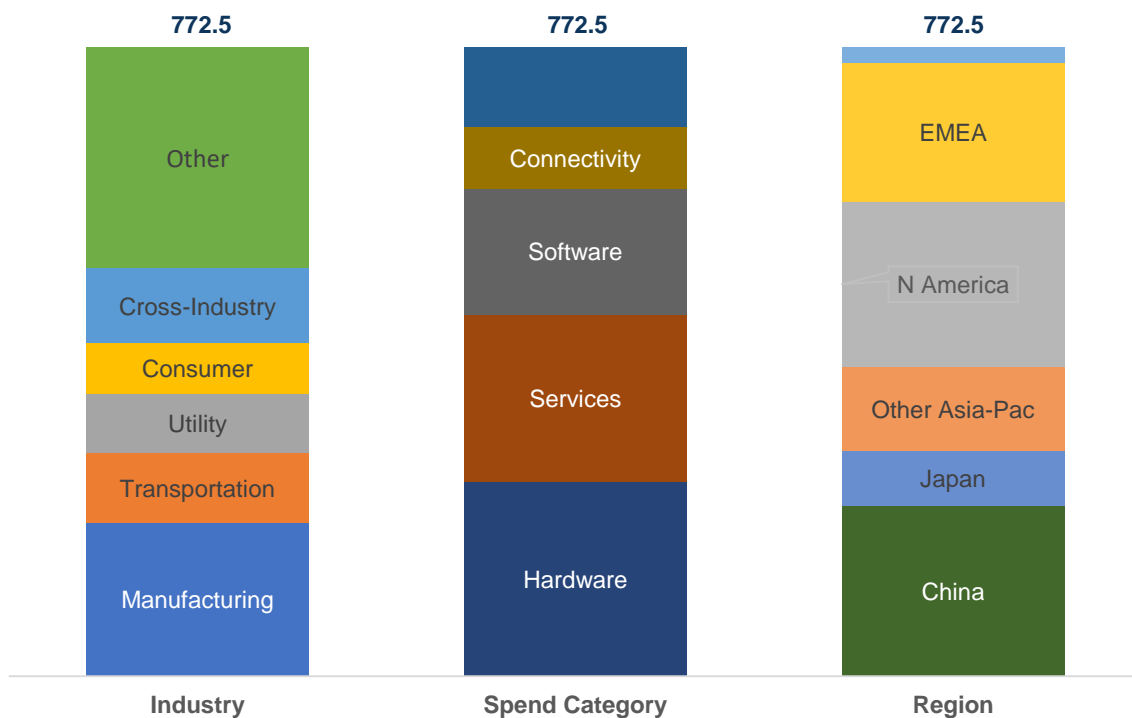
Longer-term Xiaomi is unlikely to derive significant margins from device sales alone

Source: IDC, Strategy Analytics, Canaccord Genuity, 3HA Research & Analysis

IoT Market Evolution

IoT market expected to dwarf smartphone industry revenues, but most use cases are industry focused and other than China, do not play to Xiaomi's geographic strengths

Worldwide 2018 IoT Revenues (\$B)



- Consumer IoT is 4th largest industry segment and expected to grow fastest at 21% CAGR through 2021
- Key consumer use cases include home automation, security, and smart appliances

- Hardware is largest segment with key spends on modules and sensors as well as infrastructure and security
- Service is 2nd largest and is expected to grow faster and rival hardware in total spend
- Application software, analytics software, IoT platforms, and security software to grow fastest

- China is single largest country but spend driven by manufacturing, utilities, and government
- U.S expected to have largest consumer segment in the near-term

Consumer IoT Takeaways

- Consumer IoT revenues till date largely driven by hardware
 - **Minimal uptake of recurring revenue services** within consumer segment
 - Key sub-segments include **smart home** devices and **wearables**
- Hardware market is highly fragmented
 - 1000's of SKUs and product categories **drive extreme operational complexity**
 - Top-5 vendors combined have **less than 5% installed base** share globally
- Xiaomi offers **100's of products** primarily designed by ecosystem partners
 - Key segments include information and entertainment, health and fitness, home automation, home security and safety

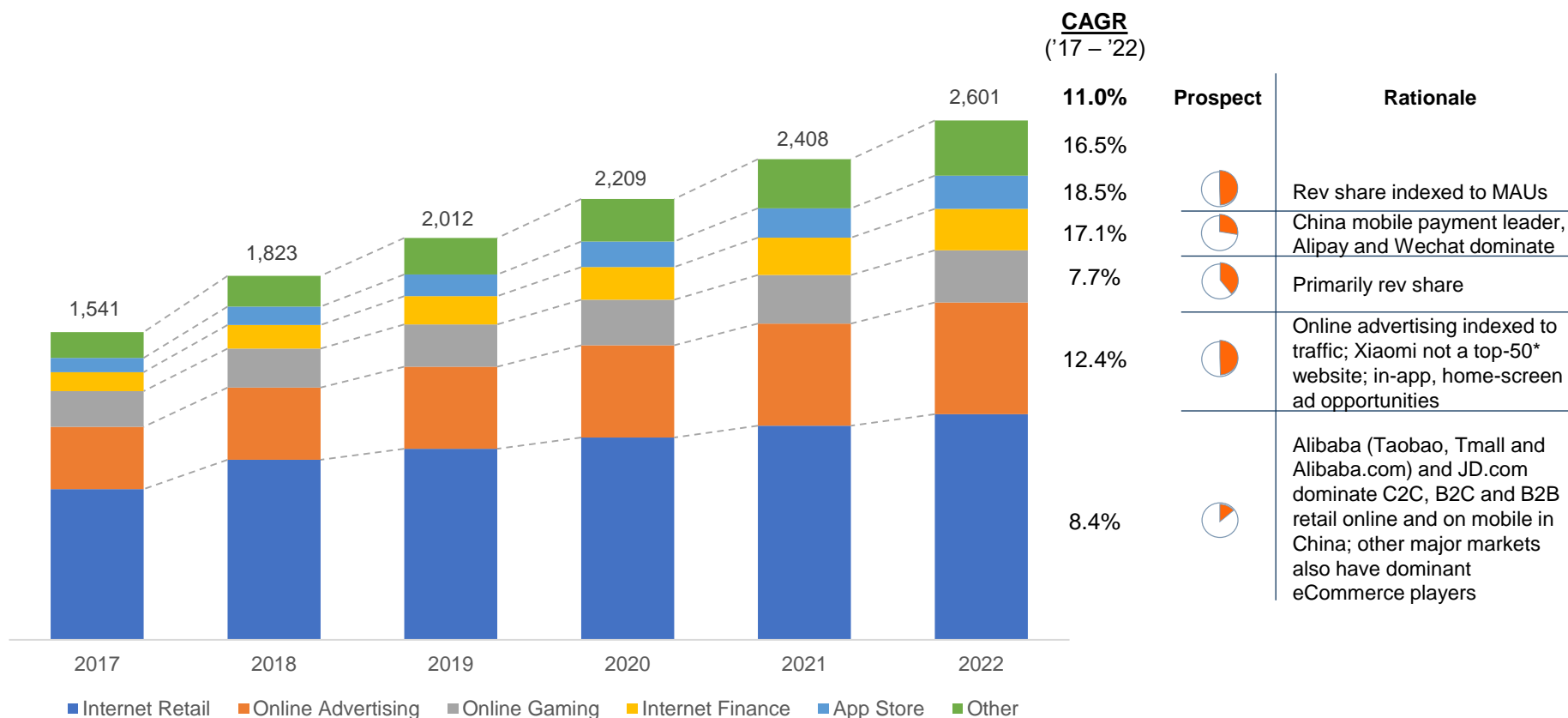
Source: IDC, iResearch, 3HA Research & Analysis

Internet Services Opportunity

Internet services is a \$1.5T sector globally and expected to grow at 11% YoY through 2022 to \$2.6T

- Apple and Google app store and services are well entrenched in developed markets
- Revenue per active user beyond mobile connectivity in large emerging markets of India and Indonesia is likely very small

Worldwide 2018 Internet Services Revenues (\$B)

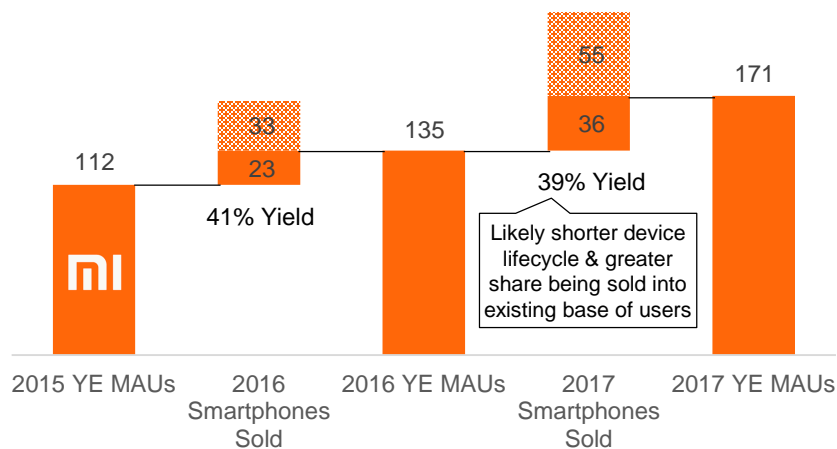


Note: mi.com, miui.com and xiaomi.cn rank 55, 70 and 242 in internet traffic in China during May 2018 per iResearch
 Source: iResearch, 3HA Research & Analysis

Internet Service Revenue Drivers

Sustaining rapid MAU growth and simultaneous expansion of ARPU / MAU not likely

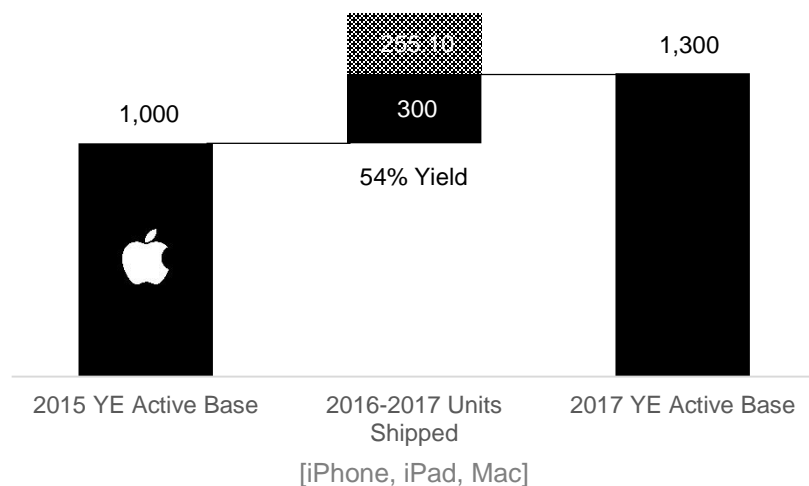
Xiaomi realizes significantly lower MAU yield on device shipments vs. Apple



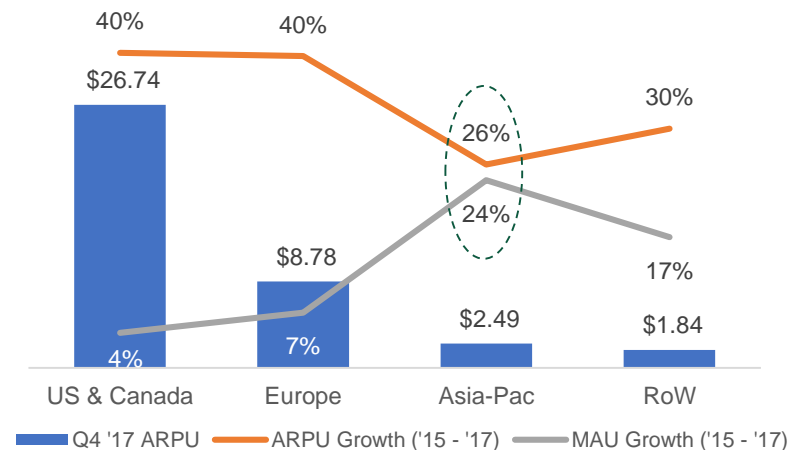
International growth, esp. in emerging markets will likely depress service revenue growth / MAU

Country	Monthly ARPU
China	\$9.1
India	\$2.8
USA	\$42.9
Indonesia	\$3.1
Brazil	\$6.4
Japan	\$28.3
Russia	\$4.8

- Xiaomi's key international markets include India, Russia and Indonesia – markets with 50-70% lower mobile ARPU vs. China
- India, Indonesia and to an extent Russia all have well entrenched Western mobile internet service providers
- Accelerated unit growth in these emerging markets will likely pressure service revenue / MAU



For Facebook, despite low ARPUs in emerging markets, high MAU growth has come with moderate ARPU growth

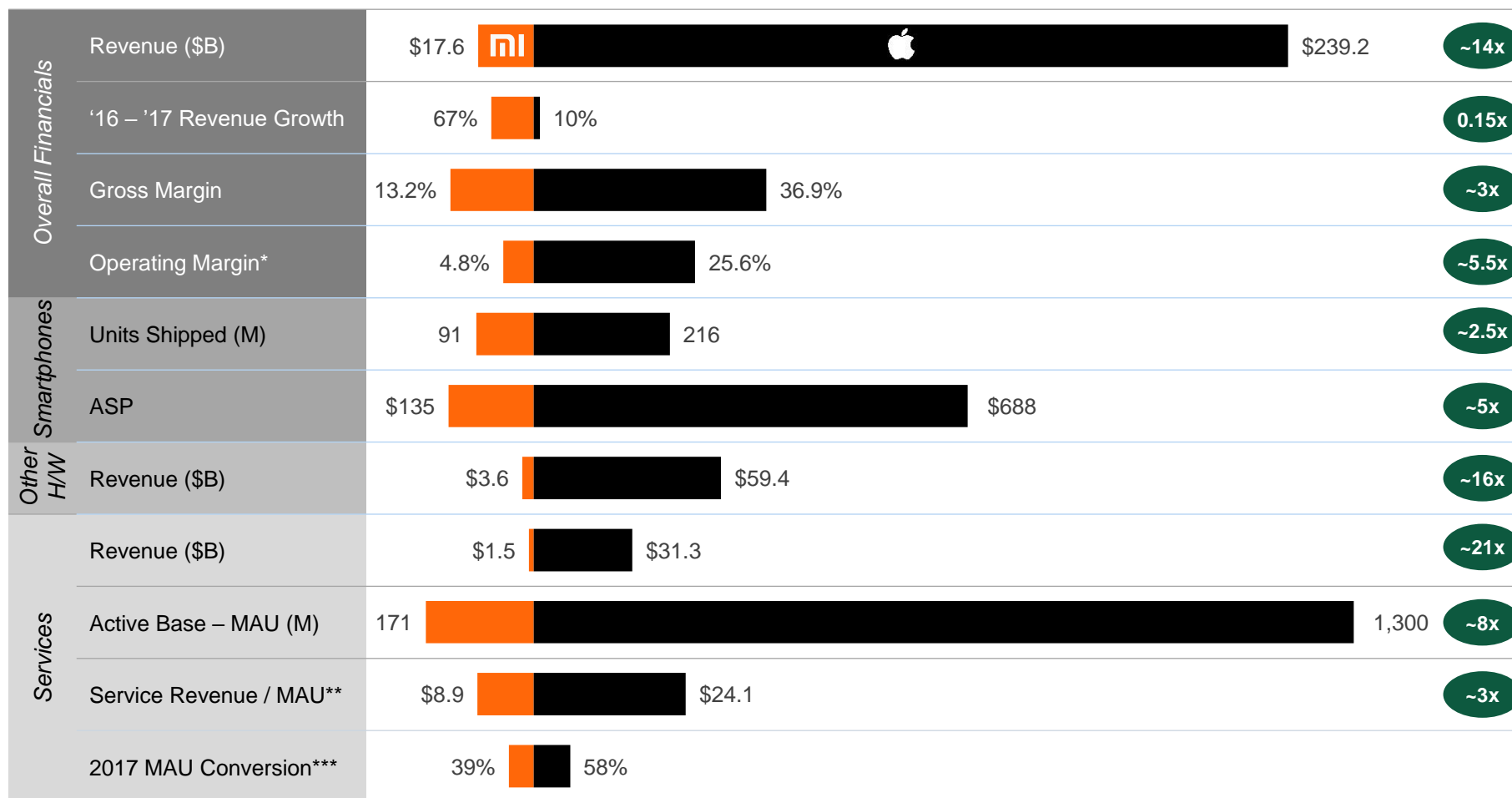


Sources: Apple, Xiaomi, China Telecom, Vedemosti, Telkom Indonesia, TIM Brazil, Facebook, 3HA Research & Analysis

Xiaomi Vs. Apple (2017 Comparison)

Xiaomi's business model most closely resembles Apple's

- Both sell smartphones, offer a range of connected devices (tablets, laptops, wearables) and derive meaningful revenues from services



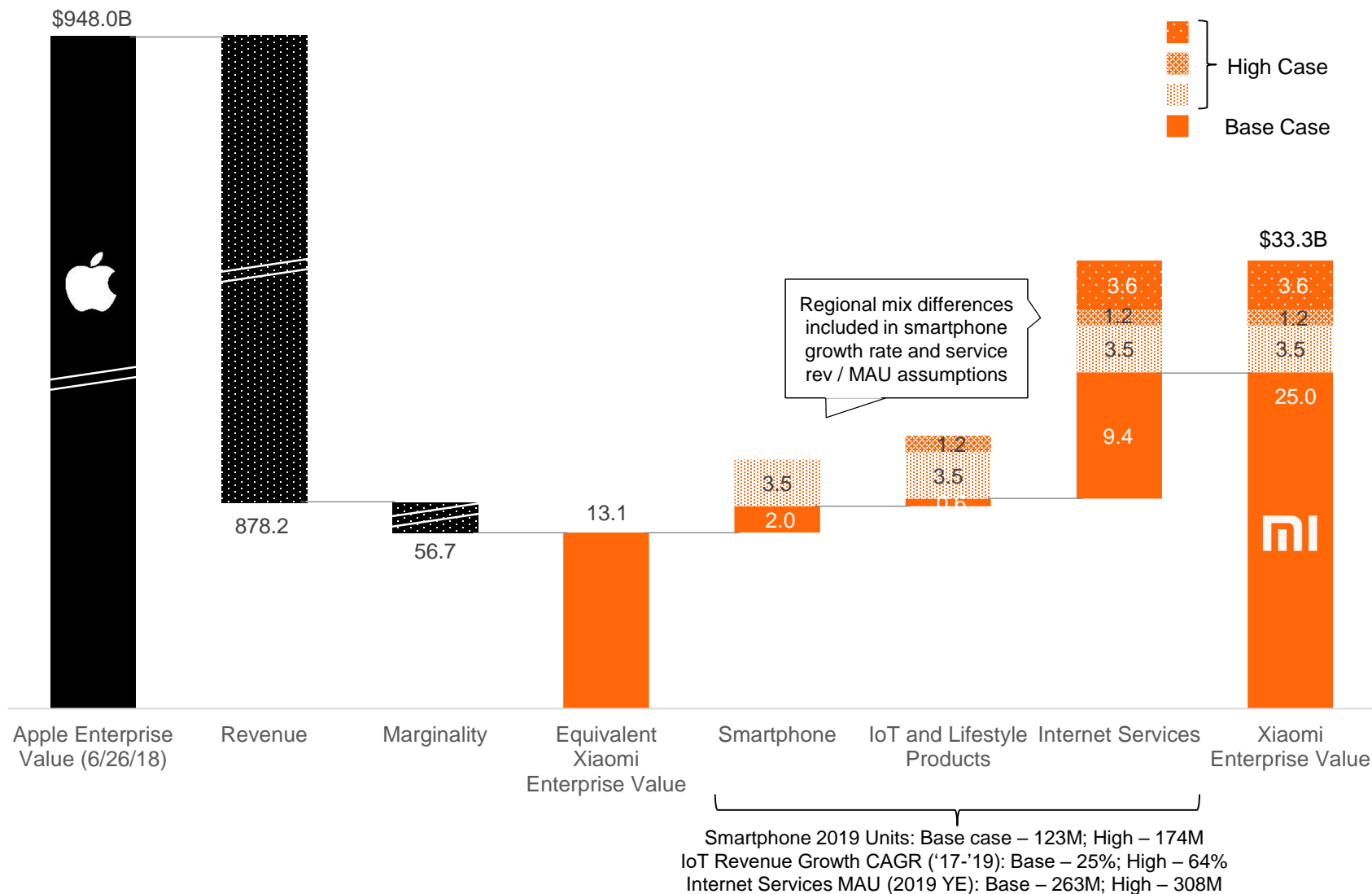
Apple has 15-20x greater revenue scale and 3 – 5.5x greater profitability; Xiaomi expected to grow significantly faster, but business model and regional skew likely to keep profits relatively depressed

Apple metrics for CY 2017, Operating margin adjusted for reported non-operating gains and losses, Service Revenue / MAU calculated using full year service revenue and end of year MAU count
 MAU conversion is increase in MAU count per smartphone unit, Scale not uniform or comparable across metrics
 Sources: Apple, Xiaomi, 3HA Research & Analysis

Enterprise Value Build-up (Based on 2019 Projections)

Fewer units combined with weaker ASP and margins lead to lower Xiaomi valuation

- Smartphone unit share gains and margin expansion, accelerated IoT product revenue growth and MAU expansion in turn driving services revenue growth lead to base case enterprise value of \$25B



Xiaomi operating margin adjusted for reported non-operating gains and losses
 Sources: Apple, Xiaomi, IDC, iResearch, Stock Analysis on Net, 3HA Research and Analysis

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Cheenu advises PE and corporate clients in the tech and telecom sectors. He draws on 18+ years of consulting and industry experience, helping organizations achieve sustained revenue and market share gains and top-quartile profitability. Cheenu focuses on new product development, market entry, operations strategy, corporate turnarounds and strategic planning.

Cheenu's experience includes Director & Partner at Altman Vilandrie & Co, a leading TMT focused strategy consulting firm; Chief Strategy Officer and later COO at MTS, a greenfield wireless company in India; VP of Strategy & Planning for Motorola's Mobility business; Case Team Leader with Bain & Co., helping Fortune-500 clients with growth strategy and restructuring and Acterna (now Viavi Solutions) in multiple roles including Manufacturing Manager.

Cheenu graduated with Honors from the University of Chicago, Booth School of Business and is a member of the Beta Gamma Sigma Honor Society. He received a MS in Industrial Engineering from Binghamton University and a Bachelor's degree in Mechanical Engineering from the Indian Institute of Technology, Madras.