

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the NOVA – School of Business and Economics.

THE APPLE OF CHINA

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# The Apple of China

## Abstract

An equity research involves analyzing a company's financial information and forecasting it with the intention of making an investment recommendation of either buy or sell its stock. The goal of this paper is to analyze Xiaomi Corporation's financial information, forecast the company's value in the future and, though that, make an investment recommendation about whether it is better to buy or sell Xiaomi Corporation's stock by comparing Xiaomi Corporation's market stock price with its theoretical target price. For that effect, the DCF valuation method was applied and the investment recommendation was to buy Xiaomi Corporation's stock.

Keywords: Xiaomi Corporation; Smartphone; Internet of Things (IoT); Equity Research

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# XIAOMI CORPORATION

IT SECTOR

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# COMPANY REPORT

3 JANUARY 2020

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## The MI Experience

▪ We begin the coverage of Xiaomi Corporation with a BUY recommendation and a target price for 2020F of HK\$18.04.

▪ Xiaomi is a growing company with total revenue expected to grow at a CAGR(%) of 22.74% in 2018-2030F. This growth is propelled by its triathlon business model: attracting users to its network through the sale of smart hardware on its new retail distribution channels and then further monetize on these users with its high-margin internet services. It is also propelled by its low production costs, which allows Xiaomi to have lower prices than its competitors.

▪ We model that the revenue derived from smartphone sales will continue to grow at a CAGR(%) of 22.35% in 2018-2030F, fueled by an increase in the smartphone's average selling price (ASP) of 9.46% in 2020E and in the units shipped. We give special emphasis to India, where Xiaomi is the market leader with 26% of market share and to the 5G introduction, which is expected to boost the smartphone market and consequently Xiaomi's revenue.

▪ Through a RMB10 billion R&D investment for IoT, we expect additions to its ecosystem partners and overseas gains, with Xiaomi establishing itself as more than just a smartphone company. We model that the IoT and lifestyle products' revenue will grow at a CAGR(%) of 25.55% in 2018-2030F.

### Company description

Xiaomi Corporation is a Chinese investment holding company founded in 2010 by Lei Jun. With a strong domestic and overseas presence, it engages in the development and sale of smartphones and other hardware and lifestyle products as well as in the provision of internet services, aiming to make technology accessible with its cost-efficient strategy, wide product line, ecosystem of partners and competitive pricing.

**Recommendation:** BUY

*Vs Previous Recommendation* -

**Price Target FY20:** 18.04 HK\$

*Vs Previous Price Target* -

**Price (as of 3-Jan-20)** 11.22 HK\$

Source: Bloomberg; Company data

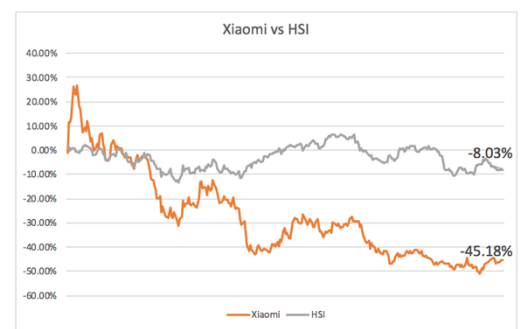
52-week range (HK\$) 11.22—18.04

Market Cap (HK\$m) 151,826.600

Outstanding Shares (m) 17,351.840

EV (HK\$m) 410,405.061

Source: Bloomberg; Company data



Source: Bloomberg; Company data

| (Values in HK\$m) | 2018    | 2019E   | 2020F   |
|-------------------|---------|---------|---------|
| Revenue           | 174,915 | 250,303 | 335,546 |
| EBITDA            | 1,944   | 18,007  | 53,544  |
| Net Profit        | 13,478  | 6,302   | 7,230   |
| Yoy (%)           | -       | -53.24% | 14.72%  |
| EPS               | 0.04    | 0.37    | 0.42    |
| P/E               | 13.46   | 18.16   | 14.39   |
| EV/EBITDA         | 116.27  | 13.98   | 10.91   |
| ROE (%)           | 16.71%  | 9.06%   | 9.46%   |
| ROA (%)           | 0.82%   | 7.13%   | 6.34%   |
| ROIC (%)          | 8.23%   | 11.84%  | 11.87%  |
| Div yld (%)       | 0%      | 0%      | 0%      |

Source: Bloomberg; Company data

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY CATARINA SIMÃO AND CHEN XIAN LIU, MASTER'S IN FINANCE STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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## Executive summary

This report provides a detail examination of Xiaomi Corporation's (stock code: 1810.HK) expected future performance as well as its stock value.

The pression arising from the US-China trade war has negatively affected the Chinese IT sector, scaring away investors, which consequently caused a decrease of 48.53% in Xiaomi's stock price since its IPO in July of 2018.

However, we believe that Xiaomi is currently undervalued given four main reasons. Firstly, it is important to mention its competitive pricing strategy made possible because of its sustainable competitive advantage in the form of low production costs, low margins (US\$2 per unit sold versus average competitor's US\$44.8 per unit) and its ecosystem partnerships, which will allow it to decrease its dependence to external suppliers. Secondly, the 5G introduction in 2020F is expected to boost the global smartphone market by 1.6%, which, summed to the fact that every competitors' ASP has been growing, leaves more room for Xiaomi's smartphone-derived revenue to grow. Additionally, the IoT market expected high growth of 26.1% from 2017 to 2022F also gives an opportunity for Xiaomi to ride on this market growth and derive more revenue from this segment. Lastly, its triathlon business model gives Xiaomi an opportunity to increase the revenue derived from the internet services, while it also increases the smartphone and other smart devices' sales. For this reason, we anticipate a target price in 2020F of HK\$18.04 and recommend buying.

## The Mi View – A Company Overview

Xiaomi Corporation was founded in 2010 with the mission of creating high-quality technology with affordable prices to be accessible to everyone. The company states that reasonable prices do not equal sacrificed quality. Xiaomi sells smartphones, Internet of Things (IoT) and lifestyle products and internet services, with a respective weight of 65.06%, 25.05% and 9.12% on the total revenue in 2018. The remaining 0.77% derived from out-of-warranty reparations.

### The Mi Business Model – “Triathlon” Model

To accomplish its mission, Xiaomi developed a business model to not only attract and retain its users but also to monetize on them. Xiaomi's “triathlon” business model has three main pillars: hardware and offline products, internet services and “new retail” distribution channels.

**Figure 1 - Triathlon Business Mode**  
Source: Company website



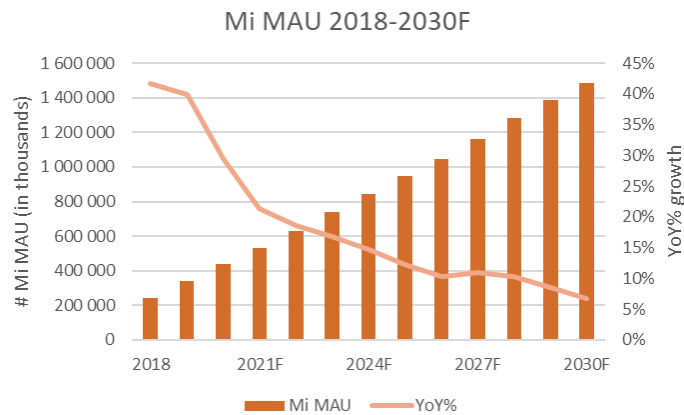
**Hardware and other offline products**

As for the first pillar, Xiaomi presents a highly diversified hardware product line, ranging from smartphones, laptops, smart TVs, smart speakers to other various smart devices, such as air purifiers and LED smart bulbs. The company uses its products as a way of attracting new users to its network. The smartphone is the main tool to attract new users, with the remaining products serving as a way to retain them. The fact that there are so many different products with frequent new launchings helps the retention process, ensuring brand loyalty. In 2019, Xiaomi launched 13 new smartphone models, of which the Mi Max 3 model had the second highest retention rate in China with 47.49%, followed by the Mi Note model with 42.25% and Mi Digital model with 38.74%<sup>1</sup>. These retention rates will be translated into Mi monthly active users (Mi MAU).

**Mi MAU**

The Mi MAU has risen steadily over the years with an average increase of 53 million users over the last two years. In 2018, Xiaomi had 242.1 million users, presenting a year on year (YoY%) growth of 41.74%, and we expect that it will further grow over the years, anticipating an compound annual growth rate (CAGR(%)) in the period between 2018-2030F of 17.9%. This growth will be fueled by the expected rise of the volume sold of smartphones and smart devices and also because of the future expansion overseas.

**Figure 2 - Mi MAU 2018-2030F**  
Source: Company report



**Internet services**

As for the second pillar, the internet services serve as a source of monetization. After Xiaomi acquires users through its smart devices, it monetizes on them by further selling its internet services, such as online gaming, advertising, financial services, entertainment and live streaming.

Xiaomi can achieve this given its network of devices. As most smartphones originating from China, Xiaomi’s smartphones have an Android-ROM that redesigns the user interface to better suit the consumers’ needs called Mi User Interface (MIUI). Through this platform, various apps such as Mi Music, Mi

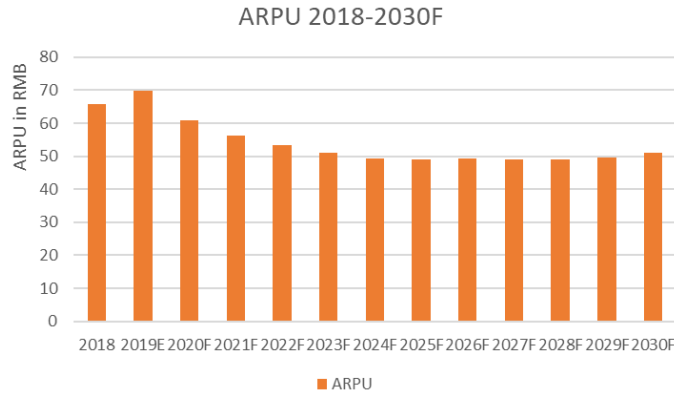
<sup>1</sup> Gizmochina.2019. "Huawei tops smartphone retention rate charts in China but Xiaomi dominates". Accessed December 21. <https://www.gizmochina.com/2019/10/09/huawei-tops-smartphone-retention-rate-charts-in-china-but-xiaomi-dominates/>

**ARPU**

Video, etc... are made available to its users, which Xiaomi then uses to offer its paid services, online gaming and advertisement and thus monetize its users. Moreover, Xiaomi's smart TVs also possess a similar system with the various services being offered to users through the TV. As for the remaining smart appliances, such as air purifiers and rice cookers, they are all connected to an app, the Mi Home app, that the users utilize to control its devices at distance. Xiaomi then uses this app to place advertisements and various forms of entertainment. This strategy ensures that, after selling its devices, Xiaomi will have a continuous source of revenue through its users by monetizing its user traffic and guaranteeing that people do not stop spending the moment they buy hardware. The average revenue per user (ARPU) has been rising in the last few years, with RMB65.9 in 2018, exhibiting a YoY% growth of 13.82%.

**Figure 3 - ARPU 2018-2030F**

Source: Company report



**New retail – the omnichannel shopping experience**

As for the final pillar, new retail refers to the integration of online and offline distribution channels, which allows the company to eliminate distribution layers and consequently reduce costs, promoting competitive pricing.<sup>2</sup> Xiaomi began its business by selling only through a direct online channel, becoming the third largest e-commerce seller in China (10% market share), after Alibaba (25% market share) and JD.com (50% market share) and the number two smartphone online seller in China in 4Q18 with 18% market share<sup>3</sup>.

In an attempt to compete with peers such as OPPO and Vivo which have physical stores, Xiaomi further expanded its business to offline channels in 2015, creating Mi Home and Mi Authorized stores (that offer the same services as Mi Home stores but are not owned by Xiaomi). Currently, there are 611 Mi Home and Mi Authorized stores in China with YoY% growth of 4.27% and 520 Mi Home and Mi Authorized stores in India. In 2017, Xiaomi also expanded its offline

<sup>2</sup> China Daily. 2018. "Online meets offline, as New Retail spreads". Accessed December 21. <https://www.chinadaily.com.cn/a/201812/18/WS5c185976a3107d4c3a001625.html>

<sup>3</sup> Counterpointresearch. 2019. "A Record 28% of All Smartphones Were Sold Through Online Channel in Q4 2018 in China". Accessed December 21. <https://www.counterpointresearch.com/record-28-smartphones-sold-online-channel-q4-2018-china/>

distribution to the Europe, Middle East and Africa (EMEA) region, and it has plans to continue this expansion worldwide.

***Is it worth opening offline stores?***

In 2017, 95% of total revenue originated from the online channel, with only 5% coming from the offline channel. A year later, that situation shifted, with 65% coming from the online channel and 35% originating from the offline channel.<sup>4</sup> The offline channel achieved an average of RMB242,000 in annual sales per square meter in its Mi Home stores in 2017, which was the second highest in retail chains globally after Apple store.<sup>5</sup> However, having its own physical store increased the cost base and, for this reason, Xiaomi's strategy is to slow down on the investment on Mi Home stores and instead opt for a franchising route with its Mi-Authorized stores or by creating a partnership with existing tech stores.

## The Mi Strategy - Supply Chain and Ecosystem

***Supply chain – Longer product cycle as an opportunity***

Like its competitors, Xiaomi also partners with manufacturers, such as Sharp, Foxconn, Wintek and Qualcomm, to outsource its production process. However, unlike its competitors such as Samsung which only outsources 3% of its manufacturing process or Huawei which outsources 32% of it, Xiaomi outsources 75%, the second highest in the smartphone market after Lenovo.<sup>6</sup> This, coupled with Xiaomi's demand-driven manufacturing policy, which allows it to keep inventories low and reduce costs, has left Xiaomi at times not able to ramp up production fast enough to meet demand. The company does this on purpose though. Since its product cycle is higher than that of its competitors, with Xiaomi presenting a product cycle of 18-20 months whereas Apple products' have 6-12 months, Xiaomi can sell its products after launching almost at cost with limited units (leaving un-met demand), and, after a year, it has the opportunity to take advantage of this un-met demand by selling its products with higher margins.<sup>7</sup>

***Low production costs – a sustainable competitive advantage?***

As for the cost per unit, Xiaomi presents the lowest value of its competitors, which constitutes a competitive advantage given its competitive pricing strategy. Since it has a high product cycle and that it uses almost the same components by the same suppliers in every launching, we believe Xiaomi possesses negotiation power with its suppliers and, consequently, has been able to reduce production costs to a minimum. This coupled with the fact that its competitors have not been able to reduce production costs to reach the same level as

<sup>4</sup> Business Standard. 2019. "Xiaomi's offline market share jumps to 20%; forays into Rs 25K category". Accessed December 21. [https://www.business-standard.com/article/companies/xiaomi-s-offline-market-share-jumps-to-20-forays-into-rs-25k-category-119072501340\\_1.html](https://www.business-standard.com/article/companies/xiaomi-s-offline-market-share-jumps-to-20-forays-into-rs-25k-category-119072501340_1.html)

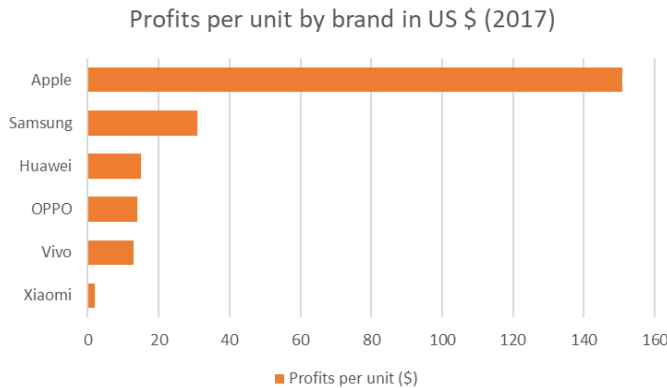
<sup>5</sup> Engadget. 2018. "Xiaomi's Hong Kong IPO expected to raise at least \$10 billion". Accessed December 21. [https://www.engadget.com/2018/05/03/xiaomi-hong-kong-ipo-filing/?quccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2x1LnNvbS8&guce\\_referrer\\_sig=AQAAAFiZaJdUk6FRIR9y4Ap1\\_sJjuyul-gratiYg5VF9hJ0-3qmeAwzpr8FbKvHSiOuSXP8zCHA2KvmCXiuNfXCwvT4ZvbK9g3QGpx33TF-L9W\\_BObkxmC4MNB5kRbcUSLqad6TQpRvwRCBtRWG9BtkunykSCWoKXiqLl2nSdhONlqZ](https://www.engadget.com/2018/05/03/xiaomi-hong-kong-ipo-filing/?quccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2x1LnNvbS8&guce_referrer_sig=AQAAAFiZaJdUk6FRIR9y4Ap1_sJjuyul-gratiYg5VF9hJ0-3qmeAwzpr8FbKvHSiOuSXP8zCHA2KvmCXiuNfXCwvT4ZvbK9g3QGpx33TF-L9W_BObkxmC4MNB5kRbcUSLqad6TQpRvwRCBtRWG9BtkunykSCWoKXiqLl2nSdhONlqZ)

<sup>6</sup> Gizmochina. 2019. "Here's Probably Why Xiaomi struggles with Supply, while Vivo does Really Well!". Accessed December 21. <https://www.gizmochina.com/2019/05/07/heres-probably-why-xiaomi-struggles-with-supply-while-vivo-does-really-well/>

<sup>7</sup> Elementum. 2018. "Xiaomi & The Supply Chain Behind the World's Highest Valued Smartphone Startup". Accessed December 21. <https://www.elementum.com/chain-reaction/xiaomi-smartphone-startup-supply-chain>

Xiaomi's and maintain a good quality/price dynamic, makes Xiaomi's low production cost a sustainable competitive advantage. In relation to the margins, Xiaomi also presents one of the lowest prices, making its margins the smallest of the market. In fact, Xiaomi's margin is only \$2 per unit, a much smaller number compared with Huawei's margin per unit of \$15 or with Apple's margin per unit of \$151.<sup>8</sup>

**Figure 4 - Profits per Unit (in USD)**  
Source: Counterpoint Research



**Table 1 - Production costs per unit (in USD)**  
Source: Techwalls

| Production costs per unit (in USD) |          |
|------------------------------------|----------|
| Xiaomi Mi 3                        | \$157,00 |
| Xiaomi Redmi Note 8                | \$86,00  |
| iPhone 11 Pro                      | \$490,50 |
| iPhone XS Max                      | \$443,00 |
| iPhone X                           | \$389,50 |
| iPhone 8                           | \$254,87 |
| iPhone 7                           | \$224,80 |
| iPhone 6S Plus                     | \$236,00 |
| iPhone 6S                          | \$211,50 |
| iPhone 6                           | \$200,10 |
| Samsung Galaxy Note 3              | \$232,50 |
| Samsung Galaxy Note 8              | \$369,00 |
| Samsung Galaxy S3                  | \$213,00 |

**Table 2 – Main ecosystem partners and its products**  
Source: Company report

| Company          | Product                 |
|------------------|-------------------------|
| Zimi             | Power bank              |
| 1MORE            | Headphones              |
| SmartMi          | Air purifier            |
| Huami            | Fitness bands (Mi Band) |
| Roborock         | Robot vacuum            |
| Ninebot          | Scooters (Segway)       |
| Yunmi            | Water purifier          |
| Chunmi           | Rice cooker             |
| Chuangmi         | Home security cameras   |
| Fengmi           | Projector               |
| Soocas           | Electric toothbrush     |
| Roidmi           | Vacuum                  |
| Yuemi            | Keyboard                |
| Runmi            | Travel lifestyle        |
| Chingmi          | Sacket                  |
| Yeelight         | Smartlight              |
| Miiw             | Mouse                   |
| Jiqidao          | Mitu                    |
| Xiaoxun          | Kid watch               |
| Banya            | Dashboard camera        |
| Turok Steinhardt | Sunglasses              |
| Hualai           | Home security cameras   |
| showmeplus       | Peripheral              |
| Madv             | 360 camera              |
| Powerise Fashion | Sportwear               |
| Qiji             | Bicycle                 |

Additionally, Xiaomi's innovative strategy of investing in technological start-ups and then jointly develop new products under the Mi brand allowed it to further reduce production costs. These partners and Xiaomi form the Mi ecosystem, which not only diversified Xiaomi's product line, but also allowed the company to have a more efficient supply chain. Although the products are developed together, it is the partner that oversees the production, being responsible for all costs related. In turn, Xiaomi offers its partners financing, human resources, administrative work, design, quality control, distribution channels and a more efficient supply chain without demanding a majority stake. After the product is ready for sale, Xiaomi buys it almost at cost, decides its final price, sells it through its channels and, in the end, shares the profit.

Currently, Xiaomi's ecosystem is composed of 270 companies that mainly work on smartphone accessories, wearables, rice cookers, air purifiers, electric scooters, robots, etc... and lifestyle products, such as suitcases, stationary, apparel, etc... (all products that Xiaomi did not produce before). Some of its key partners are now leaders in their fields, namely Huami (leader in the smart wearable market in China with Xiaomi having a stake of 14.8%), SmartMi (leader in the global air purifier market) and Ninebot (leader in the global electric scooter market with Xiaomi having a stake of 10.81%). In 2018, the revenue derived from the partnerships established in the ecosystem represented a weight of 14,3% in the total revenue, with a YoY% growth of 22.06%. As for the volume, it has been

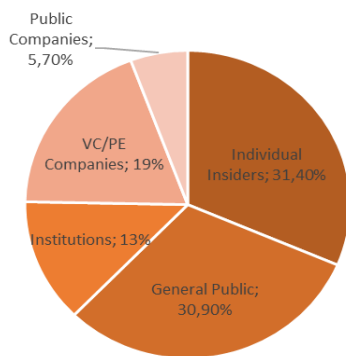
<sup>8</sup> Counterpoint Research.2017." Chinese Brands Mobile Handset Profit crossed US\$1.5 Billion For the First Time in a Single Quarter". Accessed December 21. <https://www.counterpointresearch.com/chinese-brands-mobile-handset-profit-crossed-us1-5-billion-first-time-single-quarter/>

increasing dramatically for the last few years, with a YoY% growth of 86.3% in 2018, reaching a value of 24,428 thousand products sold. We expect this trend to continue in the following years, anticipating a CAGR% in the period of 2018-2021F of 20.85% for the volume of products sold. Moreover, Xiaomi's number of ecosystem partners has grown quickly, with a YoY% growth of 28.57% in 2018. Since this strategy is lucrative for Xiaomi, providing it with lower production costs and a new source of revenue through an expansion of the product line, we expect that Xiaomi's investment in new partners will continue.

## The Mi Shareholder structure

**Figure 5 - Xiaomi's shareholder structure**

Source: Company report



Xiaomi's shareholder structure is composed of five main groups: individual insiders, general public, institutions, venture capital/private equity (VC/PE) companies and public companies. Individual insiders own the biggest share in the company, with 31,4% ownership. Most of it belongs to the CEO Lei Jun, with the remaining shares belonging to the other co-founders and top-level managers. Moreover, the general public possesses 30,9% ownership, while the VC/PE companies have 19,0% (Morningside Group Ltd., with 8,6% ownership, followed by Apoletto Managers Ltd. with 6,1%, Qiming Venture Partners, Ltd. with 3,4% and the remaining owned by other small investment funds). Lastly, the institutions detain 13% and the public companies hold the remaining 5,7% of shares. Most shares are owned by Chinese individuals/corporations, even though the acquisition of shares is open to international investors.

Xiaomi 2018 initial public offering (IPO) was one of the biggest in the history of the Hong Kong stock market and, even though most analysts considered the company overvalued, the IPO was still successful, with Xiaomi raising 4.7 billion dollars overnight. However, just a month after its debut on the markets, Xiaomi's stock price continuously fell, reaching its lowest point yet in 2019. This is due to the US-China trade war and the poor results from other Chinese tech companies that influenced investors' perspective over the company.

Currently, investors are selling its shares, assuming losses, with Xiaomi announcing share buybacks to try to signal to the markets that the company is undervalued. Since it is a new company, Xiaomi also does not pay dividends.

# Smartphone

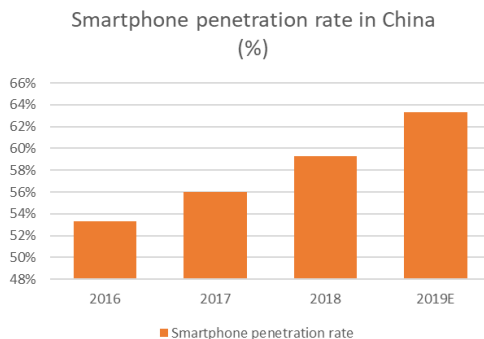
## China – Almost at the Top 3

### Market Analysis

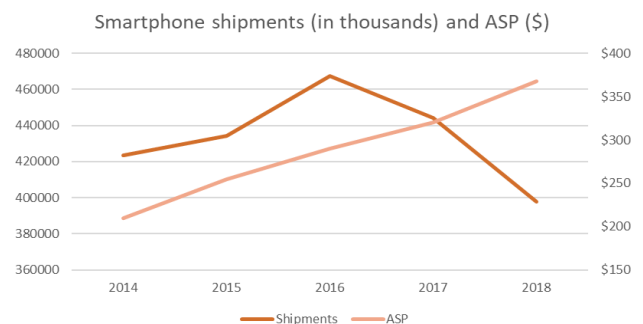
The Chinese smartphone market has been the largest worldwide since 2012, with a value of \$164.4 billion in 2018 and a YoY% growth of 7.94%.<sup>9</sup> We expect this market to further grow, boosted by the 5G introduction in 2020E and the average selling price (ASP) increase, achieving a CAGR% in the period between 2018-2030F of 12.99%. We believe the market will still grow given its smartphone penetration rate of 59.3% in 2018, which still leaves room for new users to buy their first smartphone.<sup>10</sup>

Moreover, China also has the largest number of smartphone shipments worldwide with 397.7 million in 2018.<sup>11</sup> However, this number has been decreasing since 2017, with a YoY% growth rate of -14%, and the expectations are for this trend to continue.<sup>12</sup> Despite this, the market is still growing due to the increase in the ASP with a YoY% growth of 15% in 2018, which offsets the volume decrease.<sup>13</sup>

**Figure 6 - Smartphone penetration rate (China)**  
Source: Statista



**Figure 7 - Smartphone shipments and ASP (China)**  
Source: IDC



### ASP increase

With the shipments plummeting, the increase in ASP has become the key driver of this market, which denotes a turn to the mid-rand and high-end categories. In fact, the low-end segment (US\$0-US\$200) decreased from being 57% of the

<sup>9</sup> Statista. 2019. "Smartphone market in China - Statistics & Facts". Accessed December 22. <https://www.statista.com/topics/1416/smartphone-market-in-china/>

<sup>10</sup> Statista. 2019. "Share of mobile phone users that use a smartphone in China from 2013 to 2019". Accessed December 22. <https://www.statista.com/statistics/257045/smartphone-user-penetration-in-china/>

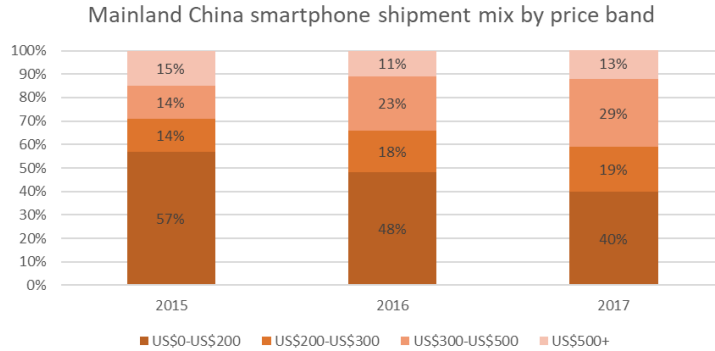
<sup>11</sup> Statista. 2019. "Smartphone market in China - Statistics & Facts". Accessed December 22. <https://www.statista.com/topics/1416/smartphone-market-in-china/>

<sup>12</sup> Canalys. 2019. "China's smartphone market falls 14% in 2018, with just under 400 million units shipped". Accessed December 22. <https://www.canalys.com/newsroom/china%E2%80%99s-smartphone-market-falls-14-in-2018-with-just-under-400-million-units-shipped>

<sup>13</sup> IDC. 2018. "China Smartphone Units Drop by 6% YoY while Average Selling Prices Grow by 15% in 2Q18, IDC Reports". Accessed December 22. <https://www.idc.com/getdoc.jsp?containerId=prCHE44199418>

total shipments in 2015 to being only 40%. On the contrary, high-end categories (US\$300-US\$500 and US\$500+) went from being 29% in 2015 to being 42%.<sup>14</sup>

**Figure 8 - Mainland China smartphone shipment mix by price band**  
Source: IDC

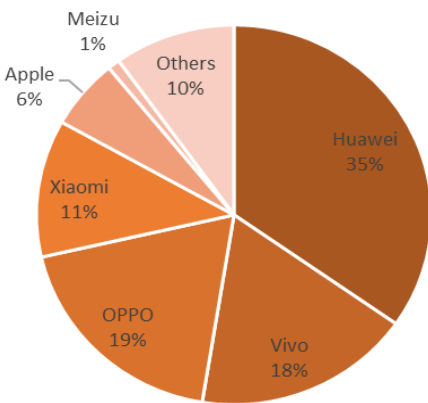


▪ **Past Performance and Competitive Analysis**

Xiaomi started its operations in China in 2010, first only through an online channel and then through its Mi Home stores. In 2018, 60% of its smartphone revenue originated from the Chinese market, which makes this market the one that has the most impact in the revenue. However, given its overseas expansion, this weight has been slowly decreasing year after year, with it dropping 12.01% from 2017 to 2018. We expect this trend to continue, with China having an increasingly lower weight in the smartphone revenue.

**Figure 9 - Chinese smartphone market share (2Q19)**  
Source: Counterpoint Research

Chinese smartphone market share (2Q19)



Xiaomi is currently the number 4 in the Chinese market with 11.5% market share, ranked behind Huawei, OPPO and Vivo.<sup>15</sup> As for the shipments, Huawei leads the ranking with 105 million shipments in 2018, establishing its leadership in the market. On opposition to the overall market, Huawei’s shipments increased YoY% by 15.5% in 2018. On the other hand, Xiaomi’s shipments decreased by 5.6% in 2018, following the market trend.<sup>16</sup>

As for the ASP, Xiaomi is the brand that presents the lowest value in the market with US\$149 in 2017, which means that it still has margin to increase it without offsetting its competitive pricing strategy in an effort to capture more market share by expanding into the mid-range and high-end categories, following the market evolution. Xiaomi’s ASP is followed by Huawei’s, OPPO’s and Samsung’s.

<sup>14</sup> IDC. 2018. “China Smartphone Units Drop by 6% YoY while Average Selling Prices Grow by 15% in 2Q18, IDC Reports”. Accessed December 22. <https://www.idc.com/getdoc.jsp?containerId=prCHE44199418>

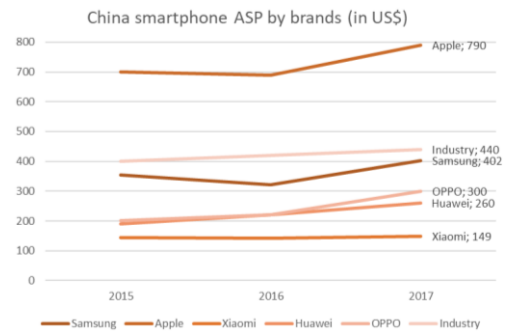
<sup>15</sup> Counterpoint Research. 2019. “China Smartphone Market Share: By Quarter”. Accessed December 22. <https://www.counterpointresearch.com/china-smartphone-share/>

<sup>16</sup> IDC. 2019. “IDC Reports A Slowdown of China’s Smartphone Market in Q4 2018”. Accessed December 22. <https://www.idc.com/getdoc.jsp?containerId=prAP44865419>

**Table 3 - China smartphone shipments (in million)**  
Source: IDC

| China smartphone shipments (in million) |       |       |         |
|---|-------|-------|---------|
| Company                                 | 2018  | 2017  | YoY%    |
| Huawei                                  | 105,0 | 90,9  | 15,50%  |
| Vivo                                    | 78,9  | 80,5  | -2,00%  |
| OPPO                                    | 76,0  | 68,6  | 10,80%  |
| Xiaomi                                  | 52,0  | 55,1  | -5,60%  |
| Apple                                   | 36,3  | 41,1  | -11,70% |
| Others                                  | 49,5  | 108,1 | -54,20% |
| Total                                   | 397,7 | 444,3 | -14,00% |

**Figure 10 - China smartphone ASP by brands (in US\$)**  
Source: IDC



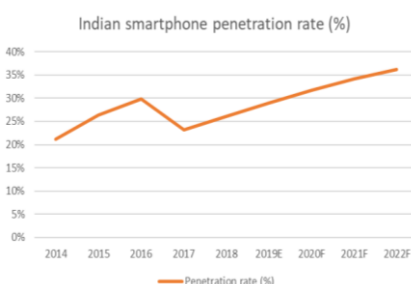
In September 2019, Xiaomi introduced the Xiaomi 9 Pro 5G, priced at RMB3,699, the cheapest smartphone with 5G feature in the market. Moreover, during the World Internet Conference 2019, Xiaomi’s management announced its plans to launch approximately 10 new 5G enabled smartphones in 2020F, targeting the high, middle and low-end price tiers. Through the actions mentioned before, we can see that Xiaomi is working hard to ascend to the top 3 in China. For 2020E, we are expecting Xiaomi to achieve a 14.4% market share in China, given that 5G will be an opportunity for the smartphone industry to grow and Xiaomi will be able to differentiate itself from its competitors by offering a wide range of choices, covering the high, medium and low end tiers, which competitors are not planning on doing. We also expect Xiaomi’s ASP to increase, which will also contribute to the revenue’s growth and consequently to the market share growth.

## India – A Growing Market

### Market Analysis

India is the second largest smartphone market globally, surpassed only by China, and is one of the fastest growing smartphone markets worldwide with an expected 20% overall growth rate for 2019E.<sup>17</sup> In 2018, it presented a value of \$17.81 billion, with a total of 137 million shipments and an ASP of \$130.<sup>18</sup> Smartphone companies consider this market attractive since most countries are experiencing low or even negative growth rates, while India is still experiencing a high growth period with a growth rate of 13.5% in 2017 and 16% in 2018. This high growth may be explained by its rising population and low smartphone penetration rates. In 2018, the smartphone penetration rate was 26.0% and it is expected to reach 29% in 2019E, which shows that there is still room to grow.<sup>19</sup>

**Figure 11 - Indian smartphone penetration rate (%)**  
Source: Statista



<sup>17</sup> IDC. 2019. "India Smartphone Market Registers Highest Second-Quarter Shipments in 2Q19, IDC India Reports". Accessed December 22.

<https://www.idc.com/getdoc.jsp?containerId=prAP45442419>

<sup>18</sup> Statista. 2019. "Smartphone market in India - Statistics & Facts". Accessed December 22. <https://www.statista.com/topics/4600/smartphone-market-in-india/>

<sup>19</sup> Statista. 2019. "Smartphone penetration rate 2014-2022". Accessed December 22. <https://www.statista.com/statistics/257048/smartphone-user-penetration-in-india/>

Likewise, India's population is expected to grow 17.0% in 2019E<sup>20</sup>, while the gross domestic product (GDP) is expected to grow 11.9% in 2019E<sup>21</sup>, which supports an overall increase in the population's purchasing power and consequently on the smartphone consumption and in the number of potential consumers. Given the growing market, we expect a CAGR in the smartphone market in 2018-2030E of 25.37% boosted by the 5G introduction in 2020E.

Due to its financial conditions, the Indian market is more focused on the low-end category of smartphones. In 2015, 67% of the smartphones sold in India were on the low-end category with a price below 10,000 Indian rupees, with only 7% being on the high-end category with a price above 30,000 Indian rupees.<sup>22</sup> Even though it represents the lowest weight in the market, the high-end smartphone category grew 43.9% YoY% in 2018.<sup>23</sup>

### ▪ Past Performance and Competitive Analysis

Xiaomi entered this region in 2014, first on online basis with the first Mi Home store opening the year after. It is the market leader in this region since 2018 with 26% market share in 3Q19, followed by Samsung, Vivo, Realme and OPPO.<sup>24</sup> 19% of Xiaomi's smartphone revenue originate from India, which demonstrates the relevance that this market has in the overall revenue.

**Figure 12 - Indian smartphone market share (3Q19)**

Source: Counterpoint Research

**Table 4 - Indian smartphone shipments**

Source: IDC

| India smartphone market, shipments (million) |                                |                                |         |
|--|--------------------------------|--------------------------------|---------|
| Company                                      | 2Q19<br>Shipments<br>(million) | 2Q18<br>Shipments<br>(million) | YoY(%)  |
| Xiaomi                                       | 10,4                           | 10                             | 5%      |
| Samsung                                      | 9,3                            | 8                              | 17%     |
| Vivo   | 5,6                            | 4,2                            | 32%     |
| Realme                                       | 2,8                            | 0,4                            | 602%    |
| Oppo   | 3,6                            | 2,5                            | 41%     |
| Others                                       | 5,1                            | 8,4                            | -39,10% |
| Total  | 36,9                           | 33,5                           | 9,90%   |

As the market leader, Xiaomi is the brand with the most shipments in the 2Q19, followed by Samsung and Vivo. Given the fact that the Indian market is focused on the low-end category of smartphones, it is easy to understand why Xiaomi with its low pricing strategy, its focus on the mid to low-range category and its concern with offering a good quality/price dynamic became the brand with the most shipments and the market leader in this region.

<sup>20</sup> PWC. 2018. *Future of India: the winning leap*

<sup>21</sup> IMF. n.d. "GDP, current prices (Billions of U.S. dollars)". Retrieved from IMF database

<https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD/AFQ>

<sup>22</sup> Statista. 2019. "Share of smartphones launched in leading e-commerce portals by price in India 2016". Accessed December 22.

<https://www.statista.com/statistics/809451/india-share-of-smartphones-launched-in-leading-e-commerce-portals-by-price-segment/>

<sup>23</sup> Sammobile. 2019. "IDC places Samsung at a distant second in the Indian smartphone market". Accessed December 22.

<https://www.sammobile.com/2019/02/13/idc-samsung-shipments-india/>

<sup>24</sup> Counterresearch. 2019. "India Smartphone Market Share: By Quarter". Accessed December 22. <https://www.counterpointresearch.com/india-smartphone-share/>

As for the ASP, in 2018, Xiaomi presented an ASP of \$128.30, a value slightly lower than the market average of \$130.00. What drove the market's ASP up was Samsung with an ASP above \$200 and Apple with an ASP above \$600. The other Chinese brands in this market, namely OPPO, Realme and Vivo, followed the same competitive pricing strategy as Xiaomi. However, their prices are above Xiaomi's, with OPPO and Vivo exhibiting an ASP near \$200.<sup>25</sup> It is important to mention that the ASP has been increasing with Xiaomi, presenting a growth rate of 6.7% in 2019, according to the company's report.

We expect that there is not much room for Xiaomi's market share to grow anymore given the already high market share and the introduction of the Realme brand in 2018. In fact, we consider the Realme brand a future threat for Xiaomi in this market since it presents a similar competitive pricing strategy and quality/price relationship that allowed Xiaomi to get to the leader position in the past, not to mention the fact that, in a year, it grew to become the fourth-largest player in the market, with a YoY% growth of 602% in shipments.

## Rest of the World (ROW)

### ▪ Market Analysis

"Rest of the World" refers to the Southeast Asian (SEA) and EMEA countries.

In 2Q19, the SEA countries had 30.7 million units shipped, which is an increase of 2% compared to the same quarter last year.<sup>26</sup> Approximately 75% of this market is focused on mid-to-low-end smartphones, with an ASP below US\$200 per smartphone. Considering the low brand loyalty, vast population and the recent development of online and logistical infrastructure, this market is interesting for many smartphone producers.<sup>27</sup> For this reason, we expect the market to continue to grow, with a CAGR% in 2018-2030F of 5.6%.

### **Declining market**

On the other hand, given the already high penetration rates and the ageing population, the EMEA smartphone market has been slowly declining in the last few years. The smartphone shipments declined 2,3% in 2018 and is expected to decline 7.58% in 2019E.<sup>28</sup> The lack of significant innovation in each smartphone launching to justify the price paid for a new device is the prompter behind the declining of this market, with consumers holding on to their devices longer. From 2016 to 2018, the smartphone holding period was extended from 23.4 to 26.2

<sup>25</sup> Sammobile. 2018. "Samsung's smartphone shipments decline, still leads the global market in Q2 2018". Accessed December 22. <https://www.sammobile.com/2018/08/01/samsungs-shipments-decline-leads-global-market-q2-2018/>

<sup>26</sup> Canalys. 2019. "Chinese smartphone brands take 62% of Southeast Asia's 30.7 million shipments" Accessed December 23 <https://www.canalys.com/newsroom/southeast-asia-smartphone-marketshare-Q22019>

<sup>27</sup> Worldometers 2019. "South Eastern Asia population (Live)". Accessed December 23 <https://www.worldometers.info/world-population/south-eastern-asia-population/>

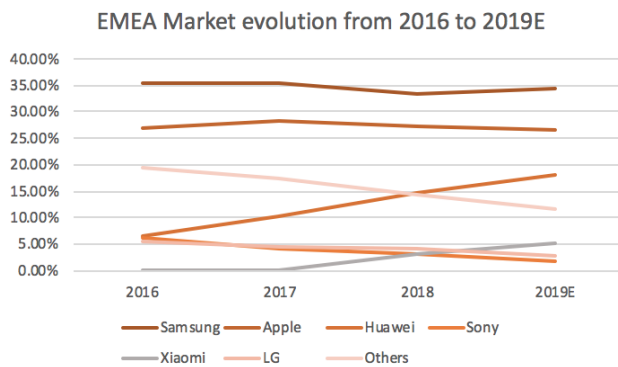
<sup>28</sup> Canalys. 2019. "Chinese smartphone vendors take a record 32% market share in Europe in 2018" Accessed December 26 [https://www.canalys.com/newsroom/chinese-smartphone-vendors-take-a-record-32-market-share-in-europe-in-2018-?utm\\_source=ixbtcom](https://www.canalys.com/newsroom/chinese-smartphone-vendors-take-a-record-32-market-share-in-europe-in-2018-?utm_source=ixbtcom)

months.<sup>29</sup> However, we believe that the 5G introduction in 2020E will help to smooth the problem temporarily by having a growth of 1.6% in shipments, but after the hype passes, the market will continue to decline gradually due to market saturation.<sup>30</sup> Unless a significant innovation appears to disrupt this market, this is the trend that we are anticipating for the future, with a CAGR(%) of -0.86% during the period of 2018-2021E.

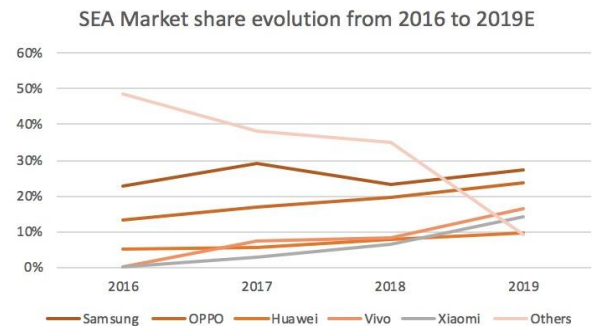
▪ Past Performance and Competitive Analysis

Considering the opportunities and the extremely fragmented smartphone market in the SEA region, Xiaomi started investing in that market in 2016. In 2017, it only had 3% market share, which doubled in 2018. Currently, Xiaomi has 14% of market share, falling behind Samsung, OPPO and Vivo.<sup>31</sup>

**Figure 13 - EMEA Market share evolution (2016 – 2019E)**  
Source: Statcounter

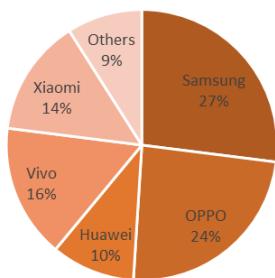


**Figure 14 - SEA Market share evolution (2016 - 2019E)**  
Source: Statcounter



**Figure 15 - SEA Market share by vendors (Nov 19)**  
Source: Counterpointresearch

SEA Market Share by Vendors (3Q19)



As the market leader, Samsung is the peer that has shipped more units in 2019 with 27.2 million shipments. One of the main growth factors for Samsung is the high investment that it has in research and development (R&D) compared with its competitors. Samsung is the company in the world that invests more on R&D. In 2018, Samsung invested US\$15.2 billion in R&D (with a YoY% growth of 11,5%), while Xiaomi only invested US\$5.8 billion.<sup>32</sup> This gives an edge to Samsung that Xiaomi cannot have. To overcome this, in the first half of 2019, Xiaomi’s R&D expense is 30% higher than the previous year.<sup>33</sup>

The strategy used by OPPO explains its 24% market share and 26.8 million shipments. It invests strongly in advertising campaigns, running ads in online and offline platforms. The celebrities selected as brand endorsers are local movie stars and famous singers. It also expanded retail points that allows for online and

<sup>29</sup> CNBC. 2019. "Smartphone users are waiting longer before upgrading — here's why" Accessed December 23

<https://www.cnbc.com/2019/05/17/smartphone-users-are-waiting-longer-before-upgrading-heres-why.html>

<sup>30</sup> IDC. 2019. "Smartphone Challenges Continue in 2019, But 5G and Emerging Markets Will Bring Growth Back to the Market in 2020" Accessed December 23

<https://www.idc.com/getdoc.jsp?containerId=prUS45487719>

<sup>31</sup> Statcounter. 2019. "Mobile Vendor Market Share in Asia - November 2019" Accessed December 25 <https://gs.statcounter.com/vendor-market-share/mobile/asia>

<sup>32</sup> Sammobile. 2019. "Samsung continues to pour money into R&D". Accessed December 25. <https://www.sammobile.com/news/samsung-spending-on-research-development-grows/>

<sup>33</sup> Pandaily. 2019. "Xiaomi Ships 60 Million Smartphones in the First Half of 2019" Accessed December 26

<https://pandaily.com/xiaomi-ships-60-million-smartphones-in-the-first-half-of-2019/>

offline shopping. Up to date, OPPO has approximately 52,000 retail points and more than 44,000 sales representatives.<sup>34</sup> These approaches helped OPPO increase the brand awareness, especially in rural areas. The Realme brand experienced the biggest growth in this region, with a 156% YoY% growth rate in terms of units shipped. Xiaomi was the second brand which grew the most in one year, with a YoY% growth of 49%.

**Table 5 - SEA smartphone market, shipments (million)**

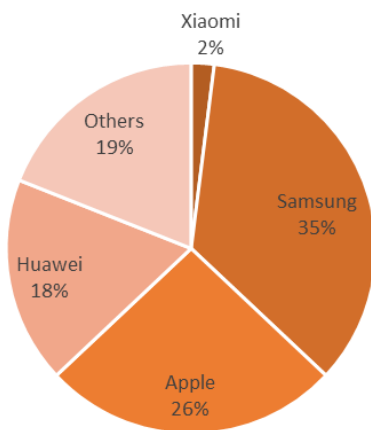
Source: IDC

| SEA smartphone market, shipments (million) |                          |                          |         |
|--|--------------------------|--------------------------|---------|
| Company                                    | 2019 Shipments (million) | 2018 Shipments (million) | YoY (%) |
| Samsung                                    | 27.2                     | 29.3                     | -7%     |
| Oppo                                       | 26.8                     | 21                       | 28%     |
| Vivo                                       | 16.4                     | 12                       | 37%     |
| Xiaomi                                     | 13.4                     | 9                        | 49%     |
| Realme                                     | 6.4                      | 2.5                      | 156%    |
| Others                                     | 13.6                     | 27.5                     | -51%    |
| Total                                      | 103.8                    | 101.3                    | 2%      |

**Figure 16 - EMEA Market share by vendors 2019**

Source: Counterpoint Research

#### EMEA Market Share by Vendor in 2019E



Currently, Xiaomi is the fourth largest player in a market dominated by high-priced brands, namely Apple, Samsung and Huawei. The main competitors in this market have different strategies, focusing more on the high-end segment, presenting higher prices, but with similar quality, characteristics and design as Xiaomi. Before Xiaomi entered this market, there was no company offering smartphones with such features at an affordable price in this region. Xiaomi took advantage of this gap in the EMEA market and that was what enabled such growth.

**Table 6 - EMEA smartphone market, shipments (million)**

Source: Canalys

| EMEA smartphone market, shipments (million) |                          |                          |         |
|---|--------------------------|--------------------------|---------|
| Company                                     | 2019 Shipments (million) | 2018 Shipments (million) | YoY (%) |
| Samsung                                     | 70.3                     | 61.5                     | 14%     |
| Huawei                                      | 44.8                     | 43.9                     | 2%      |
| Apple                                       | 32.0                     | 41.4                     | -23%    |
| Xiaomi                                      | 17.2                     | 11.9                     | 45%     |
| Others                                      | 27.9                     | 35.4                     | -21%    |
| Total                                       | 192.1                    | 194.1                    | -1%     |

Thus, we expect further gains in Xiaomi's market share for the next few years, which will be driven by the expansion of the offline distribution channel and the alliance with CK Hutchinson, a multinational conglomerate committed to innovation and technology. CK Hutchinson owns 17,700 stores, 130 million active telecom users and 140 million customers in retail sales across the world, which

<sup>34</sup> Phone Arena. 2019. "OPPO opens first Super Flagship Store in Thailand" Accessed December 25. <https://www.fonearena.com/blog/296031/oppo-super-flagship-store-thailand.html>

allows Xiaomi access to those resources immediately and to sell its smartphones and IoT devices through its channels.<sup>35</sup> This is a great opportunity for Xiaomi to further expand its business and gain market share in countries where it does not have physical stores, avoiding the costs that usually accompany with this type of strategy. Given the limited potential of this market and the big number of competitors with a strong presence in this region, Xiaomi has limited growth opportunities in the EMEA region, even though we consider that Xiaomi has not reach yet its fullest potential in this region.

In terms of smartphone shipments, Xiaomi was ranked fourth in the EMEA region and second for Spain in 2Q19, after Samsung, Huawei and Apple. Despite this, it was the brand that grew more in this market with a YoY% growth of 45%.

## IoT and Lifestyle Products

### Market Analysis

#### **Strong future growth prospects**

The consumer IoT market consists on the sale to consumers of devices that belong to a network and that can communicate between each other through the internet. The global consumer IoT market was worth 1,7 trillion dollars in 2018 with strong growth prospects, expecting it to be worth 2.5 trillion in 2020E.<sup>36</sup> The global consumer IoT market is expected to grow at a CAGR(%) between 2017 and 2022F, of 26,1%.<sup>37</sup> In turn, the Chinese consumer IoT market is expected to grow at a CAGR(%) in the same period of 21,3%.<sup>37</sup>

The only way to survive in this market is to continuously develop various smart devices to attract further customers to the company's IoT network and, consequently, grow the network. The main devices that Xiaomi uses for this end, apart from smartphones, are smart speakers and smart TVs. For this reason, to fully cover this market, it is necessary to study these smaller markets.

#### **Smart Speakers**

The smart speakers' market is highly competitive, with players such as Amazon, Apple, Google, Microsoft, Alibaba, Baidu and JD.com investing in it. In 2018, the global smart speaker market was worth US\$11.8 billion.<sup>38</sup> The smart speakers' global sales are expected to rise 35% in 2019 with 205.5 billion shipments expected in total for this year.<sup>37</sup> This growth will gradually slow down, given the substitute effect of voice assistants coming from different devices, like

<sup>35</sup> Asia Times. 2018. "Xiaomi teaming up with CK Hutchison in overseas push" Accessed December 26. <https://www.asiatimes.com/2018/05/article/xiaomi-teaming-up-with-ck-hutchison-in-overseas-push/>

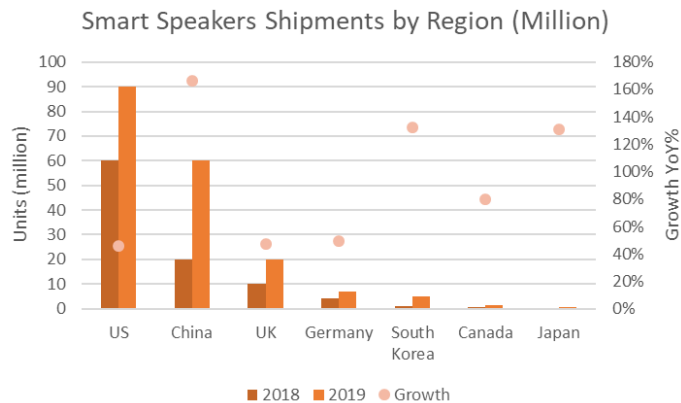
<sup>36</sup> Statista. 2019. "Size of the Internet of Things (IoT) market worldwide from 2017 to 2025". Accessed December 24. <https://www.statista.com/statistics/976313/global-iot-market-size/>

<sup>37</sup> iResearch. 2018. "Xiaomi, the world's largest smart hardware company with a built-in IoT platform". Accessed December 24. [http://www.iresearchchina.com/Upload/201808/20180824143739\\_3256.pdf](http://www.iresearchchina.com/Upload/201808/20180824143739_3256.pdf)

<sup>38</sup> Statista. 2019. "Smart speaker market revenue worldwide 2022". Accessed December 25. <https://www.statista.com/statistics/822511/worldwide-smart-speaker-market-revenue/>

smartphones; however, it is also expected that the growth will be lasting, anticipating a CAGR% in the period of 2018-2023F of 34.7%.<sup>39</sup> China is the second largest market, grabbing 16.3% of total shipments, after North America which grabs 42.2% and followed by Western Europe.<sup>40</sup> Special emphasis must be put on China since it is expected to grow at a YoY% of 166% in 2019E, the highest growing market currently.<sup>41</sup>

**Figure 17 - Smart speakers' shipments by region (million)**  
Source: Canalys



On the other hand, in 2018, the global smart TV market was worth US\$157 billion, with North America retaining 42.7% of total market value, followed by the Asia-Pacific region and Europe.<sup>42</sup> This market is still growing, with an expected CAGR(%) in the period 2018-2024F of 16.5%, anticipating a market value of US\$293.5 billion in 2024F.<sup>43</sup> In terms of regions, the US is the country that contributes the most to this market, with the highest viewership worldwide of 49 hours per month; on the other hand, Asia-Pacific region presents the highest growth with an expected CAGR% of 8.8% from 2019 to 2025F, which is expected to drive the market in the future.<sup>42</sup> In 2018, the total smart TV shipments accounted for nearly 200 million units, with the same source expecting a total number of shipments of 250 million units in 2025F.<sup>44</sup>

### Smart TVs

## Past Performance and Competitive Analysis

Xiaomi develops multiple smart devices that are interconnected by its MIUI system. This system provides access to various apps that can control these

<sup>39</sup> Market research future. 2019. "Smart Speakers Market Research Report – Global Forecast till 2023". Accessed December 24. <https://www.marketresearchfuture.com/reports/smart-speakers-market-2286>

<sup>40</sup> Voicebot. 2019. "Smart Speaker Sales to Rise 35% Globally in 2019 to 92 Million Units, 15 Million in China, Growth Slows". Accessed December 24. <https://voicebot.ai/2019/09/24/smart-speaker-sales-to-rise-35-globally-in-2019-to-92-million-units-15-million-in-china-growth-slows/>

<sup>41</sup> Canalys. 2019. "Canalys: Global Smart Speaker installed base to top 200 million by the end of 2019". Accessed December 25. <https://www.canalys.com/newsroom/canalys-global-smart-speaker-installed-base-to-top-200-million-by-end-of-2019>

<sup>42</sup> Grand View Research. 2019. "Smart TV Sticks Market Size, Share & Trends Analysis Report By Distribution Channel (Online, Specialty Store, Hypermarket & Supermarket, Convenience Stores), By Region, And Segment Forecasts, 2019 – 2025". Accessed December 25. <https://www.grandviewresearch.com/industry-analysis/smart-tv-sticks-market>

<sup>43</sup> Mordor Intelligence. 2018. "SMART TV MARKET - GROWTH, TRENDS, AND FORECAST (2019 - 2024)". Accessed December 25. <https://www.mordorintelligence.com/industry-reports/smart-tv-market>

<sup>44</sup> Statista. 2019. "Smart TV unit sales worldwide 2018-2024". Accessed December 25. <https://www.statista.com/statistics/878372/smart-tv-unit-sales-worldwide/>

devices and that connects its users to the Xiaomi’s IoT platform. In 2018, Xiaomi presented the largest number of interconnected devices worldwide, which makes its IoT platform the market leader with over 100 million Xiaomi’s connected devices.<sup>45</sup> These interconnected devices can either be produced in-house or by the ecosystem partners.

Xiaomi faces many competitors in this fragmented market, such as Google, Lenovo, Intel, Microsoft, Samsung and Dell, to name a few. The total investment in this market was nearly US\$726 billion in 2019E, with Xiaomi planning to invest RMB10 billion in R&D for IoT devices’ development in the next five years.<sup>46</sup>

In order to understand Xiaomi’s past performance and its competition, it is necessary to once again study each individual devices’ markets.

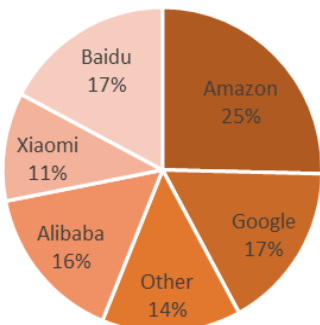
Xiaomi was one of the first Chinese brands to invest in the smart speakers’ market in 2018. Its Xiao AI smart device being the fifth largest player in this market in 2Q19 with 11% market share, after Alibaba, Baidu, Google and Amazon, followed by Lenovo.<sup>47</sup> As for the shipments, Amazon leads as well, with

6.6 million units shipped in 2Q19 and the biggest YoY% growth of the market.<sup>48</sup> In terms of shipments, Xiaomi occupies the fifth place; however, it exhibits the third largest YoY growth of the market, with 40.0% growth, which was driven by the Chinese market growth and lack of competitors on that market.<sup>48</sup>

**Smart Speakers**

**Figure 18 - Smart speaker global market share 2Q2019**  
Source: Canalys

Smart Speaker Global Market Share Q2 2019



**Table 7 - IoT and lifestyle devices units’ shipments in million**  
Source: Canalys

|         | Unit Shipments in million |      |        |
|---------|---------------------------|------|--------|
|         | 2Q18                      | 2Q19 | YoY%   |
| Amazon  | 4,1                       | 6,6  | 61,0%  |
| Alibaba | 3                         | 4,1  | 36,7%  |
| Baidu   | 0                         | 4,5  | -      |
| Google  | 5,4                       | 4,3  | -20,4% |
| Xiaomi  | 2                         | 2,8  | 40,0%  |
| Others  | 2,3                       | 3,7  | 60,9%  |

Operating from China, Xiaomi has the advantage of not having the language barrier that most of its competitors have when entering China. The biggest players globally, namely Amazon and Google, do not operate in China, which leaves space for the remaining companies to gain traction in this country. Consequently, the Chinese market is mostly divided by the following players Alibaba’s Tmall Genie, Baidu’s DuerOS and Xiaomi’s Xiao AI. Alibaba leads with

<sup>45</sup> iResearch. 2018. “Xiaomi, the world’s largest smart hardware company with a built-in IoT platform”. Accessed December 25. [http://www.iresearchchina.com/Upload/201808/20180824143739\\_3256.pdf](http://www.iresearchchina.com/Upload/201808/20180824143739_3256.pdf)  
<sup>46</sup> IDC. 2019. “Steady Commercial and Consumer Adoption Will Drive Worldwide Spending on the Internet of Things to \$1.1 Trillion in 2023, According to a New IDC Spending Guide”. Accessed December 25. <https://www.idc.com/getdoc.jsp?containerId=prUS45197719>  
<sup>47</sup> Canalys. 2019. “Canalys: Global Smart Speaker installed base to top 200 million by end 2019”. Accessed December 25. <https://www.canalys.com/newsroom/canalys-global-smart-speaker-installed-base-to-top-200-million-by-end-of-2019>  
<sup>48</sup> Statista. 2019. “Smart speaker quarterly unit shipments worldwide from 2017 to 2019, by vendor”. Accessed December 26. <https://www.statista.com/statistics/866029/worldwide-smart-speaker-unit-shipment-google-amazon/>

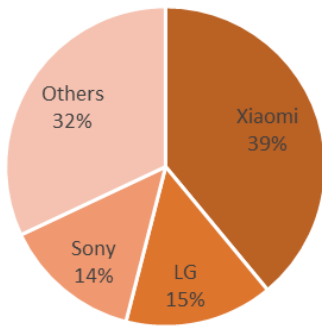
39% market share in China, followed by Xiaomi with 25% and Baidu with 24%.<sup>49</sup> All of these companies presented growth rates above 100% in terms of units shipped in China, with Baidu leading, exhibiting a YoY% growth of 180%, a value above the market yearly growth, followed by Alibaba and finally Xiaomi, with a growth rate below that of the market.<sup>49</sup>

**Smart TVs**

**Figure 19 - Smart TVs market share in India**

Source: Canalys

Smart TVs market share in India (2019E)



On the other hand, the smart TVs market is a highly fragmented market. Samsung is the global market leader with 20% market share, followed by LG Electronics, Sony and Panasonic. Currently, Xiaomi has a very small presence in the global smart TV market; however, it is the market leader in India with 39% market share, followed by LG Electronics and Sony.<sup>50</sup>

For ASP comparison, we chose two smart TVs with similar features, one from Xiaomi (Mi TV 4s) and the other from the market leader, Samsung (UE43RU7172). Xiaomi’s smart TV priced €355, while Samsung’s smart TV priced €426. With this, is shown that within similar features, the price set by Xiaomi is much lower than the competitors.<sup>51</sup>

**Table 8 – Xiaomi Smart TV vs Samsung Smart TV**  
Source: Fnac

| Brand                 | Xiaomi                 | Samsung            |
|-----------------------|------------------------|--------------------|
| Model                 | Mi TV 4s               | UE43RU7172         |
| Screen size           | 43"                    | 43"                |
| Screen type           | 4K UHD                 | 4K UHD             |
| Resolution            | 3840 x 2160            | 3840 x 2160        |
| Audio                 | DTS-HD and Dolby Audio | Dolby Digital Plus |
| Dimension (mm)        | 960 x 208 x 608        | 970 x 210 x 636    |
| Weight (kg)           | 7.2                    | 9.6                |
| HDMI                  | 3                      | 3                  |
| USB 2.0               | 3                      | 2                  |
| Power consumption (W) | 85                     | 70                 |
| Smart TV              | Yes                    | Yes                |

**Figure 20 – Xiaomi Mi TV 4s**  
Source: Fnac



Price: 355€

**Figure 21 - Samsung UE43RU7172**  
Source: Fnac



Price: 426€

**Internet Services**

**Market Analysis**

**Strong growth, commerce is the main contributor**

Currently, the internet services market is booming worldwide. The global internet services is expected to grow at a CAGR(%) between the period of 2017-2022E of 11.0%, representing an expected market size of 2.6 trillion in 2022F.<sup>52</sup> The biggest contributor to this number is the retail segment, which, in 2017, represented 0.7 trillion in a total market value of 1.5 trillion dollars.<sup>52</sup> This trend is expected to continue with the same source forecasting a value of 1.1 trillion

<sup>49</sup> Canalys. 2019. "Canalys: Global smart speaker installed base to top 200 million by end of 2019". Accessed December 26. <https://www.canalys.com/newsroom/canalys-global-smart-speaker-installed-base-to-top-200-million-by-end-of-2019>

<sup>50</sup> Communications today. 2019. "Smartphone Firms Storm Smart TV Market, Thanks To Low Data Tariffs". Accessed December 26. <https://www.communicationstoday.co.in/smartphone-firms-storm-smart-tv-market-thanks-to-low-data-tariffs/>

<sup>51</sup> Fnac. 2019. "Smart TVs". Accessed December 26. [https://www.fnac.pt/TV-Hi-Fi-MP3/h12?origin=google\\_branded\\_tv&qclid=EA1aIQobChMI84i64nY5gIVxYbVCh1PBq79FAAYASAAEgKjcvD\\_BwE&gclid=aw.ds](https://www.fnac.pt/TV-Hi-Fi-MP3/h12?origin=google_branded_tv&qclid=EA1aIQobChMI84i64nY5gIVxYbVCh1PBq79FAAYASAAEgKjcvD_BwE&gclid=aw.ds)

<sup>52</sup> iResearch. 2018. "Xiaomi, the world’s largest smart hardware company with a built-in IoT platform". Accessed December 27. [http://www.iresearchchina.com/Upload/201808/20180824143739\\_3256.pdf](http://www.iresearchchina.com/Upload/201808/20180824143739_3256.pdf)

**High internet  
penetration rates,  
many potential  
consumers**

dollars for the retail segment in 2022F.<sup>52</sup> Following the retail segment comes the advertising segment, which occupies the second place in weight in the overall market size, followed by online gaming and internet financing services.<sup>52</sup> Likewise, the Chinese internet services market is expected to grow at a CAGR(%) in the period of 2017-2022F of 15.9%, reaching a total value of 669.2 billion dollars in 2022F.<sup>52</sup> The retail segment is equally the one that contributes more to this market, with an expected value of 286.8 billion dollars in 2022F, followed by the advertising, online gaming and internet finance services.<sup>52</sup>

This high growth is due to the high internet penetration rates, which implies the existence of many consumers for these services. The global average internet penetration rate is 57% in 2019, with Europe and Northern America almost reaching 100% penetration rate.<sup>53</sup> On the other hand, Asia has less than 60% penetration rate in 2019, while Africa and the Middle East have less than 30%.<sup>53</sup> China has an internet penetration rate of 59% in 2019.<sup>53</sup>

## Past Performance and Competitive Analysis

Xiaomi monetizes its internet services through advertising, online gaming and other value-added internet services, such as premium entertainment (videos, books and music), live streaming, financial services and e-commerce through the youpin platform. The youpin platform increased its volume shipped to 3.8 billion RMB, representing a YoY% growth of 113.9%, while the fintech revenue increased to 792 million RMB, with a YoY growth of 62.7%. Lastly, the TV internet services increased its user base by 83.1% compared to last year.

Xiaomi derives its revenue mainly from China, but management plans to further expand these services worldwide by selling more products overseas, namely the EMEA and the SEA regions, and through these products obtain more users and consequently more consumers for its internet services.

Users' acquisition and retainment costs have been rising steadily in the last few years given the slower internet user growth in developed countries. This has forced most players to increase its marketing costs and smartphones pre-installations costs. However, Xiaomi avoids this because of its "triathlon" strategy. According to this strategy, Xiaomi acquires users through its smart devices and cross-sells internet services to those users. Hence, it does not need to spend additional marketing costs to attract more users and retain them like its competitors, since it gains users through every hardware product sold.

<sup>53</sup> Statista. 2019. "Global internet penetration rate as of January 2019, by region". Accessed December 27. <https://www.statista.com/statistics/269329/penetration-rate-of-the-internet-by-region/>

Additionally, since it is a smartphone manufacturer, Xiaomi can pre-install its apps without raising costs. Xiaomi is the only brand that follows this strategy, giving it an edge against its competitors; however, its user base will always be confined to its device’s users. In 2018, Xiaomi’s MAU reached 242.1 million users, only 29.2% of the number of internet users in China, which is a limitation.<sup>54</sup>

## Financials

### Revenue Forecast

Xiaomi’s revenue can be broken down into four streams. The biggest portion derives from smartphone sales. We identified the volume of products sold and the ASP as the main value drivers for this segment.

As it expands to more developed countries which present higher ASPs than emerging countries and as the industry ASP rises in China, Xiaomi smartphone’s ASP is expected to continue to increase as well. For that reason, we assume that the ASP will grow at 9.96% in 2019E since this is the weighted average of the growth rate presented in the 2019 interim report (13.3% increase in China with 60% weight as this is the weight that China possesses in the total revenue and 6.7% increase in ROW with 40% weight). In the 2020F-2023F period, we believe that the ASP will continue to rise at increasingly lower rates as the industry ASP also stabilizes after the 5G introduction. After this period, the ASP will only be influenced by the expected Chinese inflation rate.

**Table 9 - Smartphone ASP 2017 - 2025F (RMB)**

Source: Company report, Analyst estimates

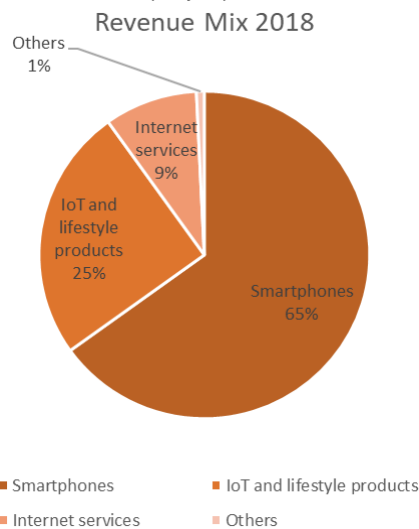
| Smartphone ASP 2017-2025F (in RMB) |        |        |          |          |          |          |          |          |          |
|------------------------------------|--------|--------|----------|----------|----------|----------|----------|----------|----------|
|                                    | 2017   | 2018   | 2019E    | 2020F    | 2021F    | 2022F    | 2023F    | 2024F    | 2025F    |
| ASP (in RMB)                       | 881,30 | 959,10 | 1 054,65 | 1 154,45 | 1 252,15 | 1 339,34 | 1 412,51 | 1 454,88 | 1 498,24 |
| YoY%                               | 0,16%  | 8,83%  | 9,96%    | 9,46%    | 8,46%    | 6,96%    | 5,46%    | 3,00%    | 2,98%    |

As for the volume sold, we also expect it to increase given the further overseas expansion, namely the future entry in the Japanese market in 2020F and the offline expansion to South America in 2020F and the 5G introduction which is expected to give a 1.6% boost to the global smartphone market shipments.<sup>55</sup> To compute the future expected volume sold per year, we analyzed first the smartphone market per region, applied Xiaomi’s expected market share in each region and got the expected revenue per region. We then divided the total revenue by the ASP and determined the number of products sold each year.

Starting with China, we anticipate that its smartphone market will continue to grow at higher rates than the historical values because of the 5G introduction,

**Figure 22 - Revenue Mix 2018**

Source: Company report



<sup>54</sup> Statista. 2019. "Number of internet users in China from December 2008 to December 2018". Accessed December 27. <https://www.statista.com/statistics/265140/number-of-internet-users-in-china/>

<sup>55</sup> IDC. 2019. "Smartphone Challenges Continue in 2019, But 5G and Emerging Markets Will Bring Growth Back to the Market in 2020, According to IDC". Accessed December 28. <https://www.idc.com/getdoc.jsp?containerId=prUS45487719>

which is expected to boost the market by 14.1% YoY% in 2020F. After 2020F, the market growth rate will slowly decrease as it matures. Given the historical information which showed that OPPO, Vivo and Xiaomi are always changing in terms of its position in the second, third and fourth place in market share each quarter and also the fact that Xiaomi is the company in China which will launch more 5G enabled smartphone models in 2020F, we assumed that Xiaomi's market share will grow beyond the 11%.

As for India, we anticipate that its smartphone market will continue to grow at above-average rates, further boosted by the 5G introduction, which is expected to cause a 22.93% increase in the market in 2020F. These rates will slowly decrease as the market matures. Xiaomi's market share will also grow but not by much since it does not have much room to grow anymore as it is the market leader already. We anticipate a market share in the long-term above 28%.

On the other hand, the SEA market is also expected to continue to increase. For valuation purposes, we separated Indonesia and Philippines from the remaining countries since these are the two countries which are referred in the annual reports as having more impact in the revenue originating from this region. We expect growth rates of 3.6%, 4.1% and 6.2% in Indonesia, Philippines and in the remaining SEA countries respectively in 2020F, with these values decreasing slowly after this year. In terms of market share, it will increase in all countries.

Lastly, the EMEA smartphone market is expected to continue to shrink, with the 5G offsetting this decline during 2020F-2023F when the market is expected to increase slightly by 1.6% in 2020F. After this period, the market is expected to continue to decline. As for the market share, it is expected to increase until it reaches 15% since there is no other brand in this region that offers the same price/quality relationship as Xiaomi does.

On the other hand, the revenue originating from American countries is expected to increase slightly by 7.8% in 2020F, as Xiaomi expands its offline operations there, but still facing strong competitors that will impede a fast growth.

**Table 10 - Number of smartphones sold 2017 - 2025F (thousand)**

Source: Company report, Analyst estimates

| Number of smartphones sold 2017-2025F (in thousands) |        |         |         |         |         |         |         |         |         |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|
|  | 2017   | 2018    | 2019E   | 2020F   | 2021F   | 2022F   | 2023F   | 2024F   | 2025F   |
| Volume (in thousands)                                | 91 414 | 118 653 | 151 096 | 188 090 | 220 317 | 257 107 | 299 671 | 344 695 | 385 938 |
| YoY%   | 64,95% | 29,80%  | 27,34%  | 24,48%  | 17,13%  | 16,70%  | 16,55%  | 15,02%  | 11,96%  |

Additionally, Xiaomi also derives revenue from the sale of IoT and lifestyle products. The same key value drivers as the smartphone segment were identified here, namely number of products sold and ASP. To dig deeper in this segment, we divided the revenue by whether it was related to the sale of products developed in-house or by ecosystem partners. In 2018, 57% of this segment's

revenue originated from the products developed by the ecosystem partners, while only 43% originated from in-house production. We expect these weights to remain somewhat constant over the years.

The products developed in-house's ASP is expected to increase 2.5% each year over the inflation rate, according to a new product launch event in 2019E.<sup>56</sup> Its shipments are also expected to increase by 3,823 units each year, which is the average of the difference between the number of products sold in 2018 and in 2017 and the difference between the number of products sold in 2017 and in 2016 since we do not anticipate significant differences. On the other hand, the products developed by ecosystem partners' ASP is expected to increase 2.5% each year over the inflation rate as well, as stated by the same source.<sup>56</sup> Its shipments are also expected to increase by 14,313 units each year since it represents the difference between the number of products sold in 2018 and 2017 plus an additional 3,000 units to account for the increase in the number of ecosystem partners and consequently in the number of available products to sell. We assumed 3,000 units since it corresponds to the historical increase in the number of products sold by all new ecosystem partners added each year.

**Table 11 - Number of smart devices sold 2017 - 2025F (thousand) and ASP (RMB)**

Source: Company report, Analyst estimates

| Number of smart devices sold 2017-2025F (in thousands) and ASP (in RMB) |         |        |        |        |        |        |        |         |         |
|---|---------|--------|--------|--------|--------|--------|--------|---------|---------|
|   | 2017    | 2018   | 2019E  | 2020F  | 2021F  | 2022F  | 2023F  | 2024F   | 2025F   |
| <b>In-House Products</b>  |         |        |        |        |        |        |        |         |         |
| <b>Volume (in thousands)</b>  | 5 399   | 10 133 | 13 956 | 17 778 | 21 601 | 25 423 | 29 246 | 33 068  | 36 891  |
| YoY%  | -90,26% | 87,69% | 37,72% | 27,39% | 21,50% | 17,70% | 15,04% | 13,07%  | 11,56%  |
| <b>ASP (in RMB)</b>   |         | 1 859  | 1 906  | 2 008  | 2 118  | 2 236  | 2 361  | 2 492   | 2 631   |
| YoY%  |         |        | 2,51%  | 5,37%  | 5,47%  | 5,57%  | 5,58%  | 5,55%   | 5,55%   |
| <b>Products by Ecosystem Partners</b>                                   |         |        |        |        |        |        |        |         |         |
| <b>Volume (in thousands)</b>  | 13 115  | 24 428 | 38 741 | 53 054 | 67 367 | 81 680 | 95 993 | 110 307 | 124 620 |
| YoY%  | 72,16%  | 86,26% | 58,59% | 36,95% | 26,98% | 21,25% | 17,52% | 14,91%  | 12,98%  |
| <b>ASP (in RMB)</b>   |         | 1 022  | 1 048  | 1 104  | 1 165  | 1 230  | 1 298  | 1 370   | 1 447   |
| YoY%  |         |        | 2,51%  | 5,37%  | 5,47%  | 5,58%  | 5,58%  | 5,55%   | 5,55%   |

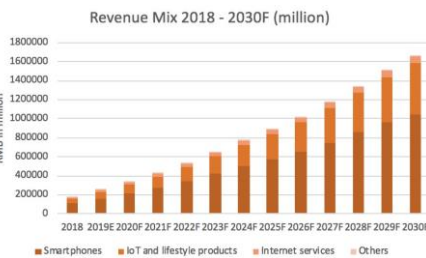
Moreover, Xiaomi derives revenue from internet services as well. For this segment, we identified the Mi MAU and the ARPU as the main value drivers. We assumed that the Mi MAU would grow at the same rate as the average of the growth rate of the number of smartphone and of IoT products sold yearly since these are the devices that Xiaomi uses to attract users to its network. As for the ARPU, we computed it by dividing this segment's total revenue by the Mi MAU.

To dig deeper, we divided this segment's revenue in online gaming, advertising and other value-added internet services (OVAS). In 2018, the online gaming contributed 16.9% for the internet services' revenue, the advertising contributed 20.01% and the other value-added internet services contributed 63%.

<sup>56</sup> Xiaomi official youtube channel. 2019. "Mi 9 Pro & Mi MIX 5G New Product Launch Event Live From China". Accessed December 12. <https://www.youtube.com/watch?v=kJ4eynUXCRQ>

Lastly, Xiaomi also derives revenue from out-of-warranty reparations. For this segment, we identified Xiaomi’s failure ratio, the number of defective products that get repaired out-of-warranty and the average price per reparation as the value drivers. Xiaomi presented a failure ratio of 13% in 2017 and, given the investment made in R&D, we expect that this ratio will decrease until it reaches the industry average of 6.10%.<sup>57</sup> With this value, we got the number of defective smartphones which get repaired out-of-warranty. As for the average price per reparation, we expect that it will correspond to the historical average.

**Figure 23 - Revenue Mix 2018 - 2030F (million)**  
Source: Company report, Analyst estimates



Given the smartphone market share gains especially in Western Europe and SEA, the smartphone ASP’s expansion, the IoT products’ growing market and the internet services’ fast growth, we expect that total revenue will continue to increase in the following years, anticipating a CAGR(%) in 2018-2030F of 22.74%. By segments, we anticipate that the smartphone’s revenue will increase at a CAGR(%) in 2018-2030F of 22.35%, the IoT and lifestyle products’ revenue will increase at a CAGR(%) in the same period of 25.55% and the internet services’ revenue will increase at a CAGR(%) in the same period of 15.19%.

### CAPEX and Net Working Capital

Xiaomi’s capital expenditures (CAPEX) reached RMB3.07 billion in 2018, including investments in property and equipment (PPE) through the construction of new offices and updates on its intangible assets. Xiaomi does not have plans for future material investments, except the opening of new Mi Home stores.

The net working capital focused in this report are trade receivables, trade payables and inventories. Regarding the trade receivables, the average collection period has been decreasing from 17.42 in 2017 to 11.68 days in 2018. Comparing with its peers’ average, which is 12.94 days, Xiaomi presents a better result since it takes less time to collect money from its customers. For forecasting purposes, we assumed the historical average since we do not expect significant differences. Regarding the trade payables, the average payable period has also been decreasing from 124.77 in 2017 to 110.62 days in 2018. Comparing with its peers’ average, which is 63 days, Xiaomi also presents a better result since it has the possibility to take more days when paying its suppliers. For forecasting purposes, since Xiaomi wants to keep its suppliers happy and benefit from trade discounts, we believe that this value will decrease every year. Lastly, regarding the inventories, the average holding period has been increasing from 62.82 in 2017 to 73.67 days in 2018. Comparing with its peers’ average, which is 39 days, Xiaomi holds inventories for longer times than its competitors. As before, we

<sup>57</sup> Techspot. 2018. "Report names smartphone models with the highest failure rates". Accessed September 23. <https://www.techspot.com/news/75536-report-names-smartphones-models-highest-failure-rates.html>

expect the historical average for forecasting purposes since we do not expect significant differences.

## Valuation

Considering Xiaomi's characteristics, such as its ecosystem of partners, presence in three different markets and overall capital structure, we realized that its structure is difficult to be compared with other firms in its entirety. Therefore, we chose DCF as our valuation method since it is versatile, allowing us to make assumptions and analyze each segment separately.

For the cost of capital, we considered the cost of equity, cost of debt and the capital structure of the firm. For the cost of equity, we used the CAPM model. Since Chinese credit ratings are heavily skewed towards the higher end of the scale, to calculate the risk-free rate, we used the 10-year US government bonds yield in RMB (as the cash-flows are in RMB as well), which resulted in a risk-free rate of 2.65%. With this rate and the MSCI World index historical returns, we calculated the market risk premium, yielding a result of 5.64%.

**Table 12 - Levered beta and Unlevered beta**

Source: Bloomberg, Analyst estimates

| Company  | Levered Beta | Unlevered Beta |
|----------|--------------|----------------|
| Xiaomi   | 0.54         | 0.86           |
| Apple    | 1.65         | 0.97           |
| Lenovo   | 0.12         | 0.42           |
| LG       | 0.34         | 0.35           |
| Samsung  | -0.11        | -0.26          |
| Industry | 0.51         | 0.47           |

Through the regression between the historical market returns and Xiaomi's historical returns, we calculated the beta of the firm, yielding a value of 0.54 for the levered beta. For this computation, the number of observations was 306 observed on a daily frequency from 09.07.2018 to 24.09.2019. However, the 95% confidence interval of this regression was [0.12, 0.95], which is quite large, meaning that the regression is not very accurate. This may be because Xiaomi was only listed in 2018, which implies a reduced dataset and consequently the notion that this levered beta may not be truly representative. To counteract this fact, we unlevered the average beta of the industry (using for that effect both Xiaomi and Xiaomi peers' betas), which yielded a value of 0.47, and then adjusted it to Xiaomi's capital structure, which yielded a value for Xiaomi's levered beta of 0.53. For this second computation, to calculate the peers' betas, we used 502 observations observed on a daily frequency from 26.09.2017 to 24.09.2019, which allowed a narrower confidence interval of [0.25, 0.77] and consequently more accuracy.

**Table 13 - Cost of equity**

Source: Analyst estimates

| Cost of equity |       |
|----------------|-------|
| Risk free      | 2.65% |
| Beta e         | 0.53  |
| MRP            | 5.64% |
| Re             | 5.65% |

With these inputs, by applying the CAPM, Xiaomi's cost of equity is 5.65%.

Regarding the cost of debt, since Xiaomi has not issued any bonds, we used a comparables' long-term bond in order to compute it. However, this strategy yielded a cost of debt of 8.46%, which seemed very high since the cost of equity is only 5.65%. For this reason, we then used the Altman Z-score since no other ratings were available in Bloomberg. According to Bloomberg, Xiaomi presents an Altman Z-score of 3.99, which is equivalent to a B- rating as stated by the

Altman and Hotchkiss conversion table. According to the NYC Stern School of Business conversion table, a B- rating is equivalent to a credit spread of 6.6%, which summed to the risk-free rate yields a value for the cost of debt of 9.14%. This value also seemed high. For that reason, we opted to use the average of Xiaomi's last historical interest rates, which yielded 3.25% as the cost of debt.

We assumed the percentage of debt/invested capital to remain constant and equal to 30%, which approximates this average ratio of the last three years. Assuming a debt-to-equity ratio of 33.47% in market value, we got the equity-to-enterprise value and debt-to-enterprise value of 0.86 and 0.14, respectively.

Having all the inputs available, we got 5.20% as the cost of capital (WACC).

As for the expected cash-flows, we estimated them for a period between 2020E and 2040F. Since the growth rate in the last years of the forecast was too large and not yet stable, we could not apply the terminal value formula. For that reason, we decided to do an annuity formula for 5 more years, assuming a constant growth rate of 4.50%. After that 5-year period, we applied the terminal value formula to the 2045F cash-flow. In terms of the long-term growth, we assumed that Xiaomi will grow at the same rate as the Chinese and the global economy. For that reason, anticipating that, in 2045F, the weight of China in the total revenue will be 30.43% and consequently that the weight of the rest of the world will be 69.57%, we did an weighted average with the Chinese and the global long-term GDP growth rates (2.6% and 2% respectively), which yielded a long-term growth rate for Xiaomi of 2.42%, which was then applied to the terminal value formula.

After discounting the expected cash-flows and the terminal value, Xiaomi's enterprise value is expected to be HK\$410,405 million in 2020E and its equity value is expected to be HK\$313,006. The target price for December of 2020F yielded HK\$18.04. Considering the current market price of HK\$11.22, which is significantly lower than the target price, our investment recommendation is buying.

Apart from the DCF, we also used the multiples valuation method to make sure that our results are credible and aligned with the reality. We did the multiples valuation by segment, selecting different comparable for each segment. The multiples used for this analysis were the P/E, EV/Sales, EV/EBITDA, EV/EBIT and EV/smartphone shipments (for the smartphone segment only).

For the smartphone segment, we used the same comparable companies as before (Apple, Lenovo, LG and Samsung) as they offer similar products and present similar capital structures as Xiaomi's and gave this segment a weight of

**Table 14 - Cost of capital**  
Source: Analyst estimates

| Cost of capital |       |
|-----------------|-------|
| Re              | 5.65% |
| Rd              | 3.25% |
| D/EV            | 0.14  |
| E/EV            | 0.86  |
| WACC            | 5.20% |

**Table 15 -Multiple for comparable**  
Source: Bloomberg

| FY 2020 Est (Average)             |               |                    |                     |                   |                                   |
|-----------------------------------|---------------|--------------------|---------------------|-------------------|-----------------------------------|
|                                   | $\frac{P}{E}$ | $\frac{EV}{Sales}$ | $\frac{EV}{EBITDA}$ | $\frac{EV}{EBIT}$ | $\frac{EV}{Smartphone Shipments}$ |
| <b>Smartphones</b>                |               |                    |                     |                   |                                   |
| Xiaomi                            | 14.39         | 0.63               | 10.91               | 11.34             | 882.81                            |
| Apple                             | 17.26         | 2.75               | 11.46               | 13.79             | 2856.49                           |
| Lenovo                            | 17.95         | 0.26               | 6.33                | 10.25             | 262.37                            |
| LG                                | 7.31          | 0.31               | 3.80                | 6.97              | 497.89                            |
| Samsung                           | 12.00         | 0.91               | 3.55                | 6.39              | 504.09                            |
| <b>IoT and Lifestyle Products</b> |               |                    |                     |                   |                                   |
| Xiaomi                            | 14.39         | 0.63               | 10.91               | 11.34             | -                                 |
| Amazon                            | 74.54         | 3.20               | 26.85               | 60.02             | -                                 |
| Baidu                             | 20.33         | 2.39               | 10.08               | 30.87             | -                                 |
| Hisense                           | 5.02          | 0.31               | 8.15                | 15.79             | -                                 |
| Panasonic                         | 9.11          | 0.47               | 5.36                | 10.69             | -                                 |
| Sony                              | 10.60         | 0.98               | 6.60                | 9.28              | -                                 |
| LG                                | 7.31          | 0.31               | 3.80                | 6.97              | -                                 |
| iRobot                            | 24.75         | 1.79               | 12.12               | 14.00             | -                                 |
| Samsung                           | 12.00         | 0.91               | 3.55                | 6.39              | -                                 |
| <b>Internet Services</b>          |               |                    |                     |                   |                                   |
| Xiaomi                            | 14.39         | 0.63               | 10.91               | 11.34             | -                                 |
| Alibaba                           | 32.11         | 6.57               | 32.97               | 45.42             | -                                 |
| Alphabet                          | 24.15         | 4.52               | 17.49               | 23.49             | -                                 |
| Amazon                            | 74.54         | 3.20               | 26.85               | 60.02             | -                                 |
| Tencent                           | 33.08         | 8.12               | 21.08               | 28.90             | -                                 |
| Apple                             | 17.26         | 2.75               | 11.46               | 13.79             | -                                 |
| Facebook                          | 24.00         | 6.44               | 19.56               | 22.49             | -                                 |

65.38%. For the IoT and lifestyle products segment, we chose Amazon, Baidu, Hisense, Panasonic, Sony, LG, iRobot and Samsung as comparables and attributed to this segment a weight of 26.67%. Lastly, for the internet services, we chose Alibaba, Alphabet, Amazon, Tencent, Apple and Facebook as comparables and attributed to this segment a weight of 7.95%. Xiaomi's multiples were present in all segments.

This analysis yielded an implied target price of HK\$26.85 in 2020F, which further supports our previous investment recommendation to BUY.

## Risks and Scenario Analysis

Due to market saturation, the volume of smartphone shipments is decreasing worldwide, which is a risk for the entire industry. This will have an impact in Xiaomi's overall performance, as more than 50% of Xiaomi's revenue derives from the smartphone segment. As the smartphone is the tool used for user acquisition, the internet service segment dependent on the smartphone business performance will also be negatively affected as less users will enter the network.

The global protectionism and regulatory risk of international markets can also cause an impact on the global economy and consequently Xiaomi. For example, the ongoing economic conflict between the US and China is affecting the global economy. Regarding Xiaomi, this affects it in three ways, (1) In the high-end smartphone category, Xiaomi uses Qualcomm processor which is imported from US, causing the overall production costs to rise; (2) Xiaomi was planning to launch US tailored smartphones in the US; however, the expansion plan was postponed due to the high tariff of 10% now in place, which would raise costs; (3) its stock price has been falling ever since its IPO, dropping 48.53% in value since July 2018.

Bearing in mind all the risks mentioned, we developed two scenarios, assuming 70% of probability for the base scenario, 15% of probability for the worst scenario and 15% of probability for the best scenario. The worst scenario is marked by a decrease in smartphone market growth in China, India and SEA countries; a decline of units sold of IoT and lifestyle products and in the internet services revenue growth rate. For the best scenario, the opposite was assumed.

The share price considering the probability of each scenario is 18.24HK\$ in 2020E, which still suggests a BUY position.

**Table 17 - Scenario analysis outputs**

Source: Analyst estimates

| Best Scenario  |            | Worst Scenario    |             |
|----------------|------------|-------------------|-------------|
| Probability    | 15.00%     | Probability       | 15.00%      |
| Price          | 27.44      | Price             | 9.99        |
| Recommendation | <b>BUY</b> | Recommendation    | <b>SELL</b> |
| Base Scenario  |            | Expected Scenario |             |
| Probability    | 70.00%     | Price             | 18.24       |
| Price          | 18.04      | Recommendation    | <b>BUY</b>  |
| Recommendation | <b>BUY</b> |                   |             |

**Table 16 - Scenario analysis**

Source: Analyst estimates

| Scenario Analysis                                    | Base Scenario | Best Scenario | Worst Scenario |
|--|---------------|---------------|----------------|
| Change in smartphone market (China)                  | 14.10%        | 15.60%        | 13.50%         |
| Change in smartphone market (India)                  | 22.93%        | 24.93%        | 20.33%         |
| Change in smartphone market (Other SEA countries)    | 6.20%         | 7.20%         | 5.20%          |
| Inhouse-manufactured IoT and lifestyle products sold | 3,823         | 4,023         | 3,623          |
| Ecosystem IoT and lifestyle products sold            | 14,313        | 14,613        | 14,113         |
| Change in Advertising based revenues                 | -0.60%        | 0.50%         | -0.90%         |
| Change in Online-Gaming based revenues               | -8.10%        | 0.60%         | -9.10%         |
| Change in OVA services based revenues                | 18.02%        | 20.02%        | 16.02%         |

## Sensitivity Analysis

Considering that the DCF valuation method is sensitive to assumptions and inputs, a sensitivity analysis was developed to understand how changes in the growth rate and the WACC will affect the target price.

For the growth rate, we assumed a range of [1.00%, 3.25%], which is within the long-term GDP growth rate estimations. Regarding the WACC, we focused on the cost of equity, which is related to the beta. Using the lower and the higher bounds in the beta's confidence interval, which is [0.25, 0.77], it resulted in a lower bound for the WACC of 3.94% and in an upper bound of 6.89%. The combined variation yielded outputs ranging from 6.56HK\$ to 84.73HK\$, corresponding to changes in the target price ranging from -63% to 369%. Thus, it is possible to conclude that the share price is very sensitive to changes in the WACC and growth rate.

## Appendix

### Exhibit 1 – Financial Summary

| Income Statement Year end Dec 31 (RMB million)        | 2017    | 2018     | 2019E    | 2020F    | 2021F    | 2022F    | 2023F    | 2024F    | 2025F    | 2026F     | 2027F      | 2028F      | 2029F      | 2030F      |
|---|---------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|------------|------------|------------|------------|
| Revenue   | 114,625 | 174,915  | 250,303  | 335,547  | 426,370  | 530,323  | 648,234  | 769,175  | 892,613  | 1,016,911 | 1,171,531  | 1,342,209  | 1,509,110  | 1,665,406  |
| Cost of sales   | -99,471 | -152,723 | -219,193 | -296,692 | -379,132 | -473,610 | -580,923 | -690,798 | -802,691 | -915,058  | -1,055,501 | -1,210,667 | -1,361,987 | -1,503,071 |
| Gross Profit  | 15,154  | 22,192   | 31,110   | 38,855   | 47,238   | 56,712   | 67,311   | 78,377   | 89,923   | 101,853   | 116,030    | 131,542    | 147,123    | 162,336    |
| Selling and marketing expenses                        | -5,232  | -7,993   | -12,685  | -16,768  | -21,165  | -26,239  | -31,378  | -37,117  | -42,975  | -48,873   | -56,210    | -64,310    | -72,230    | -79,646    |
| Administrative expenses                               | -1,216  | -12,099  | -3,732   | -5,003   | -6,357   | -7,907   | -9,665   | -11,468  | -13,309  | -15,162   | -17,467    | -20,012    | -22,500    | -24,831    |
| R&D expenses  | -3,151  | -5,777   | -8,267   | -11,082  | -14,081  | -17,515  | -21,409  | -25,403  | -29,480  | -33,585   | -38,691    | -44,328    | -49,840    | -55,002    |
| Others  | 6,660   | 4,874    | 5,901    | 6,887    | 7,891    | 9,038    | 10,334   | 11,584   | 12,768   | 13,849    | 15,201     | 16,622     | 17,836     | 18,741     |
| Operating profit                                      | 12,215  | 1,196    | 12,327   | 12,889   | 13,525   | 14,090   | 15,193   | 15,973   | 16,928   | 18,082    | 18,863     | 19,514     | 20,389     | 21,598     |
| Financial costs                                       | 27      | 216      | 1,107    | 1,861    | 2,435    | 3,076    | 3,849    | 4,562    | 5,294    | 6,096     | 7,095      | 8,203      | 9,291      | 10,298     |
| FV changes of convertible redeemable pref shares      | -54,072 | 12,514   | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0          | 0          | 0          | 0          |
| Profit before tax                                     | -41,829 | 13,927   | 13,434   | 14,749   | 15,960   | 17,166   | 19,042   | 20,534   | 22,222   | 24,178    | 25,958     | 27,717     | 29,680     | 31,896     |
| Income tax expense                                    | -2,060  | -449     | -7,132   | -7,519   | -8,299   | -8,787   | -9,473   | -10,046  | -10,645  | -11,268   | -11,929    | -12,598    | -13,234    | -13,815    |
| Net profit  | -43,889 | 13,478   | 6,303    | 7,230    | 7,661    | 8,379    | 9,569    | 10,488   | 11,577   | 12,910    | 14,029     | 15,119     | 16,446     | 18,080     |
| Minority interests                                    | -63     | -76      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0          | 0          | 0          | 0          |
| Net profit att to the owners of the company           | -43,826 | 13,554   | 6,303    | 7,230    | 7,661    | 8,379    | 9,569    | 10,488   | 11,577   | 12,910    | 14,029     | 15,119     | 16,446     | 18,080     |
| <b>EPS (RMB in thousand)</b>                          | -4.49   | 0.04     | 0.36     | 0.42     | 0.44     | 0.48     | 0.55     | 0.60     | 0.67     | 0.74      | 0.81       | 0.87       | 0.95       | 1.04       |
| OCI   | 7,894   | -1,556   | -154     | -154     | -154     | -154     | -154     | -154     | -154     | -154      | -154       | -154       | -154       | -154       |
| Comprehensive Result                                  | -35,995 | 11,922   | 6,149    | 7,077    | 7,507    | 8,225    | 9,415    | 10,335   | 11,424   | 12,756    | 13,875     | 14,966     | 16,292     | 17,927     |
| Minority interests                                    | -73     | -68      | 72       | 72       | 72       | 72       | 72       | 72       | 72       | 72        | 72         | 72         | 72         | 72         |
| Comprehensive result att to the owners of the company | -35,922 | 11,989   | 6,077    | 7,005    | 7,435    | 8,153    | 9,343    | 10,263   | 11,352   | 12,684    | 13,803     | 14,894     | 16,220     | 17,855     |

| Balance Sheet Year end Dec 31 (RMB million) | 2017     | 2018    | 2019E   | 2020F   | 2021F   | 2022F   | 2023F   | 2024F   | 2025F   | 2026F   | 2027F   | 2028F   | 2029F   | 2030F   |
|---|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Cash and cash equivalents                   | 11,563   | 30,230  | 24,674  | 41,387  | 42,728  | 42,758  | 46,117  | 42,875  | 42,362  | 47,720  | 52,544  | 57,768  | 64,940  | 71,820  |
| Short-term investments                      | 5,513    | 8,015   | 16,811  | 22,537  | 28,637  | 35,618  | 43,538  | 51,661  | 59,951  | 68,300  | 78,684  | 90,148  | 101,358 | 111,855 |
| Inventories                                 | 16,343   | 29,481  | 36,076  | 21,081  | 26,142  | 32,321  | 39,682  | 46,394  | 52,304  | 57,047  | 65,258  | 74,550  | 81,633  | 85,295  |
| Accounts Receivable                         | 5,470    | 5,598   | 9,199   | 12,332  | 15,670  | 19,491  | 23,824  | 28,269  | 32,805  | 37,374  | 43,056  | 49,329  | 55,463  | 61,207  |
| Loans receivable                            | 8,144    | 10,294  | 13,513  | 15,223  | 17,120  | 19,176  | 21,428  | 23,845  | 26,503  | 29,405  | 32,531  | 35,873  | 39,425  | 43,172  |
| Prepayments and other receivables           | 11,394   | 20,915  | 23,265  | 31,259  | 39,720  | 49,404  | 60,388  | 71,654  | 83,154  | 94,733  | 109,137 | 125,037 | 140,585 | 155,145 |
| Others                                      | 2,711    | 1,480   | 1,922   | 2,576   | 3,273   | 4,072   | 4,977   | 5,905   | 6,853   | 7,807   | 8,994   | 10,305  | 11,586  | 12,786  |
| Total current assets                        | 61,138   | 106,013 | 125,460 | 146,396 | 173,289 | 202,839 | 239,953 | 270,603 | 303,933 | 342,385 | 390,205 | 443,010 | 494,990 | 541,280 |
| Long-term investments                       | 20,568   | 27,275  | 31,710  | 38,069  | 45,415  | 53,517  | 62,455  | 72,002  | 82,160  | 92,954  | 104,409 | 116,561 | 129,456 | 143,157 |
| Net fixed assets                            | 5,147    | 8,471   | 6,588   | 8,565   | 11,135  | 14,475  | 12,202  | 14,479  | 16,802  | 19,142  | 22,053  | 25,266  | 28,407  | 31,349  |
| Intangible assets                           | 2,274    | 2,061   | 3,669   | 4,822   | 6,051   | 7,457   | 9,053   | 10,689  | 12,359  | 14,041  | 16,133  | 18,442  | 20,700  | 22,815  |
| Others                                      | 742      | 1,408   | 5,482   | 5,470   | 5,498   | 5,620   | 5,840   | 10,403  | 10,662  | 10,928  | 11,410  | 12,005  | 12,574  | 17,387  |
| Total non-current assets                    | 28,731   | 39,215  | 47,448  | 56,926  | 68,098  | 81,068  | 89,550  | 107,572 | 121,984 | 137,066 | 154,005 | 172,274 | 191,137 | 214,708 |
| Total assets                                | 89,870   | 145,228 | 172,908 | 203,321 | 241,387 | 283,907 | 329,503 | 378,176 | 425,917 | 479,451 | 544,209 | 615,284 | 686,127 | 755,988 |
| Accounts payable                            | 34,003   | 46,287  | 68,111  | 89,755  | 111,578 | 135,490 | 161,415 | 186,267 | 209,841 | 239,216 | 275,931 | 316,495 | 356,053 | 392,936 |
| Other payables and accruals                 | 4,224    | 6,313   | 8,176   | 10,701  | 13,392  | 16,472  | 19,965  | 23,548  | 27,205  | 30,888  | 35,469  | 40,525  | 45,470  | 50,101  |
| Advance from customers                      | 3,391    | 4,480   | 6,410   | 8,593   | 10,919  | 13,581  | 16,601  | 19,698  | 22,860  | 26,043  | 30,002  | 34,373  | 38,648  | 42,650  |
| Income tax liabilities                      | 421      | 662     | 936     | 1,255   | 1,595   | 1,984   | 2,425   | 2,877   | 3,339   | 3,804   | 4,382   | 5,020   | 5,645   | 6,229   |
| Short-term borrowings                       | 3,551    | 3,075   | 8,098   | 1,235   | 1,685   | 1,235   | 3,235   | 3,235   | 3,235   | 3,235   | 3,235   | 3,235   | 3,235   | 3,235   |
| Warranty provision                          | 1,543    | 1,124   | 1,132   | 1,389   | 1,587   | 1,742   | 1,839   | 1,830   | 1,708   | 1,949   | 2,251   | 2,584   | 2,910   | 3,213   |
| Total current liabilities                   | 47,133   | 61,940  | 92,863  | 112,928 | 140,756 | 170,504 | 205,481 | 237,456 | 268,188 | 305,135 | 351,270 | 402,234 | 451,961 | 498,364 |
| Long-term debt                              | 7,251    | 7,856   | 6,746   | 9,676   | 12,074  | 16,261  | 17,096  | 22,486  | 27,838  | 31,238  | 35,392  | 39,864  | 44,055  | 48,373  |
| Deferred income tax liabilities             | 1,019    | 778     | 1,113   | 1,492   | 1,896   | 2,358   | 2,882   | 3,420   | 3,968   | 4,521   | 5,208   | 5,967   | 6,709   | 7,404   |
| Warranty provision                          | 191      | 559     | 730     | 904     | 1,042   | 1,158   | 1,242   | 1,262   | 1,217   | 1,388   | 1,603   | 1,840   | 2,072   | 2,288   |
| Convertible redeemable shares               | 161,451  | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| Others                                      | 35       | 2,845   | 3,418   | 3,323   | 3,227   | 3,132   | 3,036   | 3,609   | 3,514   | 3,418   | 3,323   | 3,227   | 3,132   | 3,705   |
| Total non-current liabilities               | 169,948  | 12,038  | 12,008  | 15,394  | 18,239  | 22,908  | 24,256  | 30,777  | 36,537  | 40,565  | 45,526  | 50,899  | 55,968  | 61,771  |
| Total liabilities                           | 217,080  | 73,978  | 104,871 | 128,322 | 158,994 | 193,412 | 229,737 | 268,233 | 304,725 | 345,700 | 396,796 | 453,132 | 507,929 | 560,135 |
| Shareholders' equity                        | -127,272 | 71,323  | 67,878  | 74,775  | 82,091  | 90,108  | 99,284  | 109,356 | 120,489 | 132,921 | 146,444 | 161,030 | 176,909 | 194,380 |
| Minority interests                          | 62       | -73     | 160     | 225     | 302     | 387     | 482     | 587     | 702     | 829     | 969     | 1,122   | 1,290   | 1,473   |

| Free Cash Flow Map Year end Dec 31 (RMB million) | 2017     | 2018     | 2019E   | 2020F   | 2021F   | 2022F   | 2023F   | 2024F    | 2025F    | 2026F    | 2027F    | 2028F    | 2029F    | 2030F    |
|--|----------|----------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|
| NOPLAT   | -207     | -790     | 1,438   | 1,121   | 395     | -186    | -493    | -1,023   | -1,386   | -1,529   | -2,173   | -2,974   | -3,456   | -3,453   |
| Depreciation                                     | 361      | 748      | 2,292   | 2,836   | 3,462   | 4,218   | 4,462   | 5,179    | 5,911    | 6,649    | 7,566    | 8,578    | 9,568    | 10,495   |
| Operational cash flow                            | 154      | -42      | 3,731   | 3,957   | 3,857   | 4,032   | 3,969   | 4,156    | 4,525    | 5,119    | 5,393    | 5,603    | 6,112    | 7,042    |
| Invested Capital - Fixed Assets                  | 7,173    | 10,250   | 13,678  | 16,191  | 19,372  | 23,502  | 22,207  | 29,823   | 33,200   | 36,604   | 40,989   | 45,894   | 50,677   | 59,437   |
| CAPEX investment                                 | -1,959   | -3,077   | -3,428  | -2,513  | -3,181  | -4,130  | 1,294   | -7,616   | -3,377   | -3,404   | -4,385   | -4,905   | -4,783   | -8,760   |
| Net CAPEX  | -2,320   | -3,825   | -5,720  | -5,348  | -6,643  | -8,348  | -3,167  | -12,795  | -9,288   | -10,053  | -11,951  | -13,483  | -14,351  | -19,255  |
| Invested Capital - NWC                           | -11,844  | -10,301  | -21,814 | -54,970 | -68,024 | -81,512 | -95,261 | -108,462 | -121,084 | -140,641 | -162,830 | -187,132 | -212,791 | -239,629 |
| Change in NWC                                    | 5,011    | -1,543   | 11,512  | 33,157  | 13,054  | 13,488  | 13,749  | 13,201   | 12,622   | 19,556   | 22,189   | 24,302   | 25,659   | 26,838   |
| Invested Capital - other assets and liabilities  | 6,393    | 19,606   | 21,124  | 29,282  | 38,587  | 49,157  | 61,122  | 74,108   | 88,152   | 102,493  | 118,994  | 137,142  | 156,199  | 175,969  |
| Change in other assets                           | -4,037   | -13,213  | -1,518  | -8,159  | -9,305  | -10,569 | -11,965 | -12,987  | -14,044  | -14,341  | -16,501  | -18,148  | -19,057  | -19,770  |
| Investment cash flow                             | -1,346   | -18,581  | 4,274   | 19,650  | -2,893  | -5,430  | -1,383  | -12,581  | -10,709  | -4,837   | -6,263   | -7,329   | -7,748   | -12,187  |
| Free cash flow to the firm (Core)                | -1,192   | -18,623  | 8,005   | 23,607  | 963     | -1,398  | 2,586   | -8,426   | -6,184   | 282      | -870     | -1,726   | -1,636   | -5,145   |
| Non-core result                                  | 4,928    | 3,615    | 5,258   | 6,407   | 7,633   | 9,023   | 10,589  | 12,170   | 13,752   | 15,310   | 17,174   | 19,175   | 21,085   | 22,822   |
| Invested capital - non core                      | 32,586   | 36,997   | 50,420  | 59,473  | 69,218  | 80,145  | 92,357  | 104,830  | 117,556  | 130,381  | 145,212  | 161,049  | 176,521  | 191,134  |
| Investment cash flow (non core)                  | -14,180  | -4,411   | -13,423 | -9,053  | -9,745  | -10,927 | -12,213 | -12,473  | -12,726  | -12,825  | -14,831  | -15,837  | -15,473  | -14,613  |
| Free cash flow to the firm (Non core)            | -9,252   | -796     | -8,165  | -2,646  | -2,112  | -1,904  | -1,624  | -303     | 1,026    | 2,486    | 2,343    | 3,338    | 5,612    | 8,208    |
| Free Cash Flow                                   | -10,444  | -19,419  | -160    | 20,960  | -1,149  | -3,302  | 962     | -8,729   | -5,158   | 2,768    | 1,473    | 1,612    | 3,977    | 3,063    |
| Financial result                                 | -40,716  | 9,097    | -547    | -451    | -521    | -612    | -681    | -812     | -942     | -1,025   | -1,126   | -1,235   | -1,337   | -1,442   |
| Net financial assets                             | -161,519 | 14,698   | 4,629   | 25,023  | 23,240  | 19,204  | 19,341  | 9,643    | 3,368    | 4,914    | 5,048    | 5,198    | 7,592    | 8,942    |
| Investment in net financial assets               | 50,318   | -176,217 | 10,069  | -20,394 | 1,783   | 4,037   | -137    | 9,698    | 6,275    | -1,546   | -134     | -151     | -2,394   | -1,350   |
| Variation in NCI                                 | -72      | -135     | 232     | 65      | 77      | 85      | 95      | 105      | 115      | 127      | 139      | 153      | 168      | 184      |
| Net cash transactions with shareholders          | 914      | 186,674  | -9,595  | -180    | -191    | -209    | -239    | -262     | -290     | -324     | -352     | -380     | -414     | -455     |
| Financing Cash Flow                              | 10,444   | 19,419   | 160     | -20,960 | 1,149   | 3,302   | -962    | 8,729    | 5,158    | -2,768   | -1,473   | -1,612   | -3,977   | -3,063   |

## Disclosures and Disclaimers

### Report Recommendations

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|             |   |
|-------------|---|
| <b>Buy</b>  | Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.   |
| <b>Hold</b> | Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period. |
| <b>Sell</b> | Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.           |

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This report was prepared by Catarina Simão and Chen Xian Liu, Master's in Finance students of Nova School of Business and Economics ("Nova SBE"), within the context of the Field Lab – Equity Research.

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THE APPLE OF CHINA

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A Project carried out on the Master in Finance Program, under the supervision of:

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# The Apple of China

## Abstract

The purpose of this paper is to analyze the interrelationship of Xiaomi sales channels, offline and online, with a focus on Chinese market. A study of each channel characteristics such as size, evolution, advantages and disadvantages with the analysis of changes in consumers behaviors, mindset and preferences shows that we are living in world where offline and online channels are complementary instead of mutually exclusive. Additionally, one channels success could drive the sales on other.

Keywords: Xiaomi Corporation; Offline and Online; Brand experience; Consumer behaviors

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## **Xiaomi Sales Channels – Offline vs Online or Offline and Online?**

Through the firm analysis, it is possible to determine that Xiaomi keeps developing and expanding its offline channel. Having in mind that this channel is less cost efficient than an online channel and considering the low-cost strategy applied by Xiaomi, this action seems to be somehow contradictory. Thus, the main motivation of this study is to provide an in-depth analysis of Xiaomi's sales channels.

### **Online**

In 2019, a Chinese citizen spends on average 4.7 hours per day on their smartphones, with a YoY% increase of 14.63%. In the same year, 68% of Chinese said that they purchase online in a daily or weekly frequency. With the development of technology, the Chinese digital market showed an exponential growth, which was a revolution of the whole retail industry. Likewise, the revenue in the eCommerce market had been increasing yearly. In fact, China accounted \$1,526.7 billion in eCommerce sales in 2018. Notably, the amount was more than half of the worldwide sales, equivalent to 2,916.33\$ billions. Within this market, Tmall is the company that had contributed the most, having a market share of 61.5%, followed by JD with 24.2% and Suning with 6.7%. Consumers choose this channel because of the price, the good returns policy, the fast and reliable delivery and the customer reviews. It is also important to mention that, apart from purchasing, the online channel is also used by consumers to study the product and to compare prices by different brands (Sands et al., 2010).

Looking at Xiaomi, 65% of the total revenue originated from the virtual channel. Within this, 46% were from Xiaomi operating platforms such as [www.mi.com](http://www.mi.com) and Youpin, while the remaining 54% were mainly from the distribution channel Tmall, Suning, JD and Guomei.

### **Offline**

Purchasing in physical stores, allows the clients to examine the product by themselves, avoiding color, size or quality discrepancy. Additionally, once finalized the purchase process,

the client gets the product immediately, avoiding delivery delay. Moreover, tangibility is crucial for the consumers when purchasing. By touching the products, the consumers can assess the quality and thus eliminate the uncertainty (Jiang et al.,2014). In fact, 52.3% of Chinese consumers said that they are used to purchase offline daily or weekly in 2019.

In respect of Xiaomi, from 3Q2015 to 1Q2016, its sales dropped dramatically by 30%. As explained by the firm, this slump was due to competitive market, supply-chain problems and the heavy reliance on e-commerce. In order to overcome this, a new retail strategy was incorporated. Since then, Xiaomi started to give importance to the offline channel. In 2016, the first offline store was opened in Beijing and, in less than 10 months, the store of 300 square meter reached a revenue equivalent to 1/14 of the entire shopping mall’s revenue. This proved that Xiaomi was in a good path and seemed to be a turnover opportunity. Following those results, in 2019, 35% of the total revenue derived from offline channels, 48.5% were from Xiaomi operating stores and 51.5% from partners operating stores. Mi Home and Mi official stores are Xiaomi operating, where all the expenses related with employees and rent are covered by Xiaomi, whereas in Mi authorized stores, the partners are in charge of every expense.

Figure 1 – Mi official store information  
Source: Xiaomi website

| Mi official store                              |           |
|--|-----------|
| Number of stores in China                      | 364       |
| Size (square meter)                            | 100 - 200 |
| Number of employee per square meter            | 19        |
| Average rent expense per square meter (annual) | 9720      |

Figure 2 – Mi home information  
Source: Xiaomi website

| Mi Home  |           |
|--|-----------|
| Number of stores in China                      | 247       |
| Size (square meter)                            | 200 - 600 |
| Number of employee per square meter            | 19        |
| Average rent expense per square meter (annual) | 9216      |

Figure 3 – Mi authorized store information  
Source: Xiaomi interim report 2019

| Mi authorized store                            |          |
|--|----------|
| Number of stores in China                      | 1378     |
| Size (square meter)                            | 50 - 200 |
| Number of employee per square meter            | Unknown  |
| Average rent expense per square meter (annual) | Unknown  |

Additionally, partners operating stores help to reach more clients, thus covering all the potential regions. These stores oversee providing after sales services as well as maintenance (Chennamaneni et al., 2016). During the past four years, on average, Xiaomi opened 40 stores per month. As the number of offline stores increased, the percentage of revenue coming from the offline channel also increased, as mentioned in the main report. I determined that having a physical store operated by Xiaomi has an additional business operating costs of approximately

4.54% of the revenue generated by Xiaomi operating offline stores. This percentage is more than double of the 1% - 2%<sup>1</sup> given to partners if it is a partner operating store. This shows that own operating is less cost efficient than partnering, however it creates more value in the long term and optimizes customer loyalty (Duffy, 2005). A better service provided and the efficiency of stock management are the two factors that can explain that (Bulgarella, 2005).

### **Final words**

After analyzing, I realized that my questions of does it worth to have offline stores? And it is better online or offline channel? were poorly considered ideas. Altogether, I should not look at these two channels as mutually exclusive, because they are complementary instead (Wang et al., 2016). Without the offline channel, the firm could save money, but, due to the lack of adaptation to the new market, the firm could lose market share. The online channel built a strong base of clients/Mi fans for the firm, when expanding to the offline channel it reaches even more clients, which enlarge the base. Thus, there is a positive correlation between online sales and offline sales as if the consumer had a satisfied experience in physical stores, their online purchase will also increase and vice-versa (Wang et al., 2011). Because historical shopping experiences are also stored in consumers' memories, which will be remembered for the future judgement and decision making (Brakus et al., 2009). After all, having both channels is not a question of cannibalization but instead a synergetic effects system.

### **Limitations of the study and possible future research**

For the rent expenses calculation, it was assumed an average for the store located on street and store located in the shopping mall. However, rent price varies by each building characteristics. Also, each city of the region has different offer and demand, which affects the price as well. This could limit the accuracy of this study. On the other hand, the employees' costs were calculated based on the average of the minimum and maximum wage multiplied by

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<sup>1</sup> This percentage is obtained by contacting the firm, through the firm's website [www.mi.com](http://www.mi.com), the percentage varies mainly based on your store localization and expected sales.

1 or 1.2 or 1.5. For the region that contains a first-tier city, it was assumed 1.5; for the region that has second-tier city it was assumed 1.2 and for the remaining regions, it was assumed 1. These multipliers were estimated based on information found on job forums of each region. However, these values are relatively recent data, which does not consider employees recruited previously, which is another limitation of this study.

For other studies, I propose a similar comparison between the offline and online channels but considering other markets, for instance European countries where the costs of running an offline store and consumers behaviors are clearly different.

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