

# JD.com (JD US)

## Stabilizing amidst testing times

Leveraging off its superior supply chain and fulfilment capability, JD.com (JD) has established solid consumer mindshare in key categories (i.e. electronics & home appliance, FMCG, etc.). Relative to peers JD has lower exposure to discretionary apparel categories. We expect category expansion, lower tier city expansion, and omni-channel retail development to support its long term growth. Steady margin expansion trend could continue over 21-24E, driven by economies of scale, more controlled sales promotions, and increase in revenue contribution from high-margin marketplace business, aided by enhanced platform optimization and user stickiness. On a 21-24E rev CAGR of 13.1%, we forecast NP CAGR of 35.1% (non-GAAP). Our DCF-based TP of USD78.5 akin to 28.1x 2023E PE. Initiate at BUY.

- **Quality proposition in e-commerce market.** JD has established strong consumer mindshare in core 3C, home appliance, FMCG categories, and its ties with brands are continuously strengthening. JD is pushing for continuous operating efficiency improvement for its first party business, and sharing efficiency gains with the brands, as evidenced by a shortened inventory turnover days (from 36.3 in 2Q19 to 31.5 in 2Q22) and account payable days (from 59.4 in 2Q19 to 49.4 in 2Q22). We forecast 21-24E net product revenue CAGR of 10.8%, with CAGRs of 7.9% for electronics and home appliance and 15.0% for general merchandise.
- **Optimizing traffic allocation, growing user base aids high margin marketplace revenue.** JD has been enhancing its platform traffic allocation since 2021, which successfully helped it boost marketplace revenue growth. Meanwhile, category expansion to FMCG products helped JD improve user activeness: JD saw a 25% YoY growth in DAU vs 9% YoY increase in annual active customer in 2Q22, per company data. Combined with JD's effort to refine marketing tools for merchants, JD could sustain robust marketplace revenue growth, in our view. We forecast 21-24E revenue CAGRs of 21.4% for marketplace and advertising business, and 28.8% for logistics and other services, which will underpin a 25.0% CAGR for net services revenues.
- **Margin expansion trend has multiple supports.** JD is well on track to achieve its long-term target of mid-to-high single digit non-GAAP net profit margin, in our view, aided by improving economies of scale, more controlled sales promotions and increase in revenue contribution from high-margin marketplace revenue. We forecast non-GAAP NPM to improve to 2.3/2.5/3.1% in 22/23/24E (2021: 1.8%).

### Earnings Summary

(YE 31 Dec)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue (RMB mn)	745,802	951,592	1,063,292	1,230,050	1,376,145
YoY growth (%)	29.3	27.6	11.7	15.7	11.9
Net profit (RMB mn)	49,395.9	(2,338.1)	10,073.1	22,102.2	33,450.5
Adjusted net profit (RMB mn)	16,827.6	17,207.1	23,945.3	30,939.1	42,392.3
EPS (Adjusted) (RMB)	11.14	11.07	15.41	19.91	27.28
Consensus EPS (RMB)			12.74	17.10	22.41
P/E (x)	12.8	na	42.6	19.4	12.8
P/B (x)	3.1	3.8	1.9	1.7	1.4
ROE (%)	32.7	(1.1)	4.6	9.1	12.0
Net gearing (%)	(35.9)	(27.1)	(25.1)	(31.9)	(38.8)

Source: Company data, Bloomberg, CMBIGM estimates

### BUY

**Target Price** US\$78.50  
**Up/Downside** 107.8%  
**Current Price** US\$37.77

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#### Stock Data

Mkt Cap (US\$ mn)	60,326.3
Avg 3 mths t/o (US\$ mn)	54.9
52w High/Low (US\$)	91.55/36.66
Total Issued Shares (mn)	1597.2

Source: FactSet

#### Shareholding Structure

Richard Qiangdong Liu	13.8%
Max Smart Limited	13.3%

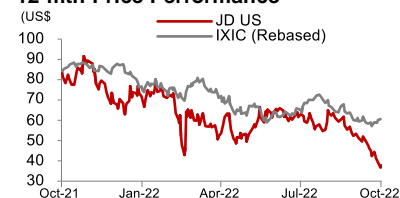
Source: HKEx

#### Share Performance

	Absolute	Relative
1-mth	-27.8%	-28.4%
3-mth	-40.0%	-35.5%
6-mth	-29.7%	-16.5%

Source: FactSet

#### 12-mth Price Performance



Source: FactSet

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## Investment Thesis

### Strong logistics & fulfillment capability established competitive edge

JD is a leading supply chain-based technology and service provider in China. In 2021, approximately 90% of the total online retail orders processed through JD Logistics's network were delivered on the same day or the day after the order was placed, with approximately 60% of the total online orders covered by the 211 program.

Backed by strong self-operated logistics and supply chain, JD is one of the leaders in China e-commerce industry. Based on company announcements, NBS data and our estimates, JD's market share in China e-commerce retail sales has expanded from 19.1% in 2020 to 21.2% in 2021, and may reach 22.4% in 2022.

JD is continuously enhancing its consumer mindshare, and strengthening ties with suppliers by sharing efficiency gains, which could help drive long-term sustainable growth, in our view. According to JD, its inventory turnover days was shortened to 31.5 in 2Q22 from 36.3 in 2Q19, and its account payable days was shortened to 49.4 in 2Q22 from 59.4 in 2Q19, both implying an efficiency gain.

### Category expansion and lower-tier city penetration drive LT growth

JD is well positioned to drive for its long-term revenue growth, aided by category expansion to currently underpenetrate FMCG category, and lower tier city expansion accompanied with enhancement of logistics and supply chain network in lower-tier cities. Aided by an improvement in fulfillment capability and shortened delivery time, online penetration of previously low penetration categories such as daily necessities, fresh grocery and FMCG categories will continue rising, and this could help drive online retail sales GMV growth over the next three to five years, in our view. We forecast revenue CAGR of 7.9% for electronics and home appliance, and CAGR of 15.0% for general merchandise over 2021-2024E, which will drive a net product revenue CAGR of 10.8%.

Among the leading e-commerce platforms, JD still has the greatest potential to expand its user base, in our view. JD's 580.8mn AAC in 2Q22 implies 69% penetration in China's total e-commerce users in December 2021, based on CNNIC data. In addition, we think JD has more room for user penetration in lower-tier cities, as it has only penetrated about 47.2/45.5/44.4% of total users in third/fourth/fifth and below tier cities as of 2021, compared with that of 81.0/83.0/86.5% for Pinduoduo. With deepening deployment of supply chain capabilities to lower tier cities, JD's user base could maintain steady expansion trend over 2021-2024E, in our view. We forecast JD's AAC to expand to 701mn in 2024E.

### Steady margin expansion cushions macro and industry disruptions

JD is well on track to achieve its long-term target of mid-to-high single digit non-GAAP net profit margin, in our view, aided by improving economies of scale, more controlled sales promotions and increase in revenue contribution from high-margin marketplace revenue. The steady user base expansion and increase in user stickiness supported by category expansion to FMCG, combined with JD's enhanced platform governance initiatives could drive robust growth for its net services revenue.

We forecast revenue CAGR of 21.4% for marketplace and advertising revenues, and CAGR of 28.8% for logistics and other services revenues over 2021-2024E, which will drive a net services revenue CAGR of 25.0%, and revenue contribution from services revenue could increase from 14.3% in 2021 to 19.3% in 2024E accordingly.

Overall, we forecast GAAP OPM to improve to 1.5/2.2/3.0% in 2022/2023/2024E (2021: 0.4%), and non-GAAP NPM to expand to 2.3/2.5/3.1% in 2022/2023/2024E (2021: 1.8%), which will drive a non-GAAP net income CAGR of 35.1% over 2021-2024E. JD is currently trading at 17.5x 2022E PE under non-GAAP, which in our view indicates attractive risk-reward.

## JD: leading supply-chain based technology and service provider

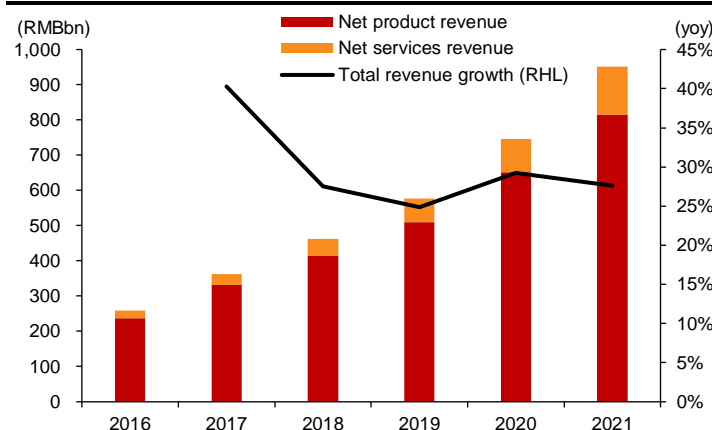
JD is a leading supply chain-based technology and service provider in China. The company was founded by Mr. Richard Liu in January 2004. Since founding, JD has focused on developing online retail business and building its own fulfilment infrastructure, including last mile delivery capability, all based on proprietary technology platform to support its operations.

As of 31 December 2021, JD's warehouse network covered almost all counties and districts in China, consisting of over 1,300 warehouses operated by JD and 1,700 cloud warehouses operated by third-party warehouse owner-operators under JD Logistics Open Warehouse Platform. In 2021, approximately 90% of the total online retail orders processed through JD Logistics's network were delivered on the same day or the day after the order was placed, with approximately 60% of the total online orders covered by the 211 program.

As JD's online retail business grew in size, JD launched online marketplace to complement it and expand product offerings, leverage its established fulfilment infrastructure and technology platform and ensure a superior customer experience. The combination of online retail and online marketplace, omni-channel initiatives and nationwide fulfilment infrastructure and technology platform, makes JD a strong player in China's retail industry in terms of providing superior customer experience.

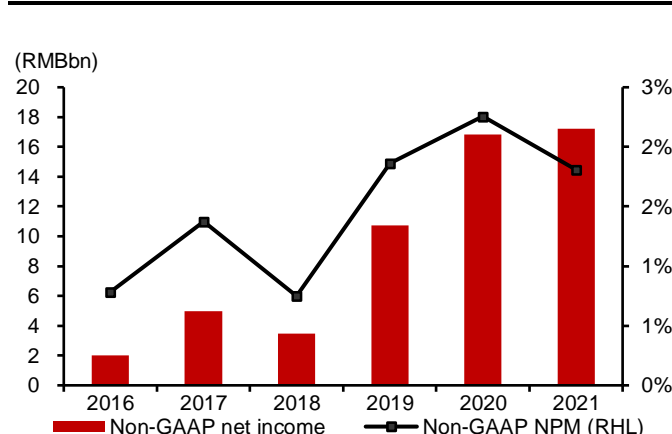
Leveraging the scale of business, technologies, and well-established retail infrastructure, JD has also begun to offer comprehensive supply chain-based services that complement its core business and create significant value for a wide range of business partners.

**Figure 1: JD: total revenue**



Source: Company data, CMBIGM

**Figure 2: JD: non-GAAP net profit and NPM**



Source: Company data, CMBIGM

JD's total revenue can be divided into two parts: net product sales and net services revenues. **Product sales** is further divided into sales of electronics and home appliances products including revenue from sales of computer, communication and consumer electronics products as well as home appliances. Net revenue generated from general merchandise products mainly includes revenue from sales of food, beverage and fresh produce, baby and maternity products, furniture and household goods, cosmetics and other personal care items, pharmaceutical and healthcare products, books, automobile accessories, apparel and footwear, bags and jewellery.

**Net services revenues** are further divided into revenues from online marketplace and marketing and revenues from logistics and other services. Net services revenues primarily consists of fees earned from providing marketing and logistics services to business partners, and commissions earned from third-party merchants for sales made through JD's online marketplace.

JD's total revenue reached RMB951.6bn in 2021, representing a 2016-2021 CAGR of 29.8%, among which net product revenue reached RMB815.7bn, representing a CAGR of 27.9%, and net services revenue reached RMB135.9bn, representing a CAGR of 46.2%. Driven by economies of scale and unleash of operating leverage supported by robust revenue growth, JD's non-GAAP net profit margin expanded from 0.8% in 2016 to 1.8% in 2021. The slightly decrease in non-GAAP net profit margin in 2021 compared to 2020 was mainly due to investment in community group buy business, and wear-off of one-off social security benefit impact.

## **E-commerce: solid recovery likely takes time; but JD could maintain its market share gain**

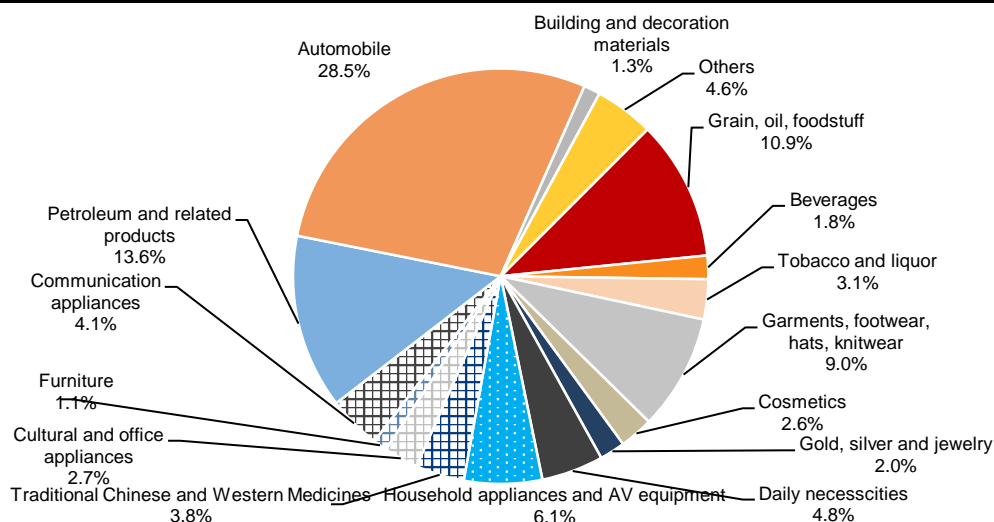
E-commerce has been an efficient way to help merchants and brands better reach to consumers, and this drove a continuous increase in online penetration of physical goods from 12.6% by end-2016 to 25.9% in 1H22. There is still room for further increase in online penetration in our view, driven by enhanced supply chain and fulfilment capabilities, and more innovative business models (such as community group buy and live streaming), which could help increase penetration of previous underpenetrated categories, such as FMCG and fresh groceries.

Growth of online physical goods GMV was 5.6% in 1H22 (2021: 12.0%), dragged by ongoing macro headwinds, and pandemic resurgence, which impacted supply chain and fulfilment. Although the recovery in growth seems bumpy, and concrete recovery likely still takes time, we expect growth of online retail sales of physical goods in 2H22 to reaccelerate against 1H22, accompanied with a gradual transition of macro stimulus policy to consumption, and easier comps.

Backed by strong self-operated logistics and supply chain, JD is one of the leaders in China e-commerce industry. It has established strong consumer mindshare for providing quality products and fast delivery services, which helped build competitive advantage in electronics and home appliance categories. Leveraging strong consumer mindshare, JD is making solid inroad to non-electronic categories, which could help drive further market share gain, in our view. Based on company announcements, NBS data and our estimates, JD's market share in China e-commerce retail sales has expanded from 19.1% in 2020 to 21.2% in 2021, and may reach 22.4% in 2022.

## **China e-commerce: concrete recovery still likely takes time**

According to NBS data, total retail sales of consumer goods in China reached RMB44.1tn in 2021, up 12.5% YoY on low base effect, among which retail sales of enterprises above designated size reached RMB15.4tn. Excluding automobiles and petroleum and related products categories, which we think are relatively difficult for e-commerce to penetrate in the short-term, large market share categories comprises grain, oil and food stuff (10.9%), garments, footwear, hats and knitwear (9.0%), household appliances and AV equipment (6.1%), daily necessities (4.8%), communication appliances (4.1%), etc.

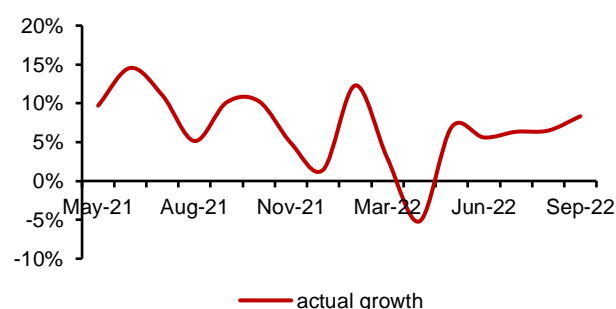
**Figure 3: China: breakdown of total retail sales\***

\*of enterprises above designated size (2021)

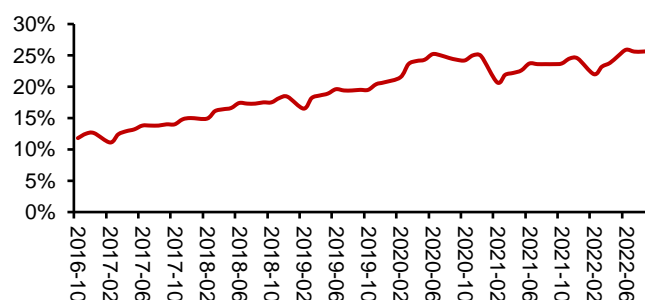
Source: NBS, CMBIGM estimates

At the current stage, apparel, 3C and home appliances are with relative high online penetration rate, while daily necessities and FMCG categories still enjoy relative low online penetration with large total addressable market over the long-run, in our view. Aided by an improvement in fulfilment capability and shorten in delivery time, online penetration of previously low penetration categories such as daily necessities, fresh grocery and FMCG categories will continue rising, and this could help drive online retail sales GMV growth over the next three to five years, in our view.

According to NBS data, online physical goods GMV rose 8.3% in September 2022 (6.1% yoy growth in 9M22), recovering from 5.6/6.3/6.5% yoy in June/July/August 2022. We think a more concrete consumption recovery should still take some time, which relies on more effective stimulus policies and a recovery in consumption willingness. According to the NBS, online retail sales of physical goods accounted for 25.7% of total retail sales in 9M22 (9M21: 23.6%; 8M22: 25.6%), and online retail sales of food/apparel/consumer goods grew 15.6/4.7/5.2% yoy.

**Figure 4: YoY growth of online retail sales of physical goods**

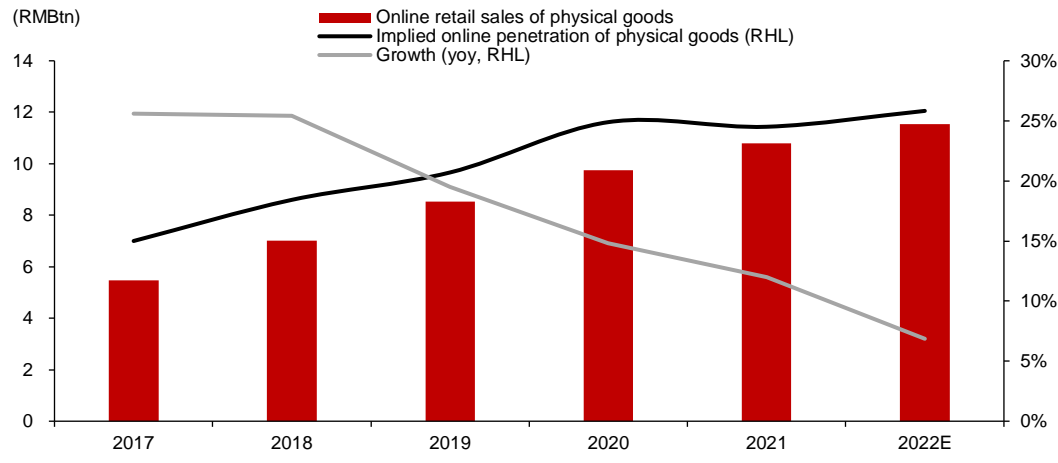
Source: NBS, CMBIGM

**Figure 5: Online sales penetration of physical goods**

Source: NBS, CMBIGM

That said, we are expecting a gradual reacceleration in YoY growth of online retail sales, driven by improving macro conditions and easier comparison base. We forecast 6.9% YoY growth for online retail sales of physical goods in 2022E (2021: 12.0% YoY).

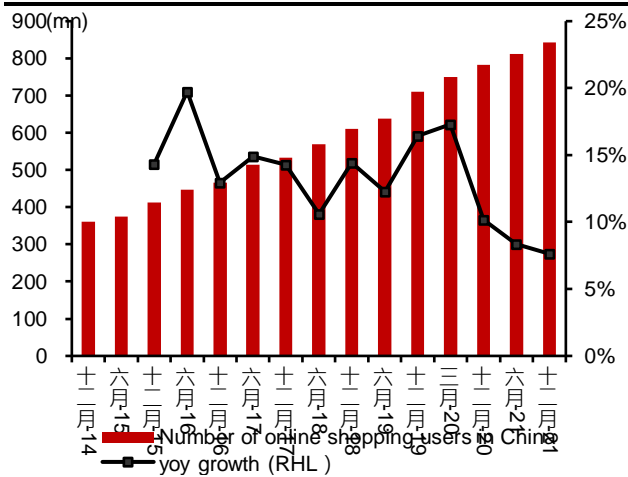


**Figure 6: Online retail sales of physical goods growth forecast**

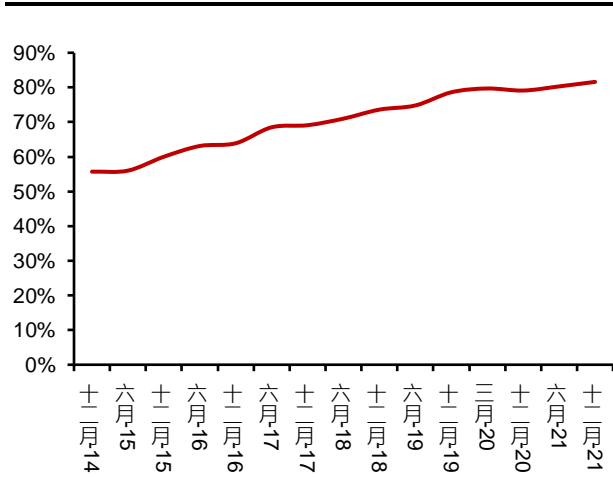
Source: NBS, CMBIGM estimates

### Overall user penetration gradually reached plateau; competing for consumer wallet share a focal point

Overall e-commerce user base penetration is gradually reaching plateau, and the intense competition among e-commerce platforms is likely to sustain, in our view. The ability to retain core users and increase wallet share gain of core user base are focal points in future competition. According to CNNIC, the number of e-commerce users in China reached 842mn as of December 2021, up 8% YoY, and the penetration of e-commerce services users among all netizen was 81.6%, up from 80.3% in June 2021, both indicating a relative mature stage of penetration.

**Figure 7: China: number of online shopping users**

Source: CNNIC, CMBIGM

**Figure 8: E-commerce services penetration rate**

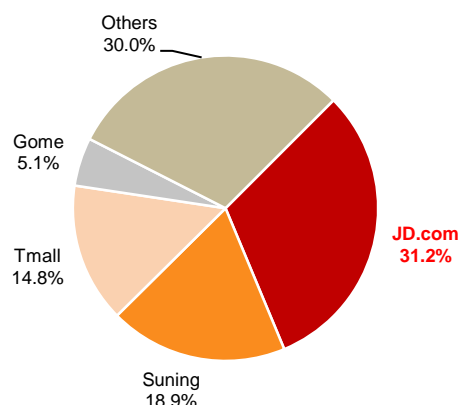
Source: NBS, CMBIGM

### JD: established consumer mindshare aided market share gain

Leveraging its strong supply chain and fulfilment capabilities, JD has established strong consumer mindshare among consumers, which aided market share gain in both its key categories and in overall China e-commerce market. Driven by established consumer mindshare, and enhanced tie with brands, JD could further expand its market share, in our view. We forecast JD's market share in China e-commerce market to increase from 21.2% in 2021 to 22.4% in 2022.

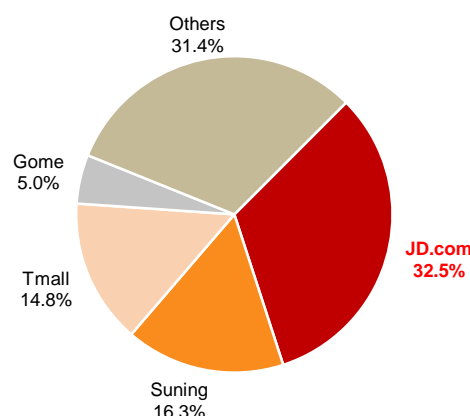
According to data published by China Center for Information Industry Development (CCID), JD accounted for 32.5% of total GMV in China home appliance retail sales market in 2021, increased from 31.2% in 1H21.

**Figure 9: China: home appliance retail sales GMV market share (1H21)**



Source: CCID, CMBIGM

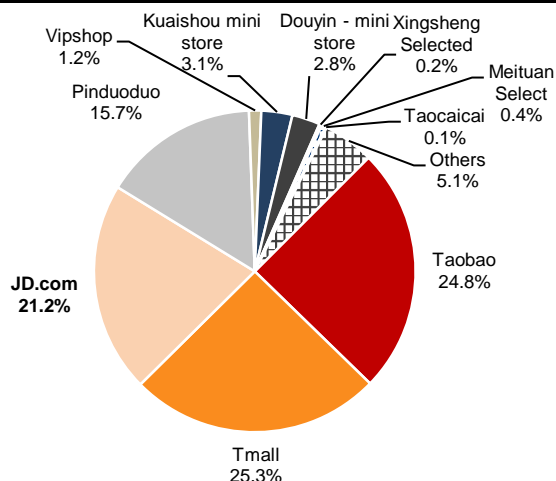
**Figure 10: China: home appliance retail sales GMV market share (2021)**



Source: CCID, CMBIGM

Based on company announcements, NBS data and our estimates, JD's market share in China e-commerce retail sales has expanded from 19.1% in 2020 to 21.2% in 2021, and may reach 22.4% in 2022. We believe it is mainly driven by JD's continued efforts in logistics and other infrastructure fields, which provide users with a smoother shopping experience in our view, especially amid the pandemic resurgence and logistics disruptions. We believe this comparative advantage may help it further enhance its brand image and grab consumer wallet share. We think Taobao may face greater competitive pressures from emerging platforms such as Douyin and Kuaishou, and estimate its market share will fall from 26.7% in 2020 to 23.6% in 2022.

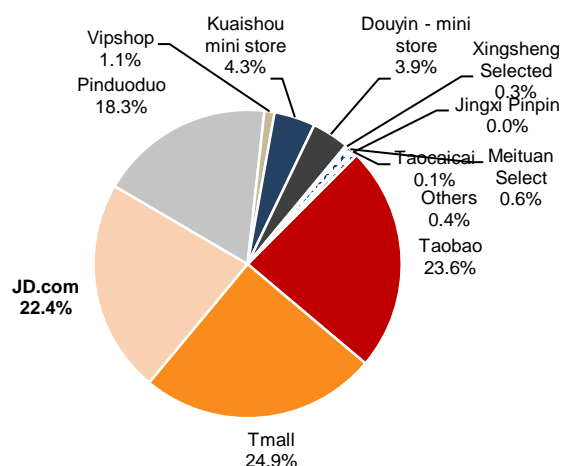
**Figure 11: China: e-commerce market share breakdown in terms of GMV (2021)**



Note: 1) For live e-commerce platforms, we use the GMV generated by their small stores to calculate the GMV share to avoid double counting; 2) We assume a return rate of 35% for live e-commerce platforms and 16% for other e-commerce platforms.

Source: NBS, company data, CMBIGM estimates

**Figure 12: China: e-commerce market share breakdown in terms of GMV (2022E)**



Note: 1) For live e-commerce platforms, we use the GMV generated by their small stores to calculate the GMV share to avoid double counting; 2) We assume a return rate of 35% for live e-commerce platforms and 16% for other e-commerce platforms.

Source: NBS, company data, CMBIGM estimates



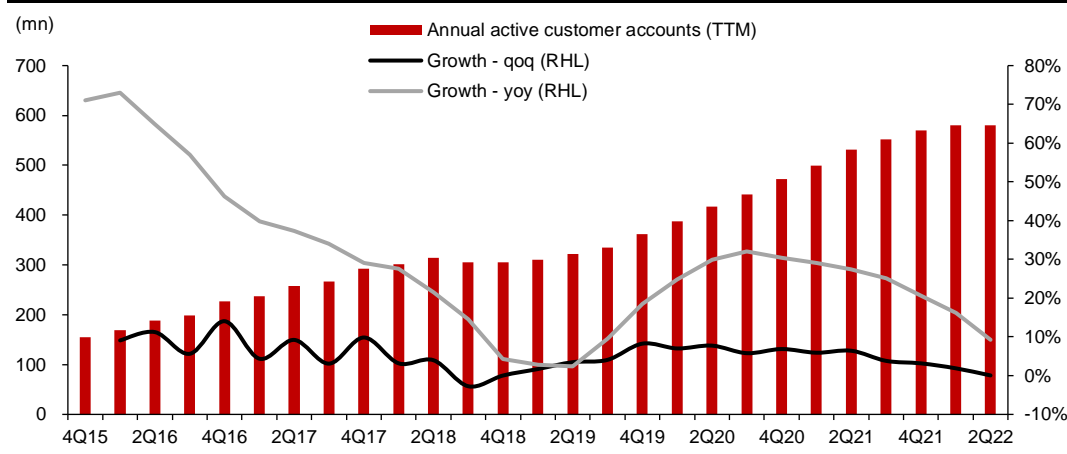
## Category expansion and lower tier city penetration help drive JD's long-term growth

Although JD's revenue growth slowed in 1H22, owing to pandemic resurgence and macro headwinds, and JD's active customer growth also saw a decelerating trend, due to high-base effect brought up by Jingxi's aggressive expansion in 2Q21, we think JD's long-term growth remains intact. JD is well positioned to drive for its long-term revenue growth, aided by category expansion to currently underpenetrated FMCG category, and lower tier city expansion accompanied with enhancement of logistics and supply chain network in lower-tier cities.

### ■ JD still has room to further penetrate lower-tier city market

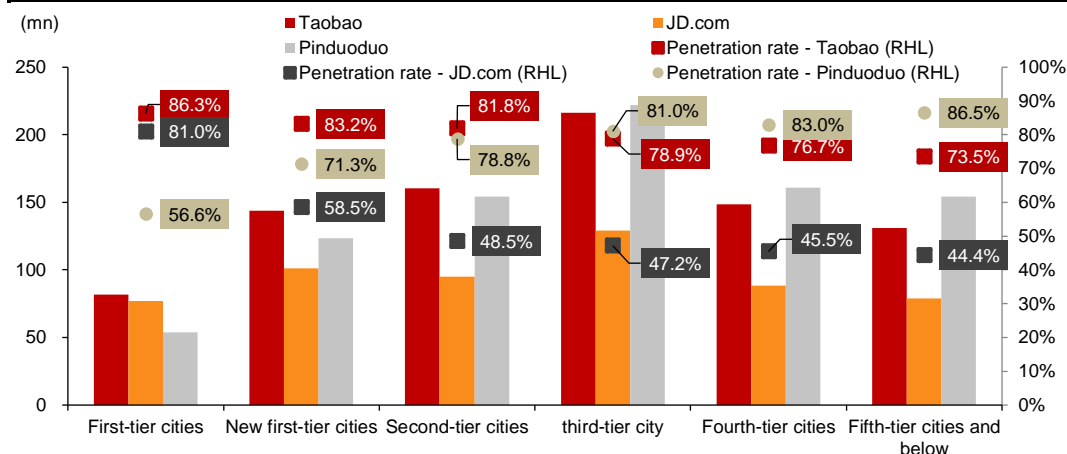
Investors are concerned on the pace of expansion for JD's annual active customer (AAC) accounts, which totalled 580.8mn, up 9.2% YoY but largely flat QoQ. However, this was mainly due to the scale back of customer acquisition investment for new businesses (Jingxi), in our view. As 2Q21 is a strong quarter for Jingxi when it invested a lot of effort in customer acquisition, it brought high-base effect. However, JD's main app maintained solid user growth in 2Q22: it saw a QoQ increase of 10mn AAC. As JD has scaled down its customer acquisition investment for Jingxi from 3Q21 onwards, we expect high base effect on user growth to gradually wear off from 3Q22 onwards, and both QoQ growth and YoY growth for JD should reaccelerate in 3Q22, in our view.

**Figure 13: JD: annual active customer accounts and growth**



Source: Company data, CMBIGM estimates

Among the leading e-commerce platforms, JD still has the greatest potential to expand its user base, in our view. JD's 580.8mn AAC in 2Q22 implies 69% penetration in China's total e-commerce users in December 2021, based on CNNIC data. In addition, we think JD has more room for user penetration in lower-tier cities, as it has only penetrated about 47.2/45.5/44.4% of total users in third/fourth/fifth and below tier cities as of 2021, compared with that of 81.0/83.0/86.5% for Pinduoduo. With deepening deployment of supply chain capabilities to lower tier cities, JD's user base could maintain steady expansion trend over 2021-2024E, in our view. We forecast JD's AAC to expand to 701mn in 2024E.

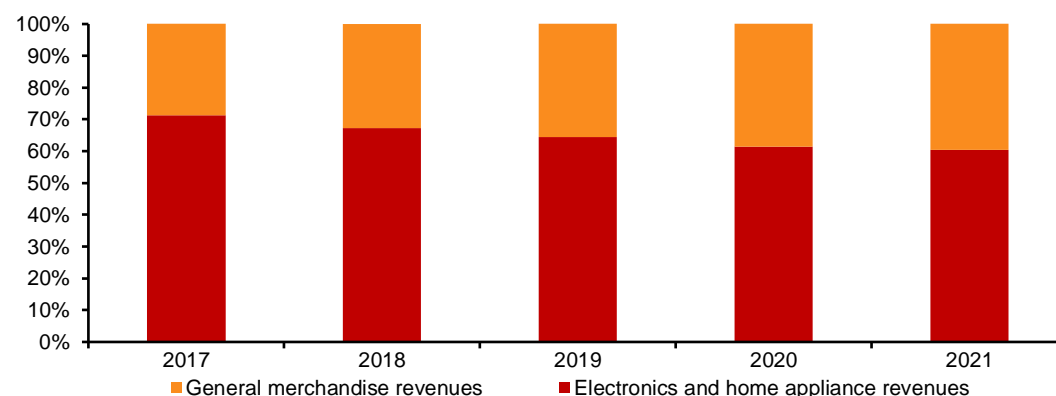
**Figure 14: Distribution of active buyers by tier of cities (2021)**

Source: QuestMobile, company data, CMBIGM estimates

### ■ Category expansion to non-electrical products could drive long-term growth

Leveraging its superior supply chain and fulfilment capability, JD has gained competitive edge in electronics and home appliance categories, and has established strong consumer mindshare in terms of “quality supply” and “fast delivery”. However, as overall online penetration of electronics and home appliance category is gradually saturating, JD is leveraging more offline stores and its omni-channel strategy to further grow electronics and home appliance sales.

At the same time, JD is exploring more business opportunities in non-electronic categories to drive long-term revenue growth. Aided by strong consumer mindshare and superior logistics and fulfilment capabilities, JD is well positioned to drive its long-term revenue growth through category expansion, in our view.

**Figure 15: JD: breakdown of net product revenue**

Source: iResearch, CMBIGM

### ■ JD is a leading player in on-demand retail sales market

Through the business cooperation with Dada, JD is well positioned to ride on the tide of increasing demand for on-demand retail sales market, and the development of on-demand retail sales could help aid long-term revenue growth, in our view.

#### 1) On-demand retail sales is expected to reach RMB758.9bn in 2025E

On-demand retail sales emerged in recent years, with rising demand for convenience and increase in consumption power. Large user base, strong and wide variety of quality product supply, and flexible and highly efficient fulfilment network was three major competitive edges for companies to excel competitors in on-demand retail sales industry, in our view.

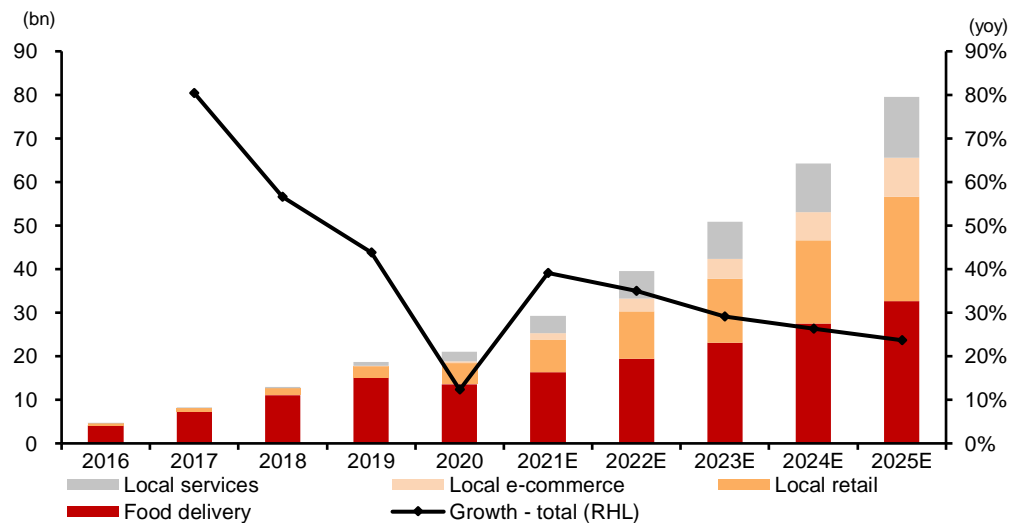
Figure 16: China: on-demand retail Industrial chain map



Source: iResearch, CMBIGM

In terms of annual order volume of China's on-demand delivery services industry, iResearch data reveals that the volume reached 21.0bn in 2020, up 12.3% YoY, despite experiencing headwind from COVID-19 pandemic. Per estimate made by iResearch, annual order volume is expected to achieve a 2020-2025E CAGR of 30.5%, to reach 79.5bn in 2025, driven by the strong order volume growth from local retail, local e-commerce, and local services.

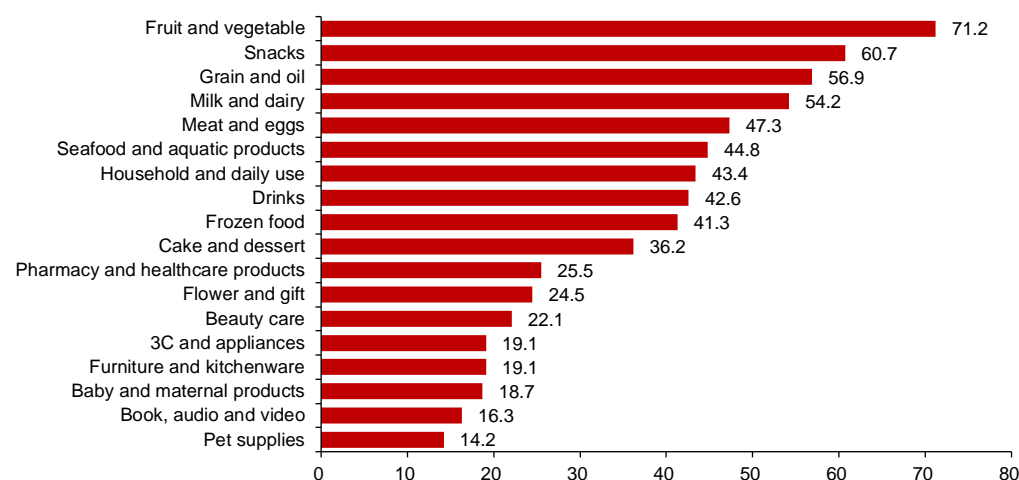
Figure 17: Annual order volume of China's on-demand delivery services industry



Source: iResearch, CMBIGM

**Figure 18: Categories that are purchased by consumers in on-demand retail**

(%)



Source: iResearch, CMBIGM

According to Meituan Research Institute, overall on-demand retail sales market size was RMB150bn in 2020, equivalent to 1.5% of total retail sales of physical goods. It expects on-demand retail sales market size to reach RMB758.9bn in 2025, indicating a 2020-2025E CAGR of 38.3%. Based on Meituan Research Institute's data, we made a more detailed forecast for China's on-demand retail sales market size, and cross-checked our forecast with overall online retail sales of physical goods GMV and China supermarket market size, as supermarket category is currently one of the key components of on-demand retail sales market.

We expect on-demand retail sales as percentage of total online retail sales of physical goods to also increase over 2021-2025E, driven by broader product supply, increase in product quality, and enhancement in fulfillment efficiency. We forecast on-demand retail sales as % of online retail sales to increase to 2.2/3.0/3.7/4.5% of total online retail sales of physical sales in 2021/2022/2023/2024E.

**Figure 19: China: on-demand retail sales market size forecast**

(RMB bn)	2020	2021E	2022E	2023E	2024E	2025E
Online retail sales of physical goods	9,759	10,804	11,549	12,820	13,717	14,403
Growth (YoY %)		12.0	6.9	11.0	7.0	5.0
China supermarket market size	3,376	3,512	3,563	3,636	3,690	3,727
Growth (YoY %)		4.0	1.4	2.1	1.5	1.0
<b>Total on-demand retail sales market GMV</b>	150.0	243.1	346.4	480.6	617.1	758.9
On-demand retail sales market size growth (rhs)		62.0	42.5	38.7	28.4	23.0
On-demand retail sales as % of online retail sales of physical goods	1.5	2.2	3.0	3.7	4.5	5.3

Source: Meituan Research institute, iResearch, CMBIGM estimates

## 2) JD: enhanced business cooperation with Dada could help grab long-term business development opportunities in on-demand retail market

Dada is a leading platform of local on-demand retail and delivery in China. It operates JDDJ, one of China's largest local on-demand retail platforms for retailers and brand owners, and Dada Now, a leading local on-demand delivery platform open to merchants and individual senders across various industries and product categories. As of 31 December 2021, JDDJ has covered around 1,800 cities and counties in China. JD held approximately 52% of Dada's issued and outstanding shares and has consolidated Dada's financial statement since February 2022.

**Figure 20: Cooperation milestones between JD and Dada**

Date and Time	Event
April, 2016	JD completed the transaction with Dada Group, pursuant to which JD's online-to-offline business, JD Daojia, became a subsidiary of Dada Group and JD contributed certain resources and US\$200 million in cash in exchange for newly issued equity interest in Dada Group.
December, 2017	JD exercised its warrant to acquire additional preferred shares of Dada Group
August, 2018	In conjunction of Dada Group's Series F round financing with Walmart, JD further invested US\$180 million to acquire the newly issued preferred shares of Dada Group.
June, 2020	ADSS of Dada Group commenced trading on the Nasdaq Global Select Market under the symbol "DADA."
31, December, 2021	JD owned approximately 47% issued and outstanding of Dada Group.
22, March, 2021	JD entered into a share subscription agreement with Dada Group, and further entered into an amendment to share subscription agreement on February 25, 2022, under which Dada Group issued 109,215,017 ordinary shares to JD. Immediately following the closing, JD held approximately 52% of Dada Group's issued and outstanding shares and began to consolidate the financial results of Dada Group.

Source: Company data, CMBIGM

GMV generated from JDDJ was RMB43.1bn in 2021, up 70% YoY, and this implies a 17.7% of market share in China's total on-demand retail sales market in 2021, up from 16.9% in 2020. In addition, according to iResearch, Dada ranked the first in China's supermarket O2O retail sales market in terms of GMV, with 27% of the market share in 2021, which demonstrated its leading position.

**Figure 21: JDDJ: market share in China on-demand retail sales market**

(RMBbn)	2020	2021E	2022E	2023E	2024E	2025E
<b>Total on-demand retail sales market GMV</b>	<b>150.0</b>	<b>243.1</b>	<b>346.1</b>	<b>493.2</b>	<b>633.2</b>	<b>758.9</b>
JDDJ marketplace GMV	25.3	43.1	64.1	95.3	127.5	158.9
JDDJ's market share in total on-demand retail sales market GMV	16.9%	17.7%	18.5%	19.3%	20.1%	20.9%

Source: Company data, Meituan Research institute, iResearch, CMBIGM estimates

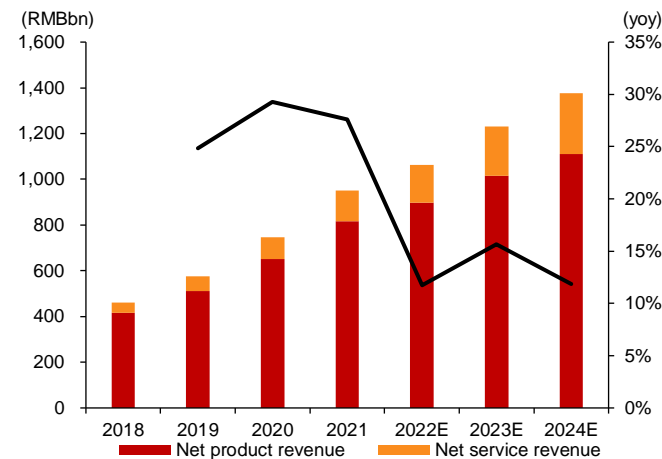
By strengthening its cooperation with Dada, JD enhanced its deployment in China's emerging on-demand retail sales market. Leveraging synergy generated from both fulfillment network and product purchasing, Dada could further expand its market share in on-demand retail sales market and help drive JD's GMV growth. If we assume Dada could account for 20.9% of total market share in 2025E that would imply a GMV generation of RMB158.9bn, and implies a 4.8% upside on GMV generation for JD based on 2021 GMV generation of RMB3.3tn.

## Financial Analysis

### Estimate revenue 2021-2024E CAGR of 13.1%

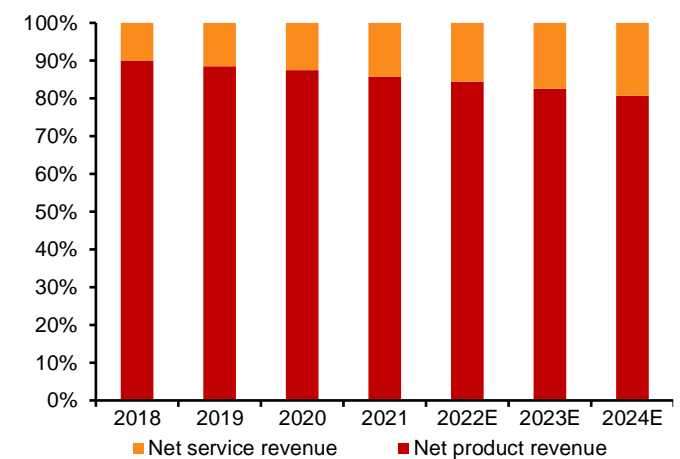
JD's total revenue primarily consists of product revenue and services revenue. We forecast net product revenues CAGR of 10.8% and net services revenues CAGR of 25.0% over 2021-2024, which could underpin a total revenue CAGR of 13.1%, to reach RMB1.4tn in 2024E. In terms of revenue contribution, we forecast net services revenue to increase to 19.3% of total in 2024E (2021: 14.3%).

**Figure 22: JD: Revenue growth and forecast**



Source: Company data, CMBIGM estimates

**Figure 23: JD: Revenue mix**

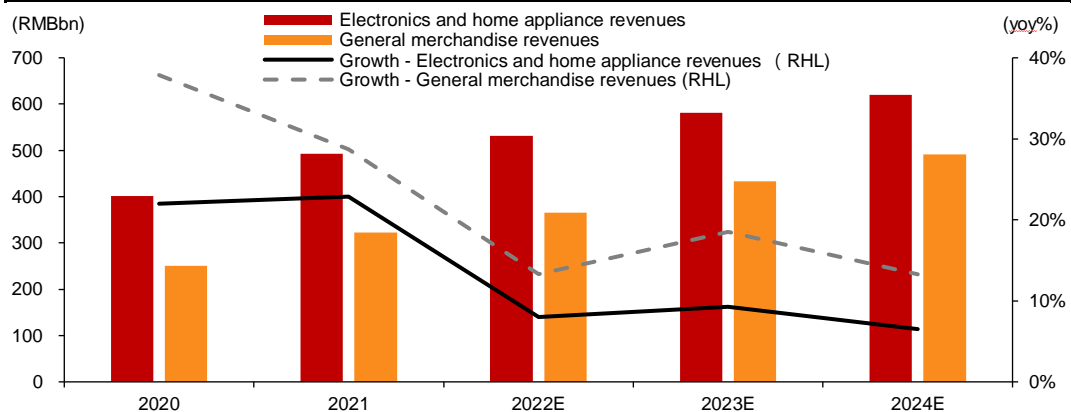


Source: Company data, CMBIGM estimates

### Net product revenues (84.5% of 2022E revenue)

JD's net product revenue was RMB815.7bn in 2021, up 25.1% YoY, within which electronics and home appliance revenue was RMB492.6bn, up 22.9% YoY, and general merchandise revenue was RMB323.1bn, up 28.7% YoY, both driven by enhanced consumer mindshare and enhanced cooperation with brand partners, which ensured quality product supply. We forecast revenue CAGR of 7.9% for electronics and home appliance, and CAGR of 15.0% for general merchandise over 2021-2024E, which will drive a net product revenue CAGR of 10.8%.

**Figure 24: JD: net product revenue and growth**



Source: Company data, CMBIGM estimates

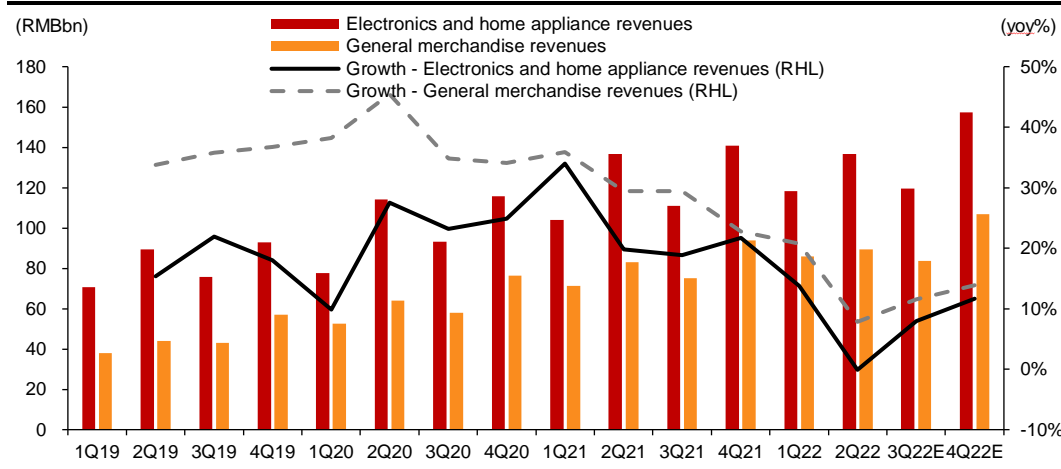
### ■ JD continues to gain market share in core 3C and home appliance categories

Pandemic resurgence and sustained macro headwind in 1H22 has impacted JD's revenue generation, but JD delivered more resilient than industry revenue growth, supported by its strong supply chain and fulfilment capability. JD's net product revenue grew 9.0% YoY in



1H22, aided by 5.9% YoY increase in electronics and home appliance revenue, and 13.8% YoY increase in general merchandise revenue. For 2H22, we forecast net product revenue growth to reaccelerate to 11.2% YoY, as pandemic impact gradually dissipates, and a gradual transition of macro stimulus policy to consumption.

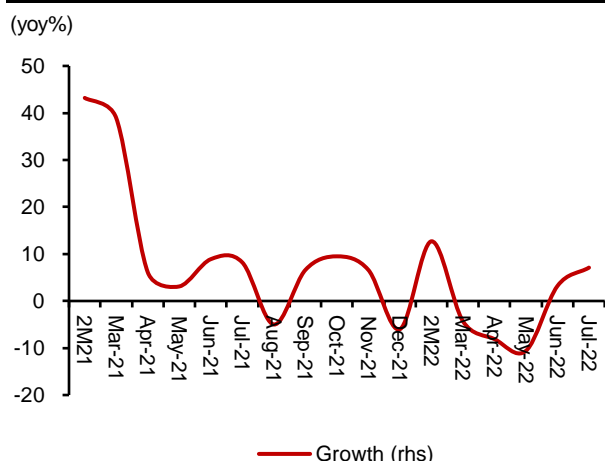
**Figure 25: JD: net product revenue and growth (Quarterly trend)**



Source: Company data, CMBIGM estimates

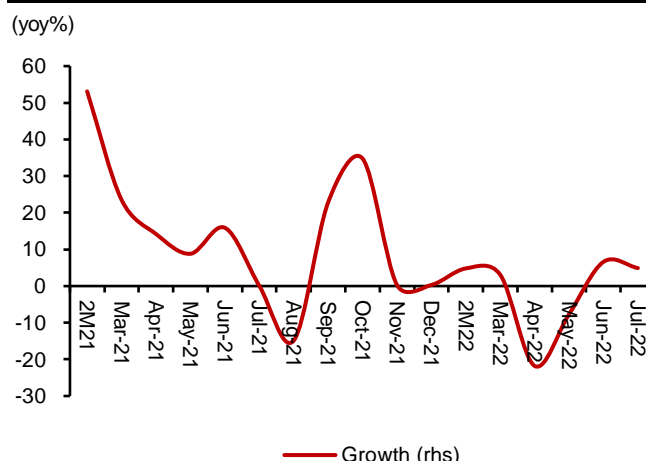
Per NBS, in 1H22, retail sales GMV for household appliances grew merely 0.4% YoY, while that for communication appliances was down 0.6% YoY, which indicated that JD is still gaining market share in its core electronics product sales business. However, overall concrete consumption recovery likely still takes time, in our view, and reacceleration in revenue growth of JD's electronic and home appliance could be correlated with the overall recovery in macro, and property sales nationwide.

**Figure 26: YoY growth in household and AV equipment retail sales GMV**



Source: NBS, CMBIGM

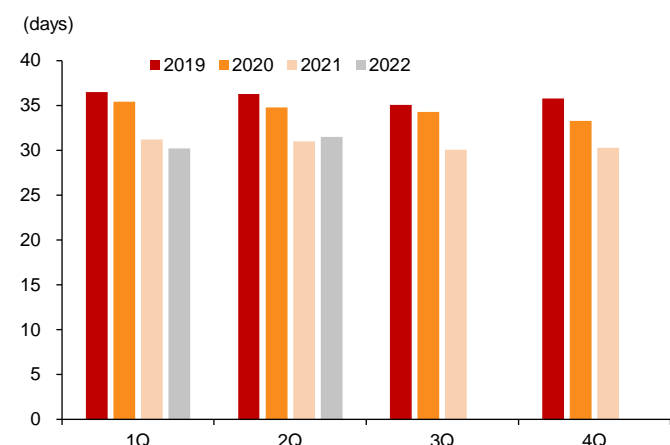
**Figure 27: YoY growth in communication equipment retail sales GMV**



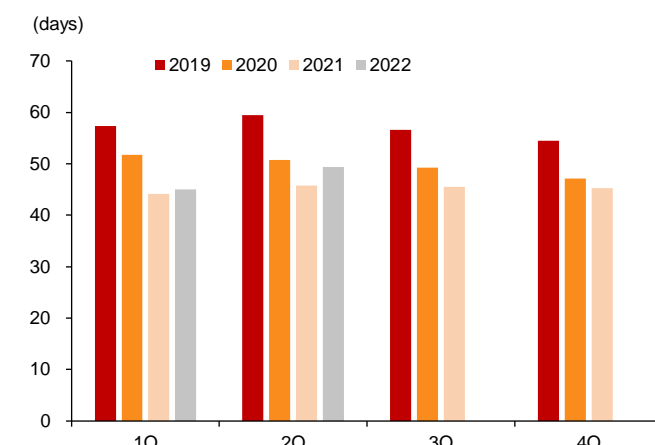
Source: NBS, CMBIGM

### ■ A trusted brand for both consumer and brands could drive LT revenue growth

JD is seeing ongoing operating efficiency improvement for its product sales business, and is sharing efficiency gains with brands, the sustainable business operating model could in our view provide support for long-term product revenue growth. Per company data, JD's inventory turnover days was shortened from 36.3 in 2Q19 to 31.5 in 2Q22, and its account payable days was shortened from 59.4 in 2Q19 to 49.4 in 2Q22.

**Figure 28: JD: inventory turnover days (TTM)**

Source: Company data, CMBIGM

**Figure 29: JD: account payable days (TTM)**

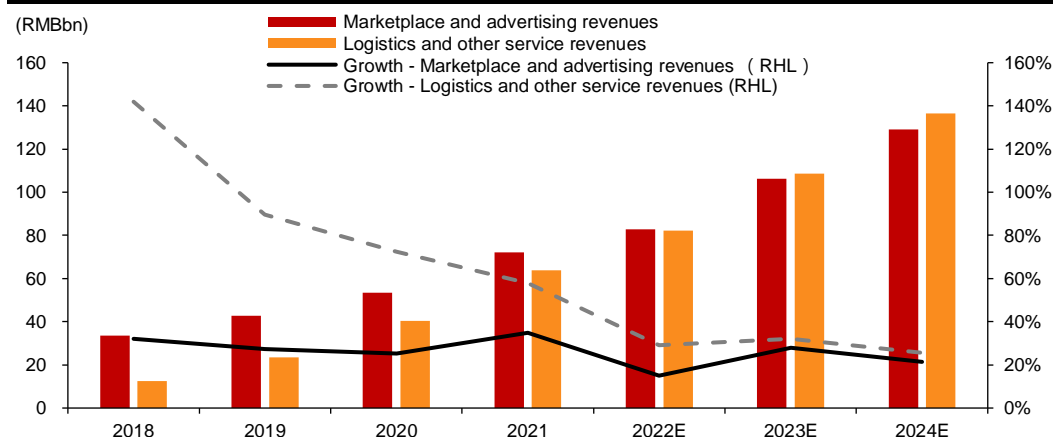
Source: Company data, CMBIGM

On consumer side, JD continuously enhances its infrastructure deployment to enhance customer's shopping experience and strengthen customer mindshare. According to JD, consumers in over 94% of the nation's districts and counties (improved 2pp YoY) and in over 84% of the villages and towns received their deliveries on the same day or the next after placing an order on JD platform during 2022 618 shopping festival. Peak user traffic visit per second on JD Cloud increased by 154.5% YoY during 2022's 618 sales promotion, and JD successfully ensured smooth user experience for page views and transactions.

JD is also strengthening its global supply chain network deployment to further fulfil consumer's cross-border online shopping demand. Per JD, the area of self-operated overseas warehouses increased by 100% YoY and its international supply chain network has covered 230 countries and regions worldwide in June 2022.

### Net services revenues (15.5% of 2022E revenue)

JD's net services revenue was RMB135.9bn in 2021, up 44.7% YoY, within which marketplace and advertising revenue was RMB72.1bn, up 34.9% YoY, and logistics and other services revenue was RMB63.8bn, up 57.8% YoY. We forecast revenue CAGR of 21.4% for marketplace and advertising revenues, and CAGR of 28.8% for logistics and other services revenues over 2021-2024E, which will drive a net services revenue CAGR of 25.0%.

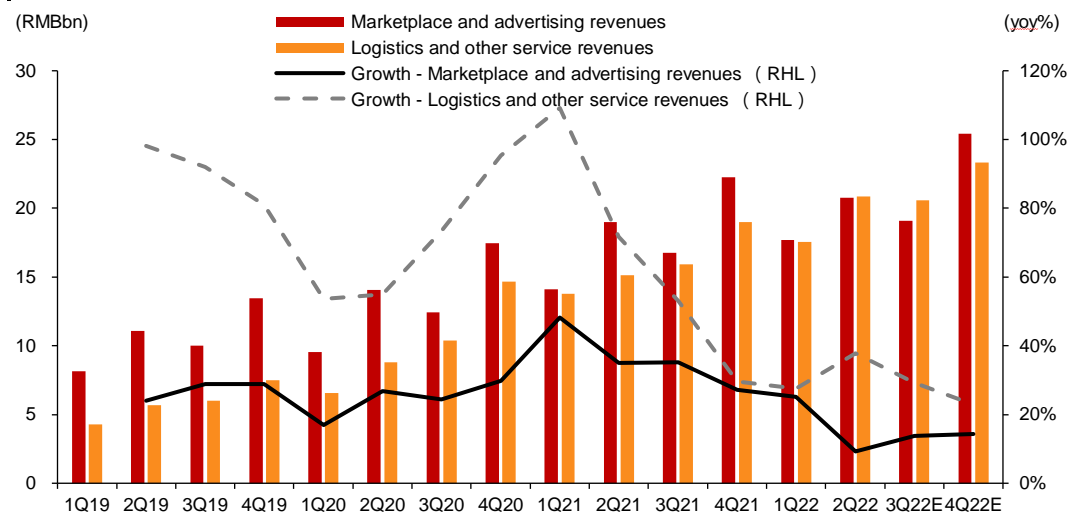
**Figure 30: JD: net services revenue and growth**

Source: Company data, CMBIGM estimates

In 1H22, JD's net services revenue grew 23.9% YoY to RMB76.8bn, driven by 16.1% YoY growth in marketplace and advertising revenue to RMB38.4bn, and 32.9% YoY growth in

logistics and other service revenue to RMB38.4bn. However, growth of marketplace and advertising revenue slowed from 25.2% in 1Q22 to 9.3% in 2Q22, which we attributed to: 1) merchant support policy that JD proactively provided to merchants, which impacted commission revenue generation; 2) lowered marketing dollar spend from merchants and brands amid challenging macro.

**Figure 31: JD: net services revenue and growth (quarterly trend)**



Source: Company data, CMBIGM estimates

But overall growth of marketplace and advertising revenue growth in 2Q22 was still higher than that of net product revenue, as ad demand during the promotional season was boosted by marketplace revenue growth. We are still positive on JD's net services revenue growth over the long-term, as JD has been enhancing its platform governance since 2021, and we believe the optimizing traffic allocation mechanism and refining marketing tools for merchants can help it further gain ads budget in the long-run. We forecast net services revenue growth of 19.6% YoY in 2H22E.

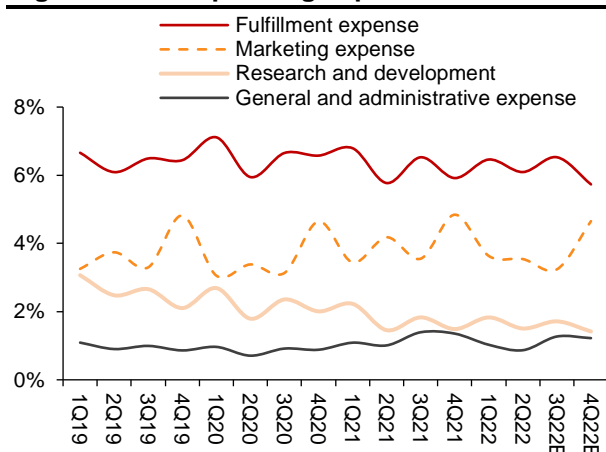
## Expense ratios and operating profit margins

JD's cost of revenue primarily consists of cost for acquiring products that it sells directly and the related inbound shipping charges, inventory write-downs, traffic acquisition costs related to online marketing services, and cost related to logistics services provided to third-parties.

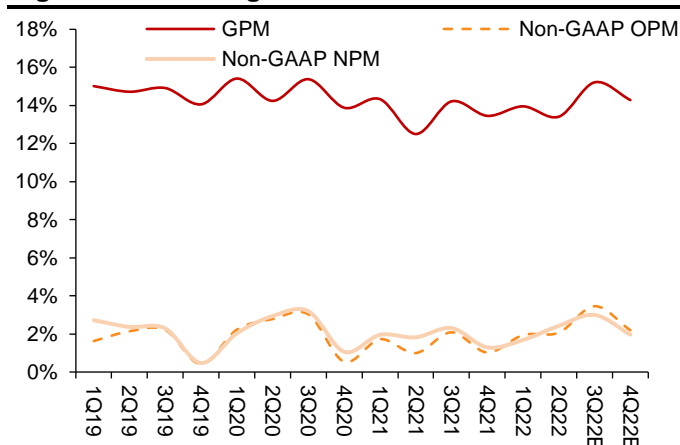
In 2Q22, JD recorded gross margin of 13.4%, up 0.9pp YoY, which we attributed to: 1) more controlled sales promotion efforts across categories; 2) increase in revenue mix from relative high gross margin FMCG categories. We expect gross margin expansion trend to sustain in 2H22, given that: 1) JD has already established strong consumer mindshare, which allows JD to manage its sales promotion scale more proactively; 2) there is still ample room for gross margin expansion for FMCG category, which could be driven by improving economies of scale.

Driven by improving economies of scale, increase in revenue contribution from relative high gross margin FMCG categories, and increase in revenue contribution from high-margin marketplace services business, we expect JD's gross margin to improve from 13.6% in 2021 to 14.2/14.8/15.4% in 2022E/2023E/2024E.

As a percentage of revenue, JD's fulfillment expense/research and development (R&D) expense was 6.21/1.72% in 2021, compared to 6.53/2.17% in 2020, driven by the unleash of operating leverage supported by robust revenue growth. Although pandemic resurgence has brought some one-off expenses, we expect JD's fulfillment expense ratio to improve slightly to 6.17% in 2022E, driven by resilient revenue growth, and further to 6.10/6.05% in 2023/2024E. For R&D expenses, we forecast an optimization trend to 1.60/1.50/1.45% in 2022/2023/2024E.

**Figure 32: JD: operating expense ratios**

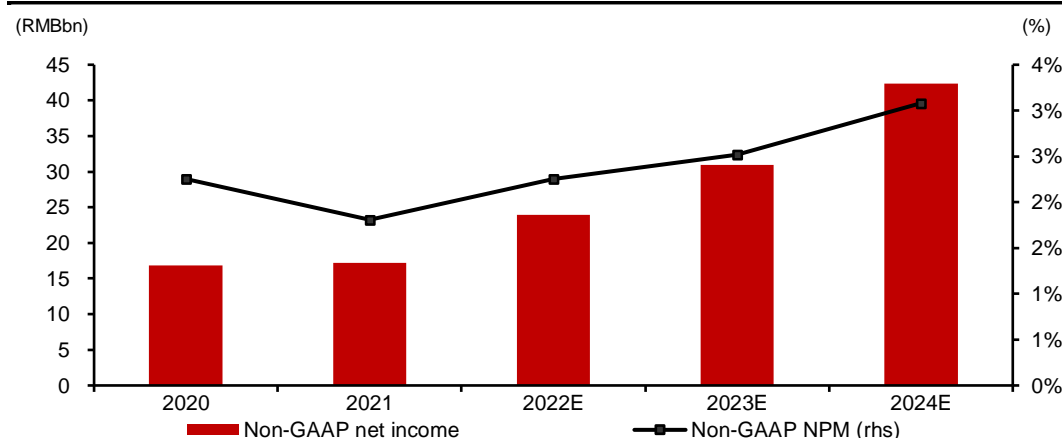
Source: Company data, CMBIGM estimates

**Figure 33: JD: margin trend**

Source: Company data, CMBIGM estimates

JD is streamlining its new business (such as Jingxi) and adopting stringent cost control method amid macro headwind, which drove a decrease in marketing expense ratio from 4.2% in 2Q21 to 3.5% in 2Q22. We expect JD to maintain stringent cost control in 2H22, which could aid an optimization in marketing expense ratio to 3.8% in 2022E (2021: 4.1%). However, we estimate marketing expense ratio to increase to both 3.9% in 2023E and 2024E, as JD remains committed in investing in new user acquisition to drive for long-term development.

Overall, we forecast GAAP OPM to improve to 1.5/2.2/3.0% in 2022/2023/2024E (2021: 0.4%), and non-GAAP NPM to expand to 2.3/2.5/3.1% in 2022/2023/2024E (2021: 1.8%), which will drive a non-GAAP net income CAGR of 35.1% over 2021-2024E.

**Figure 34: JD: non-GAAP net income and margin**

Source: Company data, CMBIGM estimates

### Sensitivity test on revenue and non-GAAP net income

We conduct sensitivity analysis to gauge the total revenue growth sensitivity to the net product sales/services revenue. Under our bull-case assumption, if product sales/services revenue growth forecast were raised by 1/3/5/8% 2023E driven by better-than-expected recovery of macro environment and consumptions sentiment, JD's total revenue could have 0.9/2.6/4.3/6.9% upside in 2023E. Under our bear-case assumption, if product sales/services revenue growth forecast are lowered by 1/3/5/8% in 2023E due to slower-than-expected recovery of macro environment, JD's total revenue could have 0.9/2.6/4.3/6.9% downside in 2023E.

**Figure 35: JD : sensitivity analysis on revenue generation**

2023E (RMBmn)	Change in revenue growth	product forecast	2023E revenue growth	product forecast	Change in revenue growth	services forecast	2023E revenue growth	services forecast	Revenue	Comparison with base case
Case I	-8%		-8%	5.0%	-8%		22.0%		1,144,987	-6.9%
Case II	-5%		-5%	8.0%	-5%		25.0%		1,176,886	-4.3%
Case III	-3%		-3%	10.0%	-3%		27.0%		1,198,151	-2.6%
Case IV	-1%		-1%	12.0%	-1%		29.0%		1,219,417	-0.9%
Base case				13.0%			30.0%		1,230,050	0.0%
Case V	1%		1%	14.0%	1%		31.0%		1,240,683	0.9%
Case VI	3%		3%	16.0%	3%		33.0%		1,261,949	2.6%
Case VII	5%		5%	18.0%	5%		35.0%		1,283,215	4.3%
Case VIII	8%		8%	21.0%	8%		38.0%		1,315,114	6.9%

Source: Company data, CMBIGM estimates

We also conduct sensitivity analysis to analyse the non-GAAP net income sensitivity to the opex control. Under our bull-case assumption, if S&M/G&A growth forecast are both lowered by 1/3/5/8% in 2023E thanks to stringent than expected cost control measures, JD's non-GAAP net income could have 1.4/4.1/6.8/10.9% upside in 2023E. Under our bear-case assumption, if S&M/G&A growth are both raised by 1/3/5/8% in 2023E as JD increased its investment in customer acquisition, JD's non-GAAP net income could have 1.4/4.1/6.8/10.8% downside in 2023E.

**Figure 36: PDD non-GAAP net income: sensitivity analysis**

2023E (RMBmn)	Change in S&M/ G&A expenses yoy growth	S&M expense yoy growth	G&A expense yoy growth	Implied S&M expense ratio	Implied G&A expense ratio	2023E Non- GAAP NPM	2023E Net profit	Comparison with base case
Case I	-8%	8.6%	4.5%	3.6%	1.0%	2.8%	34,287	10.8%
Case II	-5%	11.6%	7.5%	3.7%	1.0%	2.7%	33,032	6.8%
Case III	-3%	13.6%	9.5%	3.8%	1.0%	2.6%	32,195	4.1%
Case IV	-1%	15.6%	11.5%	3.8%	1.1%	2.5%	31,358	1.4%
Base case		16.6%	12.5%	3.9%	1.1%	2.5%	30,939	0.0%
Case V	1%	17.6%	13.5%	3.9%	1.1%	2.5%	30,521	-1.4%
Case VI	3%	19.6%	15.5%	3.9%	1.1%	2.4%	29,684	-4.1%
Case VII	5%	21.6%	17.5%	4.0%	1.1%	2.3%	28,847	-6.8%
Case VIII	8%	24.6%	20.5%	4.1%	1.1%	2.2%	27,591	-10.8%

Source: Company data, CMBIGM estimates

## Valuation

### DCF-based target price of US\$78.5 per ADS

We employ DCF method to value JD, as we believe JD has established strong consumer mindshare in key categories, which could support stable cash flow generation over the long-run.

Our DCF-based target price values JD at US\$78.5 per ADS, which translates into 36.3x 2022E PE and 28.1x 2023E PE under non-GAAP.

**Figure 37: JD: DCF valuation, WACC of 11.8%, terminal growth of 2.0%**

(RMBbn)	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Total revenue	1063.3	1230.1	1376.1	1502.1	1607.9	1698.3	1770.9	1828.5	1873.8
NPV of FCF	305.1	334.5							
Discounted terminal value	413.7	462.4							
Total equity valuation	791.3	894.6							
No. of shares (diluted, mn)	1597.2	1597.2							
Valuation per share (USD)	78.5								

Note: our target price is based on weighted average of three month valuation in 2022 and nine month valuation in 2023; Source: Company data, CMBIGM

**Figure 38: Sensitivity analysis of DCF model**

		WACC						
		10.3%	10.8%	11.3%	11.8%	12.3%	12.8%	13.3%
Terminal growth	3.5%	105.2	98.2	92.0	86.6	81.9	77.6	73.8
	3.0%	100.4	94.1	88.5	83.6	79.3	75.3	71.8
	2.5%	96.2	90.5	85.4	80.9	76.9	73.3	70.0
	2.0%	92.5	87.3	82.7	78.5	74.8	71.4	68.4
	1.5%	89.3	84.5	80.2	76.4	72.9	69.7	66.8
	1.0%	86.3	81.9	78.0	74.4	71.1	68.2	65.5
	0.5%	83.7	79.7	76.0	72.6	69.6	66.8	64.2
	0.0%	81.4	77.6	74.1	71.0	68.1	65.4	63.0

Source: Company data, CMBIGM

## ■ Consensus and valuation comparison

JD is trading at 17.5x 2022E PE, below its two-year average non-GAAP PE minus two standard deviation, which in our view could be mainly attribute to: 1) risk-off of foreign investors on China internet stocks due to geopolitical risks; and 2) macro headwinds which impacted consumer's consumption willingness. However, we think JD's risk-reward is attractive, based on our forecast of 35.1% 2021-2024E CAGR for non-GAAP net profit, aided by gross profit margin expansion and efficient cost control initiatives.

We identify key catalyst to be: 1) relieve of geopolitical risks which we think could drive a recovery in market sentiment; 2) recovery in macro conditions and consumer's consumption willingness; 3) stronger than expected margin expansion and non-GAAP net profit growth.



Figure 39: JD: non-GAAP PE band over the past two years (TTM)



Source: Company data, Bloomberg, CMBIGM

Our non-GAAP net income forecast for JD is 0-7% higher than Bloomberg consensus over 2022-2024E, mainly driven by higher than consensus forecast for gross margin, which we see support coming from: 1) JD's established strong consumer mindshare, which allows JD to manage its sales promotion scale more proactively; and 2) gross margin expansion for FMCG category, which could be driven by improving economies of scale.

Figure 40: CMBIGM estimates vs consensus

(RMBbn)	CMBIGM			Consensus			Diff (%)		
	2022E	2023E	2024E	2022E	2023E	2024E	2022E	2023E	2024E
Revenue	1,063	1,230	1,376	1,065	1,206	1,396	-0.2%	2.0%	-1.4%
Gross profit	151	182	212	149	173	204	1.4%	5.0%	4.0%
Operating profit	16.1	27.5	41.3	14.5	24.2	34.4	10.8%	13.6%	20.1%
Non-GAAP net profit	23.9	30.9	42.4	23.4	30.8	39.8	2.4%	0.4%	6.6%
Gross margin	14.2%	14.8%	15.4%	14.0%	14.3%	14.6%	0.2 ppt	0.4 ppt	0.8 ppt
Operating margin	1.5%	2.2%	3.0%	1.4%	2.0%	2.5%	0.1 ppt	0.2 ppt	0.5 ppt
Non-GAAP net margin	2.3%	2.5%	3.1%	2.2%	2.6%	2.8%	0.1 ppt	0.0 ppt	0.2 ppt

Source: Bloomberg, CMBIGM estimates

Figure 41: E-commerce comps table

Companies	Ticker	Price	PE (x)			NP CAGR	PEG (x)		PS(x)	
		(Local)	2022E	2023E	2024E	2021-2024E	2022E	2022E	2023E	2024E
Alibaba Group	BABA US	63.2	8.2	7.6	6.9	6.0	1.4	1.3	1.2	1.1
JD.com	JD US	37.8	17.5	13.5	9.9	35.1	0.5	0.4	0.3	0.3
Pinduoduo	PDD US	47.5	13.9	11.4	9.6	48.2	0.3	3.5	2.9	2.5
Average			13.2	10.8	8.8		0.7	1.7	1.5	1.3

Note: 1) data as of 25 October market close; 2) data are based on CMBIGM estimates

Source: Bloomberg, CMBIGM

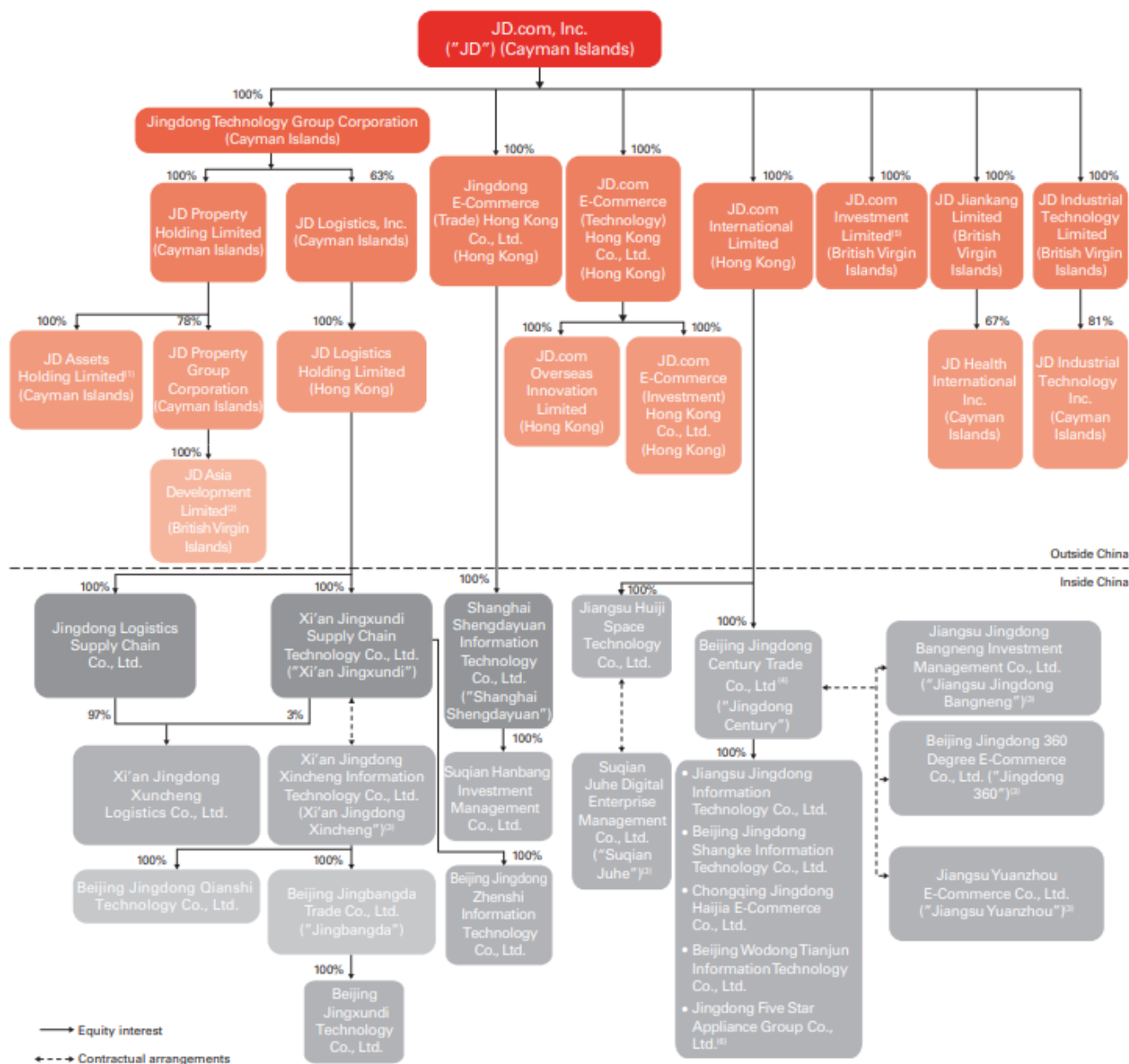
## Key upside and downside risks

Downside risks: 1) intensified competition crimps margin; 2) larger than expected investment on new business brings greater than expected losses; 3) slower than expected recovery in macro conditions.

Upside risks: 1) stronger than expected operating margin expansion aided by gross margin expansion and efficient cost control; 2) stronger than expected consumer base expansion; 3) stronger than expected revenue growth.

## Appendix

Figure 42: JD: organizational structure



Source: Company data, CMBIGM

## Financial Summary

INCOME STATEMENT	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Revenue	576,888	745,802	951,592	1,063,292	1,230,050	1,376,145
Cost of goods sold	(492,467)	(636,694)	(822,525)	(912,254)	(1,048,546)	(1,164,341)
Gross profit	84,421	109,108	129,067	151,038	181,504	211,804
Operating expenses	(75,426)	(96,766)	(124,926)	(134,932)	(154,002)	(170,504)
Selling expense	(22,234)	(27,156)	(38,743)	(40,618)	(47,357)	(52,982)
Admin expense	(5,490)	(6,409)	(11,562)	(11,696)	(13,162)	(14,312)
R&D expense	(14,619)	(16,149)	(16,332)	(17,013)	(18,451)	(19,954)
Others	(33,083)	(47,051)	(58,288)	(65,605)	(75,033)	(83,257)
Operating profit	8,995	12,343	4,141	16,106	27,502	41,300
Other gains/(losses)	5,375	32,556	(590)	0	0	0
Share of (losses)/profits of associates/JV	(1,738)	4,291	(4,918)	(2,685)	0	0
EBIT	12,632	49,191	(1,367)	13,421	27,502	41,300
Interest income	1,061	1,628	0	(1,544)	(1,197)	(809)
Pre-tax profit	13,693	50,819	(1,367)	11,878	26,305	40,490
Income tax	1,802	1,482	1,887	2,687	5,261	8,098
After tax profit	11,890	49,337	(3,254)	9,191	21,044	32,392
Minority interest	(297)	(75)	(924)	(882)	(1,058)	(1,058)
Discontinued operations	0	0	0	0	0	0
Others	(6)	(16)	(8)	0	0	0
Net profit	12,182	49,396	(2,338)	10,073	22,102	33,451
Adjusted net profit	10,750	16,828	17,207	23,945	30,939	42,392

BALANCE SHEET	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Current assets	139,095	234,801	299,672	307,969	347,621	394,862
Cash & equivalents	36,971	86,085	70,767	81,073	107,365	143,232
Restricted cash	2,941	4,434	5,926	5,926	5,926	5,926
Account receivables	6,191	7,112	11,900	10,487	12,132	13,573
Inventories	57,932	58,933	75,601	74,605	85,751	95,221
Prepayment	5,630	7,077	11,456	11,456	11,456	11,456
Other current assets	29,430	71,161	124,023	124,423	124,991	125,454
Non-current assets	120,629	187,487	196,835	208,553	221,307	234,258
PP&E	20,654	22,597	32,944	44,662	57,416	70,367
Right-of-use assets	8,644	15,484	19,987	19,987	19,987	19,987
Deferred income tax	81	533	1,111	1,111	1,111	1,111
Investment in JVs & assos	35,576	58,501	63,222	63,222	63,222	63,222
Intangibles	4,110	6,463	5,837	5,837	5,837	5,837
Goodwill	6,644	10,904	12,433	12,433	12,433	12,433
Other non-current assets	44,921	73,005	61,300	61,300	61,300	61,300
Total assets	259,724	422,288	496,507	516,522	568,928	629,119
Current liabilities	140,017	174,017	221,636	213,628	234,386	250,832
Short-term borrowings	0	0	4,368	4,368	4,368	4,368
Account payables	90,428	106,818	140,484	134,641	151,884	165,467
Tax payable	2,016	3,029	2,568	2,568	2,568	2,568
Other current liabilities	19,723	28,621	33,083	30,918	34,434	37,297
Lease liabilities	3,193	5,514	6,665	6,665	6,665	6,665
Accrued expenses	24,656	30,035	34,469	34,469	34,469	34,469
Non-current liabilities	19,082	26,652	28,087	38,159	39,324	40,935
Long-term borrowings	10,052	12,531	9,386	19,458	20,623	22,234
Deferred income	1,943	1,618	1,297	1,297	1,297	1,297
Other non-current liabilities	7,088	12,503	17,404	17,404	17,404	17,404
Total liabilities	159,099	200,669	249,723	251,787	273,710	291,767
Share capital	0	0	0	0	0	0
Capital surplus	90,676	153,357	208,912	216,790	225,170	233,854
Retained earnings	(11,913)	37,418	0	10,073	32,175	65,626
Other reserves	19,057	13,900	1,212	1,212	1,212	1,212
Total shareholders equity	97,820	204,677	210,124	228,075	258,557	300,692
Minority interest	2,804	16,943	36,661	36,661	36,661	36,661
Total equity and liabilities	259,724	422,288	496,507	516,522	568,928	629,119

CASH FLOW	2019A	2020A	2021A	2022E	2023E	2024E
<b>YE 31 Dec (RMB mn)</b>						
<b>Operating</b>						
Profit before taxation	13,693	50,819	(1,367)	11,878	26,305	40,490
Depreciation & amortization	5,828	6,068	4,980	5,410	5,697	6,315
Tax paid	(1,802)	(1,482)	(1,887)	(2,687)	(5,261)	(8,098)
Change in working capital	7,343	18,678	11,914	(5,999)	7,399	5,072
Others	(280)	(31,539)	28,661	8,760	9,438	9,743
<b>Net cash from operations</b>	<b>24,781</b>	<b>42,544</b>	<b>42,301</b>	<b>17,363</b>	<b>43,578</b>	<b>53,523</b>
<b>Investing</b>						
Capital expenditure	3,013	(9,340)	(15,443)	(17,013)	(18,451)	(19,266)
Acquisition of subsidiaries/ investments	(35,781)	(78,807)	(58,805)	0	0	0
Net proceeds from disposal of short-term investments	6,634	35,379	0	0	0	0
Others	784	(5,042)	0	0	0	0
<b>Net cash from investing</b>	<b>(25,349)</b>	<b>(57,811)</b>	<b>(74,248)</b>	<b>(17,013)</b>	<b>(18,451)</b>	<b>(19,266)</b>
<b>Financing</b>						
Net borrowings	(4,057)	4,784	1,223	10,072	1,165	1,610
Proceeds from share issues	6,630	66,288	0	0	0	0
Others	0	0	18,280	0	0	0
<b>Net cash from financing</b>	<b>2,572</b>	<b>71,072</b>	<b>19,503</b>	<b>10,072</b>	<b>1,165</b>	<b>1,610</b>
<b>Net change in cash</b>						
Cash at the beginning of the year	37,502	39,912	90,519	76,576	86,998	113,291
Exchange difference	406	(5,198)	(1,500)	0	0	0
<b>Cash at the end of the year</b>	<b>39,912</b>	<b>90,519</b>	<b>76,576</b>	<b>86,998</b>	<b>113,291</b>	<b>149,158</b>
GROWTH	2019A	2020A	2021A	2022E	2023E	2024E
<b>YE 31 Dec</b>						
Revenue	24.9%	29.3%	27.6%	11.7%	15.7%	11.9%
Gross profit	28.0%	29.2%	18.3%	17.0%	20.2%	16.7%
Operating profit	na	37.2%	(66.5%)	289.0%	70.8%	50.2%
EBIT	na	289.4%	na	na	104.9%	50.2%
Net profit	na	305.5%	na	na	119.4%	51.3%
Adj. net profit	210.7%	56.5%	2.3%	39.2%	29.2%	37.0%
PROFITABILITY	2019A	2020A	2021A	2022E	2023E	2024E
<b>YE 31 Dec</b>						
Gross profit margin	14.6%	14.6%	13.6%	14.2%	14.8%	15.4%
Operating margin	1.6%	1.7%	0.4%	1.5%	2.2%	3.0%
Adj. net profit margin	1.9%	2.3%	1.8%	2.3%	2.5%	3.1%
Return on equity (ROE)	14.0%	32.7%	(1.1%)	4.6%	9.1%	12.0%
GEARING/LIQUIDITY/ACTIVITIES	2019A	2020A	2021A	2022E	2023E	2024E
<b>YE 31 Dec</b>						
Net debt to equity (x)	(0.3)	(0.4)	(0.3)	(0.3)	(0.3)	(0.4)
Current ratio (x)	1.0	1.3	1.4	1.4	1.5	1.6
Receivable turnover days	5.5	3.3	3.6	3.8	3.4	3.4
Inventory turnover days	(37.8)	(33.5)	(29.9)	(30.0)	(27.9)	(28.4)
Payable turnover days	(63.2)	(56.5)	(54.9)	(55.0)	(49.9)	(49.7)
VALUATION	2019A	2020A	2021A	2022E	2023E	2024E
<b>YE 31 Dec</b>						
P/E	24.2	12.8	na	42.6	19.4	12.8
P/E (diluted)	24.7	13.1	na	43.8	19.9	13.2
P/B	3.0	3.1	3.8	1.9	1.7	1.4

Source: Company data, CMBIGM estimates. Note: The calculation of net cash includes financial assets.

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