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Internet Services

Russia eCommerce: Last but not least

Russia is the last major emerging market without a dominant online retailer. Internet penetration at ~80%, but eCommerce only 3%. Russia is at an inflection point. We estimate the market to be worth \$31bn by 2020, with a leader being worth \$10bn. This implies 39% upside to Yandex and 26% to Mail.ru.

Inflection point on the horizon? Russia is the last major emerging market without a dominant eCommerce player. Our analysis and the recent Mail/Alibaba JV suggests we are nearing an inflection point. We believe the dominant player could be one of the JV's created by Yandex (with Sberbank) or Mail (with Alibaba), given their access to capital and ability to leverage existing platforms.

Foundations in place. Internet penetration is high (~80%) and smartphone penetration (~50%) is increasing, but eCommerce penetration remains at only 3%. We estimate there could be close to \$1bn investment in Russian eCommerce over the next 5 years, compared to just ~\$800m over the last 10 years. This will help to create a more compelling customer proposition, providing a catalyst for further demand and an acceleration of market growth. We now estimate the market to be worth \$37bn by 2021 growing at 25% CAGR (2018-21).

We have looked at the development of eCommerce in other EMs. In China, retailers are moving from a marketplace model to holding inventory directly (1st party). We believe in Russia initially logistics investment will be more critical, before a domestic marketplace can thrive. Due to the infrastructure challenges, we believe there is more scope in Russia for partnerships with domestic offline retailers (e.g. a rumoured partnership between JD and X5). It remains unclear how feasible these are, so cannibalisation remains a key risk for offline retailers.

We see a \$10bn revenue opportunity for the winner within the next 10 years. We think a market leader could be worth \$10bn, i.e. \$13/sh to Yandex or \$7/sh to Mail.ru. For Yandex, we think its advantages lie in leveraging Sberbank's branch network for distribution. For Mail.ru, Alibaba's eCommerce expertise and greater scale could prove invaluable. We also highlight Ozon.ru as having the most advanced logistics network and another way to play the space (through MTS, which owns a 16.7% stake).

Secular growth theme intact, but macro a bigger driver in the short term.

Consumer spending could come under pressure from a weakening rouble and the risk of sanctions that could impact the wider Russian economy. As such, we think it prudent to apply a higher cost of equity to our DCF, which leads us to cut our price target for Yandex by 17% to \$37 and for Mail by 21% to \$30. The lower price targets reflect short-term macro pressure, but we reiterate our Overweight ratings, which reflects our long-term fundamental view of both stocks.

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Internet Services

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WHAT'S CHANGED? FROM: TO:

Yandex NV (YNDX.O)

Price Target US\$44.00 **US\$37.00**

Mail.ru Group Ltd (MAILRq.L)

Price Target US\$38.00 **US\$30.00**

Alina Slyusarchuk is an economist and is not opining on equity securities. Her views are clearly delineated.

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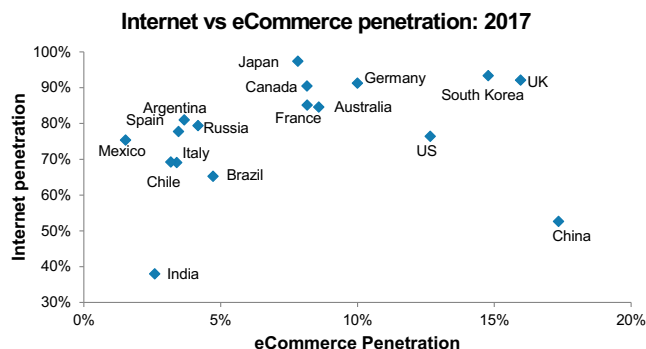
Russian eCommerce: Close to an inflection point?

We believe we are approaching a watershed moment in Russian eCommerce. The secular foundations for rising penetration are already in place: eCommerce penetration stands at 3%, despite relatively high internet penetration (c80%). As the number of "mature" internet users increases we expect to see an increase in frequency of online shopping, and now supply is finally starting to catch up with demand. There could be close to \$1bn injected into this market in the next few years, which will lead to an acceleration of market growth. We forecast the market to grow at a 25% 2018-21 CAGR vs 13% 2014-17 CAGR to \$37bn.

eCommerce penetration in Russia lags behind other emerging markets. The Russian e-commerce market is estimated by Russia's Association of Internet Trade Companies (AITC) to be worth RUB1,040 billion (US\$18 billion) at current FX. The market grew at an average of 21% per year between 2012 and 2017 versus the total retail market at 7%. This still represents only c4% penetration in 2017, which is lower than other emerging market economies like China (17%) and Brazil (4.7%) who have even lower levels of internet penetration. Excluding the cross border market, Russia's eCommerce penetration is just 3% and excluding intangible goods, penetration is still just 2%.

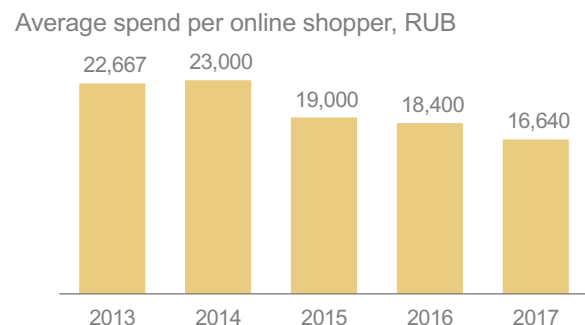
The foundations for rising eCommerce penetration already exist. eCommerce penetration is typically driven by internet and smartphone penetration as consumers spend more time online and become more accustomed to transacting online. Russia's internet penetration is c80%, which is higher than in China (56%) while smartphone penetration has been steadily increasing. Therefore we believe the right secular drivers are already in place.

Exhibit 1: Russia eCommerce penetration lags behind Brazil and China despite relatively high levels of internet penetration...



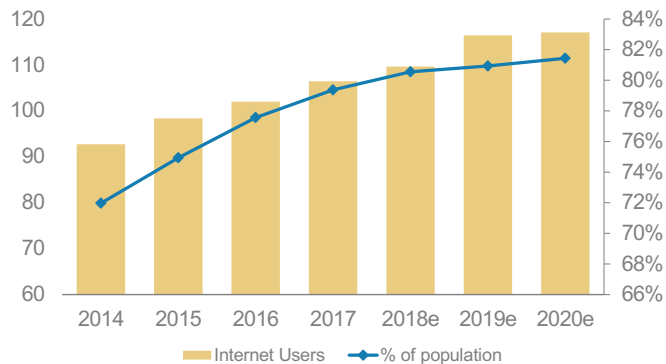
Source: Euromonitor

Exhibit 2: ...and average spend per shopper has stagnated



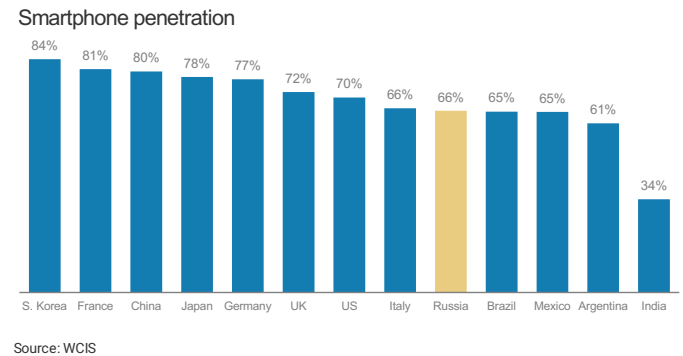
Source: Association of Internet Trade Companies (AITC), Morgan Stanley Research estimates

Exhibit 3: Internet penetration in Russia has continued to steadily increase, even throughout the 2015 downturn



Source: IDC, IMF, e = Morgan Stanley Research estimates

Exhibit 4: Smartphone penetration in Russia is not too far behind most developed markets and is ahead of India and Brazil



We believe we could be reaching a critical inflection point in the growth of eCommerce in Russia, driven by changes in both demand and supply.

Demand: Consumers are willing to spend more online

The number of online shoppers in Russia relative to internet users is already high: there were 63m online shoppers in 2017, versus 106m internet users. However average spend per shopper has been relatively stagnant over the last few years even though the number of shoppers continues to grow. We note there is a clear link between the number of years spent online and the willingness to transact online. We believe in Russia we are reaching a critical mass of "mature" internet user increases, which is driving a rise in the number of transactions online as users become more accustomed to them.

In our Russia consumer survey conducted in Nov/Dec 2017 (*Russia Internet: Ready to Rumble?*), we noted that there has been a steady increase in the frequency of online purchases since 2015 (see [Exhibit 5](#)). In particular online shopping by users outside of Moscow and St Petersburg has been steadily increasing, although gradually. We note a 6%pt gap in users purchasing in larger cities versus regions, which has narrowed from 14%pt over the last 5 years.

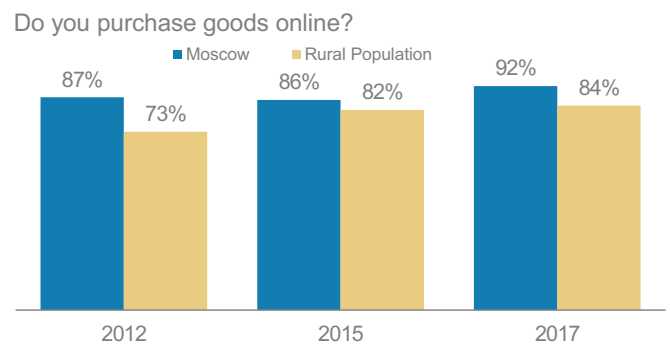
We believe one of the drivers behind this was the recession in 2015, which pushed more price conscious consumers online as they searched for better deals. In particular, the availability of cheap foreign goods drove more consumers online. The cross border market, where the average order value is only \$30, has grown by close to 50% in the last 2 years, almost double the rate of growth in the domestic online market. So we believe there is pent-up demand from consumers to shop online, particularly if the proposition is appealing enough (i.e. cheap goods). We also note that credit card penetration has been steadily increasing in Russia, which is also supportive of eCommerce growth.

Exhibit 5: Our last Russian consumer survey showed that frequency of online purchases has been increasing



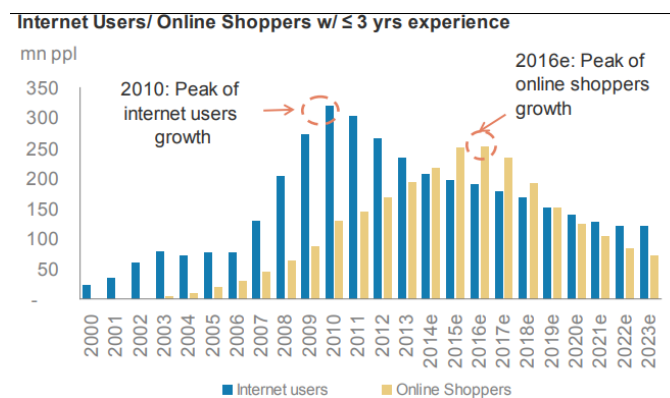
Source: AlphaWise, Morgan Stanley Research (Dec 2017)

Exhibit 6: There is now more widespread geographical participation in online retail



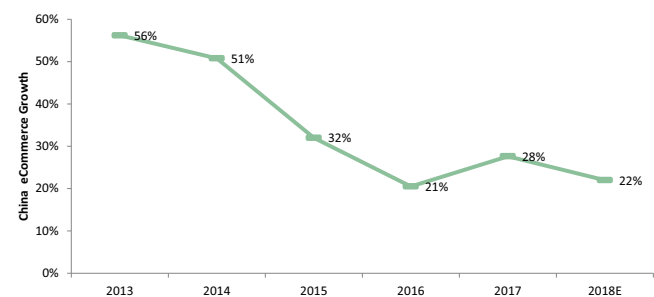
Source: AlphaWise, Morgan Stanley Research (Dec 2017)

Exhibit 7: In China rising maturity of internet users...



Source: CNNIC, IDC, Morgan Stanley Research estimates (e)

Exhibit 8: ...coincided with an acceleration of eCommerce growth



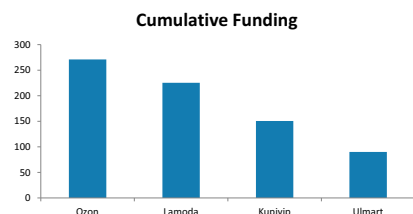
Source: NBS, Morgan Stanley Research estimates (E)

Supply: Funding is increasing

We believe the Russian eCommerce market has stalled due to a lack of capital. The challenges facing the Russian eCommerce market are not unique: the preference for cash payments (on delivery of goods), fragmented logistics infrastructure – these issues are also faced by other emerging markets. So we believe the reason Russia is still lagging behind is simply the lack of funding that has gone into private companies to develop quality eCommerce companies. Private Russian eCommerce companies have only received c\$800m of funding in the last 10 years. This only represents <1% of the total retail market and is well behind the \$13.4bn of funding that has gone into India in the last 4 years.

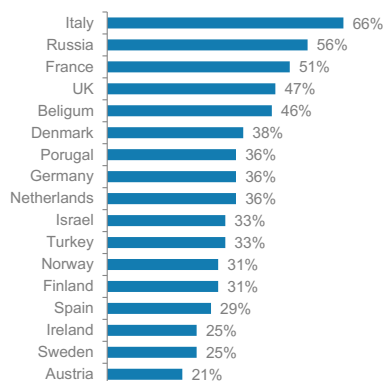
Compared to other online businesses, eCommerce (in particular 1st party eCommerce) requires more investment into warehousing and delivery. Thus overall capital requirements are higher. This is even more critical in emerging markets, which require relatively more capital to solve bigger infrastructure challenges. Russia has historically not been the most attractive market for global venture capital/private equity funds (Exhibit 10). It's unattractiveness was exacerbated after the 2015 economic crisis. Funding has a direct correlation to growth of the market. In India, for example when venture capital funding fell 66% yoy in 2016 it led to a slowdown in growth in Gross Merchandise Value (GMV) of the market.

Exhibit 9: The largest online retailers in Russia have only raised ~\$800m of funding in the last 10 years



Source: Index ventures, Crunchbase, dealroom.com, Digital ecommerce 360

Exhibit 10: Russia among the top countries that rely on domestic funding



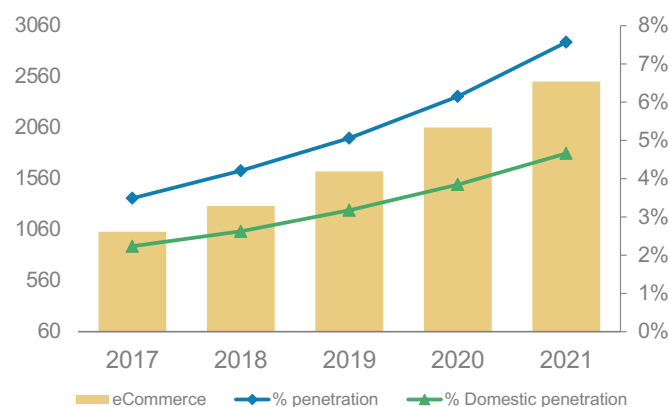
Source: dealroom.com

We note now that funding has been increasing, interestingly enough from public companies rather than private. Yandex and Sberbank agreed a JV for an eCommerce business in which Sberbank will commit to invest \$500m to develop a standalone marketplace business. Mail.ru launched its cross-border marketplace Pandao last year and recently announced a \$2bn JV with Alibaba to expand into the domestic market. On the private side, Ozon, the largest 1st party online retailer, completed a ~\$80m funding round earlier this year. Collectively this could see \$1bn of fresh capital injected into the market in the next few years.

More funding should allow for more scale, helping retailers to drive down key pain points (such as fulfilment costs), and to improve delivery times leading to a better overall customer proposition. This in turn should stimulate further demand. Given the level of investment that has gone into China and India, significant funding is still required in Russia; however we believe this will still cause a step change in the growth of the market.

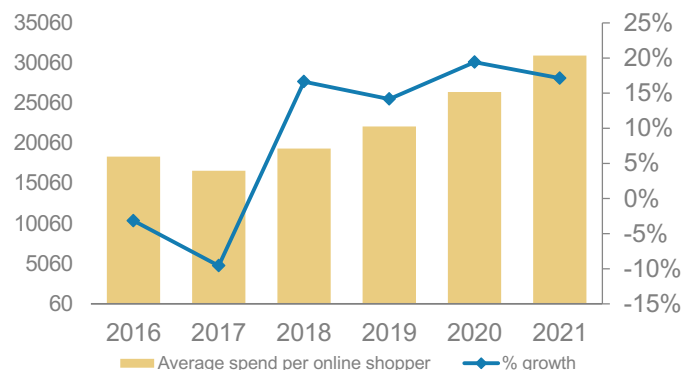
We forecast the total Russian eCommerce market to grow from RUB1,040bn in 2018 (\$17bn) to RUB3,491bn by 2023 (\$52bn) as supply increases and order frequency rises. This implies 10% eCommerce penetration, which would still be behind current China penetration levels of ~16%. We forecast faster growth in the cross border market, from RUB374bn to RUB1,355bn, when we expect it to reach ~40% of the market. Excluding the cross border market implies an eCommerce penetration level of still only 6%. We expect to see modest growth in the number of online shoppers but we forecast average spend per online shopper to rise by 17% annually from RUB16.6k to RUB30.9k by 2021.

Exhibit 11: We forecast Russia's eCommerce market to grow at a 24% CAGR over the next 4 years to RUB3.2bn by 2021, 8% of retail sales



Source: Morgan Stanley Research estimates

Exhibit 12: We forecast average spend per online shopper to accelerate again in 2020 as supply fully comes on board



Source: Morgan Stanley Research estimates

How will the market evolve?

We see China as a template for how the market will develop. We see some similarities between the development of eCommerce in China and Russia. Just like in China we think the following is required for an eCommerce market leader in Russia to thrive: 1) develop a marketplace model, 2) invest in logistics, and 3) provide financial support for merchants. While in China, retailers are moving from a marketplace model (which brings together third party sellers) to holding inventory directly (1st party), we believe Russia will evolve from a 1st party model into a pure marketplace, or at least a marketplace that controls more of the logistics channel. We believe there is scope for partnerships in Russia with domestic offline retailers due to the infrastructure challenges, although it remains unclear how feasible these are. Thus cannibalisation remains a key risk for offline retailers.

eCommerce is one of the few segments within the Russian Internet landscape that does not yet have a dominant market leader. Currently the domestic online retail market is highly fragmented, with the top 4 retailers only accounting for 27% of the market versus 63% for the top 4 in the US and 84% in China. We believe this has been simply due to a lack of funding, meaning that no single company has been able to achieve sufficient scale required to become a dominant platform.

Exhibit 13: Russia is missing a dominant player in eCommerce...

	US	China	Russia
Search			
Social Networks			
Classifieds			
Food delivery			
Gaming			
eCommerce			

Source: Company Data

Exhibit 14: ...and the landscape remains highly fragmented

US		Russia		China		Brazil	
Company	% of eCommerce Sales	Company	% of eCommerce Sales	Company	% of eCommerce Sales	Company	% of eCommerce Sales
Amazon	49.1%	Yandex Market	10.0%	Tmall	56.6%	Mercadolibre	19.3%
eBay	6.6%	Alibaba	8.5%	JD	24.7%	B2W	18.0%
Apple	3.9%	Wildberries	4.7%	VIP Shop	2.2%	Via Varejo	5.7%
Walmart	3.7%	Ulmart	4.0%	Jumei	0.3%	Magazine Luiza	5.6%
	63.3%		27.2%		83.8%		48.7%

Source: Morgan Stanley Research estimates, Euromonitor, Digital Commerce 360

Therefore as capital increases into the space there is a clear opportunity for a market leader to emerge. In our January note ([Ready to Rumble?](#)) we highlighted the fact both Mail and Yandex had stepped up their interest in this area. Now both have created eCommerce JVs with credible partners – Sberbank and Alibaba, respectively. We believe one of their platforms will emerge as the dominant leader, although we do not discount other challengers. Ozon.ru (17% owned by MTS) is the largest online general goods retailer and recently raised \$80m.

We have looked at the development of eCommerce in China as a template for how the eCommerce market in Russia might evolve over the next few years.

Whilst the development of eCommerce in a particular market is uniquely local, there are still similarities between Russia and other large emerging markets, in particular China. Like Russia, China also faced infrastructure challenges, prevalence of cash on delivery and a dispersed population.

Aside from secular drivers such as rising internet and mobile penetration we think some of the most important development points in China were 1) development of a marketplace model, 2) investment into logistics, and 3) providing financial support for merchants.

We believe each issue could warrant a lengthy discussion and we use this report to discuss how the first two drivers may play out in the Russian market. In particular, consumption habits, the maturity of offline retailing and the complexity / fragmentation of distribution networks are critical factors to take into consideration. Whilst the market is still at a very early stage to have the "right" answers we believe this is a good starting point for discussion.

Exhibit 15: Comparison of major emerging market retail markets

	Russia	China	Brazil	India
Population	Fragmented	Fragmented	Relatively Concentrated	Relatively Concentrated
Offline retail infrastructure	Relatively developed	Underdeveloped	Relatively developed	Underdeveloped
Credit card penetration	Low	Low	Low	Low

Source: Company Data

China: Marketplace dominates

China's most successful online retailer operates a marketplace model

Exhibit 16: Theoretical profitability for \$100 of sales under a 1P, 3P and 3P including shipping models

	1P	3P	3P (incl. shipping)
Gross Sales	100	100	100
Revenue	100	15	35
Gross profit	46	15	35
% margin	46%	100%	100%
Shipping	-8.2	0.0	-8.2
Warehousing	-8.2	0.0	-8.2
Payment processing	-2.0	-2.0	-2.0
Other fulfillment	-6.2	-1.0	-3.0
Marketing	-7.0	-6.0	-6.0
Admin	-4.5	0.0	0.0
EBIT	10.0	6.0	7.7
% margin	10%	40%	22%

Source: Morgan Stanley Research estimates

The experience of all major emerging markets where offline retail is very fragmented suggests that the most dominant online retailers operate a third party (3P) marketplace model supported by a 1st party (1P) model. Marketplace models do not hold any inventory but instead connect customers with third party sellers. Revenue is typically generated through a commission on every sale or through listing fees. The lack of inventory risk makes it easier to expand product assortment, meaning the platform is more easily scalable. As marketplaces build up liquidity of supply and demand, they are able to create a virtuous circle of reviews, a wide assortment of SKUs leading to even greater price transparency. Thus marketplace typically take a greater share of the market at maturity. All of these factors combine to make marketplace platforms inherently more profitable than 1st party models.

In China, Alibaba dominates the online retail market with >50% market share. It has always operated a marketplace model through its primarily C2C Taobao marketplace. The marketplace model has been a success in China given its very fragmented offline retail market, with few national chains with multi-layered distribution channels. China also produces a large selection of consumer products meaning there is already a wide selection of goods available from a wide selection of sellers.

However we note that Alibaba is now investing more into 1P. In China, Alibaba initially did not control its logistics network but now owns 51% of China Smart Logistics (CSN) or Cainiao which operates a logistics platform connected with a network of third party logistics providers, although it doesn't engage in delivery itself. It covers 70%+ of parcels delivered in China. CSN was originally held off balance sheet but Alibaba gained a majority share in Sept. 2017. Alibaba has pledged to invest a further \$15bn in logistics over the next five years. Ownership (or at least control) can help to increase logistical efficiency particularly by allowing for better use of data and better service quality. Most global players have evolved to have some form of "own" logistics even if it is controlled rather than owned.

In China one of the other key drivers for growth was provide funding for SMEs.

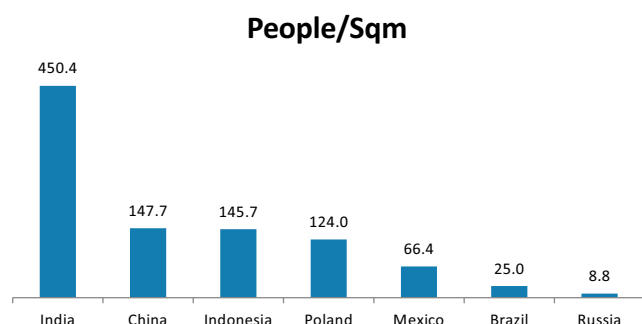
Obtaining working capital can be a major impediment for merchants who want to offer a wide range of goods and maintain a strong online proposition. Many banks, especially those in developing countries, are reluctant to give loans or they charge high interest rates due to higher risk. Thus to attract merchants to their platform, several e-commerce firms offer working capital loans. These firms collaborate with banks and other financial institutions to provide quick and easy access of capital to merchants. Alibaba has tie-ups with local banks and financial institutions (for example ICICI Bank in India and GetCapital in Australia) to provide working capital loans and trade finance facility to merchants.

Russia: Logistics comes first?

In Russia we believe investment into logistics must come before a marketplace model can thrive

In Russia, whilst a marketplace model theoretically makes sense, so far the largest domestic sites are all 1st party retailers and have already developed some of their own infrastructure. The lack of funding into eCommerce has also meant that there are no delivery companies of scale. The Russian postal service (Russian Post) still delivers >50% of parcels, but does not have a quality of service track record to match delivery services in developed markets that eCommerce players rely on. In contrast, in the US, three delivery companies control the lion's share of parcels with an 85% success rate. A widely dispersed population in Russia adds to high delivery costs and long delivery times (only a 69% success rate). We compared the cost of delivery for the top online retailers and found it was on average RUB229 (\$3.4) for next day delivery.

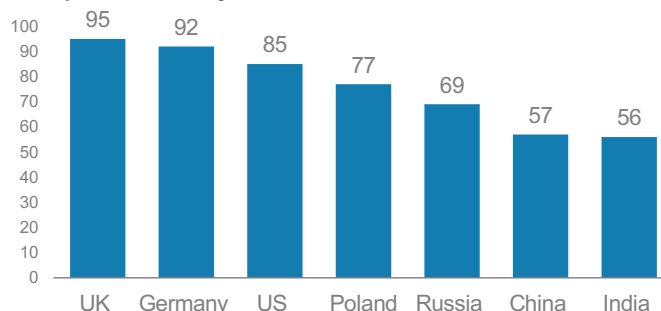
Exhibit 17: Russia's population is not nearly as dense as other emerging market nations...



Source: World Bank

Exhibit 18: ...yet its postal reliability is ahead of China's and India's

UPU postal reliability score



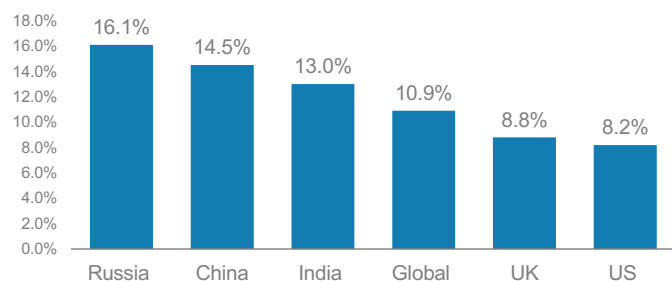
Source: UNCTAD B2C e-commerce index 2017

Exhibit 19: Cost of delivery in Russia

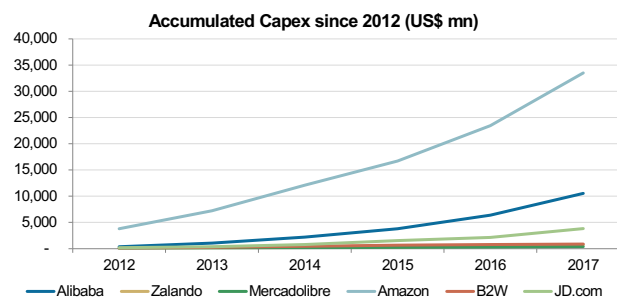
Moscow								
Website	Standard delivery	Ozon.ru	Aliexpress.ru	Pandao	Beru.ru	Wildberries	Lamoda	IGoods
Delivery options	Time	Next day / 3 hour slots			Next day	Next day	Nex day / incl 15m trying on time	Selected times +/- 25 minutes
	Cost	299	0	0	249	0	299	299

Source: Company websites. Note the terms and conditions of delivery may vary depending on the cost of the order and time of the delivery

Therefore in order to present a compelling proposition for consumers, online retailers in Russia need to invest in controlling some element of fulfillment (warehouses) and last mile delivery before developing a marketplace. This could mean a slower ramp up of growth as retailers look to expand the product assortment and also means higher initial capex requirements. We note that Alibaba has spent close to \$10bn on capex over the last 5 years while Amazon, the 1P global champion, has spent closer to \$35bn.

Exhibit 20: Russia has one of the highest logistics costs globally**Logistics costs % of GDP**

Source: 3PLLogistics

Exhibit 21: Accumulated capex of the major eCommerce retailers globally

Source: Company Data, Morgan Stanley Research

This would imply that the existing commitment from players of \$1bn will fall well short of the required amount, particularly given logistics cost per sq m are much higher in Russia. We believe this is one of the reasons why partnerships and collaboration with offline retailers may be more suitable in Russia. We note that Alibaba was in talks with several offline retailers before partnering with Mail.ru. JD.com has inked a partnership agreement with Alfa Group X5, which has a network of supermarkets, discount stores and hypermarkets.

Could we see a hybrid omni-channel model in Russia?

Offline channels are important in Russia – due to the lack of logistics infrastructure, a large share of online purchases are collected in store. Because of the existence of large national retail chains, click and collect is dominating in the market. This means that Russia could pursue a more hybrid omni-channel model before moving commerce predominantly online. This could emerge via partnerships and joint ventures. Alternatively Russia could follow in China's footsteps. In China we are now seeing a trend towards acquisition of brick & mortar retailers.

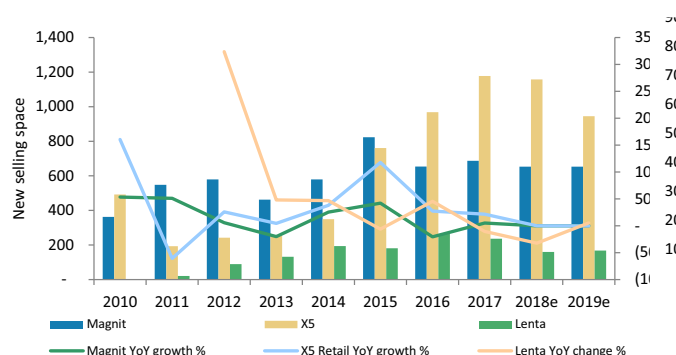
What is the current infrastructure at B+M retail: The largest Russian food retailers X5 Retail, Magnit and Lenta have invested heavily in the expansion of their store networks and the logistics capabilities required to fuel the selling expansion growth. Since 2012 the top three retailers added 7.7mn sqm of selling space, nearly tripling the store space. As of 30 June 2018, X5, Magnit and Lenta operated 30,476 stores in aggregate with a vast geographic coverage of cities and towns in at least seven out of eight Federal Districts of Russia. This represents a country wide network of potential pick up points powered by the existing logistics backbone of Russian food retail chains. Even though last mile delivery might not be economically viable in many remote locations in Russia convenience store networks could offer a click and collect solution given their breadth and depth. Magnit and X5 convenience banners lend themselves well to a click and collect model when it comes to proximity to customers.

- X5's store network consisted of 13,178 stores including 12,314 convenience stores under the Pyaterochka banner, 691 Perekrestok supermarkets and 93 hypermarkets Karusel within seven of the eight federal districts of Russia. X5 enjoys the leading

market position in both the Moscow and St Petersburg markets. The company operates 40 distribution centers and 2,983 owned trucks across the Russian Federation.

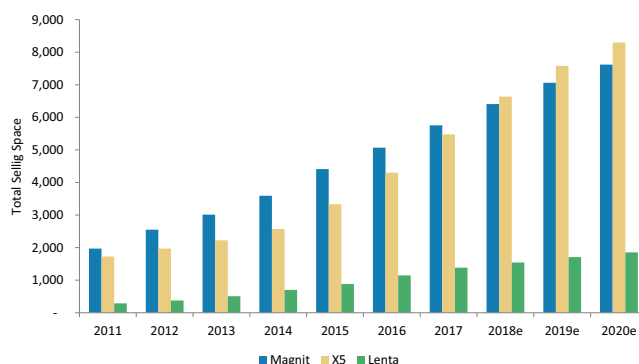
- Magnit's network consists of 16,960 stores, out of which 12,503 operate under the convenience banner, 244 hypermarkets, 213 supermarkets and 4,000 cosmetics stores in 2,808 cities and towns throughout seven federal regions of Russia. The retail business is supported by 37 distribution centers.
- Lenta, the largest hypermarket chain in Russia, and the country's third largest retail, chain managed 338 stores including 232 hypermarkets and 106 supermarkets across 84 cities in Russia. The company operates seven owned distribution centers.

Exhibit 22: Selling space grew apace at the top 3 Russian food retailers

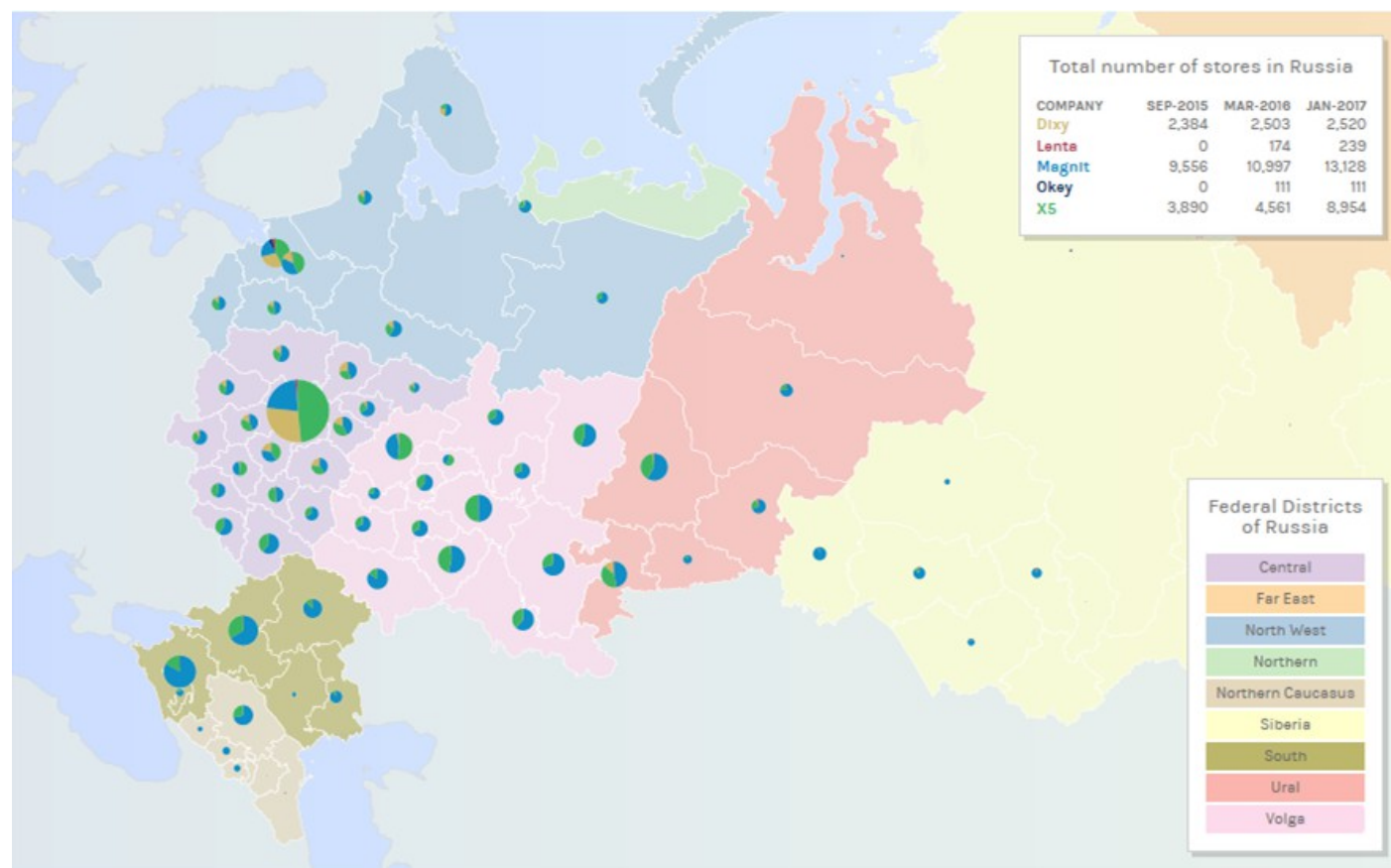


Source: Company data, Morgan Stanley Research estimates (e)

Exhibit 23: Since 2012 the top 3 retailers added 7.7m sqm of selling space, nearly tripling the store space



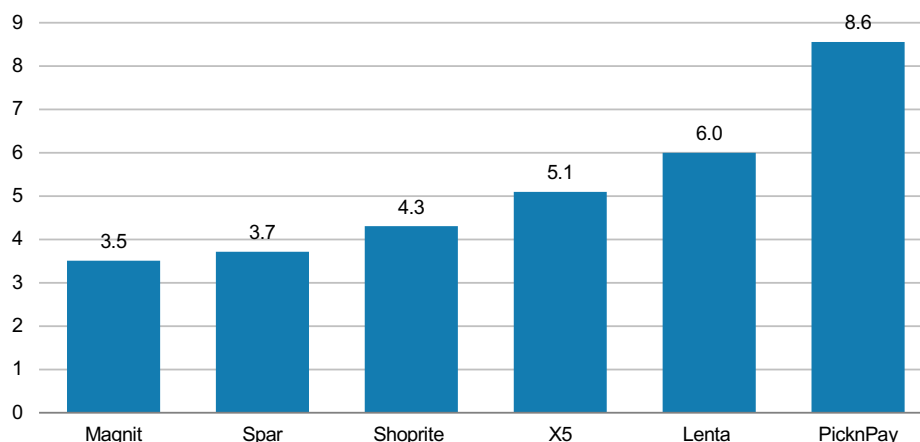
Source: Company data, Morgan Stanley Research estimates (e)

Exhibit 24: eCommerce retailers could potentially use the store network of Russia B+M retailers

Source: AlphaWise (March 2018), Company websites, Morgan Stanley Research. Note: Our map only captures the stores available from company websites, and therefore does not reflect 100% of stores for each retailer.

Logistics prowess – how do Russian B+M retailers stack up?

Earlier this year we conducted an in-depth peer analysis of distribution capacity benchmarking core Russian and South African retailers. For more details see [EEMEA - Consumer & Retail: Distribution prowess drives wallet share \(8 Mar 2018\)](#). The data showed that every 1 sqm of distribution space needs to service 3.5 sqm of trading space at Magnit, 3.7 sqm at Spar, 4.3 sqm at Shoprite and 5.1 sqm at X5 with 4.3 sqm of selling space serviced by each square meter of distribution space on average. Peer analysis suggested that for Lenta and X5 this figure was higher with 1 sqm of distribution space at Lenta servicing 6 sqm of trading space and 5 sqm at X5, whereas Magnit stood out as the company with the most space capacity. Both Lenta and X5 have recently announced that they will deploy some capex to extend their logistics network in 2018-19.

Exhibit 25: Trading space per 1 sqm of distribution space

Source: Company Data, RMB Morgan Stanley Research

E-commerce and digitalization are a growing focus for the B+M Retailers

Igor Shekhtermann, X5's CEO, 2Q18 earnings press release, 14 August 2018: "We are also positioning the company to remain an industry leader in the years ahead by emphasising innovation, big data and omni-channel sales. We have identified the priorities for X5's strategy and are developing and implementing our key projects in these areas"

Paul Foley, Magnit's Deputy Chairman, company call, 22 June 2018: "We know we're going to have to do tomorrow. And I'm thinking about the digital world, and I'm thinking about loyalty and I'm thinking about e-commerce here when I'm mentioning that. So will we add more great people in the future? I think we will. I'm sure of it because I think our business is going to go into areas – I've mentioned private label, e-commerce, loyalty."

Vladimir Chirakhov, Detsky Mir CEO, 2Q18 Trading update, 16 July 2018: "The highest growth was once again seen in the online segment, where revenue went up 93.1%."

Jan Dunning, Lenta's CEO, 2Q18 trading update call, 24 July 2018: "We're working on communication, digitalization."

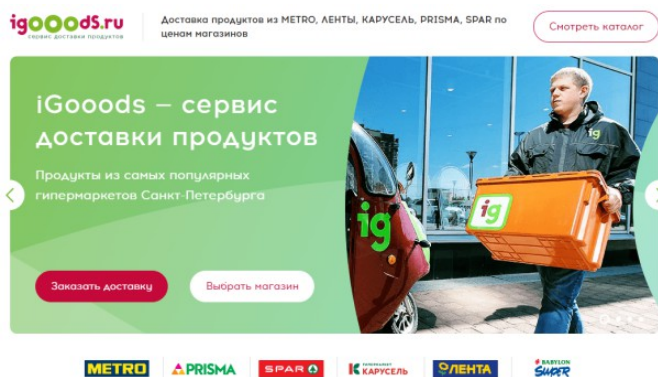
What could the partnership model look like? We see an increasing number of examples of cooperation in the market as retailers strive to cater to a growing demand for e-commerce within the Russian market and e-commerce players strive to take advantage of the extensive network of points-of-sale and distribution capabilities of B+M retailers.

- **X5** is preparing to test a collaborative logistics model e.g. with lockers installed at its stores. The retailer has recently filed a request with the Russian anti monopoly watchdog for approval of the acquisition of a 50% stake in Digital Technologies of the Future (5 September). The latter is currently owned by a private Russian bank, Sovcombank. Both companies are considering a joint venture for delivery of packages ordered from online stores to a network of parcel lockers. Digital

Technologies of the Future currently manages 450 parcel lockers under the Halva brand, and it plans to expand the network to more than 1,500 lockers. X5 would install parcel lockers at stores over the next five years if a JV is established.

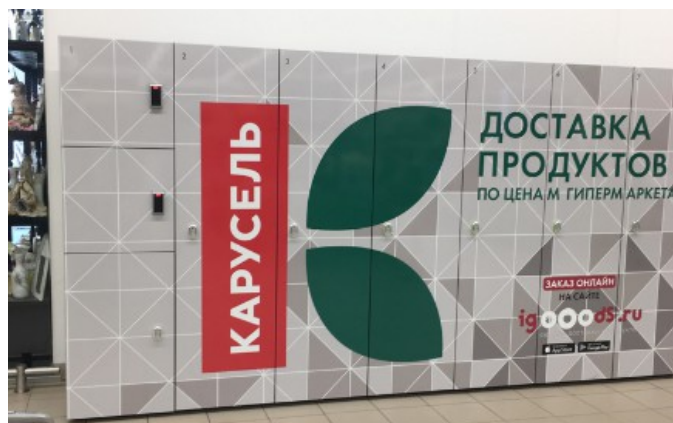
- According to Kommersant (2 July 2018), **JD.com**, one of the largest global e-commerce retailers which exited the Russian market in 2016, is considering re-entering the market. The article stipulates that JD.com could partner with X5 and operate a click and collect model whereby online orders placed through JD.com would be delivered to lockers installed at X5 stores. Neither company has commented.
- **Magnit**, in partnership with Russian Post, launched 13 pilot stores located at the post offices in urban and rural locations in Moscow, Krasnodar and the Ryazan region (28 June), offering 200-800 SKUs. The Russian Post network comprises ~42K locations. If successful, the collaboration will allow Magnit to reach customers in catchment areas where investment in a standard food retail store would not be economically viable.
- **Metro, Prisma, Lenta** and **X5's Karusel** are all partnering with the e-commerce company IGoods.

Exhibit 26: A number of retailers including Lenta and X5 are partnering with IGoods

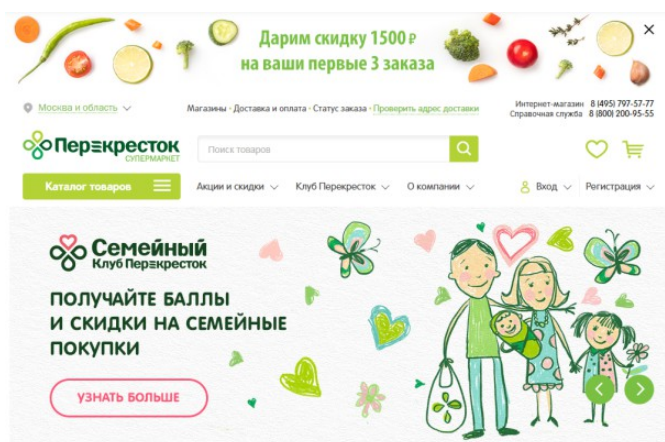


Source: Company website

Exhibit 27: IGoods lockers at X5's Karusel



Source: Morgan Stanley Research

Exhibit 28: X5's Perekrestok offers online services

Source: Company website

Exhibit 29: Instamart delivers goods from Vkusvill convenience chain

Source: Morgan Stanley Research

China

As an alternative to JVs, Russia could gravitate towards a model where online players acquire a stake in bricks & mortar retailers – a trend we are seeing in China. In November 2017 Alibaba acquired 36.17% of shares in Sun Art (covered by Dustin Wei), the largest hypermarket retailer in China. This marked the largest investment in the offline retail market as part of its New Retail strategy. The synergies from the alliance are two-fold – Alibaba's data technology can help Sun Art's digital transformation and whereas Alibaba can leverage Sun-Art's offline expertise to advance its New Retail strategy and benefit from the sourcing scale of Sun Art in FMCG and in fresh produce. So far the momentum in O2O (online to offline) orders at Sun-Art has accelerated significantly after more technological input and online traffic provided by Alibaba. The Taoxianda-enabled Sun Art stores (opened over 3 months up to July 2018) saw 1.2K more tickets a day and 10% increase in sales. The stores also attracted more young customers (<35 year old). Under the JV structure with Alibaba's Hema, Sun-Art plans to expand rapidly its Hexiaoma (HXM) stores targeting the suburban area with population of 20-40K in 2019 and beyond. For more details please see [Sun Art Retail: Thoughts Post NDR - Reinventing Hypermarket \(10 Aug 2018\)](#), [Sun Art: What BABA said about Sun Art on the Investor Day \(17 Sep 2018\)](#).

Potential cannibalisation of Bricks & Mortar retail

In case of a collaborative logistics model, e.g. with lockers installed at B+M retailers, parcel delivery could generate additional traffic for those retailers. However history is littered with examples of bricks and mortar retailers getting cannibalised by the fast growing e-commerce segment. Although arguably food retailers face a comparatively lesser threat than mall operators and apparel/footwear retailers, the non-food and some bulk as well as discretionary part of B+M retailers' assortment would still be at risk of being competed away by the e-commerce retailers. Non-food accounts for approximately 10% of sales for Russian food retailers. Until a clear collaboration model emerges we see the fast pace of growth in the online segment in Russia as an additional headwind for the beleaguered Russian retail sector.

Ozon boasts a leading distribution platform within e-commerce

We would highlight Ozon as being the furthest along this transition in Russia (see below). Ozon developed its own distribution services and is now offering them to third parties. Given it has now built its own logistic infrastructure and sales and distribution channels it is now looking to on-board more third party retailers. Ozon.ru now allows third-party merchants to specify their own product ranges, determine their own pricing structures and present options alongside its own ranges. Ozon will still handle customer care and returns. This arrangement allows it to offer more next day delivery on a wider selection of goods.

Russia: pure play 1P retailers: Who is doing what?

Ozon: The company has its own fulfillment infrastructure comprising 5 fulfillment centers in Russia with total space of over 50k sqm; operates its own courier delivery service and has a network of over 3k self-pickup points and c.2k parcel lockers across Russia. According to the company 40% of the population is covered with next day delivery, and it offers same day delivery in five cities. Approximately 50% of its deliveries are collected at one of its 2,100 pick-up points in Russia and Kazakhstan, which form part of its hub-and-spoke network. Ozon has also contracted with air-freight companies for long-haul transportation to airports and manages the local transportation. Ozon recently introduced free delivery on selected orders.

Wildberries: The clothing retailer's presence is mainly in the larger cities. It has several warehouses in Russia as well as 180 pick-up points. Last September it announced plans to build a federal distribution center in the Moscow region, in order to improve its logistics infrastructure and delivery services. It also offers free delivery.

Lamoda: Lamoda operates its own last mile delivery service.

Who are the logistics companies?

SPSR Express is the market leader among Russian fulfillment providers offering both B2B and B2C services. It has over 1,000 vehicles, pick up points and 4,000 employees. It operates in 6,000 Russian cities. It merged with DPD Russia in 2017.

Shiptor focuses on providing fulfillment and other services as well as software integration to international companies. It has warehouses in the US, Germany, China, and Russia.

Itella is originally Finnish and merged with a local logistics marketing company to launch a local fulfillment business. It has 3,500 employees and several "A-class" warehouses in all major Russian cities.

PEK operates in 100,000 Russian cities, specialising in consolidated cargos and drop shipping.

CDEK Express provides fulfillment services including cash on delivery and has 60 warehouses across Russia.

Who stands to win?

We do expect a dominant retailer to emerge in Russia. We believe the dominant player could be either Yandex or Mail, given the amount of capital they plan to invest into the market, though we do not discount other private players like Ozon.ru (17% owned by MTS). Given the very early stage of the market we believe it is too early to call a winner, (and of course there is room for multiple large players) but we assess the prospects of the major players below. We have chosen to focus on Yandex and Mail, but also include a brief analysis of other players.

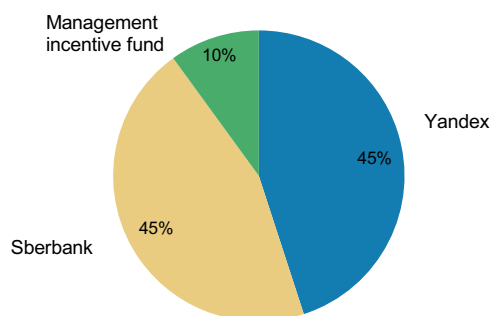
Russia eCommerce: State of Play

Yandex – Yandex created an eCommerce JV with the largest Russian bank, Sberbank, in August 2017 and the deal closed in January this year. Since then the JV has created a separate eCommerce platform, Beru.ru, which went into beta testing in May. The JV has publically said that it expects to reach RUB500bn of GMV by 2020, which on our estimates would imply a market share of 20%. According to media reports (Rusletter.com, June 15 2018), the JV will launch a cross border platform in October. Yandex also has a price comparison site, Yandex.Market, which it has been trying to convert into a full eCommerce platform over the last few years.

Mail.ru – Mail proposed a JV with Alibaba in September 2018, called Aliexpress Russia (AER). This includes Alibaba's recently launched B2C business Tmall, Aliexpress Russia and Mail's cross border marketplace, Pandao (launched in November 2017). Tmall is the only platform focused on the domestic market but the JV is expected to increase its reach. The deal is subject to closing, expected to be in Q119.

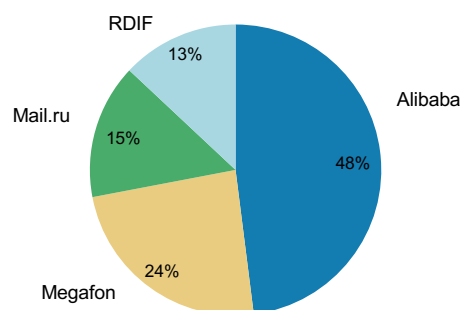
Aliexpress is the international retail arm of Alibaba. It launched in April 2010 in Russia but really grew in popularity during the 2015 recession as it offers consumers cheap goods and free delivery (see [Exhibit 36](#)).

Exhibit 30: Yandex, Sberbank JV: Shareholder Structure



Source: Company Data

Exhibit 31: Mail.ru, Alibaba JV: Shareholder structure

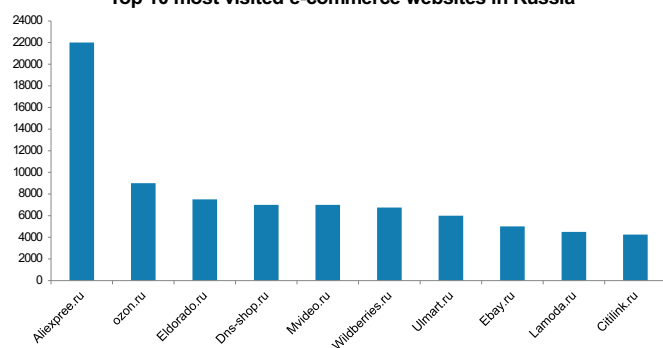


Source: Company Data

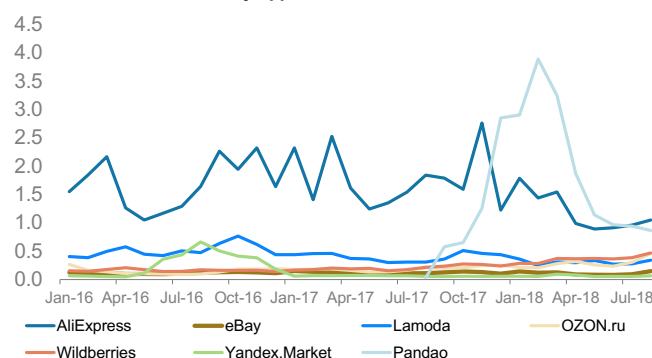
Exhibit 32: Yandex versus Mail: Head to Head

	Yandex	Mail
Online reach	Sberbank has 61m digital clients and 11m daily users of its app. 70% of the Russian population use its services. 21% share of online retail sales are conducted through Sberbank. The company targets 45%. Yandex Market has 20m users.	Mail reaches >90% of the internet population (c90m users) through its social media platforms. The largest, VK has c40m daily users. Aliexpress is the most popular shopping site in Russia with over 20m visits in 2017. AER will use Mail's social networking platforms as an advertising channel.
Offline Distribution	The JV could utilise Sberbank's 14,000 branches across Russia as click and collect points. This could help to reduce the cost of last mile delivery. Yandex could utilise its food delivery or taxi drivers. We estimate that Yandex currently has ~400k drivers.	Tmall has relationships with some delivery partners but we do not think the JV currently has any official partners. The company has indicated that they would like to bring on board logistics partners. The Russian post recently announced a new railroad route between Russia and China to cut waiting times from 40 days to 2 weeks for cross border deliveries.
Capital	Sberbank has committed to invest \$500m into the JV. Yandex has c\$1bn in cash as of Q2 but has not made any explicit funding commitments for the JV. Management has said that the JV is fully funded for the foreseeable future.	We estimate that the JV will have \$300-400m of funding upon closing. Given the JV can leverage upon an existing eCommerce platform, longer term funding requirements may be lower.
Business Model	While Beru was launched as a marketplace, according to the company the 1st party business is currently growing faster as the business looks to have greater control over prices in order to present a more compelling online proposition.	Pandao and Aliexpress operate as a marketplace with a majority of deliveries for the latter still handled by the Russian post. Tmall operates as a 1st party platform. The company has indicated that the business will be majority marketplace.
Merchants	Yandex Market already has relationships with 20,000 merchants. The JV recently announced a partnership with footwear manufacturer, Ziylan group. Beru will stock more than 20k products and offer free delivery through DPD.	The JV will give Russian SMEs access to sell on Alibaba's global platform. VK also has 1.5m groups which include most major retailers. AER plans to onboard them onto its platform.
Value proposition	For consumers, Yandex Plus subscribers will be offered free delivery on Beru.ru. For merchants the JV may offer loans to sellers, which could enable existing sellers to be able to bring more inventory online as well as bring new sellers on the platforms.	Mail.ru collects a lot of user data through its social media platforms which it could leverage, although we would highlight the slow progress of "social commerce" globally so far. Alibaba's eCommerce expertise could prove invaluable to creating the most attractive proposition to consumers.

Source: Company Data, e = Morgan Stanley Research estimates

Exhibit 33: Aliexpress.ru was the most visited site in Russia last year
Top 10 most visited e-commerce websites in Russia


Source: RBTL, 2017

Exhibit 34: Pandao developed high traction after launch, which has since tailed off
Monthly App Downloads - eCommerce


Source: Sensor Tower

Who else could challenge Yandex and Mail?

We see Ozon as the most credible challenger. Ozon is the largest Russian multi-category online goods retailer. A majority of revenues is from electronics followed by books and home & décor. The company delivered 26% CAGR over 2012-17, 32% over 2014-17. Growth has accelerated in 2018: the company delivered 65% growth in 1Q18 and 86% in 2Q. According to the company this was driven by an increase in frequency of purchases (repeat orders grew >100% yoy), better delivery terms, assortment expansion and competitive pricing. The company expects GMV to exceed RUB70bn in 2018. This is on the back of a RUB3.5bn capital raise earlier in the year.

We think Ozon's delivery network could be a crucial advantage as it develops its own marketplace. So far the business has been 1st party, however the company is looking to expand into marketplace. Ozon has its own fulfillment infrastructure comprising five fulfillment centers in Russia with total space of over 50k sqm. It also operates its own courier delivery service and has a network of over 3k self-pickup points and c.2k parcel lockers across Russia. This enables it to cover 40% of the population with next day delivery and offer same day delivery in five cities.

Thus the company should technically be best equipped to offer quality delivery services to consumers. We do note that this will be the third attempt by Ozon.ru at a marketplace model, however, we believe the experience of new CEO Alexander Shuglin (former Yandex COO) could prove invaluable. Where Ozon may be at a disadvantage versus Yandex and Mail is capital. Yandex and Mail also have a significant advantage in the traffic they generate from their sites. Ozon was visited c9m times in 2017, versus Aliexpress at 22m.

Exhibit 35: Largest online retailers in Russia

2016	Ozon.ru	Wildberries	M.video	Kupivip
Orders (m)	5.7	29	1.9	1.4
GMV (RUBbn)	20.8	45.6	25.9	15.1
Visits in August 2018	43.1	54.8	34.0	4.6
% growth (MoM)	5.8%	3.5%	5.4%	-5.2%

Source: Sensor Tower, Digital Ecommerce 360

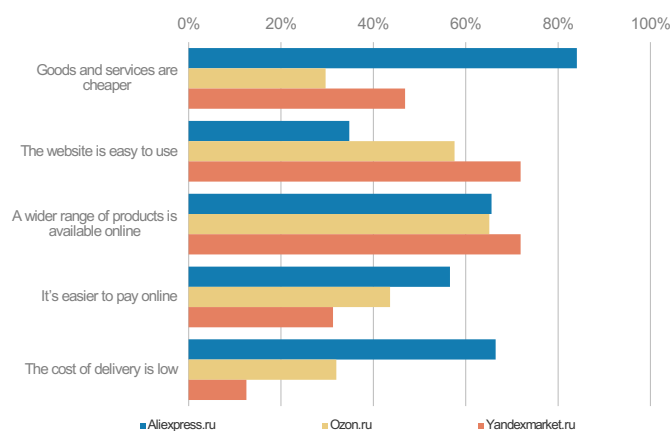
There could be more room for online specialists in Russia. We estimate online penetration in the electronics and fashion categories is already 20% and 7% versus 3% for the whole market. We note there are already more specialist retailers operating in these categories, so these retailers could take share away from a multi-category retailer. Wildberries for example is already pretty sizeable in the fashion category whilst M.video specialises in electronics and has a strong online presence as well as the advantage of a store network that can help with distribution. M.video has also recently launched its own marketplace.

The existence of a dominant C2C platform in Russia could also take some share away from a B2C platform. Avito is the largest C2C platform in Russia with \$258m of revenue in 2017. We do not believe general goods makes up a large proportion of revenue but Avito is still one of the strongest brands in Russia. In our survey last year Avito was the second most popular site to shop from even ahead of Ozon. If Avito were to offer more

new/nearly new goods this could take share away from a general goods eCommerce retailer. We have seen this in other markets like Poland where Allegro, a classifieds site, offers used and new goods and has >40% share of the eCommerce market. However, generally as online markets mature, consumers move away from C2C towards B2C so we do not see Avito as a big threat.

Exhibit 36: Cheap goods is the most popular reason for shopping on Aliexpress

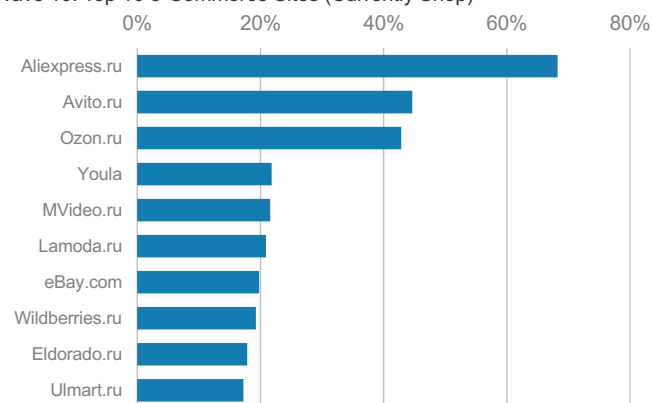
Wave 10: Reasons Why Use e-Commerce Sites



Source: AlphaWise Dec 2017

Exhibit 37: The largest C2C classifieds site in Russia, Avito, is still a hugely popular shopping destination

Wave 10: Top 10 e-Commerce Sites (Currently Shop)



Source: AlphaWise Dec 2017

Why are there no big international players in Russia?

International players are noticeably absent from Russia's eCommerce landscape. This compares with the presence of Facebook and Google in the search and social media categories. Amazon has never entered the Russian market. We think given the high capital requirements, international players have been hesitant to invest in a market where success is far from guaranteed. Asos for example struggled to justify investment in local warehousing in Russia which lead to longer delivery times. We note that Amazon only recently entered South America and Australia, which also present logistical challenges. eBay is present in Russia, but has not developed significant traction. Even Chinese players have not had a smooth ride: JD.com entered the market in 2015 but then exited after struggling with logistics and finding the right merchant partners. There have been media reports that it is looking to reenter in partnership with X5 (Planet Retail, July 5, 2018). Neither company has commented.

There is also the potential for regulatory changes that could disincentivise further investment from international players. The cross border market in Russia has boomed recently with the main attraction being cheaper prices as international retailers do not have to pay import duties. Currently there have been various discussions between the Russian government and the Association of Internet Trade Companies over whether to impose VAT on international retailers or at least to reduce the threshold. If implemented, it could help to level the playing field between domestic and international retailers.

The Russian internet regulator, Roskomnadzor, has also discussed the possibility of introducing a list of "approved" online stores, which have the right to operate in the country. As domestic registered entities, all international online stores would then

become tax residents in Russia. The discussions are still ongoing and are not expected to be resolved before 2019 at the earliest.

Valuing a market leader

We value a market leader at \$10bn. This could be \$13/sh to Yandex or \$7/sh to Mail.ru. We now incorporate a higher value for Yandex's eCommerce JV in our base case (\$4/sh). For Mail.ru, we think its JV could be worth \$4/sh although we do not yet include this in our base case as the deal has not closed.

Exhibit 38: Global eCommerce retailers

Company	Alibaba	JD.com	Amazon	Mercadolibre	Rakuten	Flipkart
Country	China	China	USA	Brazil	Japan	India
eCommerce penetration	17%	17%	13%	5%	8%	3%
Marketplace Model	3P	1P	1P/3P	3P	3P	1P/3P
% market share	76%	20%	50%	45%	40%	40%
Market cap (\$m)	277	60	596	14	12	21
GMV (\$bn)	703	189	225	12	30	6
Sales growth, 2017	56%	40%	31%	44%	21%	na
Margin	37%	1%	9%	8%	21%	na
EV/Sales 2019e	5.5	0.4	3.4	6.5	1.5	na
EV/EBITDA 2019e	20.0	32.9	27.2	97.3	8.5	na

Source: Company data, Morgan Stanley Research. 1P = 1st Party/direct; 3P = 3rd Party/marketplace

We believe the market leader in Russian eCommerce could be worth \$10bn. We see a \$41bn long-term GMV opportunity for the market leader based on the following. We assume that Russian eCommerce penetration reaches the current US level of 13%, which implies a \$69bn eCommerce market versus \$17bn today. We then assume that the market leader is able to take a 60% share of this (through 1P and marketplace). Given the infrastructure challenges and potential threat from vertical players, we do not expect the Russian market to be as concentrated as China, where Alibaba has 76% share of GMV (although this includes C2C). We then apply a EV/Sales peer multiple of 3.5x, discounted back 10 years (using our updated discount rate assumptions), which implies a valuation of \$10bn. Assuming Yandex is the market leader would imply \$13 of value per share. For Mail this would imply \$7 of value per share.

We note that there could be a wide range of outcomes on valuation, in particular as we do not know how the financials for either business will look at maturity. Therefore, for now we believe it best to base our valuation multiple off a GMV/ revenue base rather than EBITDA. We believe at this stage investors will focus more on topline growth instead of earnings. We think the key profitability variable is the final split of the business between marketplace and direct/1st party sales.

For a 1P business, a long-term EBIT margin of 6-10% could be a typical target. Amazon's historical range has been 4-6%. The platform would be responsible for selling the inventory. Associated costs include shipping, warehousing, other fulfillment (e.g. for certain brands photography), marketing, property costs and admin. Assuming the market

Exhibit 39: We believe the market leader in Russian eCommerce could be worth \$10bn

	2017	2023	Mkt share opportunity	LT Potential
Addresable market (RUBbn)				
Non-food retail	15,378	20,024	20,024	20,024
eCommerce	1,040	3,491	3,491	4,613
% of non food retail st	6.8%	17.4%	17.4%	30%
% of retail	3.5%	10.0%	13.2%	13.2%
Potential (RUBm)				
GMV	104	698	2,095	2,768
Market share	10.0%	20.0%	60%	60%
Net revenue	4	70	524	692
% of GMV	4%	10%	25%	25%
LT Revenue Opportunity				692
EV/Sales				3.5
Discounted 10 years				653
Value (\$bn)				9.8
Value to Yandex per share (\$)				13
Value to Mail per share (\$)				7

Source: Company data, Morgan Stanley Research estimates

business implies potential EBIT at maturity of c\$400m in Russia. We note that 1P businesses typically take 5-7 years to break even or become profitable, Amazon itself took 8 years to reach profitability.

For a marketplace business, long-term margins could reach over 40%. This depends on whether the marketplace chooses to also do the fulfilment for its third-party sellers. A typical commission rate on GMV could be 15% (this is in line with Amazon's less commoditised categories) but in the case where the marketplace also handles shipping and fulfilment, the commission could be up to c40%. Start Today, the Japanese fashion marketplace (covered by Tetsuro Tsutsaka), charges new brands c.35% as a commission. It does the fulfillment (incl. storage, photography, payment processing, etc) and ships the items on behalf of the brands. The commission rate also depends on the monetisation strategy of the platform. A majority of revenue for Alibaba is actually advertising (49% in FY17), while 3P commissions only made up 34% of revenue and in a majority of cases the commissions are quite low.

Our base case assumes a value of \$4/sh for Yandex's eCommerce business. Our market model implies a market share of 16% share of the market by 2023 (given we expect a lot of the growth to come from the cross border market) and then we apply a 0.6x GMV multiple. This implies \$2.9bn of value to the JV or \$1.3bn to Yandex, or \$3.9 per share. This implies 3.3x EV/Sales 2019e.

AER could be worth up to \$4/sh to Mail.ru. We do not yet incorporate a value for Aliexpress Russia in our Mail base case as the deal has not closed but we believe the asset could be worth up to \$4 per share to Mail.ru. According to the company AliExpress's gross merchandise value (GMV) was c.\$2.5bn for FY18 and we estimate that it could reach c\$4bn in FY19. Applying a GMV multiple of 0.5-1x would imply a valuation range \$3.2-6bn for 100% or \$2-4 per share for Mail.

Exhibit 40: AER could be worth \$2-4/sh to Mail.ru

\$bn						
GMV, FY19	4.0	4.0	4.0	4.0	4.0	4.0
EV/GMV, 2019	0.5x	0.7x	0.9x	1.0x	1.2x	1.4x
Implied EV	2.0	2.8	3.6	4.0	4.8	5.6
Cash	0.4	0.4	0.4	0.4	0.4	0.4
Implied Equity	2.4	3.2	4.0	4.4	5.2	6.0
Mail at 15%	0.4	0.5	0.6	0.7	0.8	0.9
per share value to Mail, \$	1.6	2.2	2.8	3.0	3.6	4.2

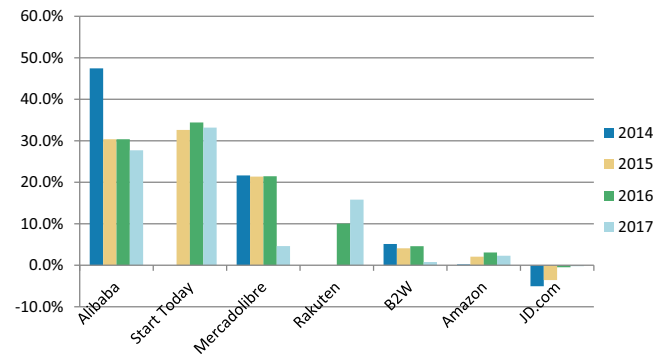
Source: Morgan Stanley Research estimates

Exhibit 41: 1st party vs. marketplace: Similar margin mid-cycle, but marketplace is lower risk...

	1P	3P	3P (incl. shipping)
Gross Sales	100	100	100
Revenue	100	15	35
Gross profit	46	15	35
% margin	46%	100%	100%
Shipping	-8.2	0.0	-8.2
Warehousing	-8.2	0.0	-8.2
Payment processing	-2.0	-2.0	-2.0
Other fulfillment	-6.2	-1.0	-3.0
Marketing	-7.0	-6.0	-6.0
Admin	-4.5	0.0	0.0
EBIT	10.0	6.0	7.7
% margin	10%	40%	22%

Source: Morgan Stanley Research estimates

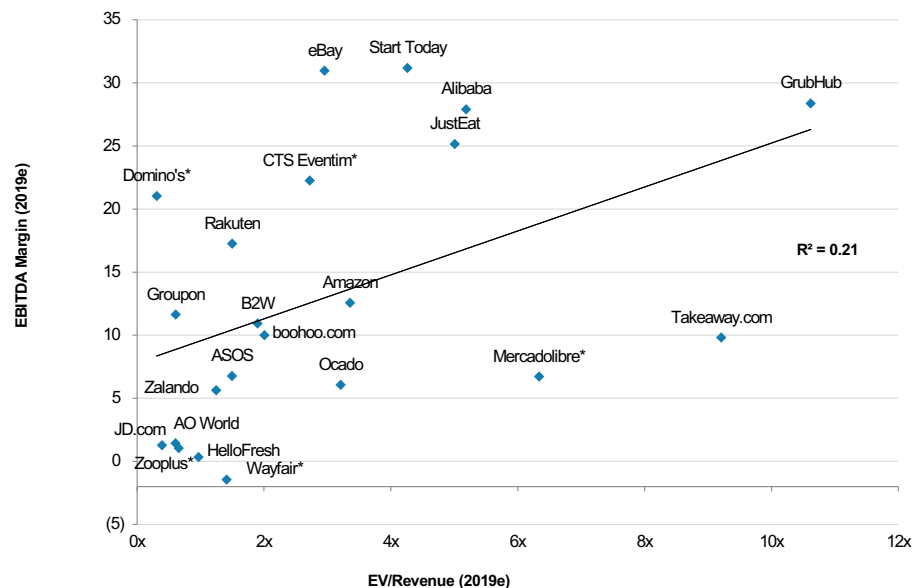
Exhibit 42: ...and drives higher EBIT margins for marketplace based models



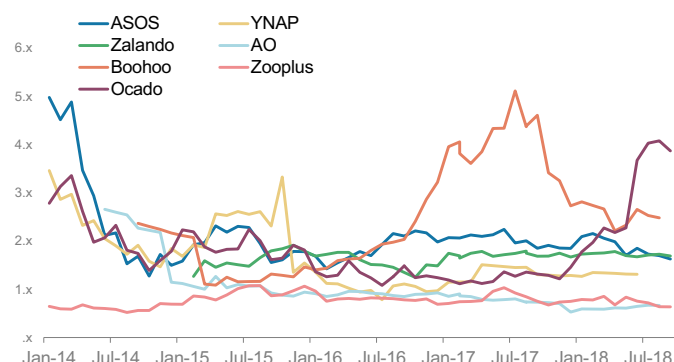
Source: Company data e = Morgan Stanley Research estimates

Global 1P eCommerce stocks have historically traded at an average 1.5x EV/Sales, while marketplaces trade at a wider range between 2-10x EV/Sales. The long-term margin assumption is a key driver for valuations, but aside from the lower margin, 1P players are often capped on how fast they can grow as they take inventory risk. Therefore, the growth runway for 1P players tends to be lower, which also drives a lower multiple.

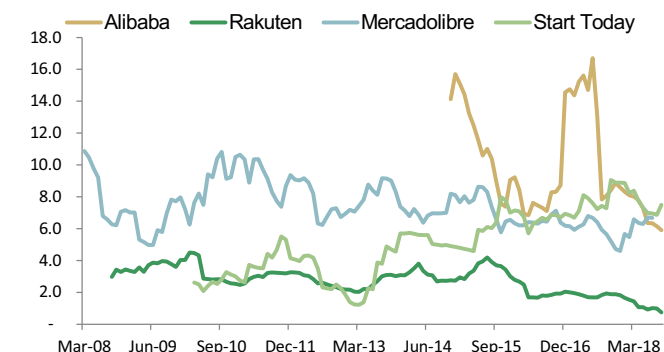
Exhibit 43: There is clear correlation between EV/Revenue and EBITDA margin



Source: Morgan Stanley Research, Company Data, Thomson Reuters, * Not covered by Morgan Stanley

Exhibit 44: 1P valuation multiples are typically between 1-2x EV/Sales


Source: Thomson Reuters

Exhibit 45: 3P valuation multiples can reach over 10x EV/Sales


Source: Thomson Reuters

Exhibit 46: Global eCommerce comparables: Valuation metrics

Company	Price Target	Market Cap (\$m)	EV (\$m)	EV/Revenue			CAGR (%) 17-20e	EV/EBITDA			CAGR (%) 17-20e	P/E			CAGR (%) 17-20e	PEG 18-20e	FCF yield		
				2018	2019	2020		2018	2019	2020		2018	2019	2020			2018	2019	2020
e-Commerce																			
ASOS	5,000p	6,258	6,202	1.8	1.5	1.3	21.8	27.4	21.7	17.6	26.1	56.4	48.0	40.0	19.9	3.0	-2.0%	-0.5%	0.4%
boohoo.com	200p	2,766	2,603	2.6	2.0	1.6	32.4	28.4	20.4	15.5	34.0	54.4	39.0	29.3	31.1	1.5	0.0%	0.4%	1.3%
Zalando	€55.0	10,839	9,751	1.5	1.2	1.0	22.5	29.6	22.1	15.8	29.1	79.3	54.3	34.4	34.4	1.5	-1.2%	-0.8%	-0.4%
Rocket	NC	5,119	2,417	38.9	35.5	46.8	7.1	nm	nm	nm	nm	nm	nm	nm	(367.5)	na	-0.4%	-0.4%	-0.4%
Ocado	870p	8,074	8,101	3.7	3.2	2.8	15.0	79.9	51.1	31.8	31.9	na	na	273.8	na	na	-1.8%	-2.8%	-2.4%
HelloFresh	€14.0	2,044	1,828	1.2	1.0	0.8	27.4	na	292.6	18.1	na	na	na	35.4	na	na	-6.2%	-2.0%	2.9%
Blue Apron	\$1.3	336	330	0.5	0.4	0.4	-3.1	na	na	na	na	na	na	na	na	na	-29.5%	-19.0%	-12.8%
AO World	130p	809	769	0.7	0.6	0.6	11.0	na	50.9	22.7	na	na	na	42.4	na	na	-2.1%	-0.2%	1.4%
Zooplus*	NC	1,321	1,273	0.8	0.7	0.5	22.2	179.5	62.9	31.6	58.4	2989.8	149.7	61.5	111.7	5.7	-0.3%	0.7%	0.7%
Amazon	\$2500.0	970,525	952,912	4.1	3.4	2.8	23.8	34.4	26.7	20.6	43.6	98.9	66.9	45.7	90.4	2.1	1.4%	1.2%	1.8%
Alibaba	\$240.0	408,857	376,162	7.2	5.2	4.0	41.2	26.8	18.9	14.0	33.5	44.1	30.7	22.6	28.1	1.1	3.6%	5.2%	6.3%
Mercadolibre*	NC	13,913	13,684	9.4	6.3	4.3	31.1	na	94.4	40.7	20.6	nm	244.9	86.3	121.8	na	0.4%	1.3%	2.4%
JD.com	\$25.0	37,606	31,278	0.5	0.4	0.3	20.8	92.4	30.9	17.7	25.6	na	1329.2	64.3	na	na	1.2%	3.0%	4.2%
B2W	BRL27	2,934	3,447	2.1	1.9	1.6	11.8	27.3	17.4	12.3	45.0	na	na	168.3	na	na	-9.0%	-11.5%	-10.6%
VIPShop*	NC	768	85	na	na	na	18.9	(1.1)	(0.8)	(0.5)	26.3	10.8	8.8	6.6	11.0	0.4	na	na	na
Wayfair*	NC	12,461	12,257	1.8	1.4	1.1	32.5	nm	nm	929.6	nm	nm	nm	nm	nm	na	-1.2%	-0.8%	0.5%
Average (ex outliers)				3.0	2.3	1.9	24.5	24.3	22.9	15.1	32.1	57.3	41.3	31.6	35.8	1.6	0.0%	0.9%	1.8%

Source: *Thomson Reuters for non-covered stocks, Morgan Stanley Research estimates. na = not applicable, nc = not covered

Exhibit 47: Global eCommerce comparables: Financial metrics

Aligned fiscal year end	EBITDA margin (%)			(EBITDA - Capex) margin (%)			Revenue growth			EBITDA growth (%)			EPS growth (%)			ND/EBITDA	
	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019
e-Commerce																	
ASOS	6.6	6.8	7.1	(3.3)	(1.5)	0.1	24.6	22.0	18.9	29.0	26.2	23.2	22.1	17.6	20.1	(0.3)	(0.1)
boohoo.com	8.9	10.0	10.4	1.9	1.5	2.9	45.7	27.8	24.6	31.6	39.0	31.4	21.4	39.4	33.0	(2.2)	(1.8)
Zalando	5.1	5.6	6.4	0.1	0.6	1.4	22.5	22.3	22.7	14.9	34.0	39.8	5.4	46.0	57.9	(3.3)	(2.3)
Rocket	(132.3)	(77.5)	(91.5)	(138.1)	(81.5)	(93.3)	47.8	9.8	(24.3)	nm	nm	nm	(2281.6)	nm	nm	na	na
Ocado	4.5	6.1	8.5	(9.5)	(15.6)	(15.5)	12.2	16.5	16.6	(8.7)	56.4	60.7	na	na	na	0.3	1.8
HelloFresh	na	0.3	4.6	na	(2.4)	2.9	41.7	26.1	15.8	na	na	1515.0	na	na	na	na	(28.3)
Blue Apron	na	na	na	na	na	na	(20.5)	7.0	7.0	na	na	na	na	na	na	na	na
AO World	0.4	1.4	2.8	(0.2)	0.8	2.1	13.0	10.6	9.4	na	na	124.2	na	na	na	na	(8.6)
Zooplus*	0.4	1.0	1.7	(0.0)	0.6	1.3	23.1	22.2	21.3	(30.0)	185.5	98.9	(80.5)	1897.6	143.3	(5.1)	(1.6)
Amazon	11.8	12.6	13.7	5.7	5.5	6.4	32.1	20.8	19.1	77.9	28.5	29.6	219.1	47.8	46.4	(0.6)	(1.0)
Alibaba	25.5	27.9	29.0	18.5	20.9	22.0	57.7	38.7	28.6	24.6	41.5	34.9	7.7	43.5	36.1	(3.5)	(4.1)
Mercadolibre*	1.8	6.7	10.6	(4.1)	1.3	5.6	3.5	48.2	46.8	(86.7)	467.5	131.7	(177.4)	nm	183.8	(12.6)	(3.1)
JD.com	0.5	1.3	1.9	(2.0)	(0.7)	(0.1)	26.6	18.4	17.6	(62.1)	198.7	75.0	na	na	1966.7	(18.7)	(7.0)
B2W	7.8	10.9	13.3	2.3	5.9	8.8	6.5	12.6	16.5	37.4	56.6	41.6	na	na	na	4.1	2.9
VIPShop*	4.0	4.5	5.8	1.1	2.2	4.0	21.3	17.7	17.7	0.4	32.9	51.1	(16.1)	22.4	33.3	(1.3)	(1.0)
Wayfair*	(2.9)	(1.4)	0.1	(5.5)	(4.0)	(2.2)	43.2	30.4	24.5	nm	nm	nm	nm	nm	nm	na	na
Average (ex outliers)	8.9	9.8	10.7	3.4	4.3	5.5	31.0	22.9	20.1	29.7	33.7	47.7	43.3	36.1	37.8	(1.9)	(2.7)

Source: *Thomson Reuters for non-covered stocks, Morgan Stanley Research estimates. na = not applicable, nc = not covered

Economics: Is there a risk of a macro slowdown?

Alina Slyusarchuk

Higher inflation would be a headwind to the consumer in 2019, especially as the political cycle suggests no reason for generous wage increases next year. We see the announced pension reform and recent RUB depreciation hurting consumer confidence.

Real wages accelerated due to the tight labour market but consumption underperformed. The consumer disappointed this year. Real wages have been supported by the shortage of the labour force in the market but didn't translate into higher retail sales. Following the impact of the World Cup on retail sales in June-July and elevated demand for non-food goods fuelled by RUB depreciation in August, we expect a slowdown in September.

Exhibit 48: Consumer trends: Gradual recovery after a deep and protracted recession

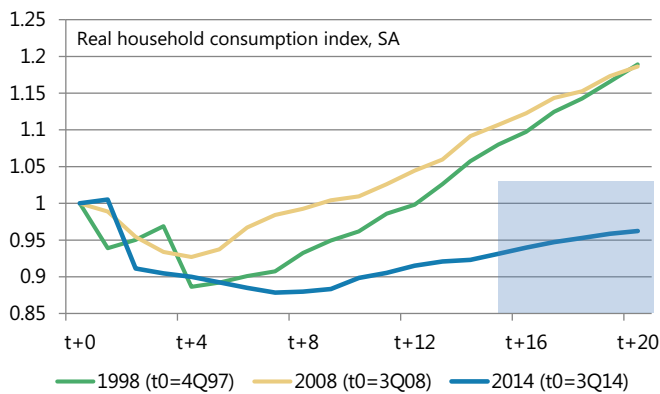
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	7M18
Real wages, %Y, avg	11.0	-2.7	4.4	4.1	8.6	5.3	1.5	-9.2	0.7	3.5	8.7
RDI, %Y, avg	3.4	2.9	6.2	0.5	4.4	4.0	-0.5	-3.3	-5.5	-2.0	2.4
Real pensions, %Y	18.2	10.7	35.5	1.2	4.9	2.8	0.9	-3.8	-3.4	0.3	1.6
Unemp. rate (% labour force), avg	6.3	8.2	7.4	6.5	5.4	5.5	5.2	5.6	5.5	5.2	4.8
RUB loan growth, %Y, avg	57.2	4.0	3.1	29.8	45.6	35.9	21.6	1.0	-1.0	7.4	17.3
RUB deposit growth, %Y, avg	26.6	-2.6	44.4	30.2	20.9	22.4	7.5	8.3	15.4	12.5	11.5
Savings rate, %Y	5.5	13.1	14.6	10.0	9.2	9.3	6.2	13.7	10.3	7.6	5.9
CPI, avg %Y	14.1	11.7	6.9	8.5	5.1	6.8	7.8	15.6	7.1	3.7	2.3
Retail sales, %Y	14.2	-4.9	6.4	6.9	6.5	3.9	2.7	-9.7	-4.6	1.2	2.5
Food	12.0	-1.8	5.1	3.2	3.8	2.5	0.1	-8.9	-4.9	0.9	2.0
Non-food	15.9	-7.7	7.7	10.7	8.8	5.0	5.0	-10.5	-4.2	1.4	3.0
Services, %Y, avg	4.9	-4.1	1.4	3.0	3.7	2.2	1.3	-2.0	-0.3	0.3	2.3
Households consumption, %Y	10.6	-5.1	5.5	4.8	7.9	5.2	2.0	-9.4	-2.8	3.4	2.8

Source: Rosstat, CBR, Haver Analytics, Morgan Stanley Research

Higher inflation is likely be a headwind to the consumer in 2019, especially as the political cycle suggests no reason for generous wage increases next year. While social spending was announced as a priority in [the Main Directions of the Budget Strategy for 2019-21](#), the announced measures like pension reform, which we expect to be implemented, tend to hurt consumer confidence instead.

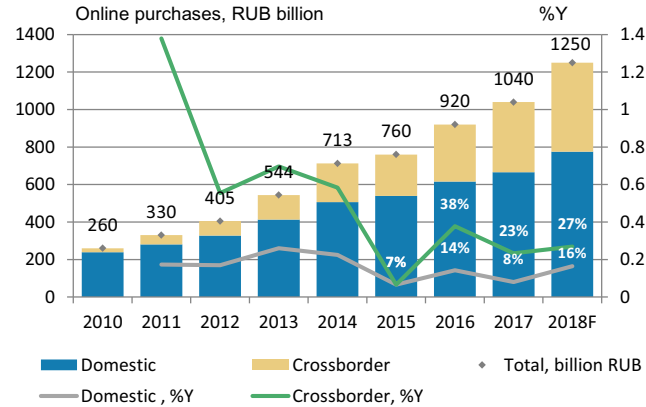
Online cross-border purchases are not accounted in the non-food retail trade statistics, which underestimate consumption data. However, the local population has been spending more on cross-border purchases and travel growth at a fast pace, which explains the divergence between real wages and retail sales.

Exhibit 49: Household consumption in the recent recession: A more pronounced decline followed by a muted recovery



Source: Rosstat, Morgan Stanley Research

Exhibit 50: Cross-border purchases are growing at a higher pace than domestic purchases, expected to be up 27%Y in 2018



Source: AITC, CBR

Valuation

We do not expect macro to detract from the secular growth story, but it poses a risk near term. We caution that consumer spending in Russia could come under pressure from a weakening rouble and the risk of sanctions that could impact the wider Russian economy. Nonetheless, we expect the channel shift from bricks & mortar shopping to online should continue to support growth of e-commerce players. Our analysis shows faster growth in cross-border purchases (often associated with online) rather than in stores domestically (see [Exhibit 50](#)). In this context we think it prudent to apply a higher cost of equity to our DCF methodology for Yandex and Mail, which leads us to cut our price targets by 17% and 21% respectively. We believe the eCommerce opportunity is one of many that could become material to the shares in the medium term and we retain our long-term Overweight on both.

Yandex – PT \$37

We cut our price target from \$44 to \$37. We make minor tweaks to forecasts – based on our recent roadshow with management we now forecast higher revenue growth in Search and Portal in outer years but higher losses in Taxi next year from investments into food delivery. We also incorporate losses from Yandex's eCommerce JV. This leads us to reduce our EPS forecasts c3% over the next 4 years. This is still offset by the higher growth in outer years. All else being equal there would be no change to PT. However we now update for a higher cost of equity, adjusting for rising Russia bond yields. Given the current political and macro risks associated with Russia we think it appropriate to use a higher discount rate. FX moves from 63 RUB/USD to 67. As a result our PT change is a mechanical function of updating for FX and cost of equity and our underlying forecast changes do not impact our fundamental view of the business.

We retain our SOTP valuation. We value the core search business at \$19/sh using a DCF (WACC of 14% for search terminal growth rate of 6%). Our search valuation only implies 7x EV/EBITDA for the core search business, which we believe to be conservative given our Google analyst values Google Core at 12x EV/EBITDA. Historically Yandex has actually traded at a premium to Google. We use a blend of peer multiples and DCF for Taxi, which we value at \$10. We value Yandex.Market at \$4, Classifieds at \$1 and include \$3 of cash.

We do think the shares could continue to come under pressure in the short term. Yandex shares are still trading on 26x NTM P/E so could be affected if the sell-off among technology stocks continues, given its Nasdaq listing and the fact it has a more international shareholder base than Mail. We note that Yandex is also one of the most [well owned stocks among EEMEA GEM investors](#) therefore could also continue to come under pressure if the preference for exporter stocks over domestic stocks continues as the rouble rises. During the last downturn Yandex derated to c16x P/E; however, given this was because of the FX exposure to Yandex's margin, which has been removed, we do

not expect the shares to again reach these levels. However we would see any further weakness as a buying opportunity.

We see a greater probability of our bull case thesis playing out than our bear case. Our bull case assumes 21% revenue CAGR for the core search business vs 16% in our base case. We expect this to be driven by greater contribution from Zen, Alice, continued mobile market share gains and new revenue streams such as music and video subscriptions. We value Yandex Taxi at \$7bn (100%) in our bull case. We do not yet have any explicit value for new services like Yandex.Drive, which has already reached 1m rides in 6 months or Cloud services. With execution continuing to improve in both the core and newer businesses we have greater confidence in Yandex's ability to create more marketing leading businesses in new verticals.

In our bear case of \$24 we assume that Yandex loses share to Google in search, while social advertising overtakes search in Russia as search growth slows to 13% pa. We assume the last transaction value for Taxi (\$3.7bn) and include nothing for Yandex Market or Classifieds. We also use a RUB/USD of 75.

Exhibit 51: Yandex: Base Case SOTP

Base Case	Valuation (\$m)	Per share (\$)
Core Search	6,374	19.1
Yandex Taxi	3,325	9.9
Market	1,354	4.0
Classifieds	280	0.8
Cash	944	2.8
Price Target	12,277	37

Source: e = Morgan Stanley Research estimates

Exhibit 52: Yandex: Core search sensitivities to WACC and FX

		WACC						
		11%	12%	13%	14%	15%	16%	17%
RUB/USD	58	35	29	25	22	20	18	16
	61	34	28	24	21	19	17	15
	64	32	27	23	20	18	16	14
	67	31	25	22	19	17	15	14
	70	29	24	21	18	16	15	13
	73	28	23	20	17	16	14	13
	76	27	22	19	17	15	13	12

Source: e = Morgan Stanley Research estimates

Exhibit 53: Yandex: Taxi sensitivities

		WACC						
		11%	12%	13%	14%	15%	16%	17%
LT Growth	4%	20	18	17	16	15	14	14
	5%	20	18	17	16	15	15	14
	5%	21	19	17	16	15	15	14
	6%	22	19	18	17	16	15	14
	6%	23	20	18	17	16	15	14
	7%	24	21	19	17	16	15	14

Source: e = Morgan Stanley Research estimates

Mail.ru – PT \$30

We cut our price target from \$38 to \$30. We leave forecasts unchanged. To be consistent with our approach for Yandex we use a higher cost of equity, which we adjust for rising Russia bond yields. We maintain our SOTP methodology and also now align our WACC in all our valuations consistent with outside of the core business. Given the current political and macro risks associated with Russia we think it appropriate to use a higher discount rate. We note that including our valuation for the JV with Alibaba would leave our PT at \$33. We do not include it in our base case value as the deal has not yet closed.

We believe the JV with Alibaba could be transformational for the equity story. Not only does this give Mail the opportunity to become the domestic eCommerce winner, it also offers opportunity to unlock further value. As part of the partnership, AER has committed to be a cornerstone investor in any future funding rounds for Mail's eCommerce businesses including Youla and Delivery Club. Both of these businesses are currently operating in highly competitive markets so access to greater capital could accelerate the development of these businesses. It could also help them to preserve market leadership in order to create more valuable businesses and potentially even develop further investment opportunities. We currently value these businesses at \$3 per share.

Aside from removing the potential overhang risk related to Megafon's ownership of Mail shares, and potential sanctions risk surrounding some of its largest shareholders we believe the transaction adds greater credibility to management's investment strategy. Mail's expansion into new verticals has been a key investor concern and this transaction reduces future investment risk for Mail and implies greater probability of success and thus value creation.

Exhibit 54: Mail.ru: Base Case SOTP

	Valuation (\$)	Per share
Social Media	4437	20.6
Delivery Club	545	2.5
Youla	101	0.5
Gaming	1087	5.1
Cash	226	1.1
Price Target	6171	30

Source: e = Morgan Stanley Research estimates

Exhibit 55: Mail.ru: Search sensitivities to WACC and LT growth

		WACC						
		11%	12%	13%	14%	15%	16%	17%
LT Growth	4%	36	33	30	28	26	25	24
	5%	37	34	31	29	27	25	24
	5%	39	35	32	29	27	26	24
	6%	40	36	32	30	28	26	24
	6%	43	37	33	30	28	26	25
	7%	45	39	34	31	29	27	25
	7%	49	41	36	32	29	27	25

Source: e = Morgan Stanley Research estimates

Where could we be wrong? Key downside risks include (a) lower advertising revenue caused by weaker macroeconomic conditions; (b) lower monetisation of social networks; (c) increased competition resulting in additional opex investment; and (d) regulatory or political intervention. On the upside, Mail would benefit from higher rates on stronger advertising, greater usage of its gaming and communication products, and launch of a messaging product.

Exhibit 56: Yandex is trading at a 10% premium to its LT average, however we do not expect it to derate to 2015 lows of c15x

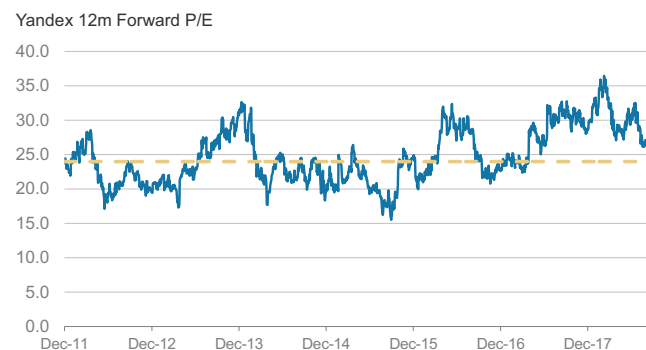
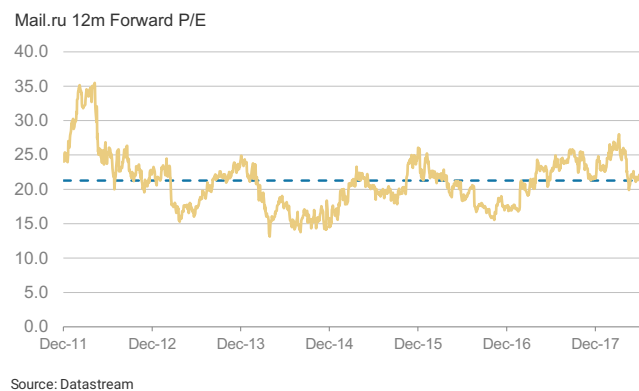
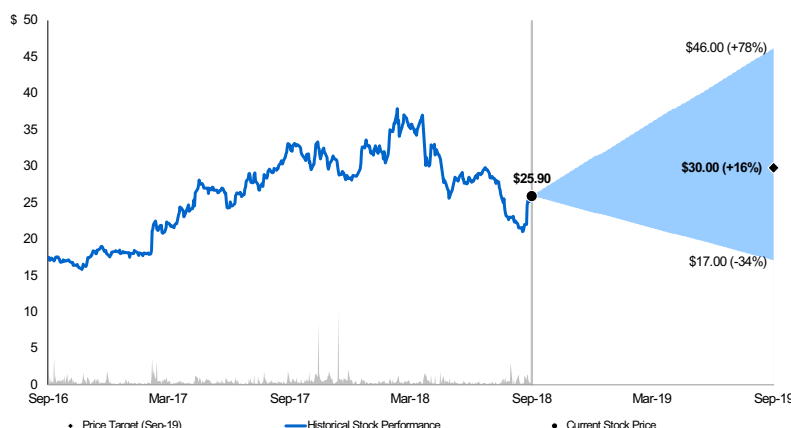


Exhibit 57: Mail is trading at a 5% discount to its LT average



MaiLru – Overweight, PT \$30

Valuation is cheap but limited near term support for the shares



Source: Thomson Reuters (historical share price data), Morgan Stanley Research estimates

Price Target \$30

We use a SOTP valuation. We value the core social media platforms using a DCF (assuming a WACC of 14% and terminal growth rate of 6%). We value all other assets using a peer multiple approach.

Bull \$46

13.4x 2019 Core EV/EBITDA

Earnings, multiple and asset inflation. We assume the core business generates 36% revenue growth in 2018 and 25% in 2019, with margins progressing to 43% by 2021. RUB/USD rate = 50.

Base \$30

12.3x 2019 Core EV/EBITDA

Structural Internet growth in Russia, some margin pressure. We assume Yandex benefits from strong secular growth in Russian Internet advertising. Short term pressure on margins from investment into Taxi and mobile. Margins at 40% by 2020. RUB/USD rate = 67.

Bear \$17

10.0x 2019 Core EV/EBITDA

No margin progression, investment phase continues. We assume revenues slow to 15% in 2019 as competition increases and new ventures fail to retain users. Investment continues limiting earnings upgrades. EBITDA margins plateau at 33% by 2020. RUB/USD rate = 75.

Why Overweight?

■ Mail offers broad exposure to the Russian internet market, which we expect to grow in access, usage and revenues in 2018. It benefits from spending through its network of email, messaging, social networking and eCommerce sites.

■ Mail is structurally strong, and operates the three largest Russian language social networks. Mail.ru group sites reach over 90% of the Russian internet population. Mobile remains a key focus, with a strategy of volume over monetisation.

■ High quality shareholders: Alibaba owns a 10% direct stake, Naspers a 29% and Tencent a 8% stake.

Key Value Drivers

■ Audiences, ARPU, internet and PC penetration in Russia; success of new games launched; display and contextual advertising.

Potential Catalysts

■ Announcement of VK product update (payments).
■ Value accretive M+A.

Risks to Achieving Price Target

■ Upside: Delivery Club and Youla start to contribute significantly to topline and earnings. VK growth does not decelerate. Another gaming hit.
■ Downside: Lower advertising revenue; lower monetisation of social networks; greater competition; regulatory or political intervention; and FX.

Yandex – Overweight, PT \$37

Significant potential upside to bull case, attractive growth



Source: Thomson Reuters (historical share price data), Morgan Stanley Research estimates

Price Target \$37

We use a SOTP valuation. We value the core search business using a DCF (WACC of 14% for search terminal growth rate of 6%); we use a blend of peer multiples and DCF for Taxi.

Bull \$63**9.3x 2019 Core EV/EBITDA**

Market share climbs, margins expand. We now forecast 20% revenue CAGR in search driven by Alice and Zen and continued mobile market share gains. Share gains + high incremental margins in core properties drive Search EBITDA margins to +50% in the long term. RUB/USD rate = 50. Taxi at c\$7bn.

Base \$37**7.7x 2019 Core EV/EBITDA**

Structural Internet growth in Russia, some margin pressure. We assume Yandex benefits from strong secular growth in Russian Internet advertising. Short term pressure on margins from investment into Taxi. Margins at 46% by 2020. RUB/USD rate = 63.

Bear \$24**6.9x 2019 Core EV/EBITDA**

Market share loss to Google; TAC rises as Yandex competes in mobile; Google intensifies focus on Russia. We assume Yandex's share drops below 50% by 2020, Core EBITDA margin modest expansion to 46% by 2020. Yandex spends aggressively on mobile distribution. Taxi at merger valuation of \$3.7bn. RUB/USD = 75.

Why Overweight?

- Leading position in Russian search (c.56% share) and overall online advertising.
- Secular growth in Russian Internet, driven by rising internet/broadband penetration, ad budgets shifting to online.
- Leading position in e-Hailing market in Russia with 80% market share.

Key Value Drivers

- Search market share. Every 4% increase in mobile market share is c1% to revenue and \$1 per share.
- Traffic acquisition costs (TAC)
- Growing market share in Taxi. We see scope for an additional \$4/sh of value from Taxi.

Potential Catalysts

- Share gains vs. Google
- Significant developments with Yandex Market

Risks to Achieving Price Target

- Competitive threat from Google
- Margin declines due to heavy spend on distribution
- Increased competition for ad dollars from social networks
- Adverse changes in regulation
- Macro and FX risk

Financials: Mail.ru

Exhibit 58: Mail.ru: Income Statement

Mail.Ru Group							
Consolidated Statement of Income							
<i>(in millions of Russian Roubles)</i>							
	FY-2016pf Dec-16a	FY-2017pf Dec-17e	FY-2018 Dec-18e	FY-2019 Dec-19e	FY-2020 Dec-20e	FY-2021 Dec-21e	FY-2022 Dec-22e
Total revenue (Adjusted)	42,751	55,768	72,898	87,646	103,243	120,172	138,349
y-o-y growth (%)	42.1%	30.4% 28%	30.7%	20.2%	17.8%	16.4%	15.1%
Total revenue (IFRS)	40,001	50,043	72,898	87,646	103,243	120,172	138,349
y-o-y growth (%)	26.0%	25.1%	45.7%	20.2%	17.8%	16.4%	15.1%
EBITDA (Adjusted)	17,914	18,850	21,137	32,511	41,383	50,840	61,078
Adj. EBITDA Margin (%)	41.9%	33.8% 5.2%	29.0% 12.1%	37.1% 53.8%	40.1% 27.3%	42.3% 22.9%	44.1% 20.1%
EBITDA (IFRS)	13,374	11,272	18,950	29,881	38,285	47,236	56,929
EBITDA Margin (%)	33.4%	22.5%	38.0%	34.1%	37.1%	39.3%	41.1%
Depreciation and amortisation	(2,940)	(3,587)	(3,946)	(4,340)	(4,774)	(5,252)	(5,777)
EBIT (Adjusted)	14,974	15,263	17,191	28,170	36,608	45,588	55,301
Adjusted EBIT Margin (%)	35.0%	27.4%	23.6%	32.1%	35.5%	37.9%	40.0%
Amortisation of fair value adjustments to intangible asset	(4,814)	(5,344)	(6,083)	(6,736)	(7,510)	(8,413)	(9,473)
Impairment of intangible assets	(52)	0	0	0	0	0	0
EBIT (IFRS)	5,568	2,341	8,921	18,805	26,001	33,571	41,679
EBIT Margin (%)	13.9%	4.7%	12.2%	21.5%	25.2%	27.9%	30.1%
Net Finance income	107	496	975	1,905	3,213	4,973	7,195
Other non-operating income/(expense)	39	(21)	0	0	0	0	0
Share of profit of strategic associates	27	15	41	42	44	46	47
PBT (Adjusted)	15,147	15,480	18,207	30,118	39,865	50,607	62,544
Adjusted PBT Margin (%)	35.4%	27.8%	25.0%	34.4%	38.6%	42.1%	45.2%
Net loss on financial assets and liabilities at fair value thr	0	0	0	0	0	0	0
Net gain on disposal of shares in strategic associates	0	0	0	0	0	0	0
Impairment losses related to strategic associates and av:	0	(273)	0	0	0	0	0
PBT(IFRS)	12,669	3,255	9,937	20,752	29,258	38,590	48,922
PBT Margin (%)	31.7%	6.5%	13.6%	23.7%	28.3%	32.1%	35.4%
Income tax expense	(838)	(2,675)	(2,351)	(4,753)	(6,649)	(8,730)	(11,035)
Net profit (Adjusted)	11,617	12,276	14,201	23,492	31,095	39,473	48,784
(%) growth		5.7%	15.7%	65.4%	32.4%	26.9%	23.6%
Adjusted Net Profit Margin (%)	27.2%	22.0%	19.5%	26.8%	30.1%	32.8%	35.3%
Net profit (IFRS)	11,831	580	7,585	15,999	22,609	29,860	37,886
Net Profit Margin (%)	29.6%	1.2%	10.4%	18.3%	21.9%	24.8%	27.4%
MW Net Income	11,599	12,256	13,940	22,940	30,315	38,444	47,478
Basic EPS (RUR per share)	56.66	2.65	34.26	71.38	99.62	129.94	162.84
Diluted EPS (RUR per share)	55.86	2.61	33.52	69.55	96.61	125.33	156.03
MW EPS (RUR per share)	54.85	57.02	63.80	103.29	134.17	167.12	202.51
(%) growth	217%	4%	12%	62%	30%	25%	21%

Source: Company Data, Morgan Stanley Research estimates

Exhibit 59: Mail.ru: Balance Sheet

Mail.Ru Group							
Consolidated Statement of Financial Position	FY-2016	FY-2017	FY-2018	FY-2019	FY-2020	FY-2021	FY-2022
<i>(in millions of Russian Roubles)</i>	Dec-16a	Dec-17a	Dec-18e	Dec-19e	Dec-20e	Dec-21e	Dec-22e
ASSETS							
Non-current assets							
Investments in strategic associates	649	1,013	1,054	1,096	1,139	1,185	1,232
Goodwill	132,309	133,140	133,140	133,140	133,140	133,140	133,140
Other intangible assets	29,894	24,915	19,978	15,190	10,520	5,947	1,440
Property and equipment	3,840	4,491	5,101	5,492	5,540	5,241	4,620
Available-for-sale financial assets	0	0	0	0	0	0	0
Financial assets at fair value through profit or loss	403	365	365	365	365	365	365
Deferred income tax assets	2,600	2,304	2,304	2,304	2,304	2,304	2,304
Other non-current assets	2,265	1,585	1,585	1,585	1,585	1,585	1,585
Total non-current assets	171,960	167,813	163,527	159,172	154,594	149,767	144,687
Current assets							
Trade accounts receivable	5,089	6,556	5,992	6,964	8,203	9,548	10,992
Prepaid income tax	49	27	38	40	45	51	57
Prepaid expenses and advances to suppliers	2,111	1,463	2,051	2,185	2,451	2,748	3,062
Financial assets at fair value through profit or loss	105	171	171	171	171	171	171
Other current assets	201	201	201	201	201	201	201
Short-term time deposits	0	0	0	0	0	0	0
Cash and cash equivalents	5,513	15,371	30,595	51,231	79,130	114,402	157,743
Total current assets	13,068	23,789	39,048	60,792	90,202	127,120	172,226
Total assets	185,028	191,602	202,574	219,964	244,795	276,887	316,913
EQUITY AND LIABILITIES							
Equity attributable to equity holders of the parent							
Issued capital	0	0	0	0	0	0	0
Share premium	51,758	51,722	51,722	51,722	51,722	51,722	51,722
Treasury shares	(1,290)	(444)	(444)	(444)	(444)	(444)	(444)
Retained earnings	112,415	114,676	122,000	137,447	159,277	188,107	224,687
Accumulated other comprehensive income	470	128	128	128	128	128	128
Total equity attributable to equity holders of the parent	163,353	166,082	173,406	188,853	210,683	239,513	276,093
Non-controlling interests	64	84	84	84	84	84	84
Total equity	163,417	166,166	173,490	188,937	210,767	239,597	276,177
Non-current liabilities							
Financial liabilities at fair value through profit or loss	748	245	245	245	245	245	245
Deferred income tax liabilities	5,975	9,231	9,231	9,231	9,231	9,231	9,231
Total non-current liabilities	6,723	9,476	9,476	9,476	9,476	9,476	9,476
Current liabilities							
Trade accounts payable	3,355	4,896	4,891	4,908	5,506	6,171	6,878
Income tax payable	389	525	684	674	694	709	712
VAT and other taxes payable	2,231	1,342	1,882	2,004	2,249	2,520	2,809
Deferred revenue and customer advances	5,210	6,295	8,083	9,630	11,241	12,964	14,786
Other payables, provisions and accrued expenses	3,703	2,902	4,069	4,334	4,863	5,450	6,074
Total current liabilities	14,888	15,960	19,609	21,550	24,553	27,814	31,260
Total liabilities	21,611	25,436	29,085	31,026	34,029	37,290	40,736
Total equity and liabilities	185,028	191,602	202,574	219,964	244,795	276,887	316,913

Source: Company Data, Morgan Stanley Research estimates

Exhibit 60: Mail.ru: Cash Flow Statement

Mail.Ru Group						
Consolidated Statement of Cash Flows	FY-2017	FY-2018	FY-2019	FY-2020	FY-2021	FY-2022
<i>(in millions of Russian Roubles)</i>	Dec-17	Dec-18e	Dec-19e	Dec-20e	Dec-21e	Dec-22e
Cash flows from operating activities:						
Profit before income tax	4,956	9,937	20,752	29,258	38,590	48,922
Adjustments for:						
Depreciation and amortisation	8,931	10,029	11,076	12,284	13,665	15,250
Bad debt and advance allowance expense/(reversal)	27	0	0	0	0	0
Net loss on financial assets and liabilities at fair value through profit or loss	30	0	0	0	0	0
Net gain on sales of shares in available-for-sale investments	0	0	0	0	0	0
Net gain on disposal of shares in strategic associates	15	0	0	0	0	0
Loss on disposal of property and equipment	8	0	0	0	0	0
Loss on disposal of Intangible assets	0	0	0	0	0	0
Net Finance income	(496)	(975)	(1,905)	(3,213)	(4,973)	(7,195)
Dividend revenue from venture capital investments	(9)	0	0	0	0	0
Share of profit of strategic associates	(15)	(41)	(42)	(44)	(46)	(47)
Impairment losses related to intangible assets	0	0	0	0	0	0
Impairment losses related to associates and available for sales investments	273	0	0	0	0	0
Net foreign exchange (gains)/losses	(742)	0	0	0	0	0
Share based payment expense	2,475	0	0	0	0	0
Other non-cash items	(3)	0	0	0	0	0
Increase in accounts receivable	(1,437)	564	(972)	(1,239)	(1,345)	(1,444)
(Increase)/decrease in inventories	0	0	0	0	0	0
Increase in prepaid expenses and advances to suppliers	803	(599)	(136)	(271)	(302)	(320)
Increase in other assets	7	0	0	0	0	0
Increase in accounts payable, provisions and accrued expenses	1,248	1,861	394	1,392	1,538	1,623
Increase in other non-current assets	597	0	0	0	0	0
Increase in deferred revenue and customers advances	5,415	1,788	1,548	1,610	1,723	1,823
Increase in venture capital financial assets designated as at fair value	(166)	0	0	0	0	0
Operating cash flows before interest and income taxes	21,917	22,564	30,715	39,777	48,851	58,610
Dividends received from financial investments	8	0	0	0	0	0
Net Interest received, net of related bank commissions paid	508	975	1,905	3,213	4,973	7,195
Income tax paid	(3,110)	(2,351)	(4,753)	(6,649)	(8,730)	(11,035)
Net cash provided by / (used in) operating activities	19,323	21,187	27,867	36,341	45,094	54,770
Cash flows from investing activities:						
Cash paid for investments in strategic associates	(640)	0	0	0	0	0
Cash paid for property and equipment	(2,627)	(3,430)	(3,948)	(4,444)	(5,047)	(5,811)
Cash paid for intangible assets	(1,755)	(2,272)	(2,731)	(3,218)	(3,745)	(4,312)
Cash paid for acquisitions of subsidiaries, net of cash acquired	(2,769)	0	0	0	0	0
Dividends received from strategic associates and investments des	18	0	0	0	0	0
Proceeds from disposal of shares in strategic associates	(43)	0	0	0	0	0
Proceeds from disposal of shares in available-for-sale investments	0	0	0	0	0	0
Issuance of loans	(56)	0	0	0	0	0
Collection of loans	0	0	0	0	0	0
Proceeds from short-term and long-term deposits	0	0	0	0	0	0
Placement of short-term and long term deposits	0	0	0	0	0	0
Net cash provided by / (used in) investing activities	(7,872)	(5,702)	(6,680)	(7,662)	(8,792)	(10,122)
Cash flows from financing activities:						
Proceeds from issuance of common stock, net of share issuance c	(122)	0	0	0	0	0
Cash paid for non-controlling interests in subsidiaries	0	0	0	0	0	0
Dividends paid to shareholders	0	0	0	0	0	0
Cash paid for treasury shares	(1,430)	0	0	0	0	0
Dividends paid by subsidiaries to non-controlling shareholders	0	(262)	(552)	(780)	(1,030)	(1,306)
Net cash provided by / (used in) financing activities	(1,552)	(262)	(552)	(780)	(1,030)	(1,306)
Net increase in cash and cash equivalents	9,899	15,224	20,636	27,899	35,272	43,341
Effect of exchange differences on cash balances	(41)	0	0	0	0	0
Cash and cash equivalents at the beginning of the period	5,513	15,371	30,595	51,231	79,130	114,402
Cash and cash equivalents at the end of the period	15,371	30,595	51,231	79,130	114,402	157,743

Source: Company Data, Morgan Stanley Research estimates

Financials: Yandex

Exhibit 61: Yandex: Divisional Forecasts

Revenues	2017	2018	2019	2020	2021	2022
Search and Portal	84,166	102,262	120,669	141,182	162,360	186,714
Taxi	4,891	16,860	35,494	57,662	85,505	108,399
Classifieds	2,059	3,706	4,633	5,559	6,393	7,352
Media Services	1,187	1,840	2,761	3,589	4,666	5,832
Experiments	369	1,478	2,955	3,842	4,994	6,493
Eliminations	-3,250	-5,078	-5,586	-6,144	-6,759	-7,434

Search and Portal	21%	22%	18%	17%	15%	15%
Taxi	111%	245%	111%	62%	48%	27%
Classifieds	62%	80%	25%	20%	15%	15%
Media Services	83%	55%	50%	30%	30%	25%
Experiments	399%	300%	100%	30%	30%	30%
Total	26%	35.4%	33%	28%	25%	20%
<i>% lfl</i>						

EBITDA	2017	2018	2019	2020	2021	2022
Search and Portal	36,630	46,407	55,319	65,376	76,699	90,774
Taxi	-7,963	-7,552	-3,506	2,437	11,043	17,791
Classifieds	97	-2	257	615	1,201	1,901
Media Services	-444	-688	-855	-859	-4	928
Experiments	-843	-1,650	-79	899	2,081	3,608
Eliminations	0	0	0	0	0	0
Total EBITDA	27,477	36,514	51,136	68,468	91,020	115,002
<i>% growth</i>	<i>11%</i>	<i>33%</i>	<i>40%</i>	<i>34%</i>	<i>33%</i>	<i>26%</i>

<i>% margin</i>		1.9%				
Search and Portal	43.5%	45.4%	45.8%	46.3%	47.2%	48.6%
Taxi	-162.8%	-44.8%	-9.9%	4.2%	12.9%	16.4%
Classifieds	4.7%	-0.1%	5.5%	11.1%	18.8%	25.9%
Media Services	-37.4%	-37.4%	-31.0%	-23.9%	-0.1%	15.9%
Experiments	-228.2%	-111.7%	-2.7%	23.4%	41.7%	55.6%
Eliminations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Margin	30.7%	30.2%	31.8%	33.3%	35.4%	37.4%

Source: e = Morgan Stanley Research estimates

Exhibit 62: Yandex: Income Statement

(RUBm)	2016	2017	2018E	2019E	2020E	2021E	2022E
Gross Revenue (incl. TAC)	75,925	94,054	121,068	160,926	205,690	257,160	307,355
Advertising	72,579	87,400	102,802	120,315	138,039	155,566	175,345
Other	3,346	6,654	18,267	40,611	67,652	101,594	132,010
Traffic Acquisition Cost	(14,950)	(17,345)	(19,220)	(22,442)	(25,826)	(29,512)	(33,730)
Net Revenue (excl. TAC)	60,975	76,709	101,848	138,484	179,864	227,647	273,625
Other Costs of Revenue (inc. SBC)	(4,804)	(6,592)	(14,528)	(18,828)	(24,066)	(30,088)	(35,961)
Product Development (inc. SBC)	(15,832)	(18,761)	(22,398)	(29,610)	(37,641)	(46,803)	(55,631)
SG&A (inc. SBC)	(17,885)	(27,081)	(34,461)	(46,955)	(59,973)	(72,595)	(82,399)
Adjusted EBITDA	26,121	28,267	36,514	51,136	68,468	91,020	115,002
Depreciation and Amortization	(9,607)	(11,239)	(11,535)	(13,302)	(16,480)	(20,862)	(25,930)
Adjusted EBIT	16,514	17,028	24,979	37,834	51,988	70,158	89,071
Stock-Based Compensation	(3,667)	(3,992)	(6,053)	(8,046)	(10,285)	(12,858)	(15,368)
Goodwill Impairment	-	-	-	-	-	-	-
Reported EBITDA	22,454	24,275	30,461	43,090	58,184	78,162	99,634
Reported Operating Income	12,847	13,036	18,926	29,787	41,704	57,300	73,704
Net Interest	1,655	2,012	2,371	3,278	4,080	5,076	6,498
Other Non-Operating Income	(3,395)	(1,466)	76	(1,362)	(2,175)	(388)	4,430
Pre-Tax Profit	11,107	13,582	21,373	31,703	43,609	61,989	84,632
Tax Provision	(4,324)	(4,926)	(5,129)	(7,292)	(10,030)	(14,257)	(19,465)
Minorities			(3,030)	(1,825)	354	2,999	5,045
Net Income (GAAP)	6,783	8,656	19,274	26,237	33,224	44,732	60,121
Net Income (Adjusted)	14,116	14,955	25,327	34,283	43,509	57,590	75,489
EPS (GAAP)	20.80	26.13	57.61	77.80	97.74	131.46	176.51
EPS (Adjusted)	43.28	45.15	75.70	101.66	127.99	169.25	221.63

Source: e = Morgan Stanley Research estimates

Exhibit 63: Yandex: Balance Sheet

(RUBm)	2017	2018E	2019E	2020E	2021E	2022E
Assets:						
Cash and cash equivalents	42,662	69,392	93,037	122,025	164,139	228,347
Marketable securities	0	0	0	0	0	0
Term Deposits	23,040	23,040	23,040	23,040	23,040	23,040
Investments in debt securities	0	0	0	0	0	0
Accounts receivable, net	9,929	12,445	16,313	20,851	26,068	31,157
Funds receivable, net	0	0	0	0	0	0
Prepaid expenses	1,269	1,905	2,898	3,738	4,663	5,531
Deferred tax assets	0	0	0	0	0	0
Other current assets	3,495	3,495	3,495	3,495	3,495	3,495
Assets held for sale	0	0	0	0	0	0
Current Assets	80,395	110,277	138,784	173,148	221,406	291,570
Property and Equipment, Net	21,171	28,223	37,705	48,542	59,895	71,266
Intangible assets, net	5,023	3,009	1,413	534	147	12
Goodwill	9,328	1,953	1,953	1,953	1,953	1,953
Long-term prepaid expenses	1,788	2,122	2,637	3,234	3,834	4,317
Term deposits	5,005	5,005	5,005	5,005	5,005	5,005
Investments in affiliates and debt securities	0	0	0	0	0	0
Deferred tax assets	2,171	2,171	2,171	2,171	2,171	2,171
Other non-current assets	5,302	5,302	5,302	5,302	5,302	5,302
Total Assets	130,183	158,062	194,969	239,889	299,712	381,596
Liabilities & Equity:						
Accounts payable and accrued liabilities	10,750	10,750	10,750	10,750	10,750	10,750
Taxes payable	4,213	4,213	4,213	4,213	4,213	4,213
Deferred revenue	2,464	4,911	8,046	10,285	12,858	15,368
Funds payable and amounts due to customers	0	0	0	0	0	0
Dividends payable	0	0	0	0	0	0
Liabilities related to assets held for sale	0	0	0	0	0	0
Total Current Liabilities	17,427	19,874	23,009	25,248	27,821	30,331
Convertible debt	17,834	17,834	17,834	17,834	17,834	17,834
Deferred tax liabilities	959	959	959	959	959	959
Other accrued liabilities	1,316	1,316	1,316	1,316	1,316	1,316
Total Liabilities	37,536	39,983	43,118	45,357	47,930	50,440
Shareholders' Equity						
Redeemable noncontrolling interests	9,821	9,821	9,821	9,821	9,821	9,821
Common Stock	271	271	271	271	271	271
Treasury	(3,814)	(3,814)	(3,814)	(3,814)	(3,814)	(3,814)
Additional paid-in capital	16,469	22,607	30,654	40,938	53,796	69,164
Accumulated other comprehensive income	1,864	1,864	1,864	1,864	1,864	1,864
Accumulated deficit/Retained earnings	68,036	87,330	113,055	145,453	189,844	253,850
Total Shareholders' Equity	92,647	118,079	151,851	194,533	251,782	331,156
Total Liabilities & Equity	130,183	158,062	194,969	239,889	299,712	381,596

Source: Company data, Morgan Stanley Research estimates (e)

Exhibit 64: Yandex: Cash Flow Statement

(RUBm)	2017	2018E	2019E	2020E	2021E	2022E
Net Income	8,656	19,294	25,725	32,397	44,392	64,006
Depreciation and Amortization of PPE	9,131	9,521	11,761	15,697	20,535	25,818
Amortization of acquisition-related intangible assets	2,792	2,014	1,596	879	387	135
Share-based compensation expense	4,193	6,138	8,046	10,285	12,858	15,368
Deferred income taxes	(1,513)	0	0	0	0	0
Foreign exchange losses/(gains)	1,784	0	0	0	0	0
Other	(293)	0	0	0	0	0
Funds from Operations	24,750	36,967	47,129	59,258	78,171	105,327
Accounts receivable, net	(2,179)	(2,516)	(3,868)	(4,538)	(5,217)	(5,088)
Funds receivable	0	0	0	0	0	0
Prepaid expenses and other assets	(1,680)	(970)	(1,508)	(1,437)	(1,525)	(1,351)
Accounts payable and accrued liabilities	2,560	0	0	0	0	0
Deferred revenue	321	2,447	3,136	2,238	2,573	2,510
Funds payable and amounts due to customers	0	0	0	0	0	0
Change in Net Working Capital	(978)	(1,039)	(2,241)	(3,736)	(4,169)	(3,930)
Cash Flow from Operations	23,772	35,928	44,888	55,522	74,002	101,398
Purchase of Property and Equipment	(12,316)	(16,573)	(21,242)	(26,534)	(31,888)	(37,190)
Acquisitions of businesses, net of cash acquired	0	7,375	0	0	0	0
Investments in term deposits	(70,082)	0	0	0	0	0
Maturities of term deposits	72,731	0	0	0	0	0
Other	1,888	0	0	0	0	0
Net Cash Used in Investing Activities	(7,779)	(9,198)	(21,242)	(26,534)	(31,888)	(37,190)
Dividends paid	0	0	0	0	0	0
Proceeds from debt issuance	(668)	0	0	0	0	0
Proceeds from issuance of ordinary shares	0	0	0	0	0	0
Proceeds from exercise of share options	328	0	0	0	0	0
Repurchase of share options	(247)	0	0	0	0	0
Net Cash Provided by Financing Activities	(587)	0	0	0	0	0
Effect of foreign currency on cash and equivalents	(976)	0	0	0	0	0
Inc. (Dec.) in Cash and Cash Equivalents	14,430	26,730	23,646	28,988	42,115	64,208
Beginning Cash and Cash Equivalents	28,232	42,662	69,392	93,037	122,025	164,139
Cash and Equivalents within assets held for sale						
Ending Cash and Cash Equivalents	42,662	69,392	93,037	122,025	164,139	228,347

Source: Company data, Morgan Stanley Research estimates (e)

Appendix: MS Russia eCommerce Model

Exhibit 65: Our Russia eCommerce Model

Total market						
GMV, \$m	2018	2019	2020	2021	2022	2023
Yandex Market/ Beru	1,924	2,794	3,964	5,296	6,885	8,375
AER	3,925	5,359	7,701	10,672	14,068	17,979
Ozon	1,045	1,556	2,249	3,045	4,002	5,161
Others	12,391	14,637	16,853	18,483	19,579	20,590
Total	19,285	24,346	30,767	37,497	44,534	52,105

Total market						
GMV, RUBm	2018	2019	2020	2021	2022	2023
Yandex Market/ Beru	129	187	266	355	461	561
AER	263	359	516	715	943	1,205
Ozon	70	104	151	204	268	346
Others	830	981	1,129	1,238	1,312	1,380
Total	1,292	1,631	2,061	2,512	2,984	3,491

Market share						
Yandex Market	10%	11%	13%	14%	15%	16%
AER	20%	22%	25%	28%	32%	35%
Ozon	5%	6%	7%	8%	9%	10%
Others	64%	60%	55%	49%	44%	40%

Growth						
Yandex Market/ Beru	-5%	45%	42%	34%	30%	22%
AER	56%	37%	44%	39%	32%	28%
Ozon		49%	45%	35%	31%	29%
Others	13%	18%	15%	10%	6%	5%

Cross border market						
GMV, RUBm	2018	2019	2020	2021	2022	2023
Aliexpress	231	304	405	531	666	813
Pandao	26	35	46	60	76	93
Yandex.Market		3	8	14	23	27
Other	229	266	313	359	393	422
Total eCommerce	486	608	772	965	1,158	1,355

Market share						
Aliexpress	48%	50%	53%	55%	58%	60%
Pandao	5%	6%	6%	6%	7%	7%
Yandex.Market	0%	1%	1%	2%	2%	2%
Other	47%	44%	41%	37%	34%	31%

Growth

Domestic market						
GMV, RUBm	2018	2019	2020	2021	2022	2023
Yandex Market/ Beru	129	184	258	340	438	534
Tmall (AER)	6	20	64	124	201	299
Ozon	70	104	151	204	268	346
Wildberries	60	76	95	115	135	158
Others	542	639	721	764	783	799
Total	806	1,023	1,289	1,547	1,826	2,136

Market share						
Yandex Market	16%	18%	20%	22%	24%	25%
AER	1%	2%	5%	8%	11%	14%
Ozon	9%	10%	12%	13%	15%	16%
Wildberries	7%	7%	7%	7%	7%	7%
Others	67%	62%	56%	49%	43%	37%

Growth						
Yandex Market	-5%	43%	40%	32%	29%	22%
AER			215%	92%	62%	49%
Ozon		49%	45%	35%	31%	29%
Others	13%	18%	13%	6%	2%	2%
Total Market	21%	27%	26%	20%	18%	17%

Source: e = Morgan Stanley Research estimates

Overview of Russian Retailers:

Ozon

Ozon is one of the most visited e-commerce websites in Russia. It is 17% owned by MTS (covered by Maddy Singh). It derives 28% of revenues from electronics, 22% from books and 14% from home & décor. The company has been recording robust growth over the past few years. It delivered 26% CAGR over 2012-17, 32% over 2014-17 and 65% growth in 1Q18. Moscow is its biggest market, accounting for 40% of sales. Ozon has a good supply chain and delivery infrastructure with 40% of population covered with next day delivery and five cities with same day delivery. The company's returns percentage (of sales) is only 5%, which is largely due to the low share of apparel in the product portfolio. The company's customers have exhibited loyalty as out of 1.2m customers (as of March 2018), 0.9m were repeat and 0.1m were reactivated, with repeat customers accounting for 91% of growth.

Wildberries

This privately owned company is the largest domestic pure play apparel and footwear online specialist. It started off as a apparel retailer in 2004 founded by Bakalchuk Tatyana and has gradually expanded its range beyond apparel into electronics since 2015.

M.video

Established in 1993, M.video is a privately owned electronics and appliance specialist that operates 838 stores across 165 cities in Russia. It has a wide product portfolio, competitive prices and high quality services. In April 2018, M.video merged with Eldorado to create the country's largest electronics store network. The company is focused on developing a multichannel business model. It offers more than 20,000 SKUs in electronics and appliances. It operates four distribution centres: two in Moscow, one in Nizhny Novgorod and one in Rostov-on-Don.

Inventory/1st Party model: Selling products directly

Pros: Higher entry barriers, stronger brand recognition and customer relationships. Categories where own-label products can be introduced (e.g. apparel) offer margins in the high-20s%.

Cons: High capital intensity due to need to hold inventory, fulfil and deliver product. Longer time line to break-even and requires excellent logistics platform

Marketplace/3rd Party model: Portals are facilitator for sellers

Pros: Faster route to profitability, scalable product portfolio, limited requirements for inventory and lower shipping costs.

Cons: Easier to compete against, harder to guarantee quality of products, harder to match customer preferences.

Other valuation methodology & risks

MBT.N

We derive our price target of \$10.0 using the target DY of 9.0% (historical average for MTS 8% adjusted 1pp to reflect increase in US Fed rates and higher country risks) . We apply the final target 9.0% DY to our assumptions of 2019e cash DPS. We use RUB/USD = 70.0 and UAH/USD = 27.0 as forex assumptions.

Risks to price target: 1) Elevated capex from data storage requirements ; 2) Change in competitive landscape; 3) Potential related party transactions with Sistema; 4) Unfavourable changes to the regulatory environment in Russia/Ukraine; 5) Substantial fine related to Uzbekistan investigation.

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(as of August 31, 2018)

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STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MSC
Overweight/Buy	1156	37%	296	40%	26%	546	39%
Equal-weight/Hold	1363	44%	348	48%	26%	635	45%
Not-Rated/Hold	50	2%	5	1%	10%	7	0%
Underweight/Sell	553	18%	82	11%	15%	223	16%
TOTAL	3,122		731			1411	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

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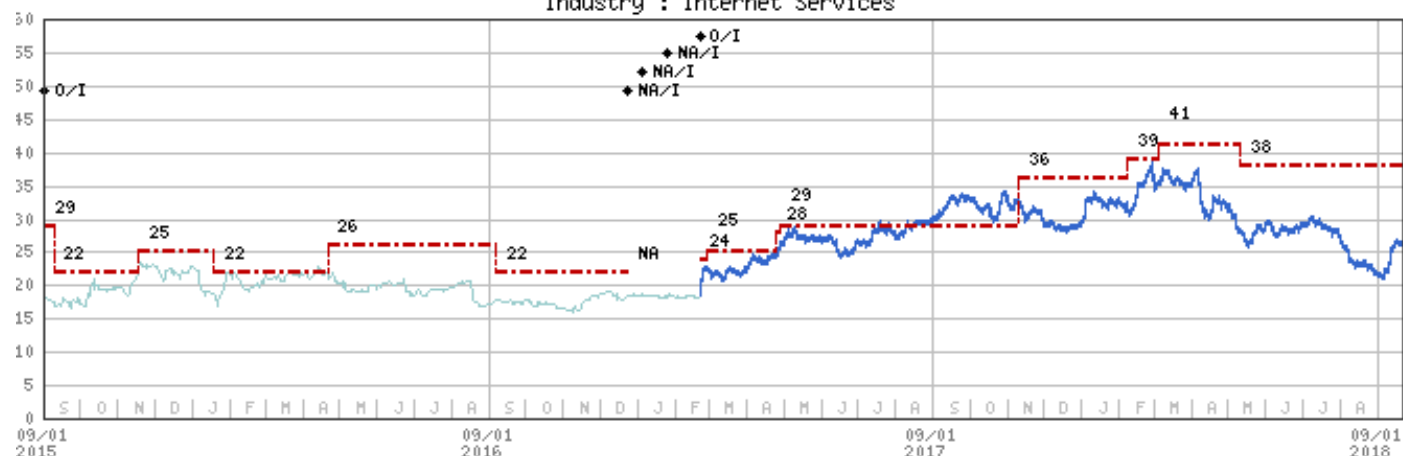
Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

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Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Stock Price, Price Target and Rating History (See Rating Definitions)

Mail.ru Group Ltd (MAILRq.L) - As of 9/20/18 in USD
Industry : Internet Services

Stock Rating History: 9/1/15 : O/I; 12/23/16 : NA/I; 1/4/17 : NA/I; 1/25/17 : NA/I; 2/21/17 : O/I

Price Target History: 4/21/15 : 29; 9/9/15 : 22; 11/17/15 : 25; 1/19/16 : 22; 4/21/16 : 26; 9/7/16 : 22;
12/23/16 : NA; 2/21/17 : 24; 2/27/17 : 25; 4/24/17 : 28; 4/28/17 : 29; 11/10/17 : 36; 2/8/18 : 39; 3/5/18 : 41;
5/11/18 : 38

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target — No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —

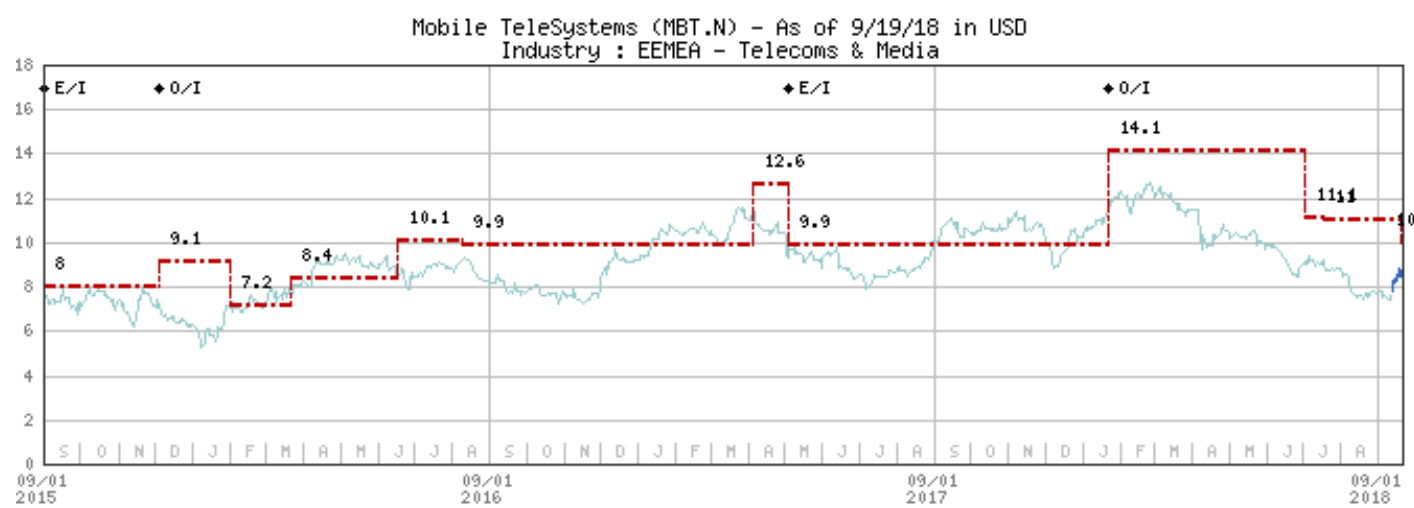
Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View

Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

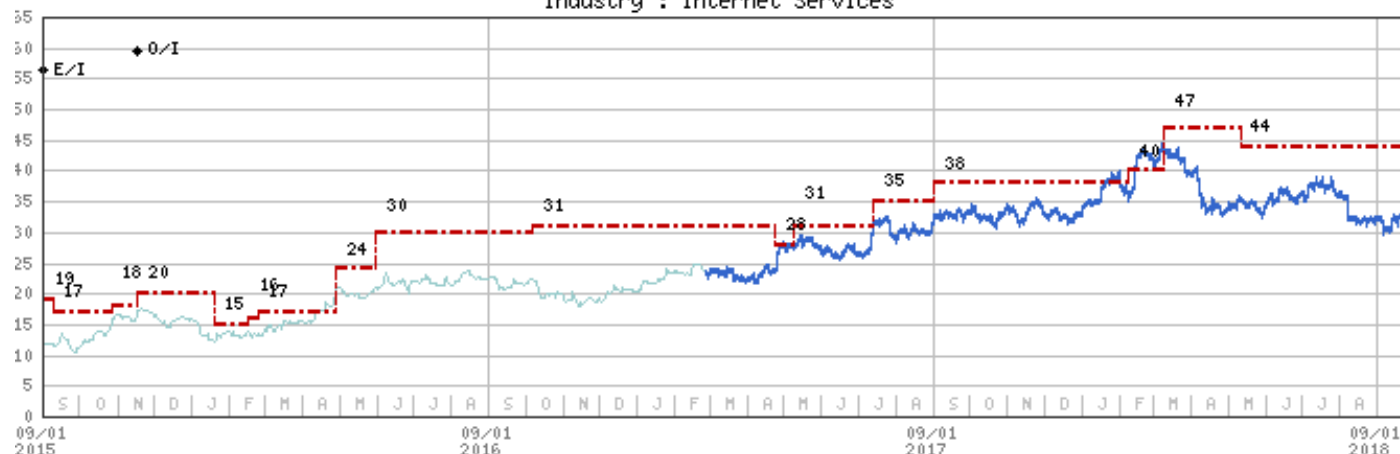
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Yandex NV (YNDX.O) - As of 9/19/18 in USD
Industry : Internet Services

Stock Rating History: 9/1/15 : E/I; 11/17/15 : O/I

Price Target History: 8/14/15 : 19; 9/9/15 : 17; 10/27/15 : 18; 11/17/15 : 20; 1/19/16 : 15; 2/17/16 : 16;
2/24/16 : 17; 4/29/16 : 24; 5/31/16 : 30; 10/7/16 : 31; 4/24/17 : 28; 5/9/17 : 31; 7/14/17 : 35; 9/1/17 : 38;
2/8/18 : 40; 3/9/18 : 47; 5/11/18 : 44

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target --- No Price Target Assigned (NA)
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Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Ratings/Industry View
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INDUSTRY COVERAGE: Internet Services

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/20/2018)
Andrea Ferraz, CFA		
ASOS PLC (ASOS.L)	U (12/08/2017)	5,870p
Auto Trader Group PLC (AUTOAL)	O (04/29/2015)	463p
Boohoo.Com PLC (BOOH.L)	E (12/08/2017)	189p
Delivery Hero AG (DHER.DE)	O (08/08/2017)	€43.02
HelloFresh SE (HFGG.DE)	E (04/19/2018)	€10.68
Just Eat PLC (JEL)	E (11/03/2017)	708p
Naspers (NPNJn.J)	O (05/10/2017)	ZAc 317,794
Ocado Group plc (OCDO.L)	E (05/29/2018)	906p
Rightmove Plc (RMV.L)	E (02/27/2017)	470p
Rocket Internet AG (RKET.DE)		€27.02
Takeaway.com Holding BV (TKWY.AS)	E (08/03/2017)	€63.00
Zalando SE (ZALG.DE)	O (11/10/2014)	€35.56
Miriam Adisa, CFA		
AO World PLC (AO.L)	U (02/21/2017)	144p
Mail.ru Group Ltd (MAILRq.L)	O (02/21/2017)	US\$25.90
Scout24 (G24n.DE)	O (03/31/2017)	€41.60
Vostok New Ventures (VNVsdb.ST)	E (10/31/2016)	SKr 67.00
Yandex NV (YNDX.O)	O (11/17/2015)	US\$33.00

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.