



North America
United States
TMT
Internet

Industry
**Amazon & US
Transportation**

Date
24 April 2018
Industry Update

Breaking Through the Noise on AMZN, USPS & FDX/UPS

Despite Bluster, Impact to AMZN May be Modest; Positive for FDX/UPS

President Trump recently convened a task force to scrutinize the finances of the US Postal Service (USPS) -- citing that the "USPS is on an unstable financial path...", and "the USPS will lose \$1.50 on average for each package it delivers for Amazon." This note -- done in collaboration with Deutsche Bank's Internet (Lloyd Walmsley) and U.S. Transportation (Amit Mehrotra) research teams -- assesses USPS economics and potential outcomes, based on Postal Regulatory Commission (PRC) data and discussions with industry contacts. **Our conclusions are much more benign for Amazon than headlines and bluster would suggest, with potentially significant positive implications for FedEx and UPS.**

Pricing of USPS's Parcel Business is More Competitive than Headlines Suggest

Based on our analysis of USPS financials and PRC reports, we estimate the USPS allocates 23.6% of its institutional costs to its small package operations...a bit below the ~30% that is likely representative of current trends, although **significantly above the 5.5% threshold required under law.** We estimate this 600 bps gap (i.e. 24% vs. 30%) translates to about 40c of additional revenue per package for USPS -- effectively equal to ~9.5% increase in price.

Amazon has Flexibility Should Rates Go Up

We estimate a 40c hike would translate to ~\$380M incremental cost for Amazon, which while significant, is well below fears implied by headlines. Splitting the difference between the 40c 'economically driven' price hike and a more 'political' \$1.50 per piece cited by Trump, we estimate a \$1.00/piece increase could add \$1.8B to Amazon's US fulfillment costs. Our scenario analysis is in Figures 13-15. We note that a broad USPS price hike could competitively benefit Amazon, given it could more easily pass along the cost and given its scale and technology advantage. This dust-up likely accelerates Amazon's move to control more of its last mile delivery (e.g. Amazon Flex, self-driving trucks, drones, etc) -- though much of this remains a long way off.

Positive Implications for FDX and UPS

Assuming a 9% increase in price charged by USPS translates to similar increases in yield for FDX and UPS Ground/Domestic business, we calculate incremental profit of \$1.3B and \$2.3B, equal to \$56 (23%) and \$30 (37%) per share based on current trading price, respectively. More realistically, the benefits are likely to be 30% of this (given B2C volume accounts for about half of domestic package volume), though still significant. See Figures 17-18 for our bottom-up analysis.

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Top picks

Amazon.com (AMZN.OQ),USD1,517.86	Buy
FedEx Corporation (FDX.N),USD248.82	Buy

Source: Deutsche Bank



USPS Task Force "Cover" to Raise Prices?

Recently, President Trump announced via executive order ([link](#)) a task force to look at the finances of the US Postal Service and noted *"The USPS is on an unstable financial path and must be restructured to prevent a taxpayer-funded bailout."* While the executive order does not mention Amazon explicitly, it follows several tweets from @realDonaldTrump ([link](#)), including the following.

- *While we are on the subject, it is reported that the U.S. Post Office will lose \$1.50 on average for each package it delivers for Amazon. That amounts to Billions of Dollars. The Failing N.Y. Times reports that "the size of the company's lobbying staff has ballooned," and that...*
- *...does not include the Fake Washington Post, which is used as a "lobbyist" and should so REGISTER. If the P.O. "increased its parcel rates, Amazon's shipping costs would rise by \$2.6 Billion." This Post Office scam must stop. Amazon must pay real costs (and taxes) now!*
- *I have stated my concerns with Amazon long before the Election. Unlike others, they pay little or no taxes to state & local governments, use our Postal System as their Delivery Boy (causing tremendous loss to the U.S.), and are putting many thousands of retailers out of business!*
- *Why is the United States Post Office, which is losing many billions of dollars a year, while charging Amazon and others so little to deliver their packages, making Amazon richer and the Post Office dumber and poorer? Should be charging MUCH MORE!*

Indeed, the USPS reported a net loss in fiscal 2017 of \$1.3B, and a net loss of \$2.7B including worker's comp and retirement expenses, though the details are much more complicated with respect to profitability of USPS parcel operations.

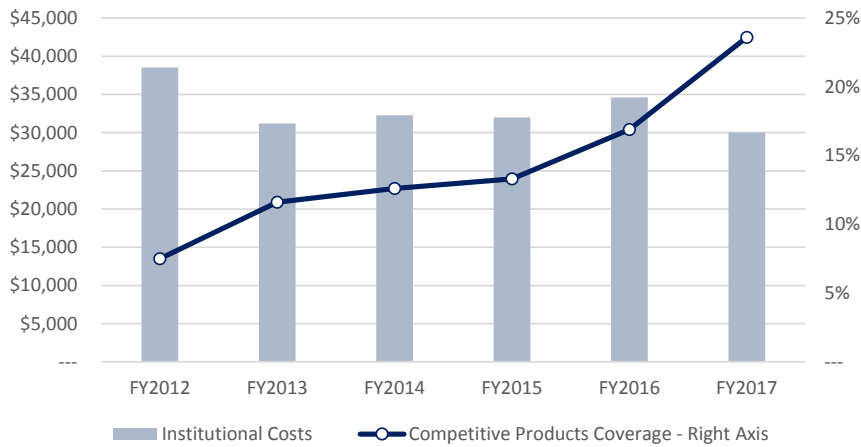
Competitive Products More Profitable than Originally Envisaged

The Postal Accountability and Enhancement Act (PAEA) passed in 2006 stated that USPS revenue from competitive products (including the Ground Parcels service, which Amazon primarily uses) must cover its "attributable costs" plus 5.5% of "institutional costs." The USPS classifies "institutional costs" as management salaries, costs of maintaining a delivery network, real estate maintenance costs, and variable "common" costs that are driven by more than one product.

- **Competitive Products Currently Covering ~24% of Institutional Costs.**
The 5.5% rate was initially intended to be a "starting point" and they would consider adjusting it depending on market share trends (i.e. if the USPS became a big enough player). The Commission noted that it would consider modifying the appropriate market share requirement "if competitive volumes substantially increase relative to market dominant volume." In 2017, package revenue represent 30% of total USPS revenue versus 18% in 2012. Since 2012, the overall volume of USPS's package business doubled, and according to UPS, the USPS delivers over 40% of all Amazon packages.



Figure 1: USPS Institutional Costs (In Millions) and Competitive Products Coverage of Institutional Costs

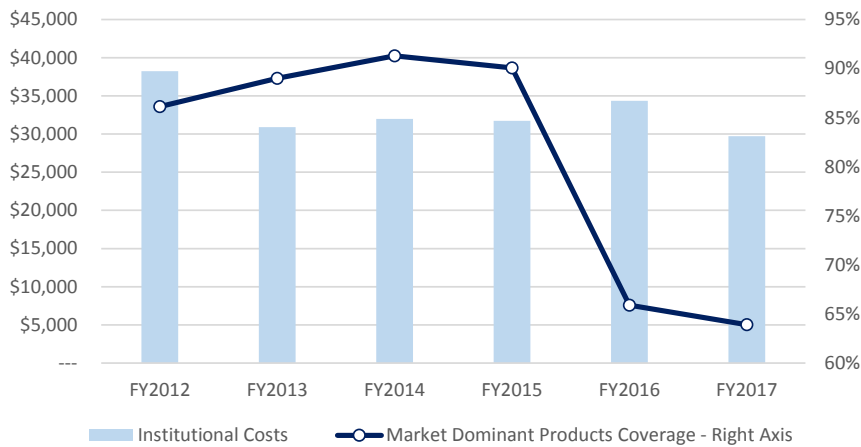


Source: US Postal Service; Deutsche Bank Securities Inc.

- The \$1.50 Loss per Package Estimate Seems to be a Miscalculation.** Critically, USPS package-related revenue net of “attributable cost” covered 23.6% of total institutional costs in F2017, well above the above-mentioned 5.5% threshold – making the losses associated with package deliveries likely significantly lower than the \$1.50 loss per package mentioned in a recent Presidential tweet – it appears this number is being calculated assuming the 5.5% allocated cost metric, when in fact, it’s significantly higher.
- Coverage for Institutional Costs by Market Dominant Services has Declined Materially in the Past Two Years.** While the coverage by competitive services increased to 23.6% in F2017 ([link](#)) from 13.3% in F2015, it declined to 63.9% for market dominant products from 90.1% over the same period primarily because market dominant revenue has declined 6% YoY in each of the past two years after being relative flat over the previous 5 years.



Figure 2: USPS Institutional Costs (In Millions) and Dominant Products Coverage of Institutional Costs



Source: US Postal Service; Deutsche Bank Securities Inc.

- Consequently, In F2017, USPS Delivered a Loss on the Financials It Can Control. The last time the USPS reported a profit was F2006; however, for the financials it can control, it had been profitable in F2014-F2016 primarily because of the incremental surcharges it had levied. Nevertheless, as revenue for market dominant products declined in F2017 and the surcharges expired, the USPS again reported a loss for the year.

Figure 3: USPS Income Statement (In Millions)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Revenue:							
Volume-Based Revenue	\$65,711	\$65,223	\$66,002	\$66,427	\$66,810	\$69,301	\$69,636
Temporary exigent surcharge	---	---	---	1,403	2,118	1,136	---
Total revenue before change in accounting estimate	\$65,711	\$65,223	\$66,002	\$67,830	\$68,928	\$70,437	\$69,636
Change in accounting estimate	---	---	1,316	---	---	1,061	---
Total revenue	\$65,711	\$65,223	\$67,318	\$67,830	\$68,928	\$71,498	\$69,636
Operating expenses:							
Compensation and benefits	\$48,310	\$47,689	\$46,708	\$45,993	\$47,278	\$48,441	\$49,108
Unfunded retirement benefits	---	---	---	7	241	248	2,658
Retiree health benefits	2,441	13,729	8,450	8,685	8,811	9,105	4,260
Workers' compensation	3,672	3,729	1,061	2,554	1,760	2,682	(797)
Transportation	6,389	6,630	6,735	6,586	6,579	6,992	7,238
All other operating expenses	9,822	9,187	9,174	9,353	9,157	9,431	9,743
Total operating expenses	\$70,634	\$80,964	\$72,128	\$73,178	\$73,826	\$76,899	\$72,210
Loss from operations	\$(4,923)	\$(15,741)	\$(4,810)	\$(5,348)	\$(4,898)	\$(5,401)	\$(2,574)
GAAP Net loss	\$(5,067)	\$(15,906)	\$(4,977)	\$(5,508)	\$(5,060)	\$(5,591)	\$(2,742)
(+) Non-Controllable Costs	2,367	13,441	3,994	6,865	6,248	6,201	1,928
Controllable (loss) income	\$(2,700)	\$(2,465)	\$(983)	\$1,357	\$1,188	\$610	\$(814)

Service: US Postal Service; Deutsche Bank Securities Inc.

Ground Parcels Service Has Been a Home Run

Within the competitive services segment, we focus on Ground Parcels service, which is typically used by eCommerce providers, including 1) Amazon directly via postal injection for last mile delivery, 2) FedEx (SmartPost) and UPS (SurePost) also for last mile delivery, and likely for the most part, indirectly on behalf of

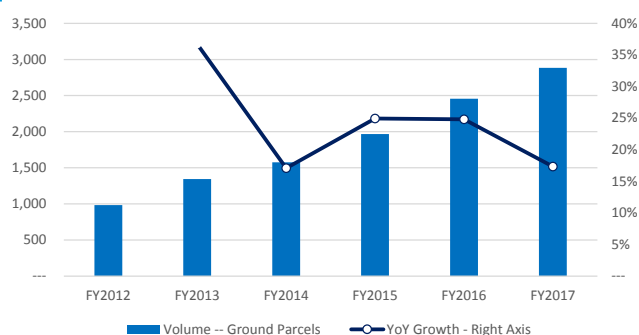


Amazon. Consequently, we believe a significant majority of the volume in this segment comes from Amazon.

Amazon entered into a 5-year agreement with the US Postal Service (USPS) in late-2013 ([link](#)), which we understand is coming up for renewal this year. Although the terms of the agreement haven't been disclosed publicly, we believe: 1) it likely included some minimum level of volume commitment from Amazon, 2) which induced the USPS agreeing to start making deliveries for Amazon on all seven days of the week, and 3) Amazon received pricing discounts based on the volumes it would be driving to the USPS. Over the past five years, we think the USPS has become an integral part of the Amazon Prime experience via: 1) expanded delivery on Sundays, which FedEx and UPS don't do, 2) provides a viable alternative to FedEx and UPS, and 3) contained Amazon's outbound shipping costs.

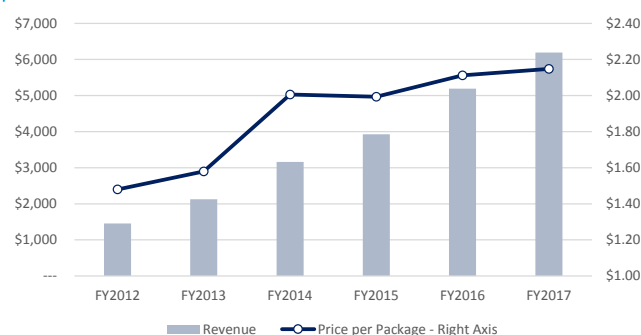
During the past five or so years, Ground Parcels now account for 1.9% of the pieces the USPS delivers from 0.6% in FY2012. Over the period, we estimate operating profit from this service has increased 660% since FY2012 on 193% growth in volume and 160% increase in profit per piece.

Figure 4: USPS Ground Parcels Volume (In Millions) and YoY Growth



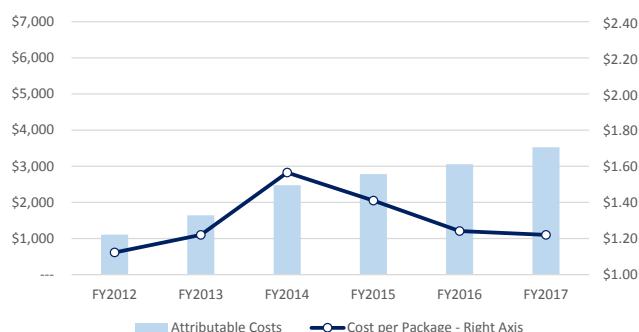
Source: US Postal Service; Deutsche Bank Securities Inc.

Figure 5: USPS Ground Parcels Revenue (In Millions) and Revenue per Piece



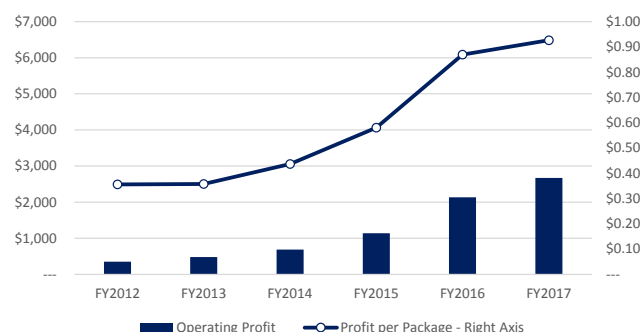
Source: US Postal Service; Deutsche Bank Securities Inc.

Figure 6: USPS Ground Parcels Attributable Costs (In Millions) and Cost per Piece



Source: US Postal Service; Deutsche Bank Securities Inc.

Figure 7: USPS Ground Parcels Operating Profit (In Millions) and Profit per Piece



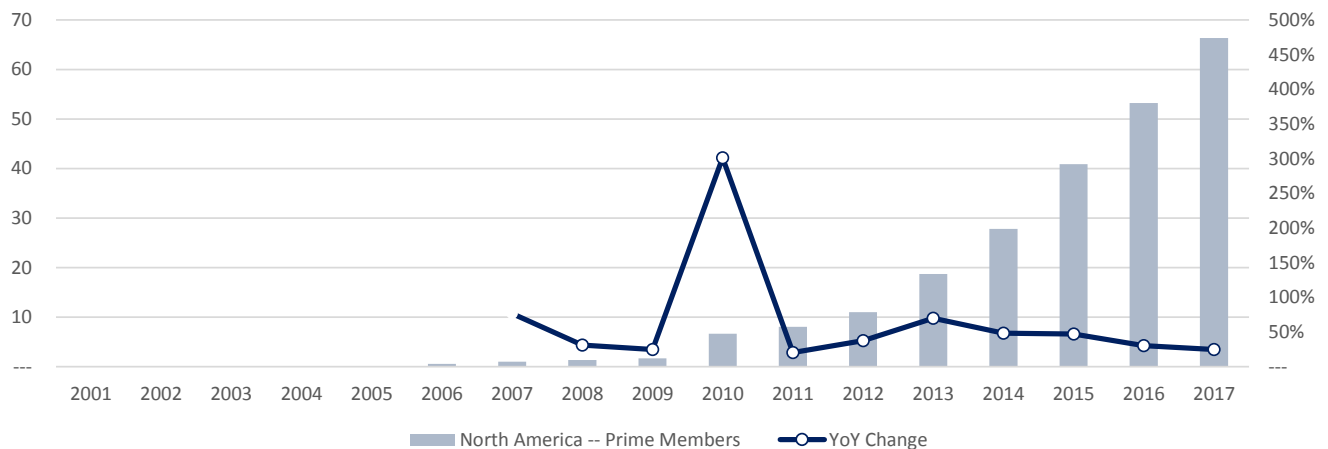
Source: US Postal Service; Deutsche Bank Securities Inc.



Amazon's Prime Strategy is Predicated on USPS

Amazon's North America sales growth accelerated sharply in 2010 on the back of almost 300% YoY growth in Prime membership.

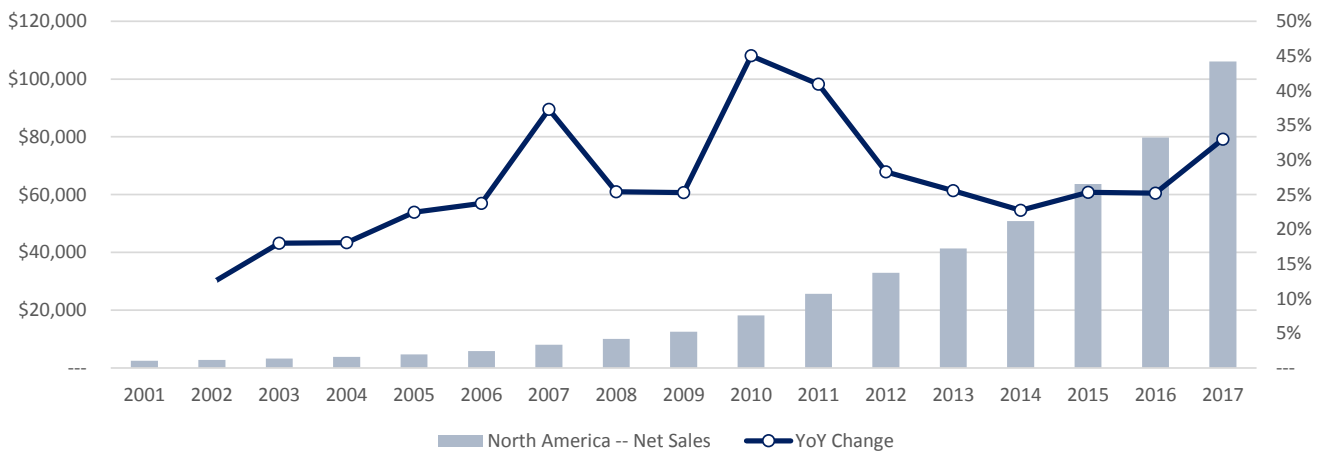
Figure 8: Amazon North America Retail – Prime Members (In Millions)



Source: Company Documents; Deutsche Bank Securities Inc.

In its 2017 10K filing, Amazon states *"We believe that offering low prices to our customers is fundamental to our future success, and one way we offer lower prices is through shipping offers."*

Figure 9: Amazon North America Retail – Net Sales (In Millions)



Source: Company Documents; Deutsche Bank Securities Inc.

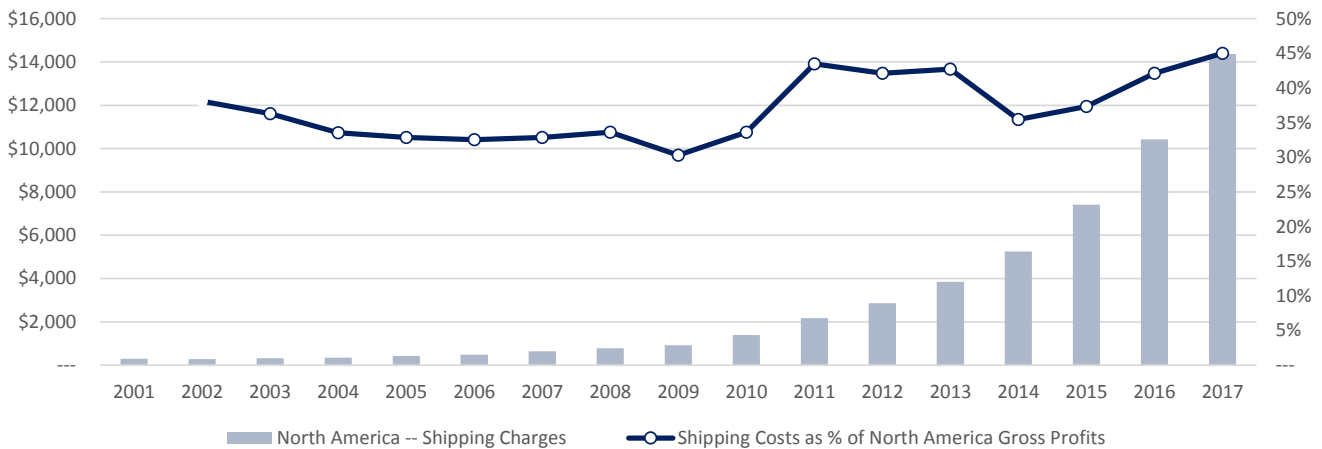
Not Surprising that Shipping Costs Have Increased Substantially Too

Amazon includes shipping costs within its cost of sales, and includes sortation and delivery center as well as transportation costs. In 2017, Amazon disclosed \$21.7B in shipping costs, up 34% YoY from \$16.2B in 2016. In our analysis, for



simplicity, we apportion the global shipping costs to North America based on its share of total online retail sales.

Figure 10: Amazon North America Retail – Shipping Costs (In Millions)



Source: Company Documents; Deutsche Bank Securities Inc.

Where USPS Fits into AMZN's Fulfillment Ops

As we discussed in our report **The Future Of Amazon Logistics & US Transportation**, it has been over 20 years since Amazon was launched in 1994 and the company has made significant progress in this time frame, improving economics on logistics significantly, while growing volumes exponentially. This includes getting closer to the customer by building more fulfillment centers, improving efficiencies in Fulfillment Centers (FCs) by using Kiva robots, building Sortation Centers (SCs) for Postal Injection, and more recently operating trailers and planes to further improve line-haul efficiencies.

Postal Injection

At the core of Amazon's delivery strategy to optimize for Prime is Postal Injection, whereby the company finds the efficient frontier for every item that needs to be delivered, which drives down the unit cost of delivery. More simplistically, **Amazon sorts the deliveries by zip code, packages them onto pallets, and delivers the pallets to the local post offices for delivery. In essence, Amazon does more than 50% of the work for the USPS, and pays a correspondingly lower price per package to the USPS to complete the fulfillment.** Although Amazon has employed Postal Injection since its early days when it relied on third-party logistics providers such as FedEx (SmartPost) and UPS (SurePost), it has more recently been relying on the USPS for final mile delivery with the line-haul done by third-parties or in-house using its own/leased trailers.

In our view, Postal Injection works effectively when the company is able to do the following: 1) predict demand, which for Amazon, comes from its deep understanding of shopping patterns of millions of customers and the items they save in their shopping carts, 2) store items as close to the customer as possible, 3) increase the number of items per package/order (i.e. bundling), 4) bring significant parts of the delivery process in-house, from fulfillment centers to sortation centers, and long-haul trucking, and 5) get the items as close to the customer's home without having to use expensive 3P delivery alternatives.



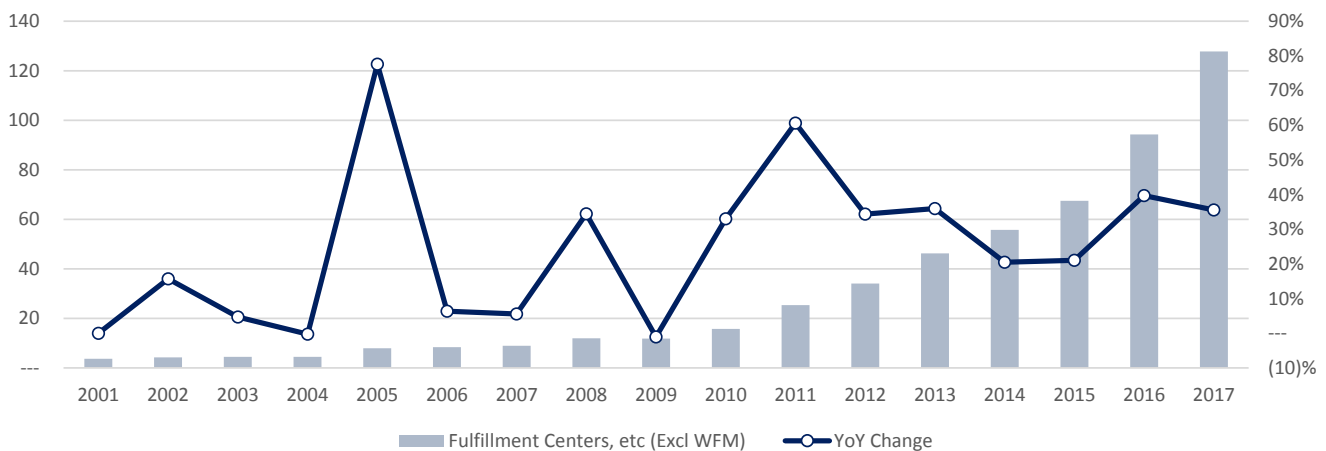
As an illustration, consider a customer in Boston ordering an item that's located in the Edison, NJ fulfillment center. In the past, Amazon often used UPS Next Day Air or 2nd Day Air to fulfill its two-day delivery promise for Prime, which cost ~\$9-\$10 per package. At times, it would also ship the item from the fulfillment center, bundled with thousands of other items ordered in the area, using UPS or FedEx (UPS Ground at ~\$6-\$6.50 per package) into a USPS facility near the customer for final mile delivery (at an additional cost of ~\$2 per package). As volumes ramped up with Prime, Amazon initially leased trailer space to transport pallets of orders from fulfillment centers to sortation centers near the customer for shipment to local delivery centers where the order is finally injected into the USPS facility for last mile delivery. Later, to benefit from the economies of scale arising from the large volumes, Amazon began to operate its own trailers to transport the products directly to a local zip codes, which significantly reduced shipping cost per unit.

Network of Sortation Centers and Delivery Stations

Postal Injection works more efficiently with a network of sortation centers, which Amazon first started building in 2013. In the US, a typical fulfillment center is 1-1.2M square feet in size, whose primary role is to fulfill customer orders, and a small sortable fulfillment center could employ 1,000-2,500 full time employees. The average sortation center is 200-300k square feet in size, and is designed to receive shipments from multiple fulfillment centers, which are then sorted by zip codes and delivered to the local post offices. A typical sortation center may need only 100-300 full time employees to operate.

As demand has increased, the company has expanded its logistics network significantly, and currently counts 39 outbound sortation centers in the US per MWPVL ([link](#)) in addition to 122 fulfillment centers, 22 Pantry & Fresh distribution centers (focused on perishables and supporting Whole Foods), 12 Retail Food distribution centers (focused on perishables and supporting Whole Foods), 53 Prime Now hubs (which typically carry only limited SKUs and are optimized for fast deliveries), 9 inbound cross docks, and 71 delivery stations (60-100k square feet each, which are the last stop before the products are injected into USPS or local couriers).

Figure 11: Amazon North America Retail – Properties (In Millions of Square Feet) – Note, We Exclude Whole Foods Related Properties

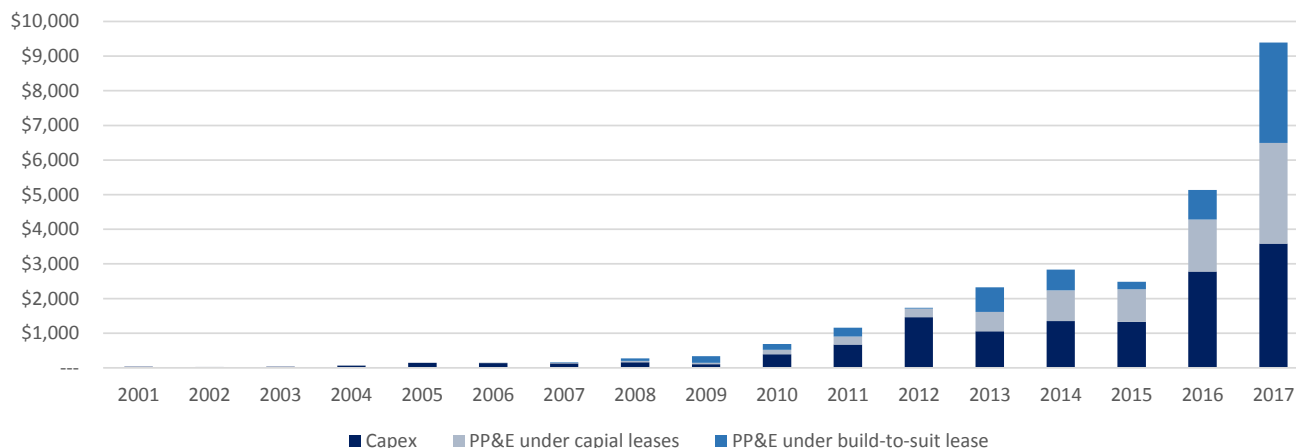


Source: Company Documents; Deutsche Bank Securities Inc.



Consequently, capital spend in North America has increased significantly over time.

Figure 12: Amazon North America Retail – Additions to Property & Equipment (In Millions) – Note, the increase in 2017 also reflects the acquisition of Whole Foods



Source: Company Documents; Deutsche Bank Securities Inc.

How Big is USPS Within Amazon's Fulfillment Strategy

We estimate the number of Amazon Fulfilled Units – that includes all 1P sales, as well as the Fulfilled By Amazon units sold by 3P sellers – at ~4.1B for the fourth quarter of 2016 and the first three quarters of 2017 (which corresponds to USPS's Fiscal Year 2017 KPIs and financials we discussed previously). Assuming about 60% of these units were injected directly into the USPS using Amazon's O&O fulfillment network, we estimate ~1.5B pieces flowed through the USPS, representing just over 50% of USPS' Ground Parcel volume. In this analysis, we have not made any assumptions regarding Amazon's unit volumes that flow through the USPS indirectly via FedEx (SmartPost) or UPS (SurePost).



Figure 13: Amazon US – Units Shipped Directly Through USPS (In Millions)

	F2017 Scenarios			
	A	B	C	Comments
Unit Sales in the US				
F2017 Worldwide Unit Sales	9,093	9,093	9,093	DB estimate, for the period 3Q16-3Q17, corresponding to USPS' F2017
(x) % of Physical Units	98.0%	98.0%	98.0%	DB estimate; Our survey suggests 1-2% digital-only units
(=) Physical Unit Sales	8,911	8,911	8,911	
(x) US Revenue as % of Total	63.8%	63.8%	63.8%	DB estimate; assuming the unit sale price is similar globally,
(=) US Physical Unit Sales	5,687	5,687	5,687	and US is ~98% of North America net sales
Amazon Fulfilled Units				
US Physical Unit Sales	5,687	5,687	5,687	From above
(x) 1P as % of Total Sales	50.0%	50.0%	50.0%	DB estimate; assuming 1P sales is 50% of the total
(=) 1P Unit Sales	2,844	2,844	2,844	
US Unit Sales	5,687	5,687	5,687	From above
(x) 3P as % of Total Sales	50.0%	50.0%	50.0%	DB estimate
(=) 3P Unit Sales	2,844	2,844	2,844	
(x) FBA as % of Total 3P Units	50.0%	50.0%	50.0%	DB estimate; FBA was ~40% of 3P sales more than
(=) 3P Unit FBA	1,422	1,422	1,422	a year ago and was growing
1P Unit Sales	2,844	2,844	2,844	From above
(+) 3P Units FBA	1,422	1,422	1,422	From above
(=) # of Amazon Fulfilled Units	4,265	4,265	4,265	
# of Packages Shipped Through USPS				
Amazon Fulfilled Units	4,265	4,265	4,265	From above
(/) # of Units per Package	1.67x	1.67x	1.67x	DB estimate, assuming 1.34 units/package for Prime, and 2 units/
(=) # of Packages Shipped in the US	2,554	2,554	2,554	package for Non-Prime shipments and 50:50 split between the two
(x) % of Packages Injected into USPS	60.0%	60.0%	60.0%	DB estimate, based on our internal survey, and confirmed
(=) # of Packages Shipped Through USPS	1,532	1,532	1,532	by industry experts
(/) Total Ground Parcels Reported by USPS	2,884	2,884	2,884	
(=) Amazon's Share of USPS Ground Parcel Volume	53.1%	53.1%	53.1%	

Source: Company Documents; Deutsche Bank Securities Inc.

We further assume \$6.55 per piece shipping cost for all the non-USPS units, using \$8.20 per piece cost of shipping via UPS Ground and a 20% volume discount, we derive an all-in shipping cost of ~\$3.96 per unit for USPS units.



Figure 14: Amazon US – Cost of Shipping Units Directly Through USPS (In Millions)

	F2017 Scenarios			
	A	B	C	Comments
Shipping Costs in the US				
2017A Worldwide Shipping Costs	\$19,986	\$19,986	\$19,986	As reported
(x) US Revenue as % of Total	63.8%	63.8%	63.8%	DB estimate; assuming cost of shipping is similar globally
(=) US Shipping Costs	\$12,755	\$12,755	\$12,755	
(/) # of Amazon Fulfilled Packages	2,554	2,554	2,554	From above
(=) Shipping Cost per Package	\$4.99	\$4.99	\$4.99	
Packages Shipped Directly Through Other Carriers				
# of Packages Shipped in the US	2,554	2,554	2,554	From above
(-) # of Packages Shipped Through USPS	(1,532)	(1,532)	(1,532)	From above
(=) # of Packages Not Shipped Through USPS	1,022	1,022	1,022	From above
(x) Average Shipping Cost	\$6.55	\$6.55	\$6.55	DB estimate; assuming \$8.20/piece UPS Ground shipping on average and 20% volume discounts
(=) Cost of Shipping Via Third Parties	\$6,692	\$6,692	\$6,692	
Cost of Shipping Via USPS				
US Shipping Costs	\$12,755	\$12,755	\$12,755	From above
(-) Cost of Shipping Via Third Party Providers	(6,692)	(6,692)	(6,692)	From above
(=) Cost of Shipping Via USPS	\$6,063	\$6,063	\$6,063	
(/) # of Amazon Fulfilled Packages	1,532	1,532	1,532	
(=) Shipping Cost per Package Via USPS	\$3.96	\$3.96	\$3.96	
Postal Service Cost				
# of Amazon Fulfilled Packages	1,532	1,532	1,532	From above
(x) Cost per Package	\$2.15	\$2.15	\$2.15	The average cost for ground parcels, per USPS 10K
(=) Amazon's Postal Cost	\$3,292	\$3,292	\$3,292	
(/) Total Ground Parcel Revenue per USPS	\$6,194	\$6,194	\$6,194	
(=) Amazon's Share USPS Ground Parcel Revenue	53.1%	53.1%	53.1%	
Cost of Sortation/Delivery Center Ops				
Cost of Shipping Via USPS	\$6,063	\$6,063	\$6,063	From above
(-) Postal Cost	(3,292)	(3,292)	(3,292)	From above
(=) Cost of Sortation/Delivery Network	\$2,772	\$2,772	\$2,772	Includes cost of operating Sortation/Delivery Centers + logistics

Source: Company Documents; Deutsche Bank Securities Inc.

Negotiations or Regulatory Fiat?

Under the executive order, the task force is expected to conduct a thorough evaluation of the operations and finances of the USPS, including:

- the expansion and pricing of the package delivery market and the USPS's role in competitive markets;
- the decline in mail volume and its implications for USPS self-financing and the USPS monopoly over letter delivery and mailboxes;
- the definition of the "universal service obligation" in light of changes in technology, eCommerce, marketing practices, and customer needs;
- the USPS role in the U.S. economy and in rural areas, communities, and small towns; and
- the state of the USPS business model, workforce, operations, costs, and pricing.

The task force is supposed to develop recommendations for administrative and legislative reforms to the United States postal system. However, the executive order has not specified a time frame over which the task force is expected to complete its work. In any case, Amazon's 5-year agreement is likely coming up for renewal this year, and typically, negotiations begin 6 months in advance. Consequently, it is not clear as to whether the two processes will run concurrently or whether Amazon would rather participate in the task force process.



For the sake of argument, we present hypothetical scenarios if there is a price increase only for Ground Parcels, which impacts Amazon as well as other eCommerce players that use the USPS's Ground Parcels service. In our analysis, we assume 30% of the packages Amazon ships via third party providers also use USPS for the last mile. **We test the sensitivity of the financials to three hypothetical scenarios: 1) a price increase of 9.5% or \$0.21 per package, which increases the competitive services contribution rate to 30% from the current 23.6%, which is more in line with the current revenue contribution, 2) a price increase of \$0.26, which results in the USPS reporting breakeven controlled income – i.e., in this scenario, competitive products cover all the shortfall in institutional costs, and 3) a price increase of \$1.50 per package, which has been highlighted in the media and in the tweets we referenced previously.**

Figure 15: Impact of Potential Ground Parcel Price Increases on Amazon North America and USPS (In Millions)

	F2017 Scenarios			
	A	B	C	Comments
Amazon North America Retail Financials As Reported				
Revenue	\$92,496	\$92,496	\$92,496	As reported
GAAP Operating Income	\$1,960	\$1,960	\$1,960	As reported
Operating Margin	2.1%	2.1%	2.1%	
Change in Shipping Costs				
# of Packages Shipped in the US	2,554	2,554	2,554	From above
# of Packages Not Shipped Through USPS	1,022	1,022	1,022	From above
(x) % of Packages Injected Via UPS	30.0%	30.0%	30.0%	DB estimate
(=) # of Third Party Packages Exposed to USPS	306	306	306	
Packages Directly Injected into the USPS	1,532	1,532	1,532	
(+) # of Third Party Packages Exposed to USPS	306	306	306	
(=) Total # of Packages Exposed to USPS	1,839	1,839	1,839	
(x) Rate Increase per Piece	\$0.21	\$0.26	\$1.50	Max at \$1.50 per piece which has been highlighted in the tweets, and about in line with the \$2.6B also in the tweets
(=) Increase in Amazon's Fulfillment Costs	\$378	\$484	\$2,758	
Amazon North America Retail Financials Under Hypothetical Scenario				
GAAP Operating Income -- As Reported	\$1,960	\$1,960	\$1,960	From above
(-) Incremental USPS-Related Shipping Costs	(378)	(484)	(2,758)	From above
(=) GAAP Operating Income under Scenario	\$1,582	\$1,476	\$(798)	
Revenue	\$92,496	\$92,496	\$92,496	
GAAP Operating Income	\$1,582	\$1,476	\$(798)	
Operating Margin	1.7%	1.6%	(0.9)%	

Source: Company Documents; Deutsche Bank Securities Inc.

Splitting the approximate difference between the 40c economically driven potential price hike and a political one of \$1.50 per piece thrown around on Twitter, we estimate a \$1.00/piece increase could add \$1.8B to Amazon's US fulfillment costs. **This dust-up likely accelerates Amazon's move to control a greater portion its last mile delivery (e.g. Amazon Flex, self-driving trucks, drones, etc) – though that likely remains a long way away. We also note that a price hike imposed beyond Amazon could competitively benefit the company, given Amazon would have more flexibility in passing the cost along and its scale and technology advantage.**

A closer look at competitive products cost coverage at the USPS

As we detailed earlier in this note, the Postal Accountability and Enhancement Act (PAEA) passed in 2006 required that revenue from competitive products at the USPS must cover its "attributable costs" plus 5.5% of institutional costs. This number feels somewhat arbitrary to us, and in our view likely does not reflect the appropriate percentage of institutional costs that should be covered by competitive products. We believe a more sensible way to assign institutional



cost coverage percentages would be in accordance with revenue contribution. As such, we assume competitive products should cover 30% of total institutional costs, which equals its contribution to total revenue in 2017 for the USPS. As shown below, competitive products covered 23.6% of total institutional costs in 2017, and would have needed to charge incremental 39c, or 9.5%, per package in 2017 to achieve 30% cost coverage.

Figure 16: The USPS would have needed to charge an additional 39c (+9.5%) per package to cover 30% of institutional costs

Competitive Products Contribution	2014	2015	2016	2017		Calculation/Source
Revenue	15,088	16,525	18,585	20,824	a	USPS Cost & Revenue Analysis (CRA)
Attributable Costs	10,970	11,905	12,490	13,538	b	USPS CRA
Contribution to Institutional Cost	4,118	4,620	6,095	7,286	c	a - b
USPS Institutional Costs	28,124	28,350	29,459	30,872	d	CRA (excludes Pre-funded health benefits, and certain workers comp' components)
% covered by competitive products	14.6%	16.3%	20.7%	23.6%	e	c ÷ d
↓						
Total Pieces ('000'S)	3,448,005	3,958,937	4,499,427	5,103,431	f	USPS CRA
Revenue/Piece	\$4.38	\$4.17	\$4.13	\$4.08	g	a ÷ f x 1000
↓						
Competitive Revenue needed to cover 30% of institutional costs				\$1,976.1	h	d x 0.3 - c
↓						
				Implied Revenue/Piece	\$0.39	i h ÷ f x 1000
				Implied pricing increase	9.5%	j i ÷ g

Source: Deutsche Bank, USPS, Postal Regulatory Commission

Assessing possible implications for FDX and UPS

It's clear, in our view, that developments related to USPS pricing have significant positive implications for FDX and UPS shares, as investors discount potential for increased pricing power. To this point we estimate that a 10% average increase in USPS pricing would conservatively have about a \$400M impact to FDX, which equates to 7.3% of FY2017 operating profits. Underpinning this is the estimate is 1.4B ground packages in 2017 (ex. 600M estimated SmartPost packages), of which we estimate 30% represent B2C shipments that would likely be more sensitive to changes in USPS pricing. We apply a 9.5% increase in revenue per shipment to just this piece of the ground business, which drives \$400M of incremental revenue...almost all of which would likely drop to the bottom line (unless FDX shares some of this with its independent driver network). Assuming a similar benefit to its B2B network, we estimate the impact would increase from \$400M to \$1.3B, which would represent 24% of FDX annual operating profits.



Figure 17: Implied incremental revenue & profit from a 9.5% increase in B2C pricing (ex-SmartPost) at FedEx Ground

	2017A	Comments
FDX Ground revenue (\$M)	13,715	>> DB est. and excludes SmartPost
B2C Ground	4,192	>> Implies about 30% of Ground ex. SmartPost
B2B Ground	9,523	>> Implies about 70% of Ground ex. SmartPost
Packages (M of units)		
B2C Ground	402,687	>> Implies about 30% of Ground ex. SmartPost
B2B Ground	1,006,717	>> Implies about 70% of Ground ex. SmartPost
Yield (revenue per package)		
B2C Ground	\$10.41	>>DB est.; compares to \$8.19 reported on consolidated basis
B2B Ground	\$9.46	>>DB est.; compares to \$8.19 reported on consolidated basis
New Yield (revenue per package)		
B2C Ground	\$11.40	>>Assumes 9.5% uplift
B2B Ground	9.46	>>Assumes no change
Implied Rev/Package	10.01	>> +22% vs. reported
Implied Total Revenue	\$14,113.41	
Implied incremental Revenue	\$398	
% of 2017 consolidated operating profits	7.3%	
\$ per share assuming current multiple	\$17	

Source: Deutsche Bank, Company filings

If we apply a similar framework to UPS's Ground business, a 9.5% increase in revenue per shipment on UPS Ground's B2C business (ex-SurePost) would have a \$706M impact to UPS, which equates to 9.4% of the company's consolidated operating profits. If we assume a similar benefit to UPS Ground's B2B network, we estimate the impact would increase from \$706M to \$2.3bn, which would represent 34% of UPS's annual operating profits.

Figure 18: Implied incremental revenue & profit from a 9.5% increase in B2C pricing (ex-SurePost) at UPS Ground

	2017A	Comments
UPS Ground revenue (\$M)	24,322	>> DB est. and excludes SurePost
B2C Ground	7,436	>> Implies about 30% of Ground ex. SurePost
B2B Ground	16,886	>> Implies about 70% of Ground ex. SurePost
Packages (M of units)		
B2C Ground	714,297	>> Implies about 30% of Ground ex. SurePost
B2B Ground	1,785,742	>> Implies about 70% of Ground ex. SurePost
Yield (revenue per package)		
B2C Ground	\$10.41	>>DB est.; compares to \$8.19 reported on consolidated basis
B2B Ground	\$9.46	>>DB est.; compares to \$8.19 reported on consolidated basis
New Yield (revenue per package)		
B2C Ground	\$11.40	>>Assumes 9.5% uplift
B2B Ground	9.46	>>Assumes no change
Implied Rev/Package	10.01	>> +22% vs. reported
Implied Total Revenue	\$25,028.24	
Implied incremental Revenue	\$706	
% of 2017 consolidated operating profits	9.4%	
\$ per share assuming current multiple	\$9	

Source: Deutsche Bank, Company filings



Appendix 1

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Company	Ticker	Recent price*	Disclosure
Amazon.com	AMZN.OQ	1517.86 (USD) 23 Apr 2018	2, 8, 14, 15
FedEx Corporation	FDX.N	245.56 (USD) 24 Apr 2018	1, 7, 8, 14, 15
UPS	UPS.N	108.22 (USD) 24 Apr 2018	NA

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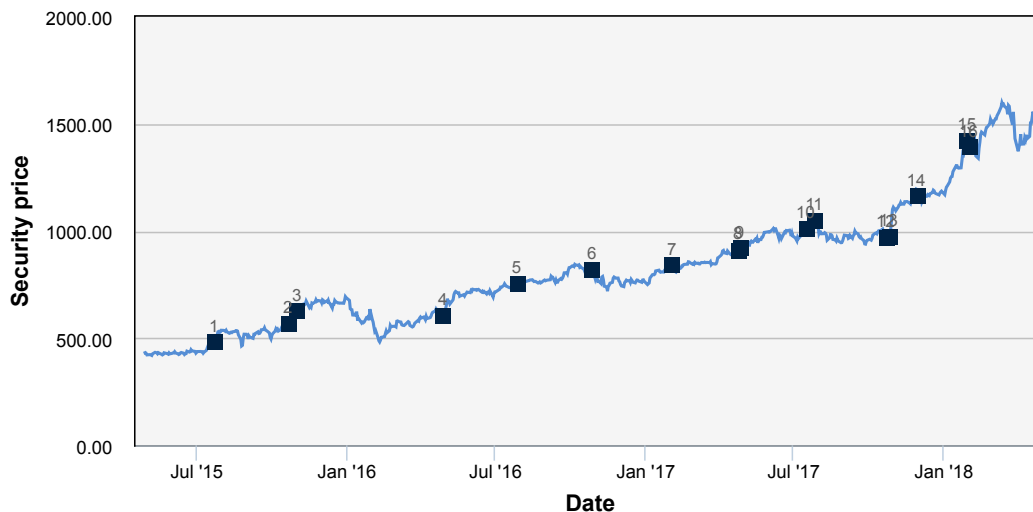
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Historical recommendations and target price. Amazon.com (AMZN.OQ)

(as of 04/24/2018)



Current Recommendations

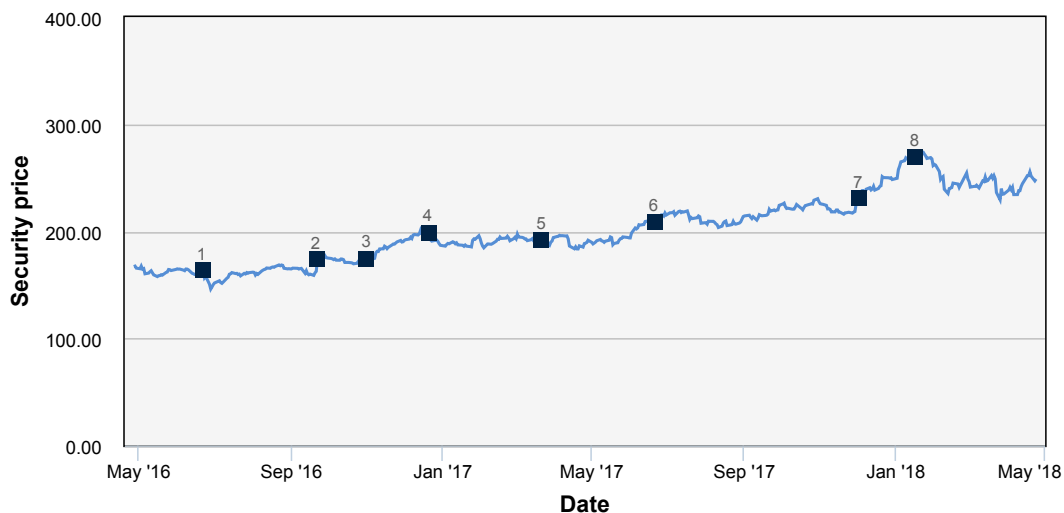
Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1.	07/24/2015	Buy, Target Price Change USD 665,00 Deepak Mathivanan**	9.	04/28/2017	Buy, Target Price Change USD 1150,00 Lloyd Walmsley
2.	10/23/2015	Buy, Target Price Change USD 725,00 Kevin LaBuz**	10.	07/18/2017	Buy, Target Price Change USD 1135,00 Lloyd Walmsley
3.	11/02/2015	Buy, Target Price Change USD 800,00 Karl Keirstead	11.	07/28/2017	Buy, Target Price Change USD 1175,00 Lloyd Walmsley
4.	04/29/2016	Buy, Target Price Change USD 900,00 Jay Samani**	12.	10/24/2017	Buy, Target Price Change USD 1192,00 Lloyd Walmsley
5.	07/29/2016	Buy, Target Price Change USD 985,00 Jay Samani**	13.	10/27/2017	Buy, Target Price Change USD 1200,00 Lloyd Walmsley
6.	10/28/2016	Buy, Target Price Change USD 920,00 Jay Samani**	14.	11/30/2017	Buy, Target Price Change USD 1425,00 Lloyd Walmsley
7.	02/03/2017	Buy, Target Price Change USD 1050,00 Lloyd Walmsley	15.	01/30/2018	Buy, Target Price Change USD 1525,00 Lloyd Walmsley
8.	04/26/2017	Buy, Target Price Change USD 1125,00 Lloyd Walmsley	16.	02/02/2018	Buy, Target Price Change USD 1650,00 Lloyd Walmsley

Historical recommendations and target price. FedEx Corporation (FDX.N)

(as of 04/24/2018)



Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

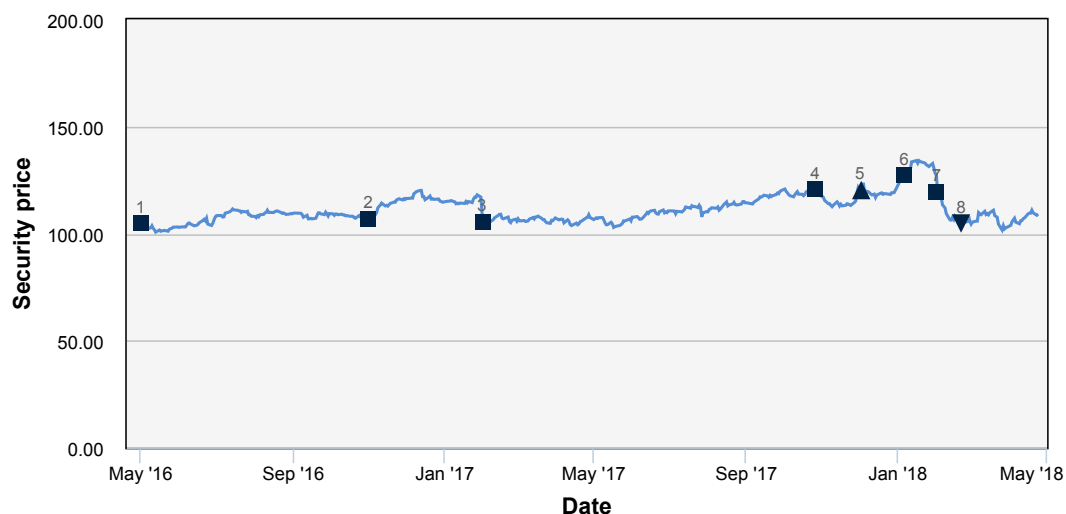
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2.	09/22/2016	Buy, Target Price Change USD 200,00 Robert Salmon, CFA**	6.	06/21/2017	Buy, Target Price Change USD 235,00 Amit Mehrotra
3.	11/01/2016	Buy, Target Price Change USD 210,00 Amit Mehrotra	7.	12/03/2017	Buy, Target Price Change USD 260,00 Amit Mehrotra
4.	12/21/2016	Buy, Target Price Change USD 209,00 Amit Mehrotra	8.	01/17/2018	Buy, Target Price Change USD 293,00 Amit Mehrotra



Historical recommendations and target price. UPS (UPS.N)

(as of 04/24/2018)



Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1.	05/02/2016	Hold, Target Price Change USD 112,00 Robert Salmon, CFA**	5.	12/03/2017	Upgraded to Buy, Target Price Change USD 135,00 Amit Mehrotra
2.	11/01/2016	Hold, Target Price Change USD 117,00 Amit Mehrotra	6.	01/07/2018	Buy, Target Price Change USD 145,00 Amit Mehrotra
3.	02/01/2017	Hold, Target Price Change USD 100,00 Amit Mehrotra	7.	02/02/2018	Buy, Target Price Change USD 135,00 Amit Mehrotra
4.	10/27/2017	Hold, Target Price Change USD 125,00 Amit Mehrotra	8.	02/22/2018	Downgraded to Hold, Target Price Change USD 115,00 Amit Mehrotra

Equity Rating Key

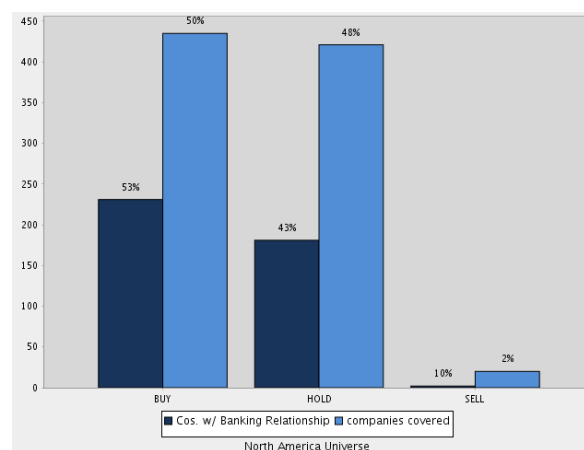
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