Pitney Bowes Inc. (PBI)

Sell Short / Sell

Stock Price: $17.78 as of September 13, 2016

Stock at Risk Score -0.9 Weak SAR score; Company exhibits significant risk characteristics

Measured in standard deviations, a lower number indicates a riskier stock. The SAR scores range from approximately -2.5 (riskiest) to +2.3 (least risky/most attractive).

SUMMARY

PBI is living on borrowed time. This legacy business continues to decline with the decline in mail volumes and the rise in alternative delivery methods. Margins, earnings and cash flows are easing, earnings quality is low, debt maturities loom and the company misses even lowered estimates frequently. Yet Wall Street holds out to hope for a recovery.

Sales are in a secular downtrend Mail volumes have been in decline for years as bill presentment, invoicing, bill paying, catalogs and mail advertising continue to move from mail to on-line delivery.

Shipping and logistic trends do not favor legacy providers Shippers have many more choices than in the past as new models take hold. Same day and on-demand logistics are displacing PBI's traditional shipping partners. Product shippers find it a competitive necessity to offer free shipping, incentivizing them to reduce costs in all aspects of their logistics. Drones and 3D manufacturing will take share from conventional shipping as their adoption accelerates.

Rebranding efforts are a day late and a dollar short PBI's efforts to rebrand itself as a CRM/e-commerce/logistics/marketing company are not gaining much traction. If it they ever do, it will take years before it has an impact on the whole.

Margins and cash flows are declining PBI has mitigated the earnings decline with SG&A cuts. But they cannot cut their way to growth. CFFO is less than half of its peak levels, achieved in 2011. Sales peaked at the same time.

Stock buybacks aren't sustainable / Debt is high The company pays out high dividends and repurchases stock. Their repurchases are not sustainable from current cash flows. PBI faces high leverage and meaningful debt maturities starting this year and through 2018. Moody's downgraded PBI to Baa3 on September 9th.

Earnings Quality is weak PBI suffers from slowing working capital, an underfunded pension plan, and is a "serial restructurer". PBI also appears to be underprovisioning for declining credit quality.

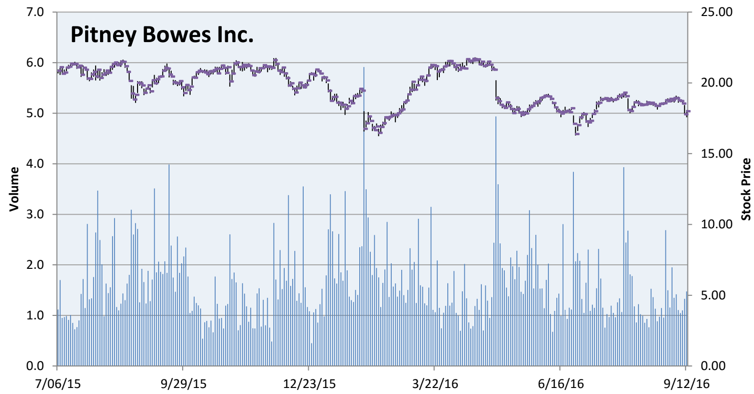
Estimates are being cut consistently Yet the company disappoints even those reduced forecasts. And forecasts for H2 2016 are unrealistically high, in our view. Next year, consensus is looking for an unrealistic recovery in sales and is looking for a rise in margins to levels that haven't been seen since 2007.

Multiples lean expensive We believe the valuation will end up looking rich as the company continues to shrink.

Potential Catalysts: The key catalyst is a sales and earnings miss in H2 when the company will be challenged to meet high consensus forecasts. Longer term declines in the core business will keep the pressure on in future quarters as well.

Risks: Although unlikely, PBI's digital commerce business could accelerate and, eventually, be large enough to "move the needle".

We recommend selling PBI stock short (selling/avoiding for long managers).



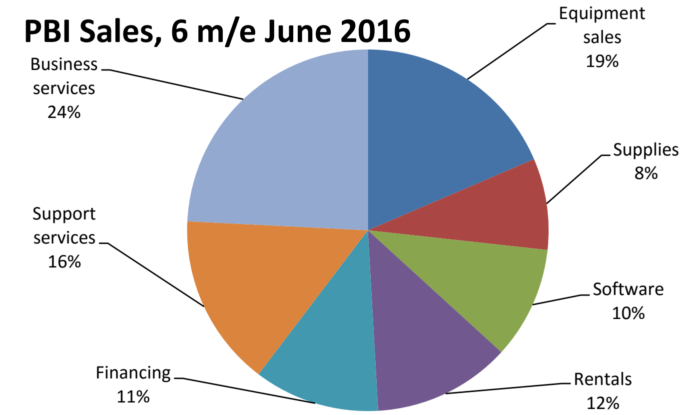
Trading	
Date	9/13/16
Price	17.78
52 Wk H/L	21.81 / 16.24
Market Cap/Ent. Value ($mns)	3,300 / 5,939
Avg Daily Volume (thou)	1,269.7
Shares Outstanding (mn)	185.6
Float (mn / %)	184.8 / 99.5%
Short Interest (mn / SISO%)	11.0 / 5.9%
Days to Cover	8.3

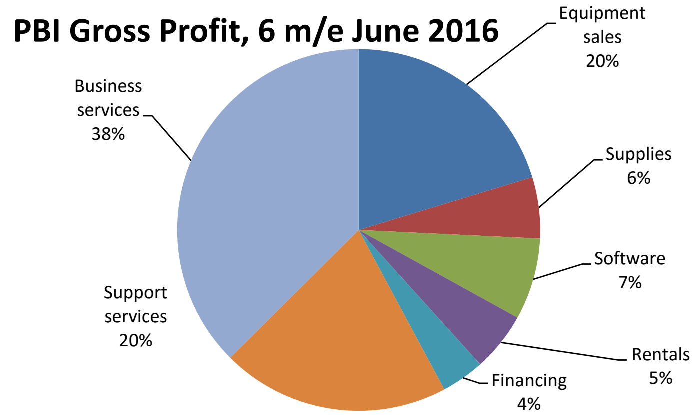
Source: Two Rivers Analytics; FactSet Research Systems

COMPANY DESCRIPTION

Pitney Bowes describes itself as offering “products and services in customer information management, location intelligence, customer engagement, shipping and mailing and global ecommerce”. Yet the bulk of sales are still in selling postage meters and mail sorters and in selling the related supplies and services.

Sales can be broken down as follows:





Source: Two Rivers Analytics, Company filings

PBI breaks down its business by product (above) and by customer size and digital commerce. The Enterprise and Small and Medium Business (SMB) segments provide equipment, software, supplies, and services that enable its customers to efficiently create physical and digital mail and evidence postage for the sending of mail, flats and parcels and including equipment and services to process inbound and outbound mail. It includes production mail operations and presort services operations. The digital commerce business (DCS) offers customer information management, location intelligence and customer engagement software, and shipping management and cross border ecommerce solutions for businesses of all sizes.

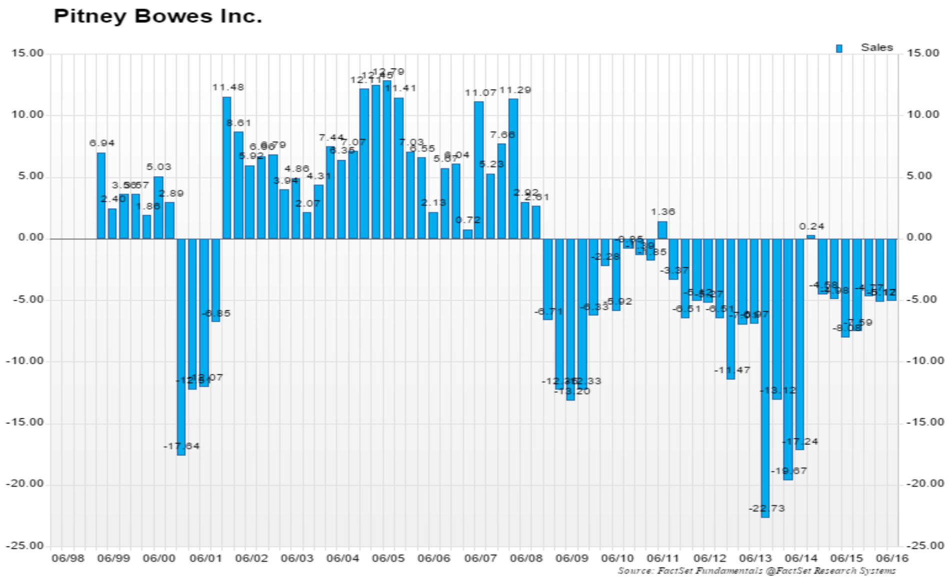
BACKGROUND AND SHORT INVESTMENT THESIS

Sales are in a secular downtrend

PBI's sales have declined between 5% and 8% year over year **for *each* of the past seven quarters**. The last six month results show **segment declines ranging from -4.6% to -9.1% except for business services, which grew 1.9%.** Equipment sales (31% of revenues) are down single digit percent due to customer trends towards extending existing leases rather than purchasing new equipment and an 18% drop in international equipment sales. Support services are down due to a shift towards lower cost machines and a shift towards third party mailing bureaus. Equipment rentals are down due to a decline in the number of installed meters.

The chart below shows year over year changes in sales growth. **Sales never recovered after the global financial crisis**.

Pitney Bowes Inc. Sales growth since 1998

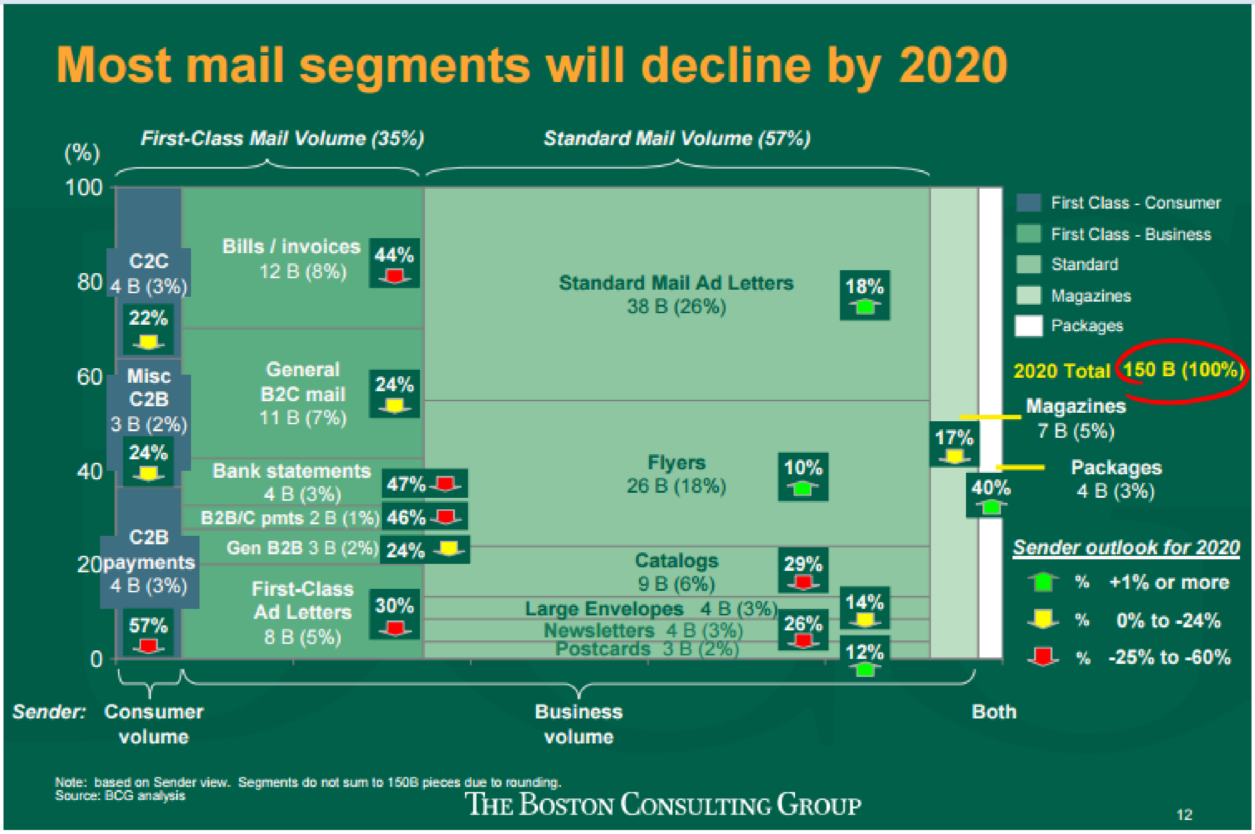


Source: FactSet Research Systems

The secular decline in mail volumes are the core problem

It should come as no surprise that **mail volumes are declining**, putting pressure on Pitney Bowes core business. Mail volumes can be broken down into various segments, each of which faces separate drivers. The Boston Consulting Group identifies the following segments and key trends.

- Business to consumer (B2C): **bill and invoice volumes are declining** with the rise of online bill presentment, autopay and ATM payments
- B2C customer communications is **shifting from mail and towards online chat, video, email service**
- **Financial services mail volume is falling** aggressively. Better online security is a driver. Online bank statements are becoming far less prevalent. Consumers and Financial institutions are working to consolidate the number of accounts an individual customer has.
- **Catalog volumes continue to drop meaningfully** due to availability of online catalogs, the rise in mobile, content addressable TV's. The volume decline is only partly offset by organic growth
- Standard mail ad letters are forecast to grow somewhat as online advertising growth isn't expected to completely overcome print growth.



Consumers have many more choices and options for delivery services than in the past

Logistics services have improved and consumers have become more demanding. Successful logistics and delivery companies have upgraded their capabilities to cater to customers on **three dimensions**: **location, timing and control**.

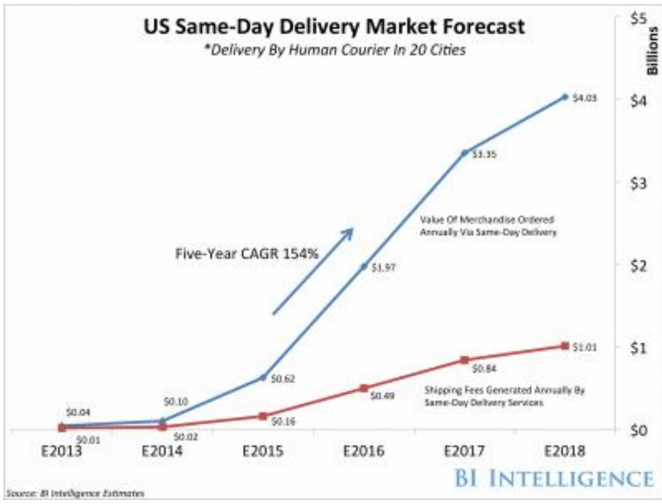
- Location comprises new concepts such as online purchase to store delivery, lockers or other pickup locations, anonymous delivery options
- Timing comprises faster delivery, including same-day or "within the hour", specified times of delivery
- Control covers giving customers the ability to select the above two, at their convenience.

Same day shipping/on-demand logistics will carve out a growing niche

Same-day shipping is becoming increasingly important as an option for customers. The service can range from on demand at home, to rapid in-store pickup. Retailers have moved towards offering their physical retail sites as personal "pick-up" locations for customers shopping on line. Companies delivering goods to consumers are **keeping warehouses closer to population centers**.

Uber and Lyft have built a highly flexible transportation networks that has **begun to compete with traditional delivery** models. UberRUSH and Deliv lets shoppers pick a time of day for delivery. Amazon and Google have services that are more responsive to consumers by combining physical assets with online purchasing. **Amazon is emulating Uber's delivery service with Amazon Flex**, which promises drivers $18-$25/hour to "work when you want" and promises customers a 1-2 hour delivery service. Amazon's service is available in 27 US cities, with 11 added a few months ago in April. **Google Shoppping Express provides a similar service**. eBay shuttered its service after electing not to complete with Amazon's same day offering.

Business Intelligence estimates that the value of same day delivered goods will grow sharply over the next several years, taking share from the traditional services on which PBI relies.



The growth of free shipping puts pressure on shipping and logistics prices

Shipping costs are increasing, due to postal service rate increases and a shortage of trucking capacity and truck drivers[1]. Even as costs rise, **free shipping is becoming an important and no-longer-optional competitive** offering. Customers are simply requiring free shipping from product vendors because other vendors do. Customers simply expect it.

> *"Amazon kind of set the path for everyone with Prime. People just expect things faster," says Heather Kaminetsky, vice president of global marketing at Net-a-Porter, the luxury online retailer.*

This puts margin pressure on businesses that ship product, which translates into **greater price sensitivity** on the whole logistics function. An intermediary like Pitney Bowes is left caught in the middle.

Traditional delivery companies are under severe pressure

PWC Consulting offers a grim view for traditional logistics players. They opine that these **legacy competitors are unable to reconfigure themselves** quickly enough to dovetail with rapidly evolving market dynamics.

> *"Established commercial freight and logistics companies are generally not suited to satisfying their customers' full range of new preferences. Their network configurations, physical assets, skills, and service offerings are the product of an earlier set of market conditions and customer expectations. As a result, a **raft of new competitors are slicing off bits and pieces of the logistics sector, offering targeted services that some shippers perceive as providing more value** and innovation than the more traditional, wider but less specialized, menus of the larger companies*." – PWC Consulting

The alternatives are peeling customers away from traditional mail and parcel shipping services

PBI still relies on USPS as one of its major delivery partners. The US Postal Service warns that competition for last-mile delivery could result in "significant market share erosion". The Inspector General's report specifically highlighted Amazon's service, crowdsourced delivery and regional carriers as threats. The USPS is the dominant last-mile provider,

[1] SupplyChain24/7

but **new models and new companies are making inroads**. The market share erosion is taking place in higher traffic urban locations, leaving the USPS with higher cost/lower margin business.

Drones and 3D Printing

No longer science fiction, **drone delivery will come at consumers fast**. Amazon, Google and others are investing significant capital in drone delivery experimentation. They have made tests of successful commercial as well. The technology is here; they need the legal and regulatory infrastructure to catch up. Other, traditional PBI customers, such as FedEx and USPS are experimenting with drone delivery. DHL is trailing its drone service in Germany now.

Of course, there are **new companies springing up** to take advantage of these opportunities as well. QuiQui and Bizzby Sky are targeting smaller business delivery services. Matternet has been running drone deliveries of medical supplies and specimens in countries around the world since 2011.

3D printing will continue to make inroads as well. 3D manufacturing impacts the logistics business by reducing the volume of goods that need to be transported at all, especially the volume of the multiple B2B flows comprising intermediate manufactured parts globally.

PWC Consulting opines that "**as much as 41 percent of the air cargo business and 37 percent of the ocean container business is at risk because of 3D printing**. Roughly **a quarter of the trucking freight business** is also vulnerable." By type of good, they identified "footwear, toys, ceramic products, electronics, and plastics" industries as most likely to see disruptive changes coming from 3D printed product.

Rebranding efforts are years late and a dollar short

PBI has responded to the secular decline by **attempting to rebrand itself as an ecommerce platform** covering CRM, fulfilment, shipping and payment. In June 2015, they acquired Borderfree Inc. for $356mn. Borderfree describes itself as a platform for retailers to transact with consumers, offering commerce, logistics, marketing and insights. They manage international shipping including customs clearance, parcel fulfilment and returns. Later, in April 2016, PBI introduced their commerce cloud.

So far, their **results have been lackluster**. Their "digital commerce" business has grown by 25% (in total) over the past two years. The most recent filings show growth of 10% y/y in the first half of 2016, reaching 19% of first half sales.

Our view is that **PBI is coming very late to this party**. There are a large number and a wide variety of existing and new platforms for ecommerce including spot solutions for shipping and fulfillment. Some, like Endicia, focus on labels, shipping (including international shipping), connecting to the USPS and to warehouse and ordering systems. Others, like CommerceHub, bring together suppliers, channels and partners allowing small retailers and brands to reach customers including WalMart, Google Shopping and Amazon customers and to fulfill through third party warehouse and delivery partners. (CommerceHub was spun out of Liberty Interactive in July.) Outsourced warehouse and fulfillment companies such as Rakuten.com, SBWarehouseing.com, and ShipWire compete here also. Still others focus on moving goods, such as the online freight marketplaces which will reduce costs for small manufacturers (Freitera, Post.Bid.Ship).

Suffice it to say that PBI is trying to enter a crowded space years after the transition could have been made. PBI will pick up some customers from its installed base of postage meters and mail sorters, but there are better, more up to date alternatives available.

Did we mention this is a cyclical business?

B2B and B2C logistics and delivery are **cyclical businesses** that depend heavily on business and consumer activity. Thus PBI is subject to declining sales and cash flows, which can be especially troublesome given the company's leverage (see below)

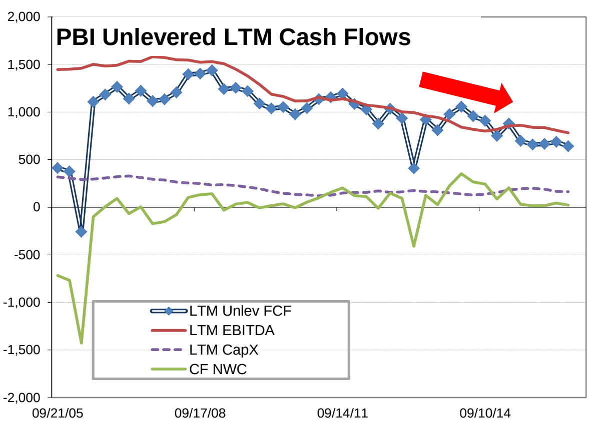
The financial impacts of the company's decline are evident

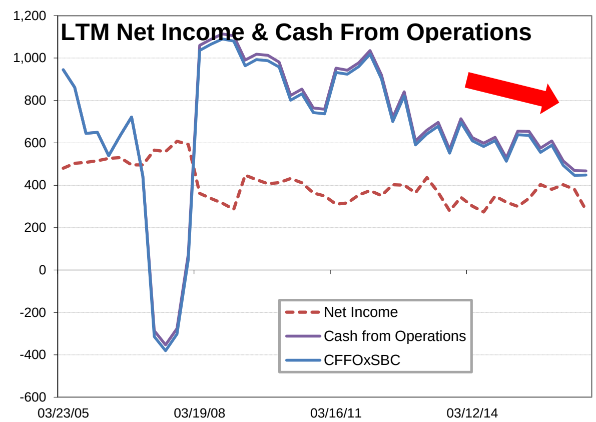
Margin trends are poor

The company has done its best to mitigate declining sales by cutting expenses, notably SG&A. SG&A has been cut from $364mn to $328mn over the past two years, a cut of 10%. Despite the cuts, **margins have been on a steady downtrend for many years**, other than a reset in 2013 due to a series of aggressive mid-year cost-reduction initiatives. EBITDA margins are down from 27% in 2006 to the current 21-22% range.

Cash flows are declining

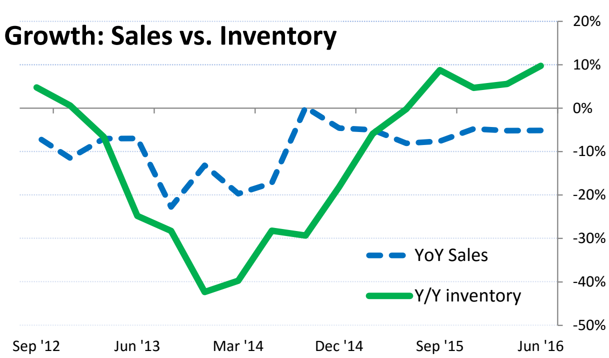
Unsurprisingly, **PBI's cash flows have been on a long term decline**, as can be seen here. The chart on the left shows the decline in free cash flow, down from over $1.6bn to below $800mn, LTM, driven mostly by declines in EBITDA. We note that capex has flattened and is actually higher today than it was five year ago. The chart below and to the right shows that net income has remained generally flat over the same period while CFFO has dropped by more than half from roughly $1.1bn to $467mn. (The narrowing gap was caused by increases in working capital absorbing cash.) This confirms a **decline in earnings quality** in addition to declining cash flows and may be one of the reasons the bulls have overlooked the decline. If they are focusing on income, they are **missing the severity of the decline**.





Source: Two Rivers Analytics, Company filings

The underlying downtrend trend continues to the present. **For the first half of the 2016, CFFO has dropped by 25% to $153mn from $201mn. Net Income has fallen by half to $120mn**. Further, inventory has risen more than sales for the past six quarters (see below) and receivables turn slowly at 140 days.

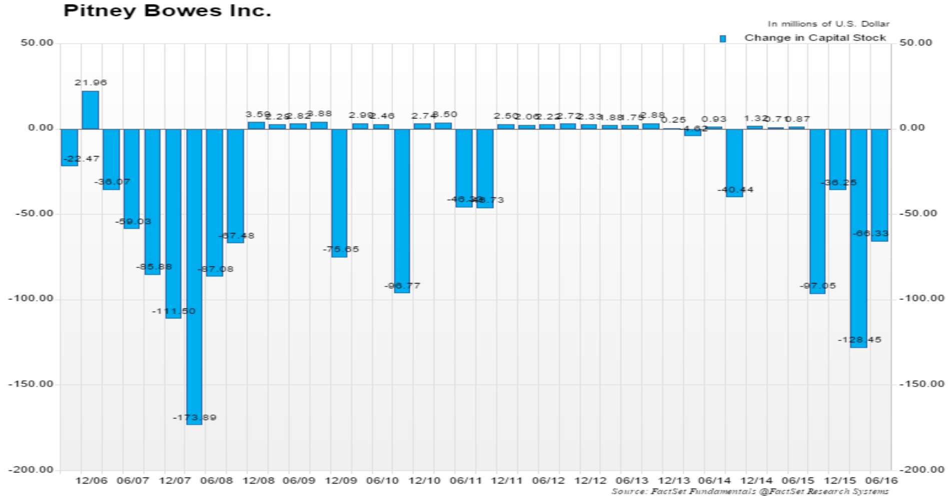


Source: Two Rivers Analytics, Company filings

Stock buybacks are not sustainable (and represent 2/3 of cash to shareholders)

The company's **cash flows do not support current levels of dividends and buybacks**. The bulls have been buoyed by the company's stock repurchases. PBI has reduced its share count by 7.9% over the past two years. Over the past year, they have spent $328mn in buybacks and another $145mn in dividends. Over the last 12 months, the company would have been able to meet its dividend commitments without resorting to borrowing. Buybacks are another story however. **Without borrowing, this amount of LTM stock buybacks would have been impossible**.

Stock buybacks:

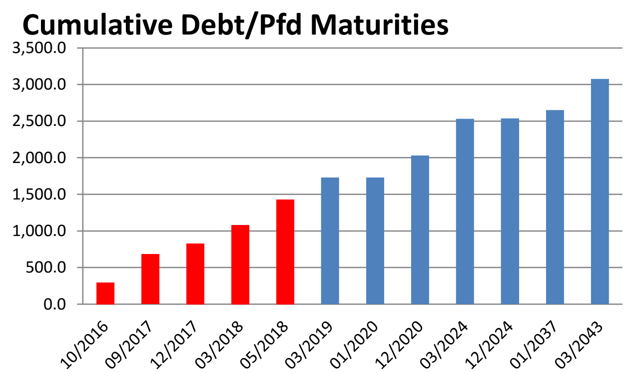


Source: Two Rivers Analytics, FactSet Research Systems

Leverage is high

The company has $3.1bn of debt, $296mn of subsidiary preferred stock[2] and $750mn of cash on its June balance sheet, for net debt of $2.6bn. That **represents 3.5x LTM EBITDA**, which is clearly high. Worse since EBITDA is declining.

Further, the company faces several maturities over the coming months and years. By October 2016, the interest rate on the subsidiary preferred rises by 50% every six months from the current 6.125%. On the last earnings call, the CFO said they intend on refinancing the prefs in the ordinary course. In all, the c**ompany faces $700mn+ of commitments by this time next year** and $1.4bn of maturities coming due by 2018. Declining cash flows and maturing debt are never a good combination. **Moody's downgraded PBI to Baa3 on September 9th.**



Source: Two Rivers Analytics, Company filings

[2] Issued by a wholly owned subsidiary

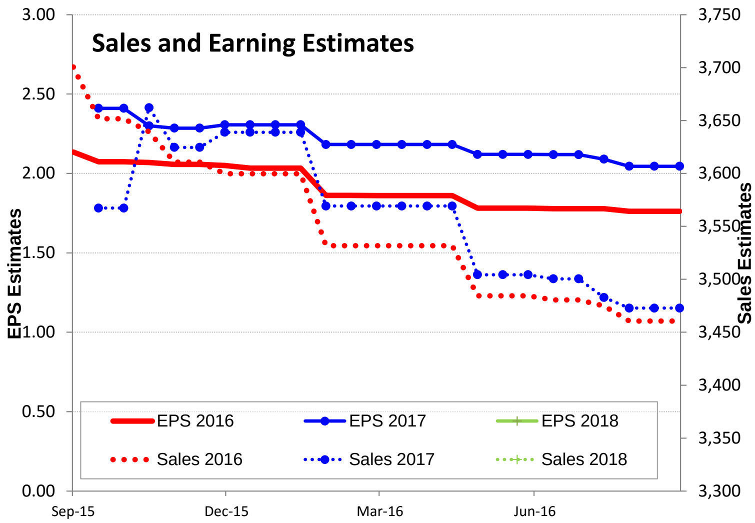
Earnings Quality is poor

PBI also shows a handful of earnings quality issues.

- We mentioned the company's **slow working capital already**.
- The company seems to be **under-provisioning for bad debt**. PBI has both lease and sale receivables totaling $1.8bn as of June 2016. The company has experienced a near doubling of the dollar value of slow accounts receivables despite a decline the total receivable balances[3]. The provisions charged to expense have bene insufficient to compensate for the write-off history, leaving the balances under-reserved, in our view. However, management has made the curious comment that credit quality increased over the past quarters. This is inconsistent with the figures in the financial statements.
- The company has an **underfunded pension plan**. The amount of the underfunding is $346mn as of December 2015, making the gap worth ~10% of the company's market cap. The assumed rate of return on plan assets is 7.2%, which might be unrealistically high making the underfunding unreality low. In the first half of 2016, pension payments flowing through the cash flow statement cost $37mn.
- The company is a **serial restructurer**. In 2016, so far, they have expensed $33mn in restructuring charges, double what they expensed last year. In 2014, they expensed $84mn for restructuring charges. Confirming with the cash flow statement, the 2016 vintage were real, cash expenses.

Estimates are being cut consistently

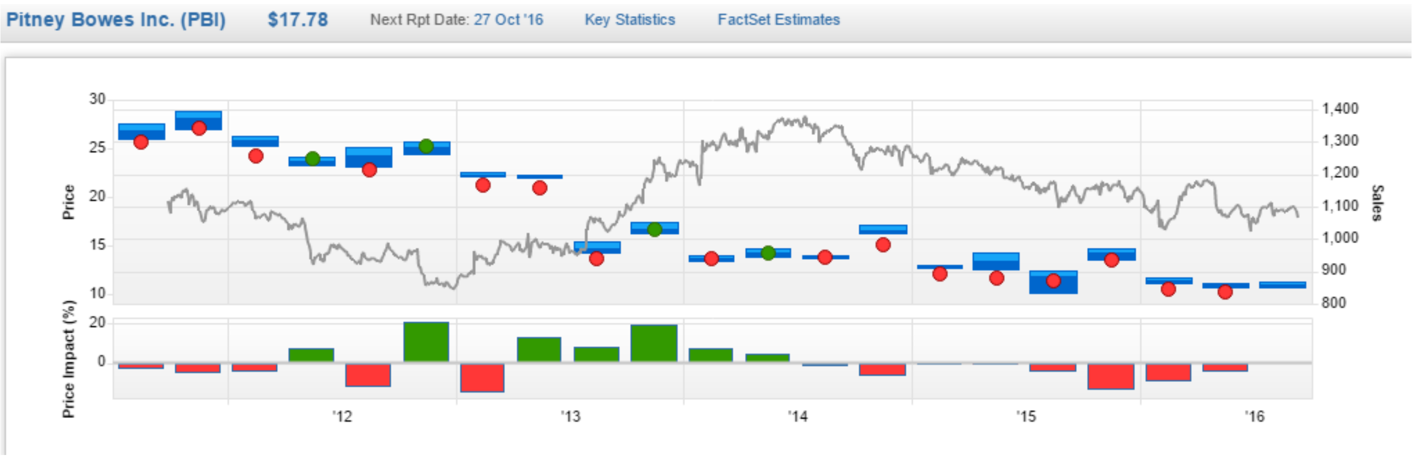
Wall Street continues to cut estimates for PBI as it has for some time. Yet, Wall Street always seems to be behind the company's downtrend.



Source: Two Rivers Analytics, FactSet Research Systems

[3] June 10Q pg. 13

The company has shown a **consistent pattern of disappointing investors**. PBI **misses even continuously lowered estimates.** This chart shows a history of misses at the sales line, together with the related stock price impact.

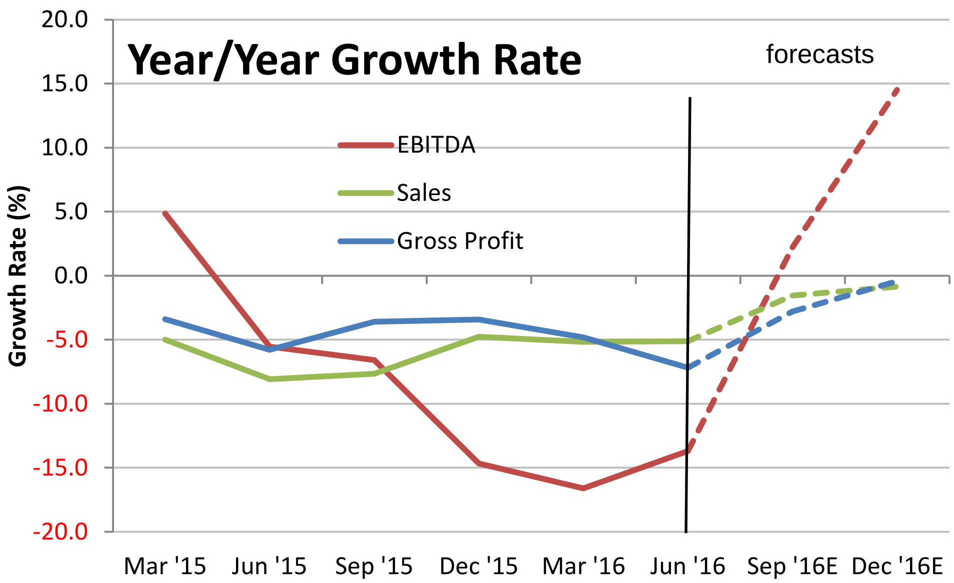


Source: FactSet Research Systems

They do a slightly better job on forecasting EPS because PBI has cut expenses aggressively as sales decline.

The Street still shows PBI's fortunes improving. On the sales line, the Street is expecting the sales decline to moderate to about 1% in the second half (an improvement from the 5% decline in H1) and flat sales (+0.4%) for 2017. At the operating income line (EBIT), the company faces a steep climb in Q4 expectations. **EBIT for the first half has *declined* approximately 18%, yet forecasts show the back half recovering to *22% growth* leaving the full year at -8%.** Consensus expectations shows PBI's Cost of Sales declining 19% in Q3 and 23% in Q4 (both on a year over year basis). We view that as unrealistic.

Forecasts show the margins rising to 27% on the EBITDA margin line by Q4 2016 and into 2017. These represent margin levels not seen since 2007, even on substantially lower sales volume! EPS forecasts are similarly "V-shaped". **We do not believe these forecasts are remotely reasonable.**



Source: FactSet Research Systems

Valuation leans towards the higher side

We judge PBI's stock to be expensive. The stock trades at 7.8x trailing and 7.2x 2016 EBITDA. While this puts PBI stock in line with the peer group average, the average is inflated by the presence and high multiples of Stamps.com. **Putting Stamps aside, PBI is expensive relative to its comps**. In addition, PBI's obvious negatives cannot justify multiples that are "in line". To recap arguments made above, **PBI is shrinking as a business, its capex has been higher than peers, its leverage is much worse, and its estimate trends are worse than the peers**.

The current multiples are approximately the stock's 5 year historical averages.

In addition, the **company's pension plan is underfunded by $346mn or over 10% of the company's market value** based on a 7%+ plan asset rate of return.

We expect the continued declines in the company's fortunes will make today's valuation look rich.

POTENTIAL CATALYSTS TO A SHORT CALL

- A second half "miss" in sales and earnings as compared to unreasonable consensus forecasts.
- Continued declines in sales and earnings especially when facing unrealistically high consensus forecasts.

RISKS TO A SHORT CALL INCLUDE

- The key risk is that the digital commerce business can come from nowhere, overcome the existing and emerging competition and gain a foothold in the SMB shipping logistics market. Perhaps PBI can become more of a shipping portal to other physical shipping companies, although that sort of competitor already exists. We think it is unlikely digital provides much lift to PBI and less likely that digital can compensate for the relentless secular decline elsewhere.

- In this environment, we have to mention acquisition risk. We note that at ~7x EBITDA, PBI could become atractive to an optimistic financial buyer, especially at today's low financing costs. An activist investor might seek a special dividend and effect a "slow motion leveraged recap" as the company borrows to reduce shares faster. Declining cash flows and high existing debt levels make this less likely.

APPENDIX / GLOSSARY

Comparison of PBI's Mailstation 2 and Stamps.com service

✓ = Best Choice	Mailstation 2	Stamps.com
Customer Trial		
Trial period	2 months ✓	4 weeks
Agreement period	12 months	None ✓
Agreement early termination fee	Yes	No ✓
Monthly fees	$24.99	$15.99 ✓
Customer Trial		
Includes scale	Yes	Yes
Maximum weight on scale	2 lbs.	5 lbs ✓
Shipping and handling fee for scale	$9.99	$9.99
Start printing postage	5-10 days	5 minutes ✓
Postage Purchases		
Postage purchase required on sign-up	$10.00	$0.00 ✓
Fee for adding postage (per transaction)	$0.00	$0.00
Ink Cartridges and Labels		
Pitney Bowes proprietary ink cartridge	Yes	No ✓
Cost of Pitney Bowes proprietary ink cartridge	$59.99	$0.00 ✓
Estimated cost per print	$0.09	$0.005 ✓
Pitney Bowes proprietary shipping labels	Yes	No ✓
Cost of Pitney Bowes proprietary shipping labels	$18.99	$0.00 ✓
Estimated cost of each label (for shipping)	$0.063	$0.004 ✓
Prints USPS Tracking on labels	No	Yes ✓
Prints delivery address on label	No	Yes ✓
Misc.		
Verifies delivery address with USPS database	No	Yes ✓
Electronic postage refunds	No	Yes ✓
Estimated Monthly Cost:	$33.45	$16.47 ✓

Source: Stamps.com

Company Data: Pitney Bowes Inc. (PBI)

Trading	
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52 Wk H/L	21.81 / 16.24
Market Cap/Ent. Value ($mns)	3,300 / 5,939
Avg Daily Volume (thou)	1,269.7
Shares Outstanding (mn)	185.6
Float (mn / %)	184.8 / 99.5%
Short Interest (mn / SISO%)	11.0 / 5.9%
Days to Cover	8.3

Balance Sheet	Jun-16
Cash & Eqv.	751
Total Debt	3,390
Net Debt	2,639
Net Debt / Capital (@mkt)	44%
Net Debt / EBITDA	3.5x

Earnings and Cash Flow				LTM	Forecasts	
	Dec-13	Dec-14	Dec-15	Jun-16	Dec-16	Dec-17
Revenue	3,870.2	3,820.2	3,577.0	3,485.8	3,460.6	3,472.8
EBITDA	841.4	854.0	807.9	764.4	829.1	901.0
Interest Expense	-104.6	-95.3	-86.7	-81.8	-101.5	-96.0
Cap Exp.	-137.5	-180.6	-166.3	-148.8	-156.2	-160.0
Subtotal	599.3	578.2	554.9	533.9	571.4	645.0
Net Income	142.8	333.8	407.9	287.2	291.8	361.3
EPS	1.19	2.16	2.20	1.68	1.76	2.05

Valuation	LTM	Forecasts	
	Jun-16	Dec-16	Dec-17
EV/EBITDA	7.8x	7.2x	6.6x
EV/Sales	1.7x	1.7x	1.7x
FCF Yield	16%	17%	20%
PE	8.1x	10.1x	8.7x

Source: Two Rivers Analytics

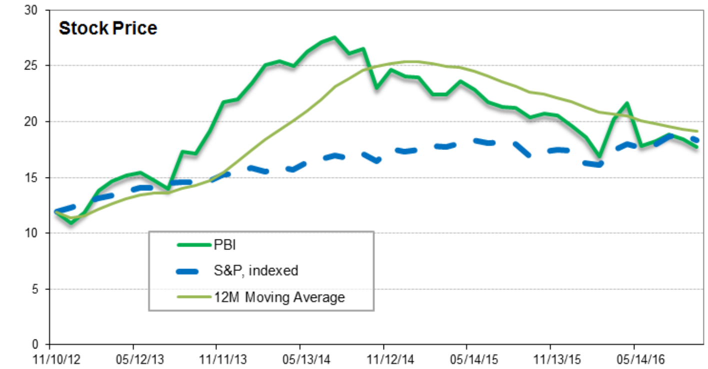
Below, please find:

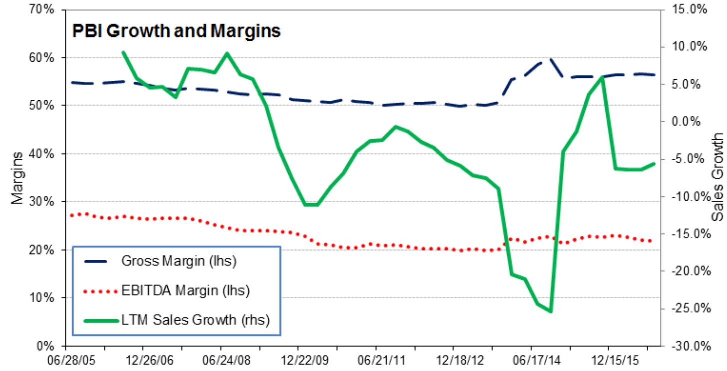
- Time series data on key company metrics
- Comparable companies analysis
- Time series charts on the company vs. its comps
- Scatter plots of forecast growth and valuation multiples
- Revisions trend vs. its comparables
- Correlations of stock price to various estimate revisions

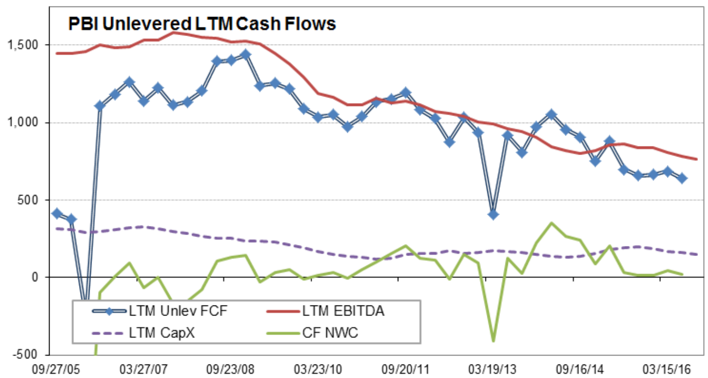
Pitney Bowes Inc. (PBI)

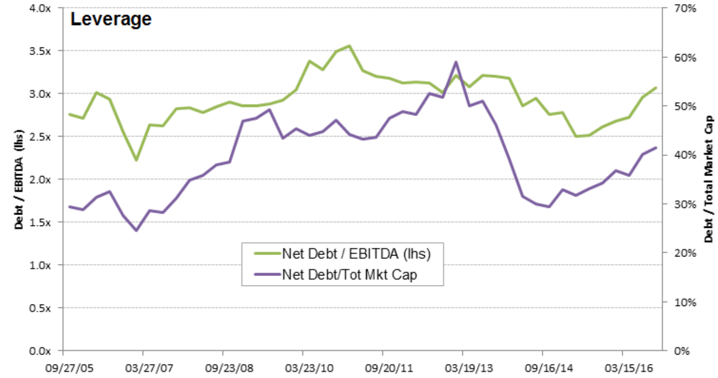
updated 9/13/2016

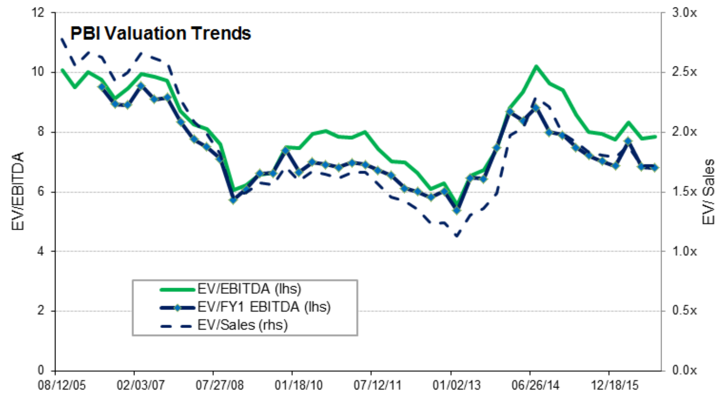
Historical Metrics: Sales, Margins, Cash Flow, Leverage, Valuation, Estimates & Short Interest

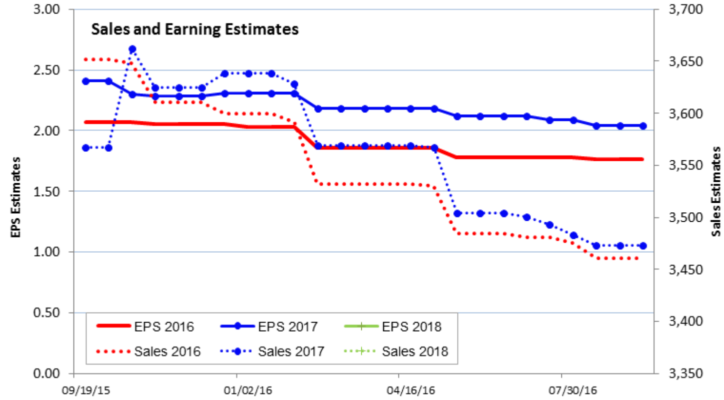


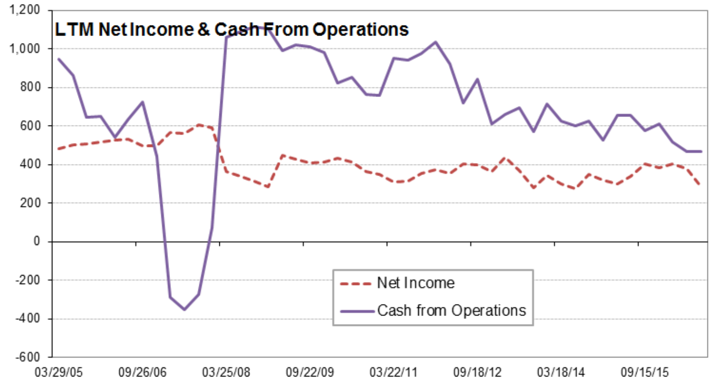




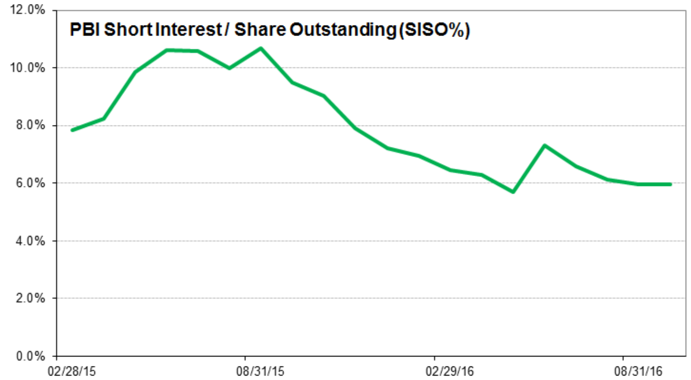








* As per GAAP financial statements; Unadjusted.



Comp Companies Analysis: Pitney Bowes Inc. (PBI)

Pricing date: 9/13/2016

All financials in USD millions

				comp 'fit':	a	a	a	b	b	b
Tickers	**PBI**				**7994-JP**	**STMP**	**6457-JP**	**NCR**	**RRD**	**XRX**
Names	Pitney Bowes Inc.	Fav / Unf	*Mean*	*Median*	Okamura Corporation	Stamps.com Inc.	Glory Ltd.	NCR Corporation	R.R. Donnelley & Sons Company	Xerox Corporation
Price Performance										
Price (latest, USD)	17.78		31.99	23.65	9.41	92.98	32.44	31.41	15.88	9.79
Price (latest, local curr.)	--		--	--	*962.00*	--	*3,315.00*	--	--	--
1 day % change	-1.2%	-	-0.7%	-0.2%	-0.1%	0.5%	1.5%	-2.7%	-3.1%	-0.2%
1 week % change	-6.0%	-	-4.3%	-4.1%	-0.3%	-6.7%	-1.6%	-8.9%	-7.5%	-1.0%
1 month % change	-7.9%	-	1.2%	-4.8%	-9.9%	22.7%	15.5%	-4.7%	-11.4%	-5.0%
YTD % change	-12.9%	-	-2.2%	-10.1%	-20.4%	-15.6%	-12.6%	32.0%	11.3%	-7.7%
1 year % change	-11.9%	U	5.0%	4.7%	-7.1%	15.0%	1.1%	18.5%	8.3%	-5.9%
52w High/Low	21.81 / 16.24		--	--	10.85 / 8.30	123.75 / 68.82	35.42 / 23.35	34.99 / 18.02	19.83 / 12.07	11.39 / 8.48
% of H/L Range	27.6%	U	56.0%	47.1%	43.9%	44.0%	75.3%	78.9%	49.1%	45.0%
Consensus Price Target	23.17		42.53	29.08	15.66	135.29	34.89	33.17	25.00	11.21
% to Price Target	30.3%	-	32.8%	30.0%	66.3%	45.5%	7.5%	5.6%	57.4%	14.5%
Size										
Market Value	3,339	-	3,685	2,768	1,041	1,598	2,104	3,998	3,432	9,940
Enterprise Value	5,979	-	5,965	4,358	970	1,639	1,942	7,959	6,774	16,508
Date of Financials	06/30/16				06/30/16	06/30/16	06/30/16	06/30/16	06/30/16	06/30/16
LTM Sales	3,486	-	6,576	4,211	2,065	287	1,948	6,357	11,144	17,652
LTM EBITDA	764	-	751	635	153	99	317	953	1,065	1,921
LTM Capex	149	-	153	208	47	2	nm	217	208	290
EBITDA-CapX	616	-	686	736	106	98	nm	736	857	1,631
Assets	5,964	-	7,527	5,086	2,055	547	3,083	7,751	7,088	24,641
Employees	14,800	-	43,015	20,389	4,710	600	8,177	32,600	68,400	143,600
Shares	185.6	-	257.5	118.1	112.4	17.3	68.6	123.8	209.5	1,013.3
Profitability/Productivity										
LTM Sales/Tot Assets	58%	-	88%	77%	101%	53%	63%	82%	157%	72%
LTM Sales/Employee	235,526	-	272,770	216,630	438,526	478,992	238,261	195,000	162,920	122,925
LTM Gross Margin (-3Q)	56.5%	F	34.6%	28.4%	28.6%	76.7%	34.6%	21.9%	17.8%	28.2%
LTM Gross Margin (-2Q)	56.4%	F	34.5%	27.9%	28.9%	77.7%	34.3%	21.1%	17.9%	26.9%
LTM Gross Margin (-1Q)	56.5%	F	34.7%	28.2%	29.8%	78.1%	35.0%	21.1%	18.0%	26.5%
LTM Gross Margin (0Q)	56.3%	F	35.7%	28.4%	30.3%	78.6%	35.2%	25.8%	18.0%	26.4%
LTM EBITDA Margin (-3Q)	23.1%	F	12.5%	10.3%	6.4%	25.0%	15.8%	7.1%	9.3%	11.4%
LTM EBITDA Margin (-2Q)	22.6%	F	13.8%	10.8%	6.8%	30.0%	16.3%	7.9%	10.3%	11.4%
LTM EBITDA Margin (-1Q)	22.1%	F	14.1%	10.8%	7.1%	32.0%	15.8%	8.1%	10.7%	10.9%
LTM EBITDA Margin (0Q)	21.9%	-	15.6%	12.9%	7.4%	34.6%	16.3%	15.0%	9.6%	10.9%
LTM EBIT Margin	16.8%	-	10.8%	7.6%	5.5%	30.0%	9.7%	9.8%	5.6%	4.3%
LTM Pretax Margin	13.2%	F	6.7%	5.4%	5.8%	19.9%	6.1%	5.1%	2.0%	1.5%
LTM Net Margin	8.1%	F	4.4%	3.4%	4.0%	12.1%	2.9%	4.1%	1.0%	2.5%
LTM R&D / Sales	3.3%	-	17.1%	6.6%	52.9%	9.8%	nm	3.3%	nm	2.4%
LTM Capex / Sales	4.3%	U	2.0%	1.9%	2.3%	0.6%	nm	3.4%	1.9%	1.6%
ROA	4.6%	-	3.6%	2.7%	4.6%	8.2%	2.1%	3.3%	1.5%	1.7%
ROE	209.5%	F	10.7%	11.0%	9.0%	12.9%	3.5%	17.4%	16.7%	4.4%
Growth										
LTM Sales (-3Q)	-6.3%	-	0.5%	-3.4%	-6.4%	34.9%	-8.5%	-0.5%	0.9%	-17.3%
LTM Sales (-2Q)	-6.4%	-	3.1%	-3.8%	-4.3%	45.3%	-8.5%	-3.3%	-3.0%	-7.7%
LTM Sales (-1Q)	-6.4%	-	6.3%	-3.8%	0.1%	59.3%	-8.5%	-3.2%	-4.4%	-5.5%
LTM Sales (0Q)	-5.7%	-	9.7%	-2.6%	3.7%	67.0%	-4.3%	-2.1%	-3.3%	-3.0%
LTM Gross Profit (0Q)	-5.3%	-	13.8%	3.8%	9.3%	71.8%	-1.7%	20.2%	-2.1%	-14.7%
LTM EBITDA	-9.0%	-	46.2%	9.8%	16.7%	134.9%	2.9%	145.0%	1.0%	-22.9%
LTM EBIT	-9.8%	-	28.3%	8.0%	29.9%	142.2%	8.0%	nm	5.8%	-44.2%
LTM Asset	-4.6%	-	17.1%	3.1%	22.0%	85.3%	10.1%	-3.9%	-5.4%	-5.3%
Employees YoY	-2.6%	-	14.3%	2.7%	0.1%	74.9%	4.8%	7.9%	0.6%	-2.6%
LTM Capex	-24.5%	-	-23.8%	-24.3%	-24.3%	-36.3%	na	-13.3%	-4.8%	-40.1%
LTM EPS (recurr)	-36.2%	-	-7.4%	-5.0%	23.7%	32.8%	-49.2%	nm	-5.0%	-39.2%
LTM EPS (basic)	-29.9%	-	-19.4%	-30.0%	31.4%	nm	-49.0%	nm	-29.7%	-30.4%
LTM EPS (diluted)	-30.3%	-	-18.9%	-28.9%	31.4%	nm	-49.0%	nm	-27.4%	-30.4%
Forecast LTG	30.0%	F	17.5%	17.5%	nm	17.5%	nm	nm	nm	nm
EPS FY1 v FY0	-13.2%	U	58.5%	32.0%	31.3%	nm	32.0%	nm	112.3%	nm
EPS FY2 v FY1	16.1%	-	10.5%	9.0%	9.9%	2.3%	31.3%	9.9%	8.1%	1.2%
EPS FY3 v FY2	nm	-	9.5%	9.4%	3.6%	20.6%	9.9%	8.8%	13.5%	0.6%

Source: Two Rivers Analytics; FactSet Research Systems * As per GAAP financial statements.

Comp Companies Analysis: Pitney Bowes Inc. (PBI)

Pricing date: 9/13/2016

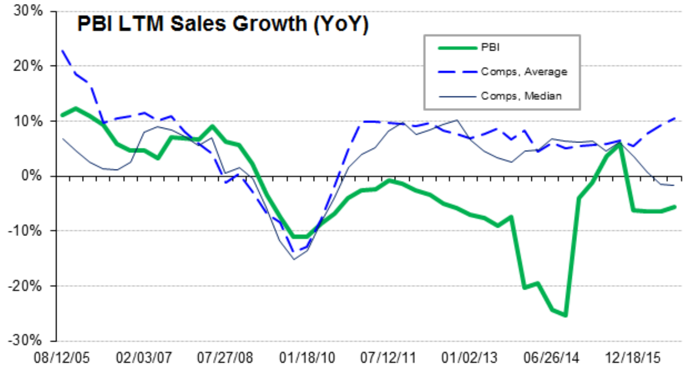
All financials in USD millions

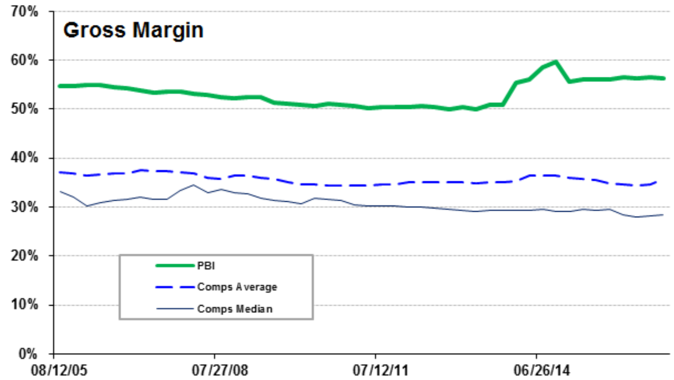
				comp 'fit':	a	a	a	b		b
Tickers	**PBI**				**7994-JP**	**STMP**	**6457-JP**	**NCR**	**RRD**	**XRX**
Names	Pitney Bowes Inc.	*/ Unfa*	*Mean*	*Median*	Okamura Corporation	Stamps.com Inc.	Glory Ltd.	NCR Corporation	R.R. Donnelley & Sons Company	Xerox Corporation
Sales Estimates & Expected Growth										
Sales FY0	3,577		--	--	2,005	214	1,890	6,373	11,257	18,045
Sales LTM	3,486		--	--	2,065	287	1,948	6,357	11,144	17,652
Sales NTM	3,483		--	--	nd	360	nd	6,453	11,315	17,415
Sales FY1	3,461		--	--	2,421	338	2,198	6,379	11,262	17,552
Sales FY2	3,473		--	--	2,481	384	2,265	6,506	11,379	17,408
Sales FY3	nd		--	--	2,541	416	2,335	6,555	11,471	17,357
#Estimates	4		4	3	1	6	1	4	2	9
Growth: FY1 v FY0	-3.3%	U	15.4%	8.2%	20.7%	58.2%	16.3%	0.1%	0.0%	-2.7%
Growth: FY2 v FY1	0.4%	-	3.6%	2.2%	2.5%	13.6%	3.1%	2.0%	1.0%	-0.8%
Growth: FY3 v FY2	nm	-	2.5%	1.6%	2.4%	8.3%	3.1%	0.7%	0.8%	-0.3%
CAGR (FY3 v FY0)	nd	-	6.8%	4.1%	8.2%	24.8%	7.3%	0.9%	0.6%	-1.3%
EPS Estimates & Expected Growth										
EPS FY0	*2.03*				*0.69*	*-0.26*	*1.12*	*-1.09*	*0.73*	*0.42*
EPS FY1	1.76		--	--	0.90	7.26	1.48	2.95	1.55	1.13
EPS FY2	2.05		--	--	0.99	7.43	1.94	3.24	1.68	1.14
EPS FY3	nd		--	--	1.02	8.96	2.13	3.53	1.90	1.15
#Estimates	6		7	6	na	6	na	6	2	12
Growth: FY1 v FY0	-13.2%	U	86.1%	72.2%	31.3%	nm	32.0%	nm	112.3%	168.7%
Growth: FY2 v FY1	16.1%	-	10.5%	9.0%	9.9%	2.3%	31.3%	9.9%	8.1%	1.2%
Growth: FY3 v FY2	nm	-	9.5%	9.4%	3.6%	20.6%	9.9%	8.8%	13.5%	0.6%
CAGR (FY3 v FY0)	nd	F	70.2%	38.7%	14.3%	231.6%	24.0%	73.7%	37.6%	39.8%
Revisions, 3M Chg in:										
FY1 EPS	-1.1%	-	0.7%	2.0%	9.2%	15.5%	-23.6%	0.9%	-0.7%	3.1%
FY2 EPS	-3.5%	-	0.5%	1.0%	2.9%	9.2%	-11.2%	1.5%	0.3%	0.5%
FY3 EPS	na	-	-0.1%	-1.8%	3.6%	na	-3.7%	6.0%	-1.8%	-4.4%
Target Price	-1.4%	-	0.7%	-0.1%	9.4%	-1.3%	-9.7%	8.7%	-3.8%	1.1%
Leverage										
Net Debt / Book Capital	97.1%	U	34.6%	26.5%	-7.3%	11.2%	-10.1%	87.7%	84.7%	41.7%
Net Debt / Mkt Capital	44.2%	U	21.0%	21.1%	-7.3%	2.5%	-8.4%	49.8%	49.3%	39.8%
Net Debt / EBITDA	3.5x	-	2.8x	3.3x	nm	0.4x	nm	4.2x	3.1x	3.4x
Total Debt	3,094	--	--	--	288	164	619	3,457	3,619	7,384
Minority Interest	296	--	--	--	5	0	27	14	14	38
Preferred	0	--	--	--	0	0	0	822	0	349
Cash	751	--	--	--	363	123	808	332	291	1,203
Net Debt	2,640	--	--	--	-71	41	-163	3,961	3,343	6,568
Net Cash/Share (if >0)	na	--	--	--	$0.63	na	$2.37	na	na	na
as % of share price	nm	-	7.0%	7.0%	6.7%	nm	7.3%	nm	nm	nm
Working Capital										
A/R DSO	141.4	U	75.0	77.1	92.8	58.5	76.2	78.0	64.5	80.0
Inventory (days)	26.6	-	47.7	34.2	39.9	0.0	134.8	59.2	23.8	28.6
Accounts Payable (days)	140.9	U	46.5	36.6	75.6	68.8	33.0	38.8	34.3	28.5
Cash Cycle (days)	27.1	-	76.2	68.6	57.1	-10.2	178.1	98.4	54.0	80.1
Valuation										
EV/LTM Sales	1.7x	-	1.7x	1.0x	0.5x	5.7x	1.0x	1.3x	0.6x	0.9x
EV/LQA Sales	1.8x	-	1.5x	1.0x	0.5x	4.9x	1.1x	1.2x	0.6x	0.9x
EV/FY1 Sales	1.7x	-	1.5x	0.9x	0.4x	4.8x	0.9x	1.2x	0.6x	0.9x
EV/NTM Sales	1.7x	-	1.8x	1.1x	nm	4.6x	nm	1.2x	0.6x	0.9x
EV/FY2 Sales	1.7x	-	1.4x	0.9x	0.4x	4.3x	0.9x	1.2x	0.6x	0.9x
EV/FY3 Sales	nm	-	1.3x	0.9x	0.4x	3.9x	0.8x	1.2x	0.6x	1.0x
EV/LTM EBITDA	7.8x	-	8.7x	7.4x	6.3x	16.5x	6.1x	8.4x	6.4x	8.6x
EV/LQA EBITDA	8.2x	-	8.9x	8.2x	6.4x	14.0x	8.8x	7.7x	9.0x	7.3x
EV/FY1 EBITDA	7.2x	-	7.5x	6.7x	nm	11.7x	5.9x	7.6x	5.7x	6.7x
EV/NTM EBITDA	6.8x	-	7.7x	7.2x	nm	10.8x	nm	7.7x	5.7x	6.7x
EV/FY2 EBITDA	6.6x	-	7.0x	6.2x	nm	10.2x	5.6x	7.3x	5.6x	6.2x
EV/FY3 EBITDA	nm	-	6.5x	6.1x	nm	8.5x	5.3x	7.2x	5.5x	6.1x
EV/EBIT	10.2x	-	13.9x	11.8x	8.5x	19.0x	10.3x	12.8x	10.8x	21.8x
EV/(EBITDA-CapX)	9.7x	-	11.0x	10.1x	9.1x	16.8x	nm	10.8x	7.9x	10.1x
EBITDA Yld LTM	12.8%	-	12.9%	13.8%	15.8%	6.1%	16.3%	12.0%	15.7%	11.6%
EBITDA Yld FY1	13.9%	-	14.2%	14.8%	nm	8.6%	16.9%	13.2%	17.6%	14.8%
EBITDA-CapX Yld	10.3%	-	9.7%	9.9%	11.0%	6.0%	nm	9.2%	12.6%	9.9%
NI+D&A-CpX Yld	9.3%	-	8.5%	9.3%	7.1%	2.9%	nm	9.3%	10.0%	13.3%
NI[1]+D&A-CpX Yld	5.2%	-	5.5%	5.0%	7.6%	2.8%	nm	4.3%	5.0%	7.8%
LTM PE	nm	-	30.0x	30.0x	30.0x	nm	nm	nm	nm	nm
FY1 PE	10.1x	-	12.5x	10.6x	10.5x	12.8x	22.0x	10.6x	10.2x	8.7x
FY2 PE	8.7x	-	11.1x	9.6x	9.5x	12.5x	16.7x	9.7x	9.5x	8.6x
FY3 PE	nm	-	10.1x	9.0x	9.2x	10.4x	15.2x	8.9x	8.4x	8.5x
PEG (FY1 PE/LTG)	0.3x	U	0.7x	0.7x	nm	0.7x	nm	nm	nm	nm
Price / Book	42.1x	U	3.5x	3.1x	1.0x	4.9x	1.2x	7.0x	5.5x	1.1x
Price / CFPS	19.3x	-	22.1x	17.0x	20.1x	17.0x	neg	9.6x	50.8x	12.9x
Dividend Yield	4.2%	-	2.3%	2.2%	2.5%	0.0%	1.8%	0.0%	6.3%	3.2%

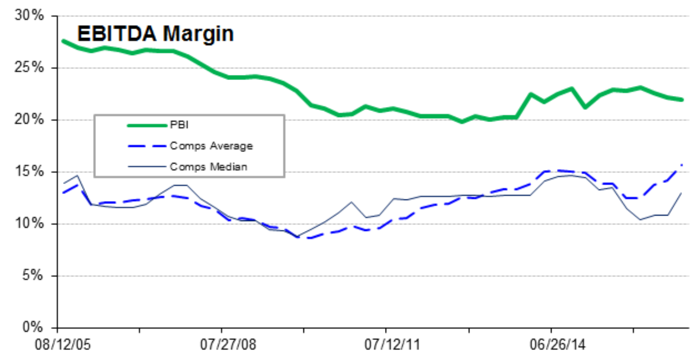
Pitney Bowes Inc. (PBI) and its comparable companies

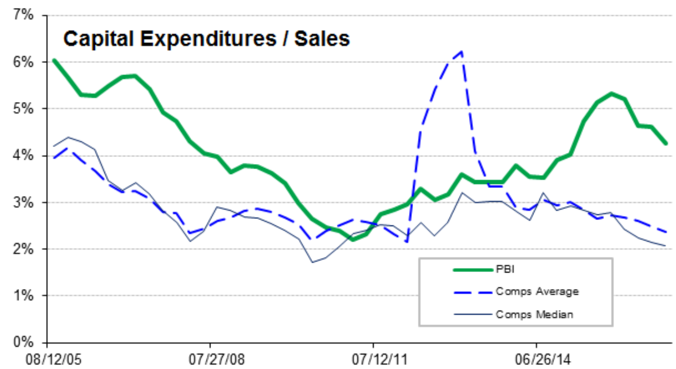
updated 9/13/2016

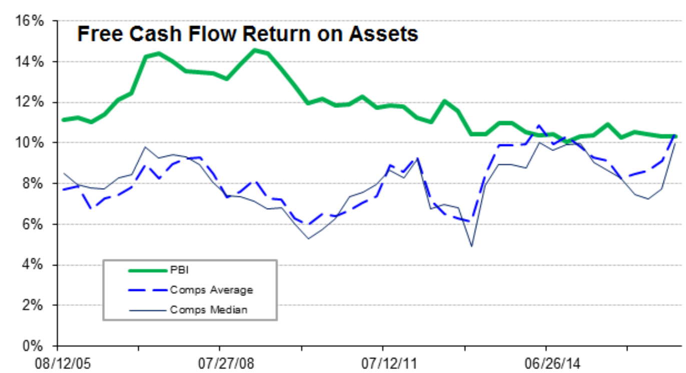
Growth, Margins, Capex, Leverage, & Valuation

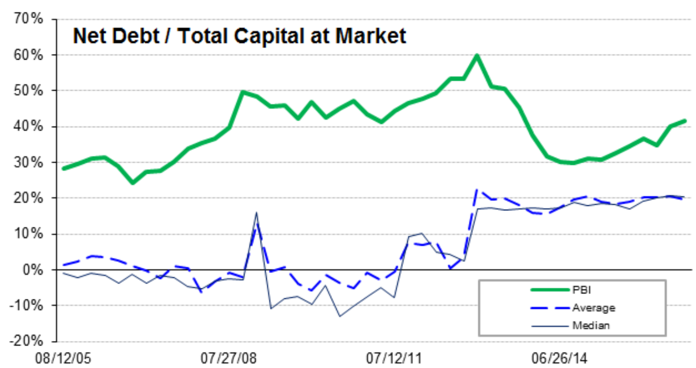


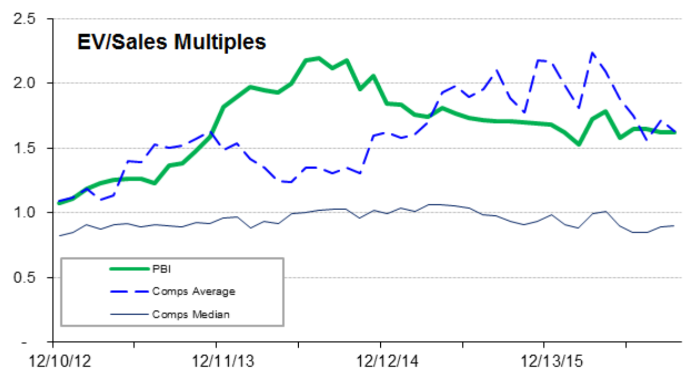


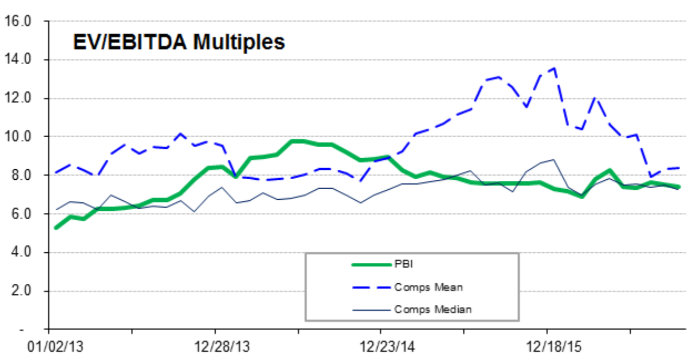












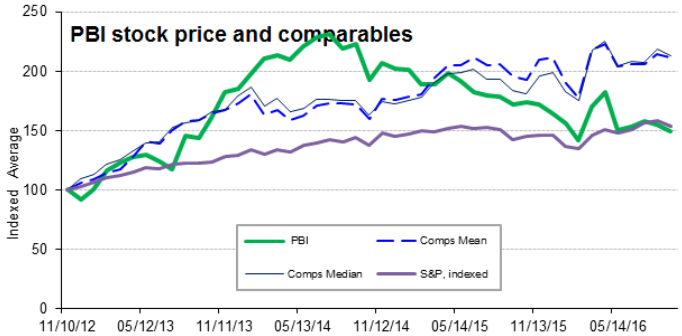
Comparable companies: Okamura Corporation (7994-JP), Stamps.com Inc. (STMP), Glory Ltd. (6457-JP), NCR Corporation (NCR), R.R. Donnelley & Sons Company (RRD), Xerox Corporation (XRX),

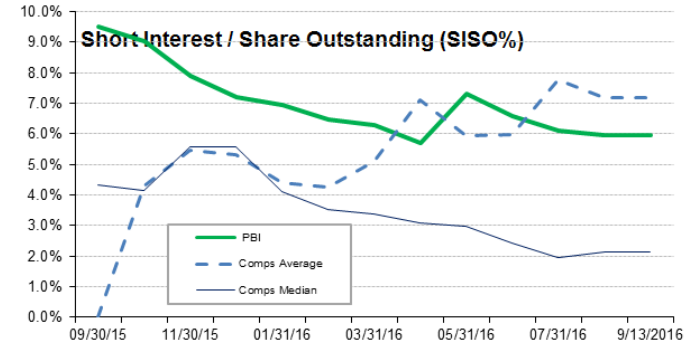
Source: Two Rivers Analytics;

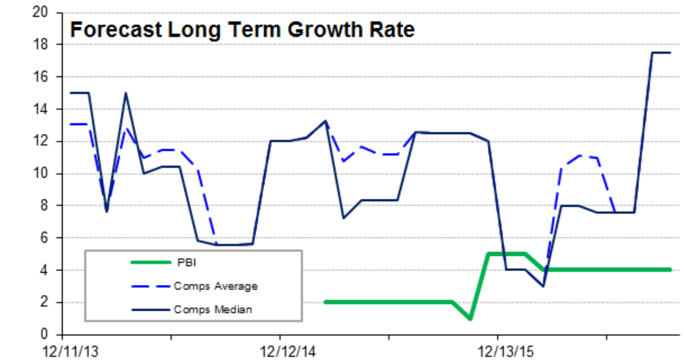
Pitney Bowes Inc. (PBI) and its comparable companies

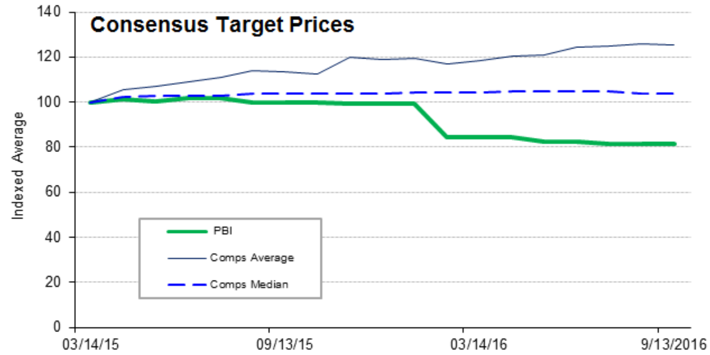
updated 9/13/2016

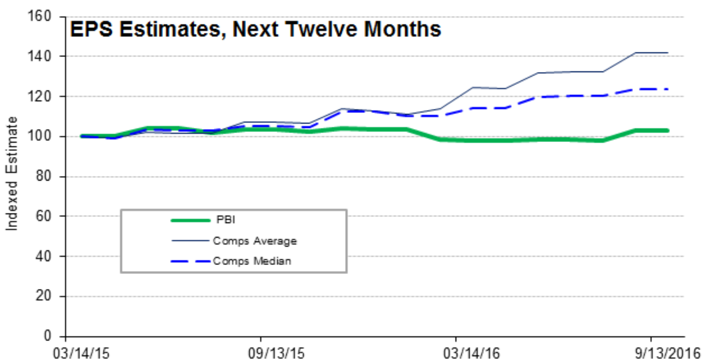
Stock Price, forecast growth, target prices, estimates and short interest

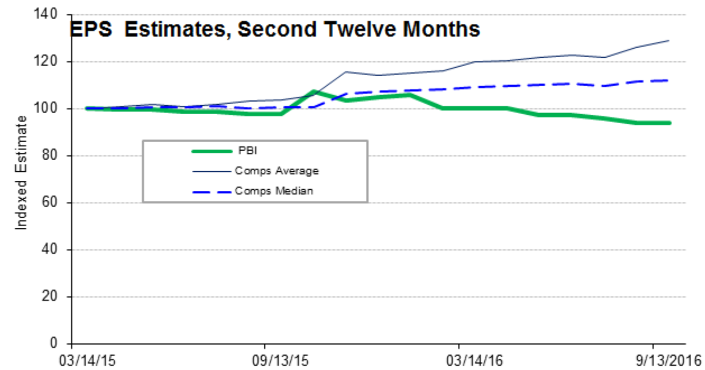


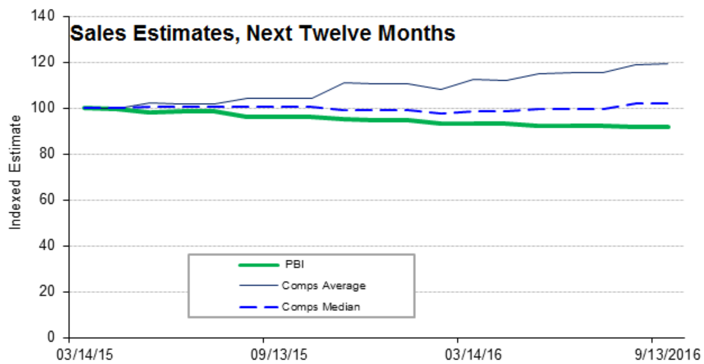


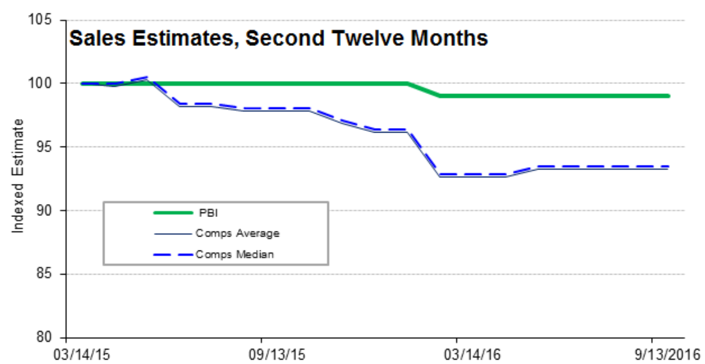










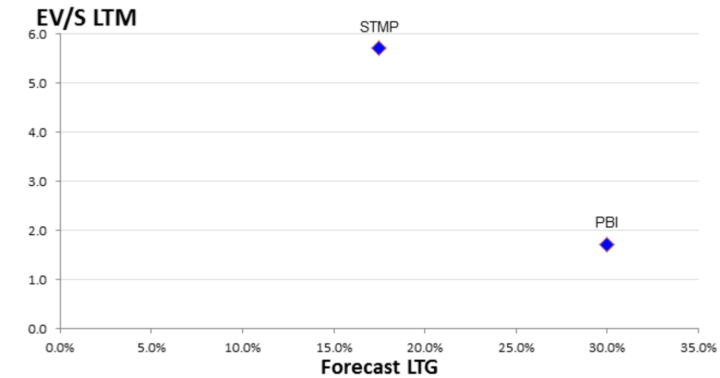


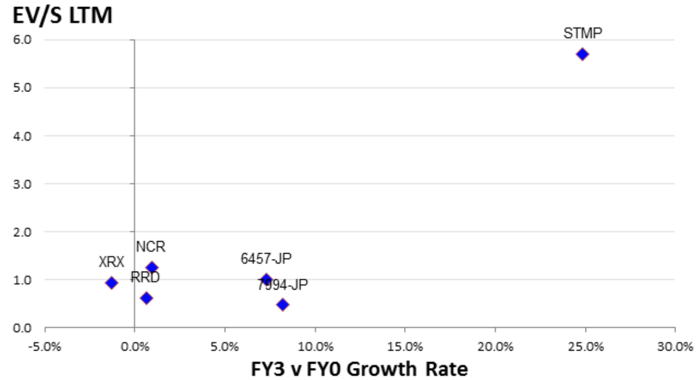
Source: Two Rivers Analytics;

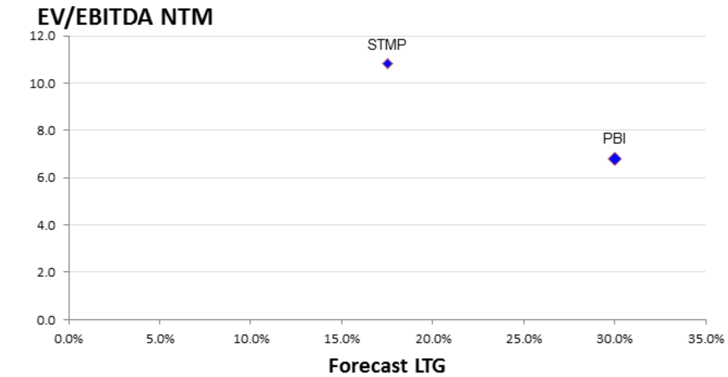
Comparable companies: Okamura Corporation (7994-JP), Stamps.com Inc. (STMP), Glory Ltd. (6457-JP), NCR Corporation (NCR), R.R. Donnelley & Sons Company (RRD), Xerox Corporation (XRX),

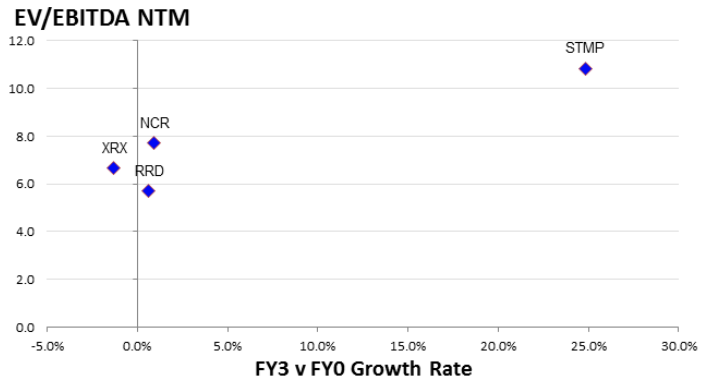
Forecast Growth Rates vs. Valuations: Pitney Bowes Inc. (PBI) and its comparables

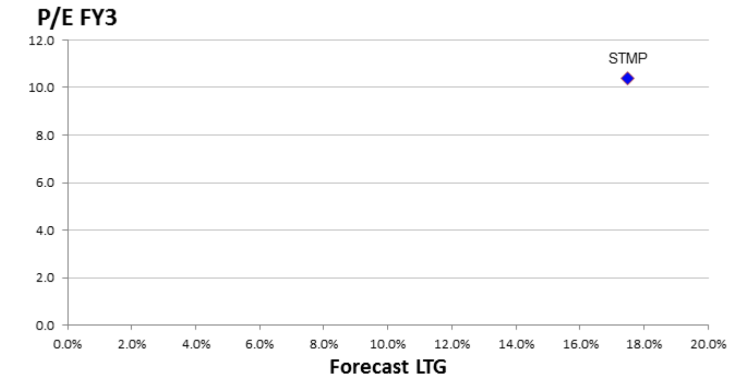
9/13/2016

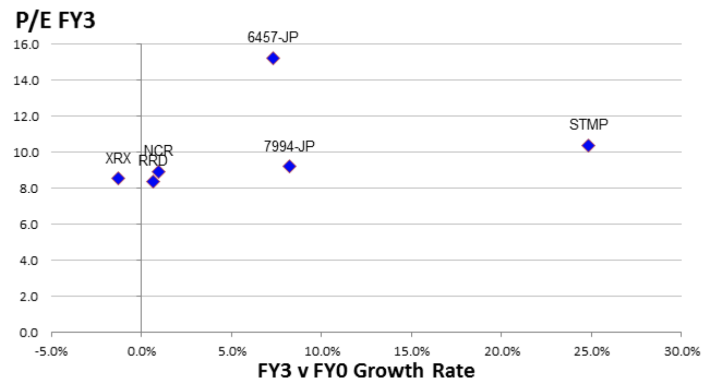


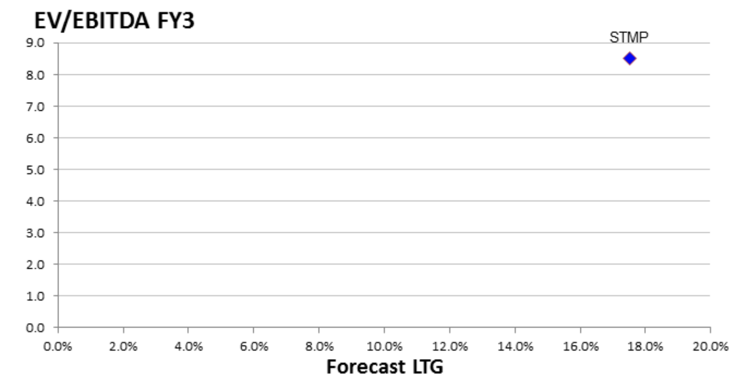


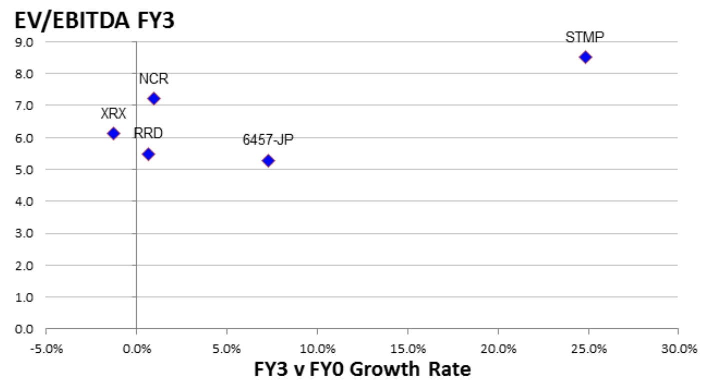












Source: Two Rivers Analytics; *Comparable companies: Okamura Corporation (7994-JP), Stamps.com Inc. (STMP), Glory Ltd. (6457-JP), NCR Corporation (NCR), R.R. Donnelley & Sons Company (RRD), Xerox Corporation (XRX),*

Stock prices and Estimate Revisions

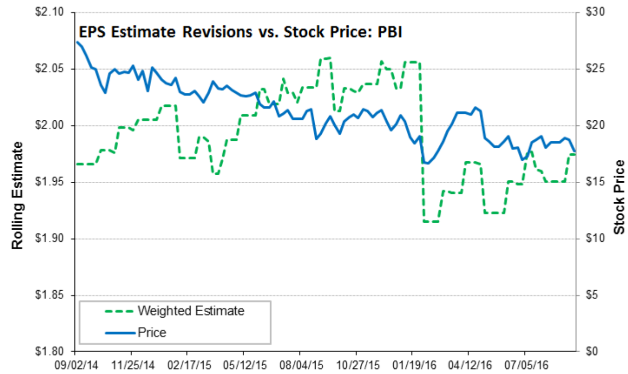
9/13/16

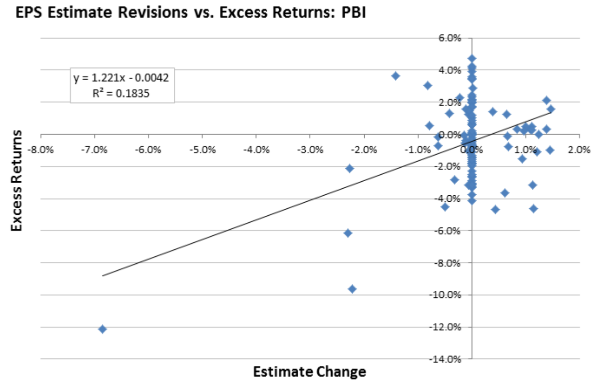
Source: Two Rivers Analytics; FactSet Research System Key: NTM EPS: The time weighted annual next twelve months consensus mean EPS. (FY1 EPS * % of year remaining in FY1 + FY2 EPS * (1 - % of year remaining in FY1))
Breadth: The percent of analysts increases minus percent decreases over the past 45 days. The total is accumulated to create the time series. (If this period, more analysts cut than raise, the net % is subtracted from the prior period's total.)
Stock Price: Only the stock price is scaled on the chart. The other metrics are to be viewed for their trends.

Pitney Bowes Inc. (PBI)

updated 9/13/2016

Correlations with Wall Street Analysts Estimates

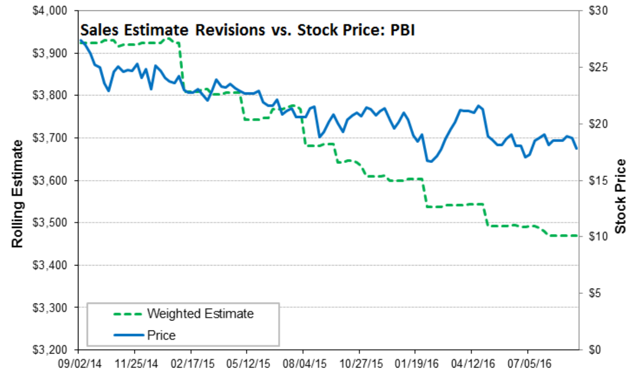


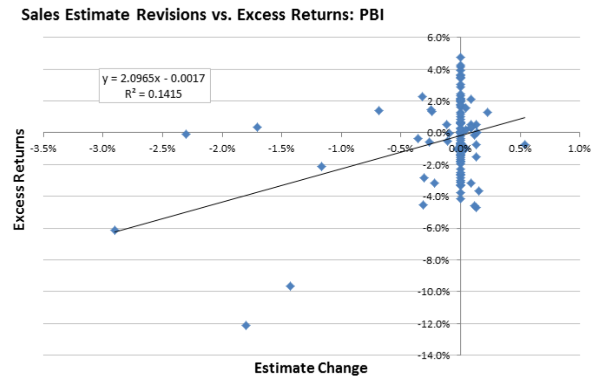


2 Yr. Correl.	42.8%
6 Mon. Correl:	50.8%
3 Mon. Correl:	10.5%

Economic Significance:

Slope	1.22
"a 1% increase in estimates = an x% increase in stock price"	
R-squared	0.18

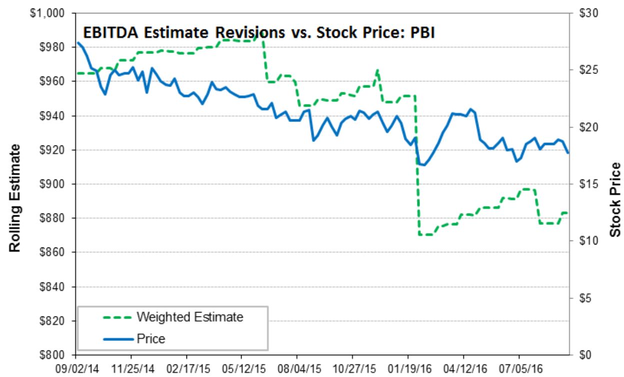


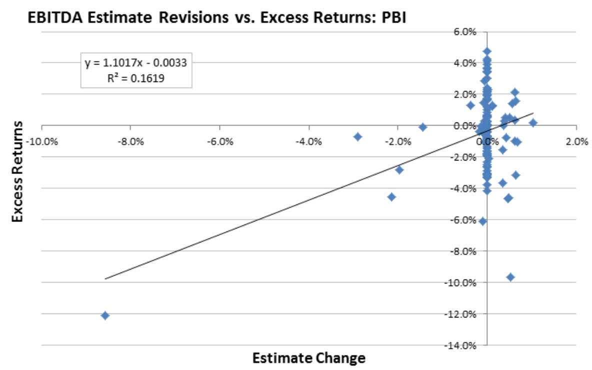


2 Yr. Correl.	37.6%
6 Mon. Correl:	69.1%
3 Mon. Correl:	22.7%

Economic Significance:

Slope	2.10
"a 1% increase in estimates = an x% increase in stock price"	
R-squared	0.14

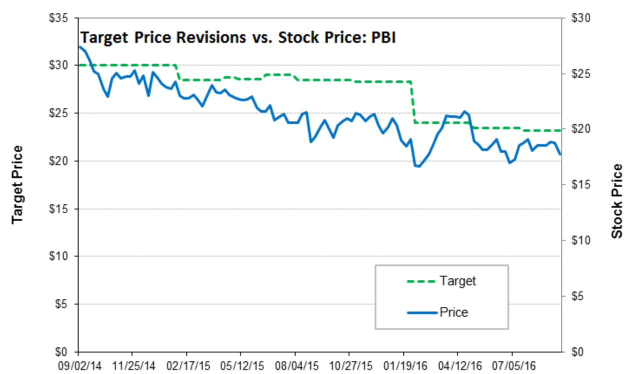


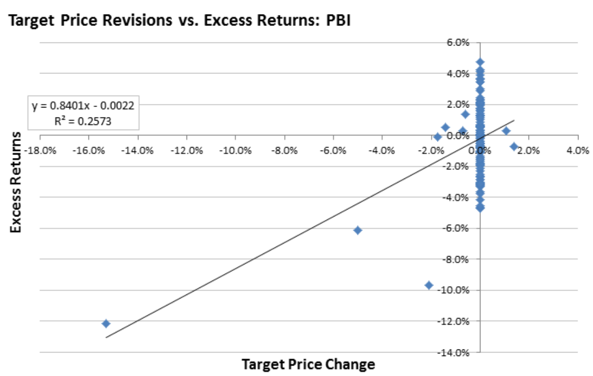


2 Yr. Correl.	40.2%
6 Mon. Correl:	14.8%
3 Mon. Correl:	41.9%

Economic Significance:

Slope	1.10
"a 1% increase in estimates = an x% increase in stock price"	
R-squared	0.16





2 Yr. Correl.	50.7%
6 Mon. Correl:	51.2%
3 Mon. Correl:	-10.2%

Economic Significance:

Slope	0.84
"a 1% increase in target price = an x% increase in stock price"	
R-squared	0.26

Source: Two Rivers Analytics; data from FactSet Research Systems
Outliers cut off at +70% and -70%.

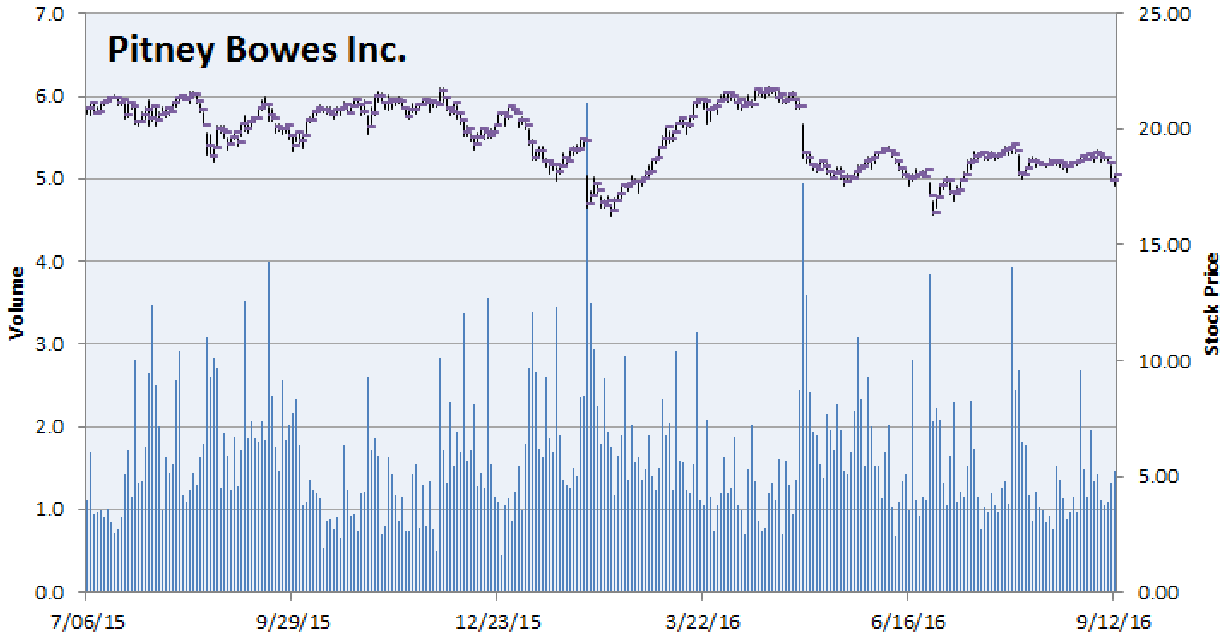
About Two Rivers Analytics

Two Rivers is dedicated to providing actionable, high quality investment ideas, with an emphasis on short ideas, to institutional investors.

Our work uses a hybrid quantitative/qualitative process to identify companies at high risk of a declining equity price. Our quantitative screening process identifies multiple categories of risk to create this Stock at Risk ranking. The ranking is vetted further through a timing/catalyst analysis and a shortability assessment. The best short ideas are analyzed fundamentally and presented to clients. The Stock at Risk ranking is also the basis for our Long/Short model portfolio.

For more information, including our process, influences and biographies, please visit TwoRiversAnalytics.com.

Important Disclosures



Ratings History: We are initiating coverage with a sell short recommendation.

Two Rivers Analytics rates a stock Sell/Sell Short based on characteristics that we feel indicate the stock is poised for a significant downturn and will underperform the market substantially. We have not issued any Buy or Hold ratings to date.

Analyst Certification

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