

Tableau (NYSE: DATA)

LONG INVESTMENT IDEA
JANUARY 5, 2017

Investment Recommendation:

As the world gets even more saturated with data, technologies that harness this massive amount of data simply and usefully will be invaluable.

Tableau, the leading business intelligence and analytics company, is trading significantly lower than its fundamental value. I believe Tableau's stock should be worth 80-120% higher than what it is today.

In a downside scenario, the stock will be \$38 in two years, a decrease of 15% from the current price (assume current EV / Sales).

Agenda

- List of People Interviewed During Original Research
- Product Overview
- Industry Overview and Competitive Landscape
- Investment Thesis
- Valuation
- Deal Structuring
- Investment Concerns
- Key Questions for Additional DD

Original Research

I have tried to seek value add, original research on my investment thesis on Tableau. I used Tableau products myself, talked with people who regularly use smart BI products as well as employees of Tableau and its competitors

You will see these blue bubbles throughout the deck. These are quotes/paraphrases from people with whom I talked, or my own reflections as an user.

- I have personally tested Tableau, Qlik and Microsoft products
- Two VPs of Technology Division in charge of driving greater adoption of BI products like Tableau at a major financial institution
- Data specialist at a New York investment bank
- Tableau Enterprise Salesperson for Mid-Atlantic Region
- Two Qlik sales people, one of which is a specialist salesperson for SMBs
- Microsoft Power BI salesperson
- Global growth strategist at a major cloud company

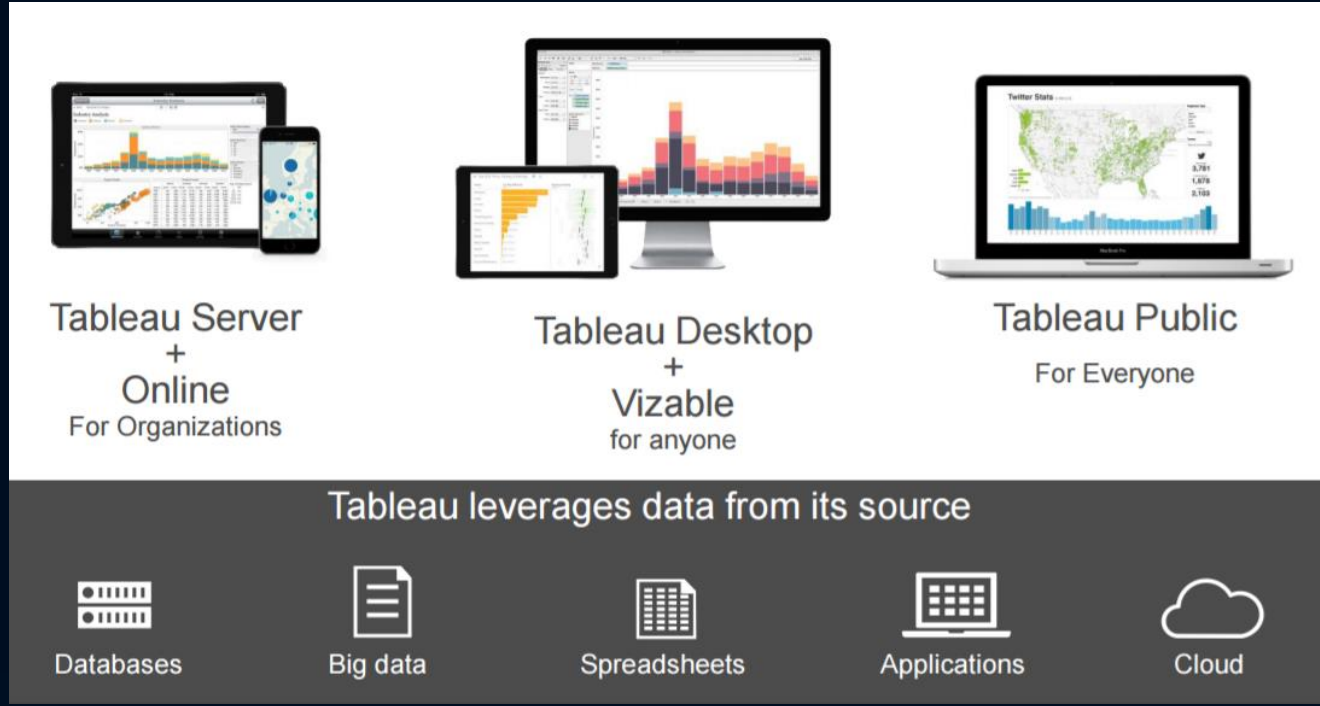
Intro to Tableau

Tableau is the Premier Big Data Visualization Software

“Tableau’s greatest strengths include 1) turning data into intuitive visuals, 2) compatibility with a diverse database, 3) easy to use for business people who do not know coding, 4) easy to share on the enterprise server.”

“On the flip side, since Tableau created a new product category, it requires new users to invest 1 or 2 hours to learn the interface. I recognize people like to stick to what they know. Additionally, since Tableau products are being updated rapidly, there are some technical difficulties including delayed processing.”

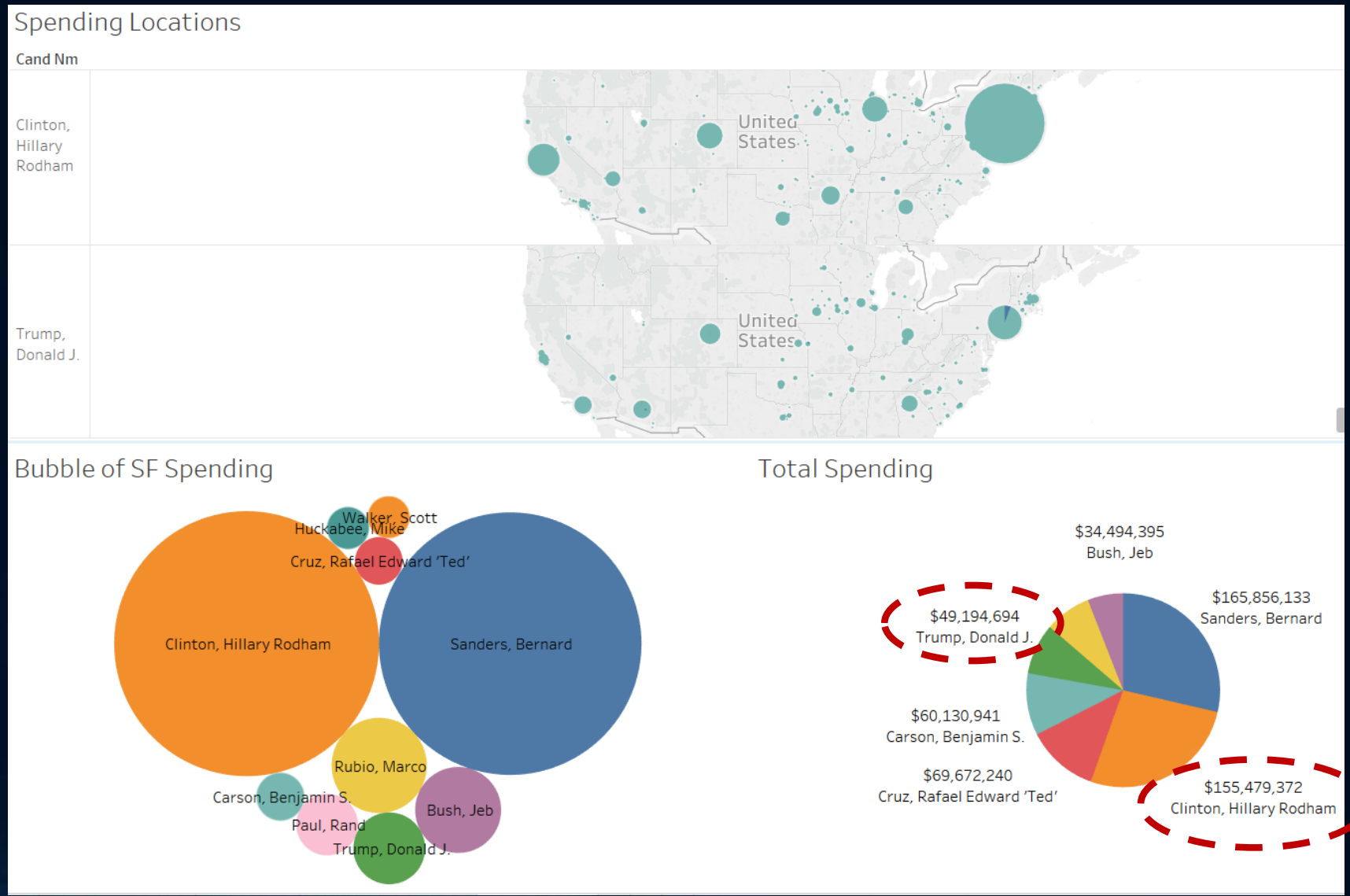
– VP of Technology at a Major Wall Street Firm



Tableau's Data Visuals are Intuitive and Powerful

2016 US PRESIDENTIAL SPENDING

Using Tableau, I can quickly create complex graphics that were either impossible or would have taken hours to do in Excel.



Global Business Intelligence Market is Fast Growing

GLOBAL BI AND ANALYTICS MARKET (\$BN)



• [Click here to see an interactive Tableau dashboard on BI market](#)

DRIVERS OF GROWTH

- Proliferation of data across all industries
- Modern BI as new normal
- Transition into cloud
- Ubiquity of analytics
- Collaborative analytics becomes core
- Self-service analytics extends to data prep
- User interface becoming more intuitive
- Data literacy becoming a fundamental skill

KEY FACTORS IMPACTING THE INDUSTRY



MAGIC QUAD - BI & ANALYTICS PLATFORMS














Competitive BI Landscape




"I would rank the top three BI software in this order: Tableau, Qlik and Microsoft." – VP of Technology Division at a Major Wall Street Firm

Modern BI

Traditional BI

BI Vendors											
Products & Services	<ul style="list-style-type: none"> Easy to use visualization software designed for regular business users Versatility in deployment options (cloud vs. on-premises) and use cases Diverse data source connectivity Very expensive 	<ul style="list-style-type: none"> The most competitive product offering to DATA Targeting more sophisticated users with the most advanced analytics Less intuitive visualization than DATA Complement to existing solutions rather than replacement 	<ul style="list-style-type: none"> Wide range of BI capabilities including specialty tools for data scientists and interactive dashboards for business users Advanced analytics including forecasting and decision trees Solutions for diverse industries Very expensive 	<ul style="list-style-type: none"> Drag-and-drop interactive dashboards similar to DATA Limited front-office analytics application Integrated into Salesforce security and collaboration Early stage of product development 	<ul style="list-style-type: none"> Cloud-based AWS QuickSight Lower-end analytics Meeting basic user needs at a fraction of DATA's costs Help gain traction with AWS users 	<ul style="list-style-type: none"> Spotfire: leading data discovery and visualization product Jaspersoft: embedded analytics in applications 	<ul style="list-style-type: none"> Fast transitioning to modern BI Cortana Analytics suite: Power BI, machine learning and cloud Strong business benefits for users Cloud-based delivery and lower cost Easy to use but limited advanced functionality Poor sales experience 	<ul style="list-style-type: none"> Legacy BI products Main advantage is existing ERP customer base No meaningful next-gen offering 	<ul style="list-style-type: none"> Legacy Cognos losing shares to modern BI vendors Strong software capability but limited customer reach given complex user interface Next-gen offering of Watson Analytics warrants monitoring 	<ul style="list-style-type: none"> Early BI vendor with legacy on-premise tools Enterprise-grade platform with strong governance and security features 	<ul style="list-style-type: none"> Vast array of BI tools including SaaS, complex IT department analytics, big data appliance Typically used for large-scale enterprise deployments Lacking unified product vision and advanced analytics Complexity of use
Brand Mindshare	<ul style="list-style-type: none"> Strong reputation among passionate users Developing enterprise level relationships 	<ul style="list-style-type: none"> Strong position in next-gen BI market Great salesforce Great global brand recognition Costly (though cheaper than DATA) 	<ul style="list-style-type: none"> Expensive Poor sales experience Difficult to implement and administer 	<ul style="list-style-type: none"> Very limited brand awareness 	<ul style="list-style-type: none"> Solid enterprise relationships through AWS platform 	<ul style="list-style-type: none"> Customers welcomed flexible pricing Concerned about long term product roadmap 	<ul style="list-style-type: none"> Strong existing enterprise relationships Cost efficient 	<ul style="list-style-type: none"> Perceived as legacy BI vendor No meaningful presence in modern BI 	<ul style="list-style-type: none"> Cognos sold in >130 IBM apps Perceived as legacy BI vendor 	<ul style="list-style-type: none"> Despite inroads in new BI, still perceived to be a legacy BI vendor 	<ul style="list-style-type: none"> Offers too many products Difficult to compete with more streamlined brands
Econ. of Scale	<ul style="list-style-type: none"> Developing scale High cost can be a barrier for rapid expansion 	<ul style="list-style-type: none"> Growing scale Thoma Bravo's take private of Qlik will drive greater operational efficiency 	<ul style="list-style-type: none"> Server-based analytics enable significant scalability 	<ul style="list-style-type: none"> Very limited scale 	<ul style="list-style-type: none"> Still an early product but can be leveraged via AWS to increase scale 	<ul style="list-style-type: none"> Moderate scale 	<ul style="list-style-type: none"> Potentially strong leverage via Microsoft's enterprise relationships 	<ul style="list-style-type: none"> Broader business-user adoption is limited 	<ul style="list-style-type: none"> Achieved scale in legacy BI applications such as record reporting centrally managed by IT departments 	<ul style="list-style-type: none"> Limited scale in new BI Potential to leverage legacy BI client base 	<ul style="list-style-type: none"> Suitable for large-scale enterprise deployments but lacking unified product offering
Annual Cost / Enterprise User	\$1,999	\$1,500 (min of 5 users)	>\$100,000	Higher than DATA (BI is packaged into cloud offerings)	\$216	Server prices range from 6 to 7 figures	\$120	Server prices range from 6 to 7 figures	Server prices range from 6 to 7 figures	Server prices range from 6 to 7 figures	Server prices range from 6 to 7 figures

Zoom In On the Top Three Providers

			
User Mindshare ¹	<ul style="list-style-type: none"> 146,173 views 7,762 followers 90 reviews 	<ul style="list-style-type: none"> 90,113 views 7,698 followers 76 reviews 	<ul style="list-style-type: none"> 79,120 views 7,330 followers 9 reviews
Top Industries of User Reviews ¹	<ul style="list-style-type: none"> Financial Services 14% Healthcare 11% University 10% Manufacturing 7% 	<ul style="list-style-type: none"> Financial Services 18% Manufacturing 8% Insurance 7% Communications 6% 	<ul style="list-style-type: none"> Energy/Utilities 38% Manufacturing 13% Financial Services 13% University 13%
Company Size of User Reviews ¹	<ul style="list-style-type: none"> SMEs 50% Large Enterprise 51% 	<ul style="list-style-type: none"> SMEs 64% Large Enterprise 36% 	<ul style="list-style-type: none"> SMEs 66% Large Enterprise 34%
Positive User Reviews	<ul style="list-style-type: none"> “Without doubt Tableau [...] set the pace for easy-to-use data visualization and exploration software. In practical terms this means business users can get to their data, typically without assistance from IT, and create graphs, charts and dashboards in a way that is most meaningful to them.” “Visualization attributes: Marks – Color, Size, Label, etc.. Easily Accessible and Intuitive” “Very good Geo/Mapping capabilities” “Adaptive sizing based on display resolution. [...] Something Qlikview does not do - you must develop for particular display size/dimensions.” “Tableau ease-of-use is almost legendary. [...] The platform is also very scalable and supports some very large implementations” 	<ul style="list-style-type: none"> “If needs are straightforward [...] then either [Tableau or Qlik] will satisfy needs. But a more prudent approach would assume that future needs are unknown, and that would definitely give more weighting to Qlik Sense.” [Qlik] “brings with it a mature environment for extension and developer support - absolutely crucial in a real-world business intelligence environment. ” “QlikView and QlikSense are powerful tools that require IT and BI expertise to take full advantage of. True BI utilization [...] requires deep knowledge of data utilization and visualization. Qlik can provide that, BUT at the cost of additional IT or BI expertise.” 	<ul style="list-style-type: none"> “user-friendly [and] very stable” “The ease of implementation and reliability of SQL Server Reporting Services far exceeded the solution originally implemented with [SAP] Crystal Report.” “It’s been stable for over eight years, and all the latest products/versions have backwards compatibility, or an upgrade facility. It has helped to fetch many projects, and to deliver them on time, as well as helping to resolve complex business challenges. The product has continual updates so we can stay on top of the market.” “a great level of customer service.” “not costly when compared with other competitor products”
Critical User Reviews	<ul style="list-style-type: none"> “Tableau is hobbled to some extent by its poor extensibility - an issue that should not be underestimated in significance.” “anyone can do a Google search or look on various forums to find that [Tableau] users are often frustrated by its lack of extensibility.” “Heavy data prep needed. Blending within the tool is clunky and causes performance hit.” 	<ul style="list-style-type: none"> “I was very underwhelmed by its charting ability- it feels like the defaults and the tutorial regard graphic representation as an afterthought.” “Their marketing department is heavy-handed[...]. This can turn companies off when they get too aggressive.” 	<ul style="list-style-type: none"> “Reporting or SharePoint needs a lot of learning so you can build reports” “The build in Report Builder for end users needs improvement.”

Investment Thesis

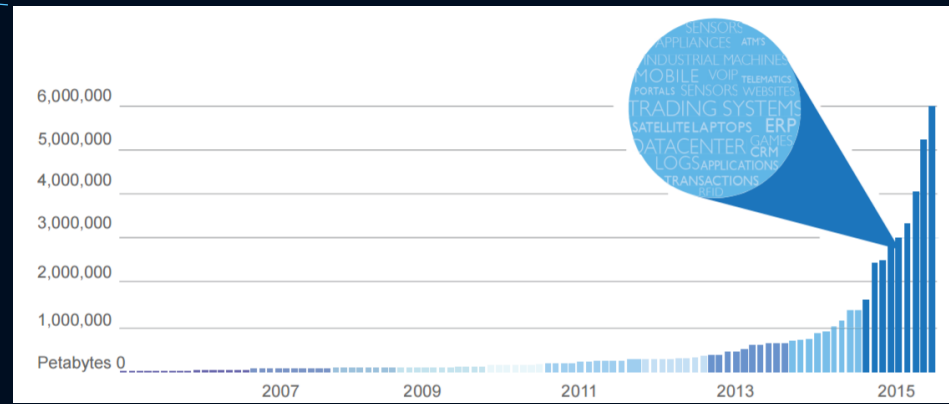
- 1 BIG DATA, BIG MARKET
- 2 TABLEAU BREAKING OUT AS THE MARKET LEADER
- 3 NEW MANAGEMENT TEAM TO INVENT TABLEAU'S FUTURE
- 4 NEW SALES STRATEGY TO FOCUS ON LARGE ENTERPRISES
- 5 TABLEAU TAPPING INTO THE MASSIVE GLOBAL BI MARKET

1 Advanced Data Visualization is Critical as Big Data Increasingly Drives Business Decisions

DRIVERS OF GROWTH

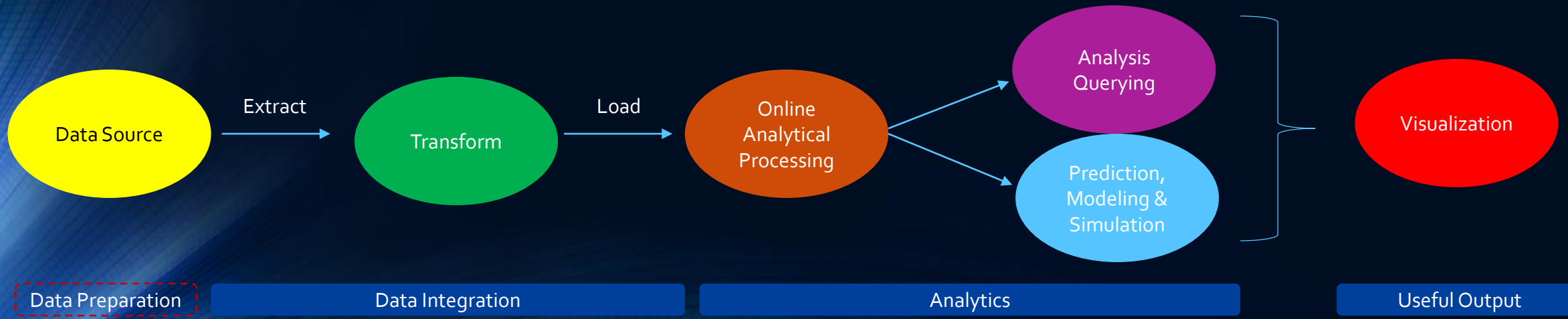
- Proliferation of data across all industries
- Modern BI as new normal
- Transition into cloud
- Ubiquity of analytics
- Collaborative analytics becomes core
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- User interface becoming more intuitive
- Data literacy becoming a fundamental skill

NEW DIGITAL DATA TOUCHED BY BUSINESSES



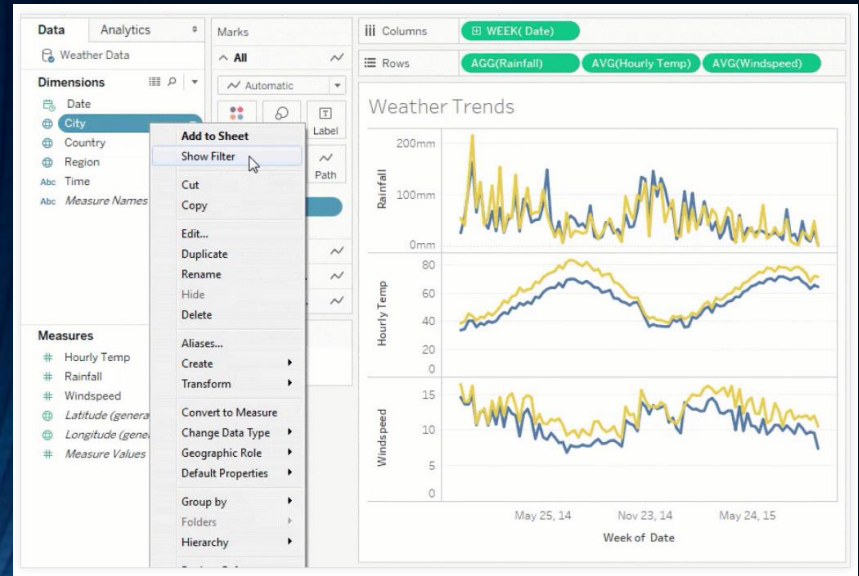
“Wall Street will hire more people like me who understand advanced data analytics and less MBAs. That’s just where the world is going.” – Data Specialist at a Major Investment Bank

USER FRIENDLY OUTPUT MAKES BIG DATA ANALYSIS USEFUL



2 The Category Creator and Breakout Leader in Modern Data Visualization with an Increasing Network Effect

POPULARIZING DRAG & DROP USER INTERFACE

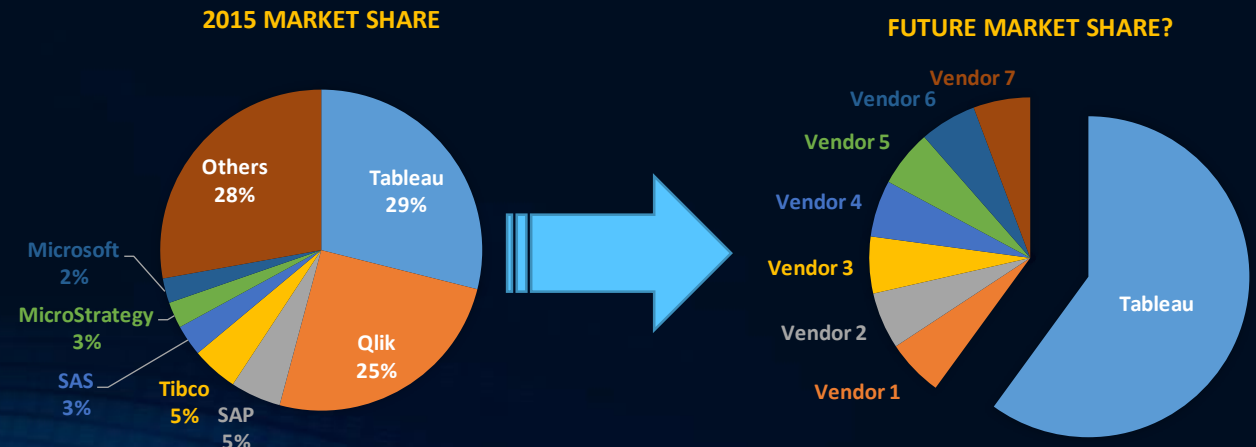


FUTURE PRODUCT VISION AT TABLEAU CONFERENCE 2016

- >13k data fanatics attended the conference
- New Data Engine
- New Data Preparation Product
- Tableau Server for Linux
- Next Leap in Analytics
- New Data Governance Capabilities
- New Collaboration Capabilities
- Machine Learning Smart Recommendations
- New Hybrid Data Connectivity for the Cloud

EMERGING LEADERSHIP IN MODERN BI

“Live editing, customization, intuitive user interface are the biggest differentiators for Tableau from its competitors. However, you have to invest upfront a bit of time learning how to use Tableau, which I understand can be a mental hurdle for many people. People like the familiarity of Excel.”
 – VP of Technology Division at a Major Financial Institution



Source: company website & earnings transcripts; market share data per Gartner

3 New Leadership to Invent Tableau's Future

Adam Selipsky as New CEO

PAST EXPERIENCE

- New President and CEO Adam Selipsky since summer 2016
- Selipsky led sales & marketing for AWS from 2005 to 2016, most recently as VP of Marketing, Sales and Support
- Helped grow AWS from a start-up into a multi-billion dollar business and establish it as the market leader in cloud computing
- Prior to AWS, he was an executive at RealNetworks, leading the video subscription and media player division
- Bachelor's and MBA from Harvard



TOP PRIORITIES AT TABLEAU

- 1 Executing "Act 3" of Tableau's ambition: Selipsky's experience of building a new business into a multibillion operation can help Tableau grow into a household software company
- 2 Spearheading "wide-scale deployments in the world's largest enterprises"
- 3 "10xing" Tableau's differentiated hybrid product offering (on premise / cloud)
 - ✓ Key next step is to hire a new Worldwide Head of Sales

"Adam Selipsky has been developing a sales strategy to compete with MSFT's global network of enterprise software sellers/re-sellers/system integrators/consulting partners/government relations for a decade at AWS." – **Global Growth Strategist at a Major Cloud Company**

Product Leadership Change

CHIEF DEVELOPMENT OFFICER

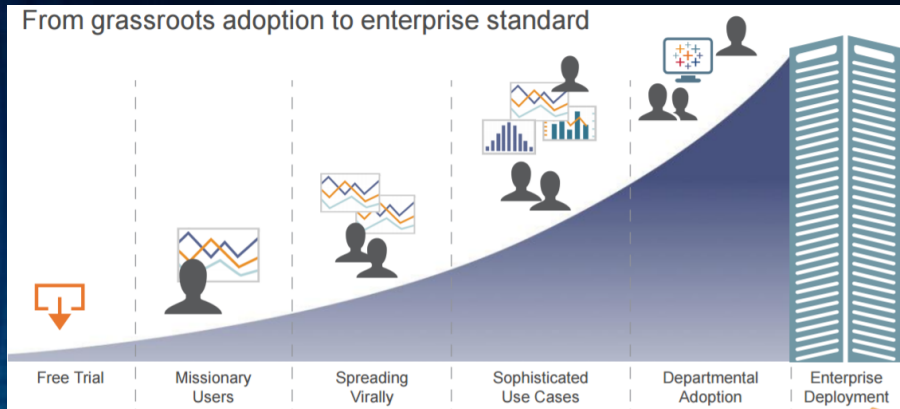
- Andrew Beers replaced cofounder Chris Stolte to lead product development
- Joined Tableau as one of the first developers

CHIEF PRODUCT OFFICER

- Francois Ajenstat, one of the company's long-time product leaders, was elevated to a new position as Chief Product Officer, reporting to Beers

4 Tableau's Sales Strategy Is Shifting Focus on Enterprise

OLD WAY: LAND & EXPAND



NEW WAY: ENTERPRISE AGREEMENTS



Qlik

Tableau will compete head to head with Qlik, which also has an impressive salesforce. My own experience in talking with two Qlik sales people confirmed this.

SELECTED TABLEAU CLIENTS

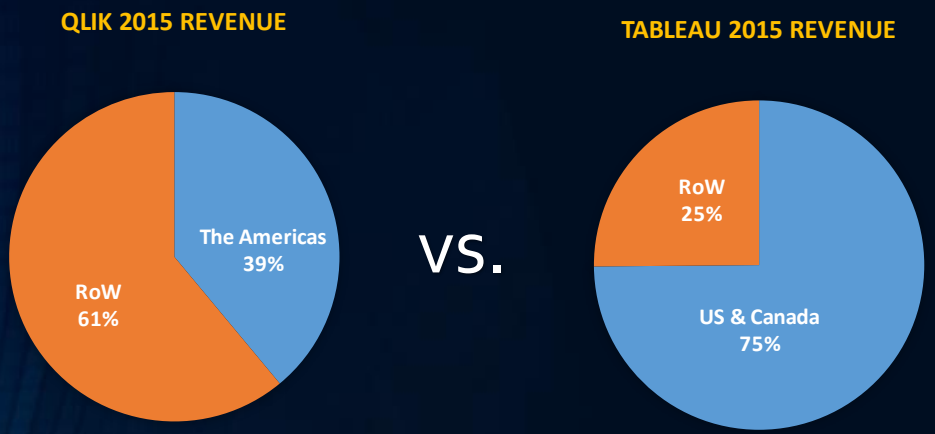
Financial	Healthcare	Government	Retail	Other
Bank of America	JOHNS HOPKINS MEDICINE	U.S. DEPARTMENT OF JUSTICE	amazon.com	accenture
Goldman Sachs	MCKESSON	FEDERAL AVIATION ADMINISTRATION	Ferrari	Audi
BARCLAYS	MERCK	NATIONAL SECURITY AGENCY	LOUIS VUITTON	CISCO
citi	Pfizer	U.S. AIR FORCE	macy's	Coca-Cola
FIFTH THIRD BANK	PROVIDENCE Health & Services	U.S. ARMY	NIKE	DOW JONES
TD Bank	Quest Diagnostics	IRS	Walmart	Google
THE WORLD BANK	sanofi aventis		zulily	Kimberly-Clark
WELLS FARGO				

"We want to get on people's calendar, instead of waiting for clients to schedule training sessions. We also want to bring Tableau people on-site so we can physically reach out to more potential users within an organization. We want to understand how we can reach the most people."

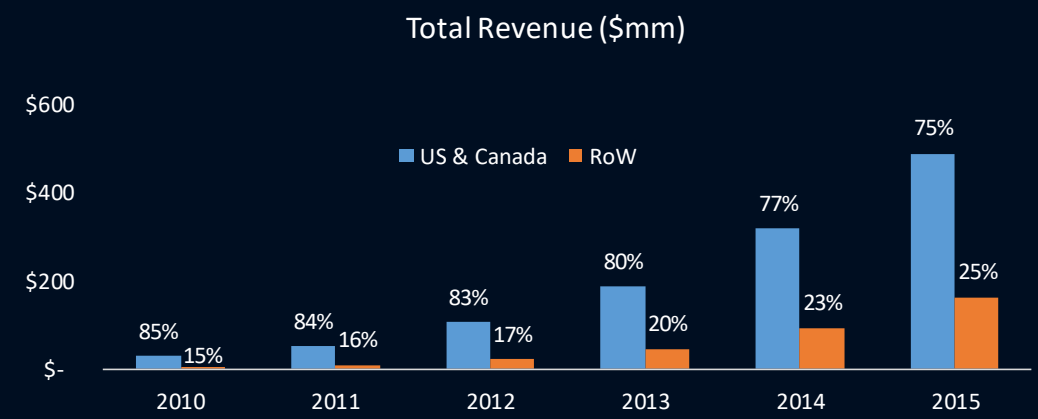
- Tableau Enterprise Sales Manager

5 Tableau is Rapidly Globalizing

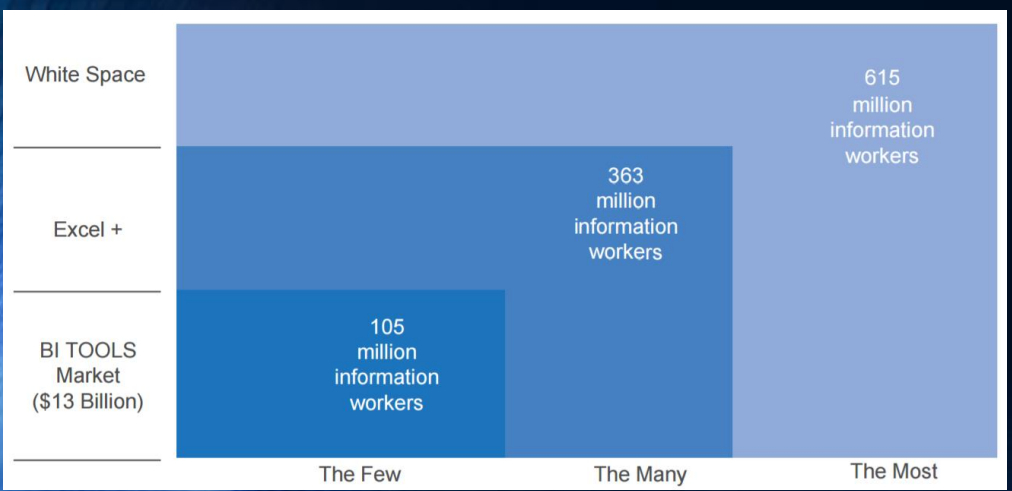
HISTORICALLY US-FOCUSED



BUT TABLEAU IS EXPANDING OVERSEAS



GLOBAL INFORMATION WORKERS



TABLEAU'S CHINA OFFICE

- Opened a Shanghai office in 2015
- "With 1.3 billion people, a quickly expanding urban economy, and exponential rates of Internet and smartphone penetration, China generates an immense amount of data annually. Tableau can help bring that data to life with rapid-fire insights." - APAC Vice President of Tableau
- China Eastern Airlines uses Tableau to analyze market research and optimize its "Origin-to-Destination" routes
 - 500 people now use Tableau
 - Reported 2% increase in sales (US\$200mm)

Source: company filings and IR presentation

5 China Case Study: China Eastern Airline

- A major Chinese airline operating international, domestic and regional routes
- China's 2nd-largest carrier by passengers and the world's 3rd-biggest carrier by market value
- NYSE: CEA
- Market cap: \$11bn

PAIN POINTS

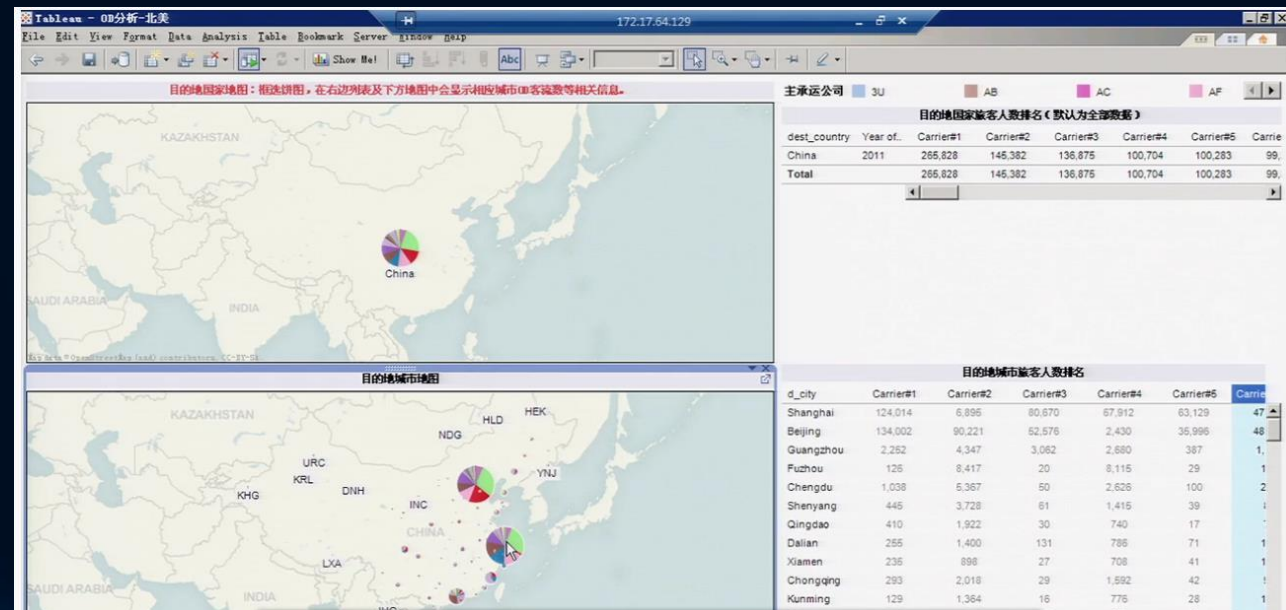
- Previously used Oracle and IE browser to show data, which was slow and difficult to use
- "Searched the world of tools"

"Using Tableau, last year we owned a 2 percent increase in revenue, that's \$200 million U.S. dollars. If you want to own the money in the aviation or transportation industry, you're using Tableau."

- James Pu, Senior Executive,
Networking & Revenue

HOW DID TABLEAU HELP?

- Developed nine dashboards for 500 people to analyze marketing, competition, other carriers, and flights-to-revenues
- Resulted in 2 % increase in annual revenue (\$200mm)
- Reports that use to take 2-4 weeks are now completed in Tableau in 30 minutes or less



Valuation

Standalone Financial Profile

	Historical			FYE Dec						15-20 CAGR
	2013	2014	2015	Projected						
				2016	2017	2018	2019	2020	2021	
Total Revenue	\$ 232	\$ 413	\$ 654	\$ 809	\$ 1,109	\$ 1,504	\$ 2,044	\$ 2,534	\$ 3,146	31%
<i>Growth</i>	82%	78%	58%	24%	37%	36%	36%	24%	24%	
Total License Revenue	\$ 160	\$ 280	\$ 424	\$ 466	\$ 629	\$ 881	\$ 1,233	\$ 1,480	\$ 1,775	28%
<i>Growth</i>	78%	75%	51%	10%	35%	40%	40%	20%	20%	1
Maintenance and Service Revenue	\$ 73	\$ 133	\$ 230	\$ 343	\$ 480	\$ 624	\$ 811	\$ 1,054	\$ 1,370	36%
<i>Growth</i>	92%	83%	73%	49%	40%	30%	30%	30%	30%	2
Implied DATA Market Share				3%	4%	5%	6%	7%	8%	3
Gross Profit (Ex. SBC)	\$ 214	\$ 378	\$ 587	\$ 723	\$ 979	\$ 1,322	\$ 1,802	\$ 2,225	\$ 2,751	31%
<i>Margin</i>	92.3%	91.6%	89.8%	89.4%	88.3%	87.8%	88.2%	87.8%	87.5%	4
Operating Income (Ex. SBC)	\$ 18	\$ 53	\$ 67	\$ 31	\$ (2)	\$ 70	\$ 102	\$ 117	\$ 134	12%
<i>Margin</i>	7.8%	12.9%	10.3%	3.8%	-0.2%	4.6%	5.0%	4.6%	4.3%	4
Adj. EBITDA	\$ 25	\$ 67	\$ 91	\$ 65	\$ 63	\$ 146	\$ 204	\$ 241	\$ 286	22%
<i>Margin</i>	10.8%	16.2%	13.9%	8.1%	5.7%	9.7%	10.0%	9.5%	9.1%	
<i>Growth</i>		167%	36%	-28%	-4%	132%	39%	19%	18%	

Comparison with Consensus

Consensus Revenue	\$ 806	\$ 872	\$ 967	\$ 1,457	\$ 1,694
<i>Growth</i>	23%	8%	11%	51%	16%
Paul Chen's Projected Revenue	\$ 809	\$ 1,109	\$ 1,504	\$ 2,044	\$ 2,534
<i>Growth</i>	24%	37%	36%	36%	24%
Delta - %	0%	27%	56%	40%	50%
Consensus EBITDA	\$ 64.8	\$ 38.3	\$ 82.6		
Paul Chen's Projected EBITDA	\$ 65.3	\$ 62.9	\$ 145.9		
Delta - %	1%	64%	77%		

ASSUMPTIONS & COMMENTS

- DATA will take shares from competitors by signing more licensing deals with large enterprises
 - The CEO has outlined efforts to push aggressively into enterprise sales
- As licensing revenue growth accelerates, service revenue will increase faster than consensus projections too
- Bottoms up TAM build¹: based on Wall Street research, there are ~865mm knowledge workers globally. 17% of them use BI tools, implying ~150mm potential Tableau customers
 - Assume \$200 run-rate ARPU (blend of free and premium Tableau products)
 - The # of modern BI users grows 5% / year
- Used Wall Street estimated expenses as % of revenue
 - 2017 Consensus OPEX spikes in light of DATA's strategy to push sales aggressively
 - Flatlining cost structure beyond 2019 because I expect Tableau to grow for several years before slowing down
- My variant perception from Consensus: DATA will have higher topline growth as it takes shares from competitors with superior products, excellent salesforce and an increasing network effect; overtime, DATA will become the industry standard for advanced visualization like how Excel is used today by millions of business users

One Tableau enterprise salesperson reached out to me via email after observing that I registered on Tableau's website. She immediately scheduled a call with me to discuss strategies to increase adoption of Tableau among my coworkers. She was very professional and attentive to my needs.

¹ This market share calculation is different from the top down estimate on page 13

Tableau Stock Price Since IPO

After failing to meet Wall Street's euphoric growth expectations in the short term, Tableau's stock fell out of favor in February 2016. Since then, many analysts also started to express concerns over Tableau's competitiveness, believing that the BI market will become commoditized. The stock is trading near all time low as of Dec-16-2016.



Summary Standalone Valuation

Current Price: \$44.02

Historical
Trading (EV
/ Sales)

\$73 — \$198

- Based on 5.0-15.0x EV / 1-yr Forward Sales
- DATA's EV / 1-yr Forward Sales has been volatile since IPO
 - Median EV / 1-yr Forward Sales is ~10x; max is ~25x; min is 2.5x
- As DATA's product differentiation and proactive sales strategy separate itself from the competitors and create a network effect, the market will again appreciate DATA's growth, and assign a higher multiple appropriate for a high growth software company

Public
Comps (EV
/ Sales)

\$85 — \$104

- Based on 6.0-7.5x EV / 1-yr Forward Sales. I picked the range based on ServiceNow, Workday and Splunk given their similar 16-18 sales CAGR of 27/28%
- Peers with ~30% revenue growth are trading at much higher levels than DATA (median of 6.4x)
- Overall peer median EV / Sales is 5.6x

DCF
(PGR
Method)

\$91 — \$118

- WACC of 11% based on Wall Street research
- Although I am projecting a much faster revenue growth in the next few years, my estimated PGR converges close to the consensus view of 2% in the outer years
- EBITDA margins will improve by 2% / year starting in 2022 as DATA transitions from a growth-oriented software company to focus on turning its leading market position into earnings

Cash Per
Share

\$10

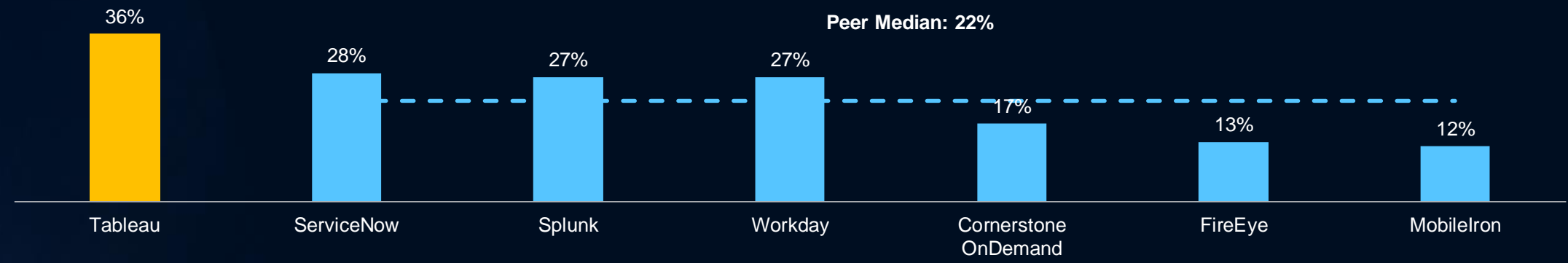
- DATA has ~\$900mm in cash currently (\$10 cash / share or 22% of current stock price) and **NO** debt
- I estimate that DATA will generate >\$1.5bn in FCF in the next 5 years
- DATA's strong cash position provides equity investors with significant margin of safety to weather through tough times

\$- \$50 \$100 \$150 \$200 \$250

- Based on my valuation analysis, Tableau's **value** should be \$80-100, representing a 82 – 127% premium to current price
- In two years, even assume that the EV / Sales stays at the current depressed level (2.7x), I expect Tableau's stock to increase to \$68, or 54% premium to today's price
- In a downside scenario, the stock will be \$38 in two years, a decrease of 15% from the current price (assume current EV / Sales)

Comparable Company Analysis – Operational Benchmarking

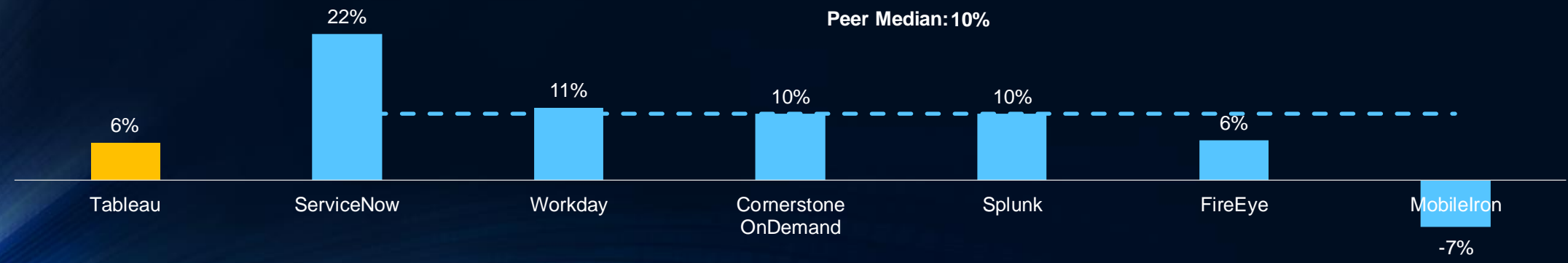
2016-2018 REVENUE CAGR



Olik's last Consensus estimates before delisting:

- 16-18 Rev CAGR of 15%
- 17 EBITDA Margin of 13%

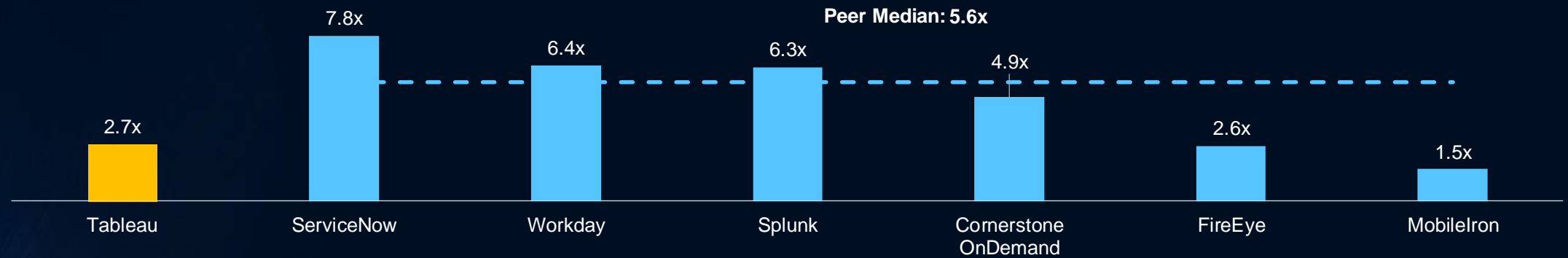
2017 EBITDA MARGIN



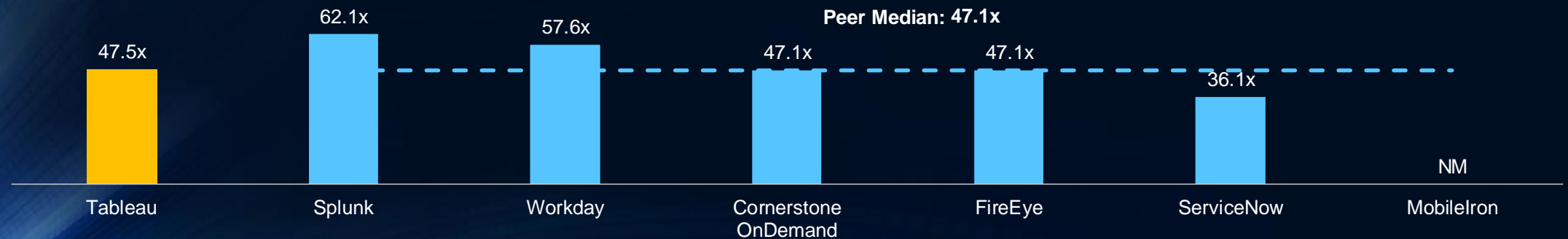
Source: peers per IBES

Comparable Company Analysis – Valuation Benchmarking

EV / 2017 REVENUE



EV / 2017 EBITDA



Note: market data as of 2016-Dec-16

DCF

(\$mm except per share)

	FYE ended Dec													Terminal Year	17-27 CAGR
	2016	2017	2018	2019	2020	Projected					2026	2027			
Total Revenue	\$ 809	\$ 1,109	\$ 1,504	\$ 2,044	\$ 2,534	\$ 3,146	\$ 3,796	\$ 4,447	\$ 5,054	\$ 5,568	\$ 5,939	\$ 6,127	\$ 6,127	19%	
<i>Growth</i>		37%	36%	36%	24%	24%	21%	17%	14%	10%	7%	3%			
Adj. EBITDA	\$ 63	\$ 146	\$ 204	\$ 241	\$ 286	\$ 421	\$ 582	\$ 762	\$ 951	\$ 1,133	\$ 1,292	\$ 1,292	\$ 1,292	35%	
<i>Margin</i>		5.7%	9.7%	10.0%	9.5%	9.1%	11.1%	13.1%	15.1%	17.1%	19.1%	21.1%	21.1%		
EBIT	\$ (2)	\$ 70	\$ 102	\$ 117	\$ 134	\$ 240	\$ 374	\$ 530	\$ 699	\$ 869	\$ 1,023	\$ 1,076	\$ 1,076	NM	
<i>Margin</i>		-0.2%	4.6%	5.0%	4.6%	4.3%	6.3%	8.4%	10.5%	12.6%	14.6%	16.7%	17.6%		
<i>Cash Tax Rate</i>		0%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%		
After Tax Profit	\$ (2)	\$ 49	\$ 71	\$ 82	\$ 94	\$ 168	\$ 262	\$ 371	\$ 489	\$ 608	\$ 716	\$ 753	\$ 753	NM	
(+) D&A	\$ 65	\$ 76	\$ 102	\$ 124	\$ 152	\$ 180	\$ 208	\$ 233	\$ 252	\$ 264	\$ 268	\$ 216	\$ 216	15%	
(-) Capex	\$ (53)	\$ (63)	\$ (84)	\$ (103)	\$ (125)	\$ (148)	\$ (170)	\$ (190)	\$ (205)	\$ (214)	\$ (216)	\$ (216)	\$ (216)	15%	
(+) Deferred Revenue	\$ 160	\$ 227	\$ 288	\$ 332	\$ 396	\$ 459	\$ 516	\$ 561	\$ 590	\$ 600	\$ 588	\$ 588	\$ 588	14%	
(+/-) Change in Other Net Working Capital	\$ (32)	\$ (29)	\$ (39)	\$ (48)	\$ (60)	\$ (72)	\$ (84)	\$ (96)	\$ (106)	\$ (113)	\$ (116)	\$ (116)	\$ (116)	14%	
Unlevered Free Cash Flow	\$ 137	\$ 260	\$ 338	\$ 387	\$ 457	\$ 588	\$ 731	\$ 879	\$ 1,021	\$ 1,146	\$ 1,240	\$ 1,225	\$ 1,225	25%	
<i>Growth</i>			90%	30%	15%	18%	29%	24%	20%	16%	12%	8%			
<i>Margin</i>		12%	17.3%	16.5%	15.3%	14.5%	15.5%	16.4%	17.4%	18.3%	19.3%	20.2%	20.0%		
PV of UFCF	\$ 130	\$ 223	\$ 260	\$ 269	\$ 286	\$ 331	\$ 371	\$ 402	\$ 421	\$ 425	\$ 415	\$ 415	\$ 415	12%	
Sum of PV of UFCF	\$ 3,532														
Terminal Value	\$ 13,879														
PV of Terminal Value	\$ 4,639														
<i>% of EV</i>		57%													
Implied Terminal EBITDA Multiple		10.7x													
Sum of PV of UFCF	\$ 3,532														
Implied EV	\$ 8,171														
Implied Price / Share	\$ 103														
Premium / (Discount) to Current Price	133%														
Current Price	\$ 44.02														






Sensitivity Table

		Implied Price / Share				
		PGR				
		0.0%	1.0%	2.0%	3.0%	4.0%
WACC	10.0%	\$ 103	\$ 110	\$ 117	\$ 127	\$ 141
	10.5%	\$ 98	\$ 103	\$ 110	\$ 118	\$ 129
	11.0%	\$ 92	\$ 97	\$ 103	\$ 110	\$ 119
	11.5%	\$ 87	\$ 91	\$ 96	\$ 102	\$ 110
	12.0%	\$ 83	\$ 87	\$ 91	\$ 96	\$ 103

- Mid-point WACC of 11%; PGR of 2%
- Mid-year convention for discount factor

Deal Structuring Alternatives

Private Placement in Tableau

	Commercial Arrangement	Joint Venture	Common Equity	Convertible Debt	Convertible Preferred
Description	<ul style="list-style-type: none"> Arms length agreement between buyer and DATA to roll out business partnerships in China 	<ul style="list-style-type: none"> Strategic relationship that allows buyer and DATA to share resources Revenue / profit sharing JV agreement in China 	<ul style="list-style-type: none"> DATA issues common equity at a discount to stock price Immediately dilutive to current equity holders 	<ul style="list-style-type: none"> Senior or subordinated debt of the issuer that is convertible into common stock (or cash + common) 3-10 year maturity Generally senior or subordinated unsecured Conversion price at a premium to current market Tax deductibility to issuer 	<ul style="list-style-type: none"> Company issues preferred stock that is convertible into common stock Conversion price at a premium to current market Senior in capital structure relative to common equity Not tax deductible to issuer
Benefits	<ul style="list-style-type: none"> ✓ Simple ✓ Low risk 	<ul style="list-style-type: none"> ✓ Sharing of technical know how ✓ Leveraging buyer's business relationships in China ✓ Risk sharing 	<ul style="list-style-type: none"> ✓ Simplicity ✓ Highest return if share price outperforms over life of investment 	<ul style="list-style-type: none"> ✓ More senior than equity ✓ Potential covenant restrictions with existing debt facilities ✓ Priority of claim on the assets of the Company and ability to force bankruptcy 	<ul style="list-style-type: none"> ✓ Increases yield above common stock dividend ✓ Greater ability to potentially achieve equity credit for rating agency purposes, if structured appropriately
Considerations	<ul style="list-style-type: none"> ✗ Limited integration ✗ Limited strategic collaboration 	<ul style="list-style-type: none"> ✗ Limited integration ✗ Miscommunication ✗ Concern over IP protection ✗ Imbalance in what each partner brings 	<ul style="list-style-type: none"> ✗ Less senior than convertible debt or convertible preferred in bankruptcy / default scenario ✗ No ongoing yield in excess of common stock dividend 	<ul style="list-style-type: none"> ✗ Coupon below that of equivalent straight debt rate ✗ Conversion price at a premium to current market (investor does not earn return on full equity upside) 	<ul style="list-style-type: none"> ✗ Less senior than convertible debt in bankruptcy / default scenario ✗ Conversion price at a premium to current market (investor does not earn return on full equity upside)
Precedent Deals	 (Jun-16)	 \$250mm (Sep-12)	 \$103mm (Nov-16)	 \$500mm (Feb-16)	 \$1bn (Aug-15)

Investment Concerns

- Increasing competition drives down sector profitability for all participants, including DATA, making data analytics a commodity industry
 - DATA's technology might be copied by a competitor
- Qlik is the most fierce competitor:
 - Qlik is taken private by Thoma Bravo in May 2016, which has empowered Qlik to focus on product development and sales
 - Has great products just like DATA (easy to use, intuitive, great visuals, versatility and speed)
 - Qlik is cheaper than DATA
 - All these being said, Qlik is highly levered after the LBO by Thoma Bravo
- Companies with existing enterprise solutions can more easily cross sell products (i.e. MSFT). Both Microsoft and Amazon could disrupt DATA and Qlik
 - Cheaper
 - Cloud-oriented
 - MSFT Power BI integrates well with MSFT Office
- Since BI analytics spending is discretionary, DATA has little downside protection in a market downturn
- DATA has had GAAP losses in recent quarters due to faster increase on SG&A spending
- Equity ownership dilution due to funding needs
- DATA's inability to protect IP in China or in other markets globally
- Expensive sector valuation of high growth software companies
- Perceived risk with high stock price volatility (although for long term investors, I don't think short term volatility is a risk, but an opportunity to buy)
- DATA could be in a sale process again after being rumored to be on sale in 2016

Additional Due Diligence Questions / Steps

- Interview with more users of competitors products. I only talked with users from a firm that has decided to go with Tableau from senior leadership
- What are few truths in BI and big data sectors that Tableau people believe in which few people agree on?
- How can DATA maintain its significant price premium to Qlik and Microsoft in the long run?
- How will DATA sustain its product differentiation against competition?
- How proprietary is DATA's technology? Why can't competitors copy it?
- Who are DATA's best competitors?
 - When DATA loses to competitors, why? When it wins, why?
- How effective will DATA's enterprise sales strategy be?
- What is DATA's ambition in China?
- Who can DATA target as customers in China?
- What is DATA's closest competitor in China?
- What is the biggest long term challenge DATA faces?
- How good is customer support for SMEs?
- What is DATA's long term recruiting strategy? How will DATA be able to attract great engineers to innovate?
- How will a major financial crisis like 2008 affect Tableau's business?
- How does Tableau maintain its entrepreneurial culture as it gets bigger?