ORACLE CORPORATION

Equity Report – Titan Investment Management LLC

TITAN INVESTMENTS I TITANINVESTMENTMGMT.COM
kblickenstaff@titaninvestmentmgmt.com
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Oracle Corporation:

Oracle (ORCL) provides products and services that address enterprise information technology (IT) environments. The enterprise software company offers a range of cloud-based applications and platforms as well as hardware and services to help companies improve their processes. Oracle's applications center on enterprise resource planning, data management, collaboration, content and experience, business analytics, IT operations management, security, and emerging technologies. In recent years, Oracle has aggressively expanded through acquisitions that have helped build its cloud offerings. The company's mainstay product has been Oracle Database, one of the most popular corporate database offerings. More than half its revenue comes from international customers. The company was founded in 1977 by the founder Larry Ellison.

Hybrid Cloud:

The word "cloud" has come to be a common noun in the technology universe, but very few seem to understand what it exactly means. The idea that information is stores in the cloud is a common phrase, but the underlying technology that has developed this avenue of storage has reshaped the landscape.

Data storage goes all the way back to 1837 when Charles Babbage created a calculator that could read punch cards. This primitive process provided the means for machines to read stored data on punch cards and perform an action without assistance. The increased use of technology has obviously lead to leaps in data and storage, but the world has entered into a whole new realm with the cloud.

Prior to the cloud, firms and consumers relied on floppy discs, USBs, SSDs, and massive mainframes to store and process data. However, these forms faced the following issues:

- Initial set up costs that were not scalable.
- Additional cost in IT personnel to ensure the on premise software/hardware is working properly.
- Additional cost in IT software/hardware to maintain more and more data.
- Little to no remote access for employees.
- Little to no cross collaboration with other forms of hardware/software.

This lack of scale or flexibility ushered in the cloud. The cloud refers to servers that are accessed over the internet rather than a company or personal computer. The access to company or personal files, applications, platforms, software, etc. across multiple devices dramatically increased flexibility. Employees could not access employer files and resources on their personal computer as well as their smartphone. In addition, the business no longer needs to hire IT personnel to oversee software/hardware, update servers, or maintain servers.

Lastly, another benefit often overlooked from the cloud is that of scale. Prior to the cloud most firms would upgrade their servers as data demand increased. However, the demand for data like most things goes up and down on a daily basis based off the business. Thus, firms were constantly running into capacity issues or paying for server space not being utilized. By using a public cloud (3rd party) most firms only pay for the data being demanded in a given moment.

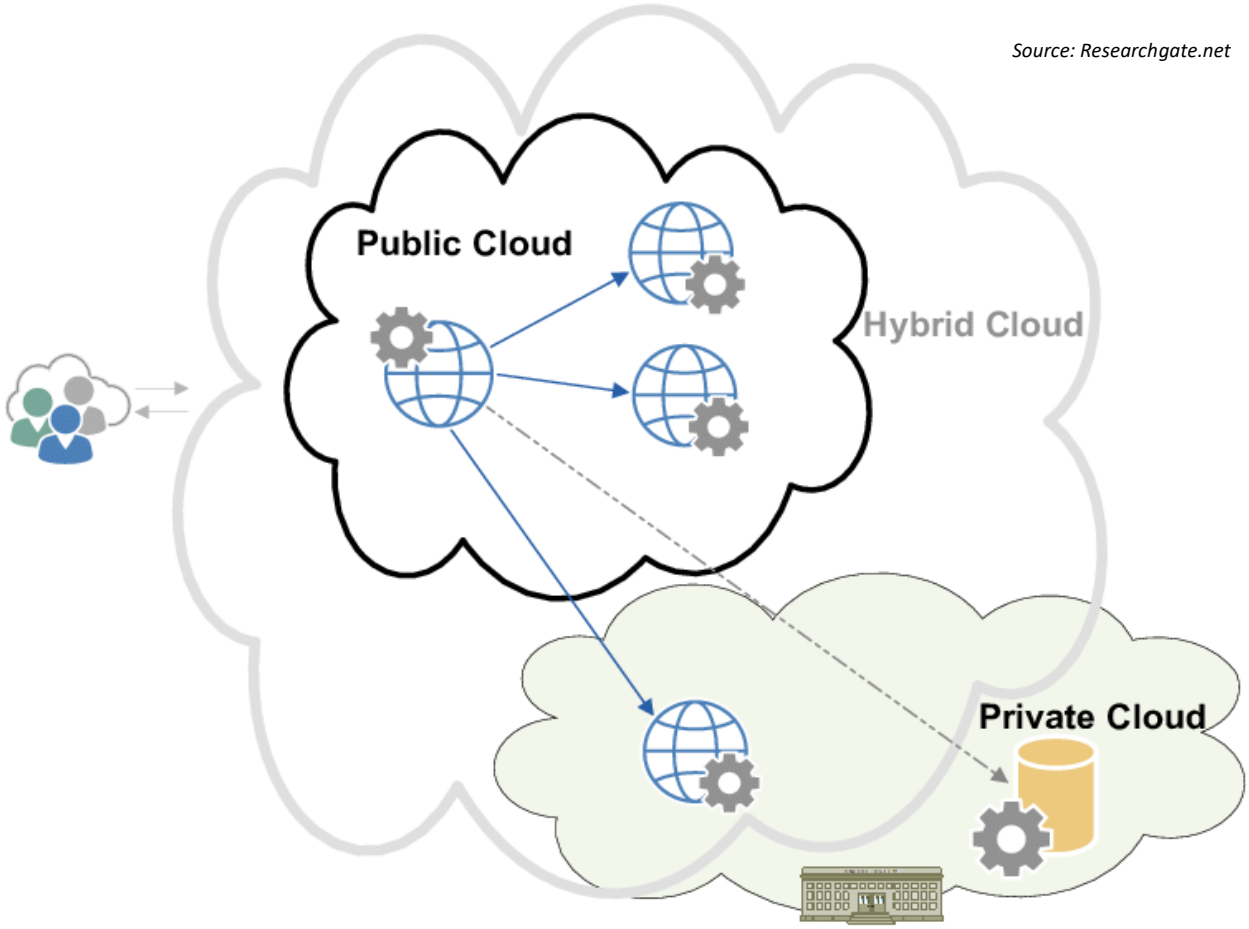
Despite the cloud largely solving the issues of legacy storage, it came with its own issues:

- Loss of Control – By employing the traditional cloud a business is relying on a third party to take care of their data. If that 3rd party faces physical or cyber theft there is nothing the customer can do to stop it.

- Cybersecurity – More and more data being concentrated in a given area is creating a massive bullseye for cyber criminals. In just the past decade the following firms have had their clouds breached: Microsoft, Dropbox, Linkedin, Home Depot, Apple, and Yahoo.

These new issues have created the newest iteration of the cloud ala the hybrid cloud. The hybrid cloud seeks to bring together the best of both worlds by using private cloud (private server) and public cloud (3rd party server). This provides firms the ability to put the most "data sensitive" information on the private cloud while less sensitive data is placed on the public cloud.

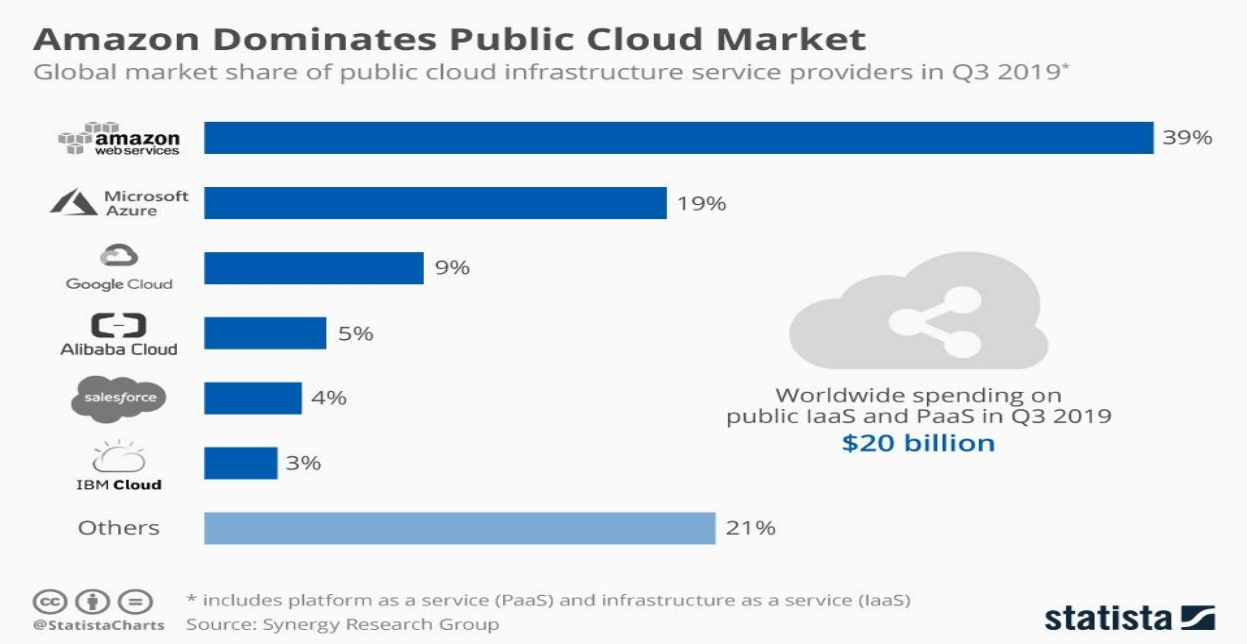
Source: Researchgate.net



Firms can now scale their data demands while also keeping its most sensitive data safe from the hands of cybercriminals and 3rd parties. Sid Nag, the VP of Research at Gartner stated, "At this point, cloud adoption is mainstream." In addition, the worldwide public cloud market is expected to grow 16% per annum through 2022. This does not even take into account the migration to the cloud COVID has forced on firms.

The Players

The public cloud space has largely been dominated by Amazon Web Services (AWS) and Microsoft (Azure). Both firms make up 58% of the public cloud market and one of the main reasons both firms have seen a significant increase in revenue growth.



However, cracks have begun to show in this space, especially for AWS. The DoD announced an estimated $10B contract for the Joint Enterprise Defense Infrastructure (JEDI), which Azure recently won. AWS is seeking clarification, but one of the biggest pitfalls of AWS versus Azure is lacking a hybrid cloud. Despite leading the pack in the public cloud, AWS has been slower on the uptake in private cloud. Given the sensitive data at the DoD, a hybrid solution was preferred.

Just three years ago, ORCL was not taking the cloud migration seriously with found Larry Ellison questioning what was different between what ORCL was already providing versus the cloud. However, AMZN has grown AWS from a $12B business to a $45B behemoth, dominating the public cloud space. Money talks and the growth from the cloud industry clearly highlighted a need being met.

ORCL could not ignore this growth and has been on a cloud acquisition binge over the past 3 years. ORCL has purchased the following firms in the past three years to close the gap with AWS and set the stage for growth.

Date	Company	Description
Sept. 20, 2020	TikTok US	Social Networking
Oct. 2, 2019	CrowdTwist	Cloud Loyalty Solutions
Nov. 15, 2018	Talari Networks	Network Technology
Oct. 22, 2018	DataFox	AI Solutions
May 16, 2018	DataScience	Data Science Platform
Apr. 10, 2018	SparklineData	Platform Analytics Services

These acquisitions have resulted in a platform and offering that is only rivaled by Azure. In addition, this has resulted in two new large clients for ORCL as of late: Zoom and 8x8. Zoom was facing a surge in demand and despite having existing relationships with Azure and AWS decided to take this incremental demand to ORCL. The same result was had with 8x8 as the phone, platform, and video communications firm decided on ORCL over Azure.

Before concluding that ORCL is set to take market share from AWS or Azure it is important to remember the industry in general is expected to grow 16% per annum. Thus, ORCL does not need to take market share from the larger players to provide a growth rate well north of its 5YR CAGR of 0.4%. In addition, ORCL is

already the main player in Enterprise Resource Planning (ERP) with resources in HCM, CRM, and custom applications. This all leads to a promising outlook where ORCL can assist these large multi-national firms with the migration to the cloud. This is further compounded with a hybrid offering rivaling Azure's that permits clients to place sensitive data on private clouds while embracing public clouds for less sensitive data.

The Battle for TikTok

Most people in the US think of algorithms and FaceBook (FB) in the same thought. However, FB started purely as a social network with no ads and only used by college students. As the firm grew it embraced all users, added advertisements, and developed algorithms to keep users scrolling through their news feed or checking on old acquaintances. TikTok who is owned by ByteDance (Chinese firm) was all about the algorithm from the beginning. Any action by a user of TikTok from what video they select to how long the user lingers over a given video created data. This is all fed back to ByteDance with the idea of providing more and more content that keeps the user on TikTok.

TikTok quickly figured out that users prefer videos over print, especially children and young adults. TikTok is reported to have 70M users in the US. This is over 20% of the US population and provides a Chinese owned social media site that employs algorithms the ability to manipulate the news feed for 70M Americans. This potential manipulation has lead President Trump to ban TikTok from US app stores unless ByteDance divests the US TikTok business.

This forced divestment has provided an opportunity to ORCL to step in along with Wal-Mart to buy a controlling stake in what will be the new TikTok US.

Cash Flow Statement ($)		**Historic**	**Projections**				
		2019	2020	2021	2022	2023	2024
Cloud Computing Infrastructure Revenue / DAU		$0.70	$0.70	$0.70	$0.70	$0.70	$0.70
US TikTok DAU (M)		35	49	64	78	93	107
US DAU Growth			*40.00%*	*30.00%*	*22.50%*	*19.00%*	*15.00%*
Cloud Computing Infrastructure Revenue		$25	$34	$45	$55	$65	$75
TikTok Incremental Revenue		$25	$34	$45	$55	$65	$75
EBIT		$25	$34	$45	$55	$65	$75
Tax Expense (-)	21%	$5	$7	$9	$11	$14	$16
Operating Cash Flow		$19	$27	$35	$43	$51	$59
Tik Tok Valuation							
US TikTok Subsidiary (M)		$60,000					
ByteDance		80.00%					
Oracle		12.50%					
Wal-Mart		7.50%					
Oracle Acquistion Cost		$7,500					
TikTok US Revenue		$250	$500	$925	$1,619	$2,428	$3,399
YoY Revenue Growth			*100.00%*	*85.00%*	*75.00%*	*50.00%*	*40.00%*
FCF Margin			*20.00%*	*22.50%*	*25.00%*	*22.50%*	*20.00%*
TikTok US FCF			$100	$208	$405	$546	$680
Oracle Equity Stake TikTok FCF			$13	$26	$51	$68	$85
Base Total Interest Expense		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Potential Debt Tax Shield (35%)		$0	$0	$0	$0	$0	$0
Base Free Cash Flow			**$40**	**$61**	**$94**	**$120**	**$144**

The reported private tag of the US operations is $60B, of which ORCL will own 12.50% and be responsible for $7.5B of financing. If the proposal goes through ORCL will benefit in two ways: ORCL will serve as the cloud hosting server and collect equity in its 12.5% position.

It is estimated that firms like SnapChat (SNAP) pay $0.70/Daily Average User (DAU)/year for cloud servicing. It is estimated that TikTok US has 50M DAU as of 2020. Using FB as a proxy, TikTok will grow it's US DAU by 100% as of the end of 2024 resulting in annual income to ORCL of $274M. In addition, using the FCF margin of FB as a proxy yields $243M in FCF afforded to ORCL as an equity partner.

Adjusted Present Value

Equity SnapShot		**5YR CAGR**				
Growth	5.00%	**0.44%**				
Discount	5.88%					
Time		1	2	3	4	5
Discount Factor		0.94957473	0.896603	0.835895	0.77862	0.7212364
Free Cash Flow		$40	$61	$94	$120	$144
Discounted FCF		$38	$55	$78	$93	$104
Terminal Value						$12,354
Enterprise Value		$12,722				**Terminal Weight**
Outstanding Debt		$7,500				
Equity Value		$5,222				97.11%
Shares Outstanding		3,010.9				
Vale Add to Share Price		**$1.73**				

The incremental value add of TikTok US to ORCL is $1.73/share. However, this incremental value add could be much higher when considering DAU growth, revenue growth, and FCF margin. In addition, it does not even consider the value add ORCL will inherit in terms of the sheer amount of US consumer data that will be collected on the servers.

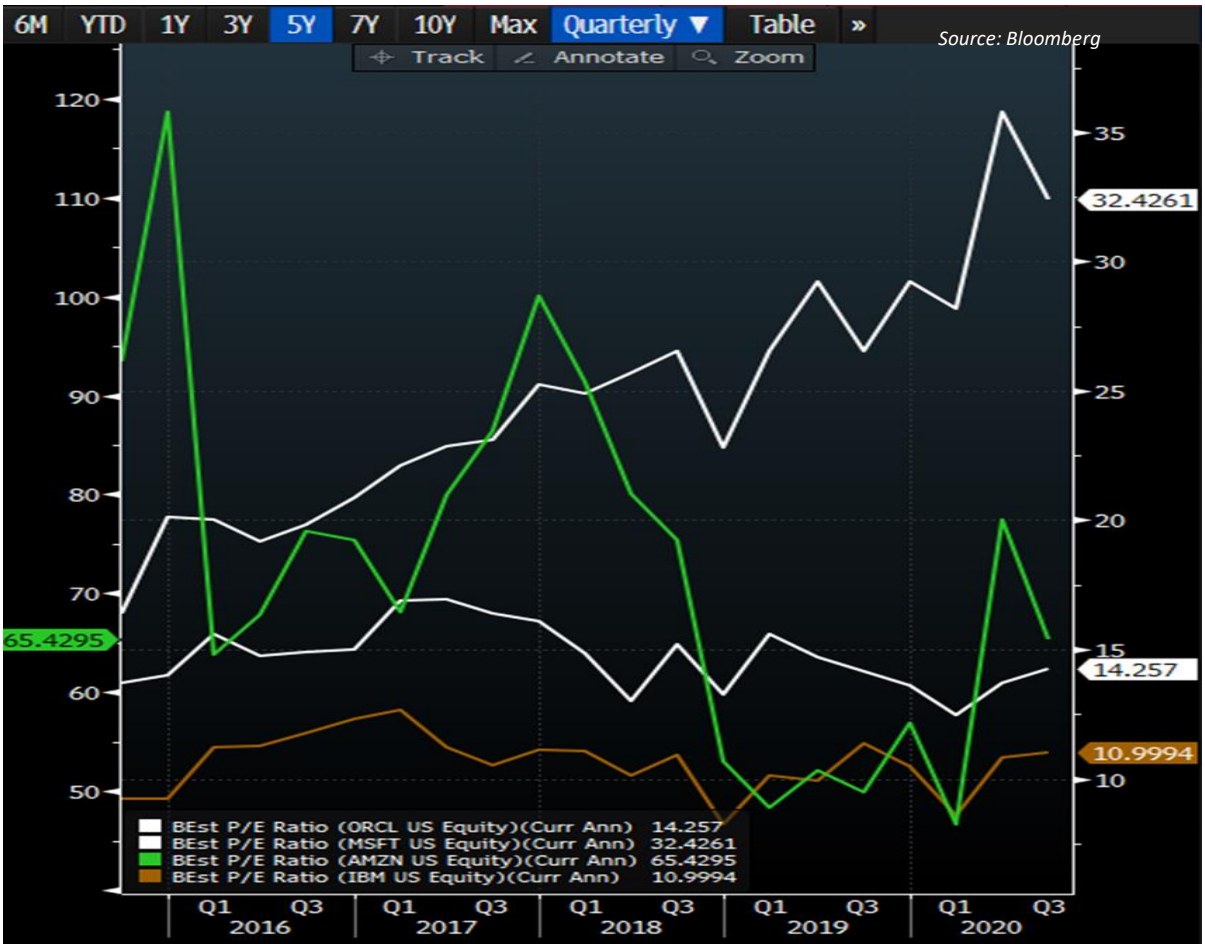
Like all things that relate to China and the US, this deal is far from being completed. The White House while not being entirely clear on the matter has demanded/asked for the following criteria to be met:

- TikTok US to add 25,000 new jobs in the US
- The US Treasury receive a cut of the deal (not entirely sure what that means)
- ByteDance US to share all algorithms being used with partners
- ByteDance US be a wholly owned US firm

Whether these criteria will be met is still unclear and whether the criteria being unmet results in a no deal is also unclear. Thus, while the deal in its current form would be a tailwind for ORCL there is no clear evidence the deal will in fact get done.

Relative Value:

ORCL was late to the cloud game to say the least. However, this lack of growth compared to peers has provided a unique change of lack thereof in the firm's multiple.



Rewinding the clock 5 years ORCL exhibited a multiple of 13.8x while peers exhibited the following levels:

- MSFT (16.7x) – A 2.1x premium to ORCL.
- AMZN (93.8x) – A 80.0x premium to ORCL.
- IBM (9.3x) – A 4.5x discount to ORCL.

Fast forward to today and the valuation perspective among peers has changed, except for ORCL at 14.3x:

- MSFT (32.4x) – A 18.1x premium to ORCL.
- AMZN (65.4x) – A 51.1x premium to ORCL.
- IBM (11.0x) – A 3.3x discount to ORCL.

Relative to MSFT and IBM, ORCL is now cheaper than it was 5 years ago. However, it trades slightly more expensive compared to AMZN. This is even more confusing when considering that IBM's revenue has actually fallen over the past 5 years. The higher multiples for MSFT and AMZN are somewhat justified by revenue increasing 53% and 244% over the same period. ORCL's relative value comes into play on the multiple remaining flat despite revenue inching up over the past 5 years.

This relationship between the current multiple and historic growth argues that ORCL's multiple should have increased along with the industry and/or IBM not closing the gap.

Equity & Fundamental Analysis:

History clearly highlights that ORCL has shifted more and more to software and the economy and consumers in general using less and less hardware. This has been and will be a net positive for the firm as margins are proving to widen in software compared to hardware.

Product Projections	Historic						Projection				
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenue	$38,226	$37,047	$37,728	$39,383	$39,506	$39,068	$39,754	$40,731	$42,427	$43,855	$45,151
Software	$29,475	$28,990	$30,218	$31,994	$32,562	$32,519	$33,495	$34,667	$36,400	$37,856	$39,181
Hardware	$5,205	$4,668	$4,152	$3,994	$3,704	$3,443	$3,185	$2,866	$2,637	$2,439	$2,268
Services	$3,546	$3,389	$3,358	$3,395	$3,240	$3,106	$3,075	$3,198	$3,390	$3,559	$3,702
Market Share											
Software	77.11%	78.25%	80.09%	81.24%	82.42%	83.24%	84.25%	85.11%	85.79%	86.32%	86.78%
Hardware	13.62%	12.60%	11.01%	10.14%	9.38%	8.81%	8.01%	7.04%	6.22%	5.56%	5.02%
Services	9.28%	9.15%	8.90%	8.62%	8.20%	7.95%	7.73%	7.85%	7.99%	8.12%	8.20%
Growth Rates											
Revenue	-0.13%	-3.08%	1.84%	4.39%	0.31%	-1.11%	1.76%	2.46%	4.16%	3.37%	2.96%
Software	0.95%	-1.65%	4.24%	5.88%	1.78%	-0.13%	3.00%	3.50%	5.00%	4.00%	3.50%
Hardware	-3.11%	-10.32%	-11.05%	-3.81%	-7.26%	-7.05%	-7.50%	-10.00%	-8.00%	-7.50%	-7.00%
Services	-4.27%	-4.43%	-0.91%	1.10%	-4.57%	-4.14%	-1.00%	4.00%	6.00%	5.00%	4.00%
CAPEX	-$19,047	-$5,154	-$21,494	-$5,625	$26,557	$9,843	-$1,690	-$2,851	-$2,758	-$2,741	-$2,709
Depreciation	$2,861	$2,509	$2,451	$2,785	$2,919	$2,968	$3,041	$3,136	$3,240	$3,358	$3,454
Sales/CAPEX	49.83%	13.91%	56.97%	14.28%	-67.22%	-25.19%	4.25%	7.00%	6.50%	6.25%	6.00%
CAPEX/Depreciation	15.02%	48.68%	11.40%	49.51%	-10.99%	-30.15%	180.00%	110.00%	117.50%	122.50%	127.50%

Income Statement ($USD)	Historic						Projection				
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenue	$38,226	$37,047	$37,728	$39,383	$39,506	$39,068	$39,754	$40,731	$42,427	$43,855	$45,151
Cost of Goods	$7,532	$7,479	$7,469	$8,060	$7,995	$7,938	$7,851	$7,739	$7,849	$7,894	$8,014
Gross Revenue	$30,694	$29,568	$30,259	$31,323	$31,511	$31,130	$31,903	$32,992	$34,578	$35,961	$37,137
Gross Margin	*80.30%*	*79.81%*	*80.20%*	*79.53%*	*79.76%*	*79.68%*	*80.25%*	*81.00%*	*81.50%*	*82.00%*	*82.25%*
SG & A	$5,871	$6,530	$6,922	$6,930	$6,855	$6,307	$6,063	$6,415	$6,576	$6,688	$6,773
R & D	$5,524	$5,787	$6,159	$6,084	$6,026	$6,067	$6,261	$6,619	$6,831	$7,017	$7,224
Other Operating	$2,149	$1,638	$1,451	$1,620	$1,689	$1,586	$1,491	$1,426	$1,379	$1,316	$1,355
EBITDA	$17,150	$15,613	$15,727	$16,689	$16,941	$17,170	$18,088	$18,533	$19,792	$20,941	$21,786
EBITDA Margin	*44.86%*	*42.14%*	*41.69%*	*42.38%*	*42.88%*	*43.95%*	*45.50%*	*45.50%*	*46.65%*	*47.75%*	*48.25%*
Depreciation & Amoritization	$2,861	$2,509	$2,451	$2,785	$2,919	$2,968	$3,041	$3,136	$3,240	$3,358	$3,454
EBIT	$14,289	$13,104	$13,276	$13,904	$14,022	$14,202	$15,047	$15,396	$16,552	$17,583	$18,331
EBIT Margin	*37.38%*	*35.37%*	*35.19%*	*35.30%*	*35.49%*	*36.35%*	*37.85%*	*37.80%*	*39.01%*	*40.09%*	*40.60%*
Interest Expense	$794	$929	$996	$822	$990	$1,468	$1,721	$1,956	$1,687	$1,424	$1,262
Other Abnomral Losses	$661	$733	$763	$658	$764	$671	$10	$10	$10	$10	$10
EBT	$12,834	$11,442	$11,517	$12,424	$12,268	$12,063	$13,316	$13,431	$14,855	$16,149	$17,059
Tax Expense	$2,896	$2,541	$2,182	$8,837	$1,185	$1,928	$2,663	$2,686	$3,120	$3,391	$3,582
Net Income	**$9,938**	**$8,901**	**$9,335**	**$3,587**	**$11,083**	**$10,135**	**$10,652**	**$10,744**	**$11,736**	**$12,757**	**$13,477**
SG & A Expense (% Sales)	15.36%	17.63%	18.35%	17.60%	17.35%	16.14%	15.25%	15.75%	15.50%	15.25%	15.00%
R & D Expense (% Sales)	14.45%	15.62%	16.32%	15.45%	15.25%	15.53%	15.75%	16.25%	16.10%	16.00%	16.00%
Other Expense (% Sales)	5.62%	4.42%	3.85%	4.11%	4.28%	4.06%	3.75%	3.50%	3.25%	3.00%	3.00%
Effective Tax Rate (% EBT)	22.57%	22.21%	18.95%	71.13%	9.66%	*15.98%*	*20.00%*	*20.00%*	*21.00%*	*21.00%*	*21.00%*

It gets a little choppier when analyzing margins after SG&A as well as R&D. More and more software as well as a shift to the cloud will provide the means to scale labor. This will limit SG&A growth, but management will need to accelerate R&D to stay ahead of the innovation curve. Spending over $6B on R&D may seem like a lot, but to put this in perspective AMZN spends $39B and MSFT spends $20B. Thus, even factoring in an accelerated rate of R&D spend over the next 5 years pales in comparison to cloud peers and competitors.

Cash Flow Statement ($)				Historic						Projections				
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EBIT				$14,289	$13,104	$13,276	$13,904	$14,022	$14,202	$15,047	$15,396	$16,552	$17,583	$18,331
Tax Expense (-)	21%			$2,896	$2,541	$2,182	$8,837	$1,185	$1,928	$2,663	$2,686	$3,120	$3,391	$3,582
Depreciation, Amoritization & Provision (+)				$2,861	$2,509	$2,451	$2,785	$2,919	$2,968	$3,041	$3,136	$3,240	$3,358	$3,454
Change in Net Working Capital (-)				-$1,781	-$2,275	-$2,340	-$9,014	-$549	-$36	-$1,500	$2,000	-$1,000	-$2,000	-$2,500
Capital Expenditures (+)				-$19,047	-$5,154	-$21,494	-$5,625	$26,557	$9,843	-$1,690	-$2,851	-$2,758	-$2,741	-$2,709
Operating Cash Flow				-$3,012	$10,193	-$5,609	$11,241	$42,862	$25,121	$15,236	$10,995	$14,915	$16,809	$17,994
Outstanding Debt: Principal Payments		Year	Size (M)											
Sr. Unsecured Due Jul. 8, 2021		2021	7,225							$7,225	$6,487	$0	$0	$0
Sr. Unsecured Due May 15, 2022		2022	5,000							$5,000	$5,000	$3,750	$0	$0
Sr. Unsecured Due Jul. 15, 2023		2023	4,750							$4,750	$4,750	$4,750	$4,075	$0
Sr. Unsecured Due Jul. 8, 2024		2024	4,000							$4,000	$4,000	$4,000	$4,000	$4,000
Sr. Unsecured Due May 15, 2025		2025	6,875							$6,875	$6,875	$6,875	$6,875	$6,875
Sr. Unsecured Due Jul. 15, 2026		2026	3,000							$3,000	$3,000	$3,000	$3,000	$3,000
Sr. Unsecured Due Apr. 1, 2027		2027	5,000							$5,000	$5,000	$5,000	$5,000	$5,000
Sr. Unsecured Due May 15, 2030		2030	3,750							$3,750	$3,750	$3,750	$3,750	$3,750
Sr. Unsecured Due Jul. 8, 2029		2029	31,250							$31,250	$31,250	$31,250	$31,250	$31,250
New Debt: Issuance	10	Tenor:												
Sr. Unsecured Due	2030	1	0							$0	$0	$0	$0	$0
Sr. Unsecured Due	2031	2	0								$0	$0	$0	$0
Sr. Unsecured Due	2032	3	0									$0	$0	$0
Sr. Unsecured Due	2033	4	0										$0	$0
Sr. Unsecured Due	2034	5	4,360											$4,360
Sr. Unsecured Due	2035	6	0											
Sr. Unsecured Due	2036	7	0											
Sr. Unsecured Due	2037	8	0											
Sr. Unsecured Due	2038	9	0											
Sr. Unsecured Due	2039	10	0											
										$0	$0	$0	$0	$4,360
Total Debt										**$70,850**	**$70,112**	**$62,375**	**$57,950**	**$58,235**
Outstanding Debt: Interest Payments		Coupon												
Sr. Unsecured Due Jul. 8, 2021		2.13%	7,225							$154	$138	$0	$0	$0
Sr. Unsecured Due May 15, 2022		2.50%	5,000							$125	$125	$94	$0	$0
Sr. Unsecured Due Jul. 15, 2023		2.75%	4,750							$131	$131	$131	$112	$0
Sr. Unsecured Due Jul. 8, 2024		3.13%	4,000							$125	$125	$125	$125	$125
Sr. Unsecured Due May 15, 2025		2.75%	6,875							$189	$189	$189	$189	$189
Sr. Unsecured Due Jul. 15, 2026		2.65%	3,000							$80	$80	$80	$80	$80
Sr. Unsecured Due Apr. 1, 2027		3.00%	5,000							$150	$150	$150	$150	$150
Sr. Unsecured Due May 15, 2030		3.00%	3,750							$113	$113	$113	$113	$113
Sr. Unsecured Due Jul. 8, 2029		4.50%	31,250							$1,406	$1,406	$1,406	$1,406	$1,406
New Debt Interest Payments	Year													
Sr. Unsecured Due	1	0.00%	0							$0	$0	$0	$0	$0
Sr. Unsecured Due	2	1.75%	0								$0	$0	$0	$0
Sr. Unsecured Due	3	2.38%	0									$0	$0	$0
Sr. Unsecured Due	4	2.75%	0										$0	$0
Sr. Unsecured Due	5	3.00%	4,360											$320
Sr. Unsecured Due	6	3.38%	0											
Sr. Unsecured Due	7	0.00%	0											
Sr. Unsecured Due	8	0.00%	0											
Sr. Unsecured Due	9	0.00%	0											
Sr. Unsecured Due	10	0.00%	0											
Current Total Interest Expense				**$794**	**$929**	**$996**	**$822**	**$990**	**$1,468**	**$1,721**	**$1,956**	**$1,687**	**$1,424**	**$1,262**
Debt Tax Shield (35%)	21%			$167	$195	$209	$173	$208	$308	$362	$411	$354	$299	$265
Free Cash Flow				**($3,639)**	**$9,459**	**($6,396)**	**$10,592**	**$42,080**	**$23,961**	**$13,876**	**$9,450**	**$13,582**	**$15,683**	**$16,997**
Base Total Interest Expense				**$794**	**$929**	**$996**	**$822**	**$990**	**$1,468**	**$1,721**	**$1,956**	**$1,687**	**$1,424**	**$1,582**
Potential Debt Tax Shield (35%)	21%			$167	$195	$209	$173	$208	$308	$362	$411	$354	$299	$332
Base Free Cash Flow				**($3,639)**	**$9,459**	**($6,396)**	**$10,592**	**$42,080**	**$23,961**	**$13,876**	**$9,450**	**$13,582**	**$15,683**	**$16,744**
Dividend $0.00/Share										$3,000	$3,000	$3,000	$3,000	$3,000
Share Repurchase										$15,000	$10,000	$12,500	$15,000	$17,500
Non-Guaranteed Equity Payments										$18,000	$13,000	$15,500	$18,000	$20,500
Maturity Schedule														
Sr. Unsecured Due Jul. 8, 2021			7,225							$0	$7,225	$0	$0	$0
Sr. Unsecured Due May 15, 2022			5,000							$0	$0	$5,000	$0	$0
Sr. Unsecured Due Jul. 15, 2023			4,750							$0	$0	$0	$4,750	$0
Sr. Unsecured Due Jul. 8, 2024			4,000							$0	$0	$0	$0	$4,000
Sr. Unsecured Due May 15, 2025			6,875							$0	$0	$0	$0	$0
Sr. Unsecured Due Jul. 15, 2026			3,000							$0	$0	$0	$0	$0
Sr. Unsecured Due Apr. 1, 2027			5,000							$0	$0	$0	$0	$0
Sr. Unsecured Due May 15, 2030			3,750							$0	$0	$0	$0	$0
Sr. Unsecured Due Jul. 8, 2029			31,250							$0	$0	$0	$0	$0
Retired Debt										$0	$7,225	$5,000	$4,750	$4,000
FCF - Obligations and Non-Guaranteed										($4,124)	($3,550)	($1,918)	($2,317)	($3,756)
Debt Retirement										$0	$7,225	$5,000	$4,750	$4,000
Cash Balance								**Cash**	**Limit**	$38,155	$27,380	$20,462	$13,396	$10,000
								$42,279	**$10,000**					
Base Capital Raise										$0	$0	$0	$0	$4,360
EBITDA/Interest Expense				25.2x	19.5x	18.3x	23.7x	20.1x	13.7x	12.3x	11.1x	13.7x	17.1x	20.0x
EBITDA/Interest Expense*				25.2x	19.5x	18.3x	23.7x	20.1x	13.7x	12.3x	11.1x	13.7x	17.1x	16.0x
(EBITDA - CAPEX)/Interest Expense				1.2x	14.0x	(3.3)x	16.8x	46.9x	20.4x	11.3x	9.6x	12.0x	15.1x	17.8x
(EBITDA - CAPEX)/Interest Expense*				1.2x	14.0x	(3.3)x	16.8x	46.9x	20.4x	11.3x	9.6x	12.0x	15.1x	14.2x
Total Debt/EBITDA				0.0x	0.0x	0.0x	0.0x	0.1x	#REF!	1.7x	1.7x	1.6x	1.5x	1.4x
Total Debt/EBITDA*									#REF!	1.7x	1.7x	1.6x	1.5x	1.6x

Despite having over $70B of debt, cash like most technology companies is a significant lump sum at $40B. This debt load and resulting debt service will not infringe cash flow nor the price tag for TikTok US. Lastly, FCF will be significant with or without TikTok US.

Interest Rate Projections			2020	2021	2022	2023	2024
3MO ICE LIBOR		2.75%	0.25%	0.50%	1.00%	1.25%	1.50%
Spread (+)	0.25%		0.50%	0.75%	1.25%	1.50%	1.75%
2-Year Treasury		2.49%	0.50%	1.00%	1.25%	1.50%	1.63%
Spread (+)	0.40%		0.90%	1.40%	1.65%	1.90%	2.03%
5-Year Treasury		2.51%	0.75%	1.25%	1.50%	1.63%	1.75%
Spread (+)	0.50%		1.25%	1.75%	2.00%	2.13%	2.25%
7-Year Treasury		2.59%	0.88%	1.38%	1.75%	1.88%	2.13%
Spread (+)	0.60%		1.48%	1.98%	2.35%	2.48%	2.73%
10-Year Treasury		2.69%	1.00%	1.63%	2.00%	2.25%	2.63%
Spread (+)	0.75%		1.75%	2.38%	2.75%	3.00%	3.38%
30-Year Treasury		3.02%	1.50%	2.13%	2.63%	3.00%	3.50%
Spread (+)	1.25%		2.75%	3.38%	3.88%	4.25%	4.75%

Dynamic Cost of Capital Projections	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Preferred	$435	$501	$386	$501	$578	$643					
Total Equity	$188,877	$166,066	$187,778	$186,740	$169,965	$164,913					
Total Debt	$41,958	$43,855	$57,909	$60,619	$56,167	$74,172					
Preferred Weight	0.19%	0.24%	0.16%	0.20%	0.25%	0.27%	0.25%	0.25%	0.25%	0.25%	0.25%
Equity Weight	81.67%	78.92%	76.31%	75.34%	74.97%	68.79%	65.00%	67.50%	70.00%	72.50%	75.00%
Debt Weight	18.14%	20.84%	23.53%	24.46%	24.77%	30.94%	34.75%	32.25%	29.75%	27.25%	24.75%
Equity Beta							0.74x	0.74x	0.74x	0.74x	0.74x
Debt Beta							0.10x	0.10x	0.10x	0.10x	0.10x
Preferred Beta							0.20x	0.20x	0.20x	0.20x	0.20x
Asset Beta							**0.52x**	**0.53x**	**0.55x**	**0.57x**	**0.58x**
Risk Free Rate							0.25%	0.50%	1.00%	1.25%	1.50%
Perpetual Risk Free Rate							1.50%	2.13%	2.63%	3.00%	3.50%
Expected Market Return						3.00%	4.50%	5.13%	5.63%	6.00%	6.50%
Idiosyncratic Spread						3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Cost of Capital							5.31%	5.60%	6.15%	6.45%	6.75%

The idiosyncratic spread was increased to a historically high level to reflect COVID-19 as well as ongoing trade wars with China. In addition, the resulting interest rate spread is reflective of a less than stable environment for the foreseeable future. Both of these inputs create a base case, but could dramatically change if ORCL were able to assert itself in the cloud discussion.

Adjusted Present Value

Equity SnapShot		5YR CAGR
Growth	1.00%	0.44%
Discount	5.88%	

Time	1	2	3	4	5
Discount Factor	0.94962195	0.896695	0.836028	0.778791	0.72144057
Free Cash Flow	$23,961	$13,876	$9,450	$13,582	$15,683
Discounted FCF	$22,754	$12,442	$7,901	$10,578	$11,315
Terminal Value					$234,297

		Leases	Terminal Weight
Enterprise Value	$299,287		
Outstanding Debt	$70,850	$73,425	
Equity Value	$228,437	$225,862	78.29%
Shares Outstanding	3,010.9	3,010.9	
Share Price	**$75.87**	**$75.01**	

Current Share Price	**$59.58**

	Sensitivity Analysis								
	4.88%	5.13%	5.38%	5.63%	5.88%	6.13%	6.38%	6.63%	6.88%
0.00%	$75.06	$71.31	$67.90	$64.80	$61.96	$59.36	$56.95	$54.73	$52.67
0.25%	$79.42	$75.25	$71.49	$68.08	$64.97	$62.12	$59.51	$57.10	$54.87
0.50%	$84.28	$79.62	$75.44	$71.67	$68.25	$65.13	$62.28	$59.66	$57.25
0.75%	$89.73	$84.49	$79.83	$75.64	$71.86	$68.43	$65.30	$62.44	$59.82
1.00%	$95.87	$89.95	$84.71	$80.03	$75.83	$72.04	$68.60	$65.47	$62.60
1.25%	$102.87	$96.12	$90.18	$84.92	$80.23	$76.02	$72.22	$68.78	$65.63
1.50%	$110.90	$103.13	$96.36	$90.41	$85.14	$80.43	$76.21	$72.40	$68.95
1.75%	$120.21	$111.18	$103.39	$96.60	$90.64	$85.35	$80.64	$76.41	$72.59
2.00%	$131.14	$120.51	$111.46	$103.65	$96.84	$90.86	$85.57	$80.84	$76.60

Upside/Downside Capture	
U/D Capture	10.4x
FV Discount	78.53%

Bringing all the projections together yields a price tag of $75.87/share for ORCL. The sensitivity analysis highlights a worst case scenario of $52.67/share and a best case scenario of $131.14/share. Lastly, given the current share price of ORCL, the base case implies a little over 20% discount to projected value.

Conclusion:

Oracle has been a dependable provider of software and hardware. However, the advent of the cloud clearly caught management flat footed and resulted in muted revenue growth while peers who pursued the cloud have seen significant returns. Management is attempting to counter this trend by pushing the hybrid cloud. The hybrid cloud provides the best of both worlds in terms of scale on the public side all the while providing privacy of the firm's most sensitive data. However, the innovation gap with Azure still exists and nothing is preventing AWS from building up its privacy servers.

Management has recently polished its cloud resume with the addition of Zoom and 8x8. This resume along with a hybrid solution has positioned the firm as the top takeover candidate for TikTok US. Only time will tell whether this acquisition goes through or not, but the worlds fastest growing social media platform would not only provide income from a cloud perspective, but data that can be monetized. The resulting growth from this asset could be significant despite its size relative to ORCL's software and hardware products.

Despite management falling behind on innovation the valuation gap has not been as discounted as hoped. This is especially the case with AMZN, while MSFT could easily be justified by its resulting revenue growth. Thus, despite ORCL trading at a sluggish multiple compared to peers, there is little evidence that this multiple is not warranted.

Bringing together the tailwind that the cloud industry will grow with the headwind management is behind the innovation curve will demand more R&D spending. Even if management accelerates R&D spend at a rate 2x its historical average it pales in comparison to AMZN and MSFT. Thus, management will most likely see growth despite itself and falling further behind the innovation curve.

In conclusion, ORCL does not warrant any investment exposure at this time. Shares are trading at a 21.5% discount to fair value, but peers as well as other industries offer a more favorable risk-reward relationship.

If you have any questions, please do not hesitate to ask.

Respectfully

Kenny Blickenstaff, CFA
CEO, Titan Investment Mgmt. LLC

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Backtested performance is developed with the benefit of hindsight and has inherent limitations.

Specifically, backtested results do not reflect actual trading, or the effect of material economic and market factors on the decision making process, or the skill of the adviser. Since trades have not actually been executed, results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity, and may not reflect the impact that certain economic or market factors may have had on the decision-making process. Further, backtesting allows the security selection methodology to be adjusted until past returns are maximized. Actual performance may differ significantly from backtested performance.

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