

Software Technology

2021 Outlook – The Rating Changes

In conjunction with our 2021 Outlook, we are taking the opportunity to rebalance the ratings in our coverage universe. The most notable underlying change in view leads us to downgrade a number of the high multiple stocks and upgrade cyclically sensitive stocks in light of J.P. Morgan's outlook for economic expansion beginning in the second quarter of calendar 2021. These ratings changes by no means reflect anything on the tremendous operating condition of these names, but rather our view that an expanding economy could cause sector rotation and potential performance headwinds for these types of stocks like they did in 2010. Our other rating changes reflect the changing secular landscape of cybersecurity and a couple of downgrades of companies that are still working to improve their execution or revenue mix.

- **Downgrading high multiple names – AVL, NET, CRWD, DOCU, OKTA, VEEV, ZM.** We point out in our 2021 Outlook report that looking back at 2010, we found that the 20 highest multiple stocks at the end of 2009 underperformed the overall software industry average in 2010. If the current vaccines prove effective in manufacturing rates hitting scale, we believe the economic expansion starting in the June quarter could replicate that same environment from 2010.
- **Upgrading cyclically sensitive names – ADSK, ALTR, CDNS, INTU, PTC, VRSN, WIX.** If economic expansion does materialize beginning in the June quarter, we believe these stocks will be direct beneficiaries. Design names have direct exposure to manufacturing, industrial, and construction, which should be core to expansion. INTU, VRSN, and WIX have SMB exposure that could benefit from new business creation following the spike of new business applications reported by the Census Bureau.
- **Secular changes in cyber security – downgrading CHKP, FTNT, PANW.** The increasing shift of compute to the cloud will likely deemphasize the significant spend we have seen through the years on firewall upgrade cycles. Each of the above vendors has begun shifting its product portfolio to benefit from securing customer cloud initiatives, especially PANW. But the large revenue contribution that is still tied to on-premise firewall spend is likely to come under increasing pressure as 2021 unfolds, and that could be a headwind to stock performance.
- **Stocks still waiting for revenue improvement – downgrading PS, SCWX, MODN, SSNC.** These names are likely to have 1-2 or more quarters of revenue deceleration that could hinder stock price performance.

See page 66 for analyst certification and important disclosures.

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Equity Ratings and Price Targets

Company	Ticker	Mkt Cap (\$ mn)	Price (\$)	Rating		Price Target			
				Cur	Prev	Cur	End Date	Prev	End Date
Altair	ALTR US	4,671.58	55.08	OW	N	65.00	Dec-21	50.00	n/c
Autodesk	ADSK US	63,657.65	284.38	OW	UW	345.00	Dec-21	239.00	n/c
Avalara	AVLR US	11,224.20	169.94	N	OW	195.00	Dec-21	n/c	n/c
Cadence Design Systems	CDNS US	34,376.56	118.41	OW	N	145.00	Dec-21	122.00	n/c
Check Point Software	CHKP US	18,275.37	123.16	UW	N	134.00	Dec-21	141.00	n/c
Cloudflare	NET US	27,046.54	83.55	N	OW	83.00	Dec-21	n/c	n/c
CrowdStrike	CRWD US	40,700.54	177.48	N	OW	175.00	Dec-21	n/c	n/c
DocuSign	DOCU US	50,454.75	234.82	N	OW	271.00	Dec-21	n/c	n/c
Fortinet, Inc	FTNT US	22,176.85	131.66	UW	N	140.00	Dec-21	n/c	n/c
Intuit	INTU US	95,383.04	372.59	OW	UW	450.00	Dec-21	300.00	n/c
Model N	MODN US	1,094.80	34.00	UW	OW	33.00	Dec-21	48.00	n/c
Okta	OKTA US	36,201.33	251.13	N	OW	258.00	Dec-21	n/c	n/c
Palo Alto Networks	PANW US	32,169.45	310.22	UW	N	308.00	Dec-21	n/c	n/c
Pluralsight	PS US	2,621.71	18.10	UW	N	20.00	Dec-21	n/c	n/c
PTC Inc	PTC US	13,336.06	111.30	OW	UW	130.00	Dec-21	88.00	n/c
SecureWorks	SCWX US	1,080.28	12.71	UW	N	15.00	Dec-21	n/c	n/c
SS&C Technologies	SSNC US	19,899.25	73.26	N	OW	78.00	Dec-21	n/c	n/c
Veeva Systems	VEEV US	43,970.46	269.54	UW	N	297.00	Dec-21	n/c	n/c
VeriSign	VRSN US	24,914.28	206.92	OW	N	246.00	Dec-21	n/c	n/c
Wix.com	WIX US	15,931.34	251.17	OW	N	305.00	Dec-21	292.00	n/c
Zoom Video	ZM US	123,624.00	412.00	N	OW	450.00	Dec-21	n/c	n/c

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates. n/c = no change. All prices as of 08 Dec 20.

Altair

Overweight

Company Data	
Shares O/S (mn)	85
52-week range (\$)	55.12-23.04
Market cap (\$ mn)	4,671.58
Exchange rate	1.00
Free float(%)	98.2%
3M - Avg daily vol (mn)	0.26
3M - Avg daily val (\$ mn)	12.2
Volatility (90 Day)	38
Index	RUSSELL
	2000
BBG BUY HOLD SELL	3 4 1

Altair Engineering Inc (ALTR;ALTR US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	385	459	451	485	533
Adj. EBIT (\$ mn)	30	33	33	23	36
EBIT margin	7.9%	7.2%	7.4%	4.8%	6.8%
EBITDA margin	9.7%	8.6%	9.2%	6.6%	8.6%
Adj. EPS (\$)	0.27	0.20	0.13	0.14	0.25
BBG EPS (\$)	0.32	0.27	0.14	0.22	0.35
Reported EPS (\$)	0.04	(0.10)	(0.33)	(0.52)	(0.27)
Dividend yield	-	-	-	-	-
Adj. P/E	206.3	277.0	429.8	388.9	217.3
P/ BV	12.6	11.3	11.4	11.9	11.8

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Altair Engineering Inc (Overweight; Price Target: \$65.00)

Investment Thesis

Altair's CAE market, which we refer to as simulation software, is an attractive one to be in, in our view, as simulation software continues to replace the build-and-test model of physical prototyping. We expect the market overall to grow in the high-single digits, and Altair is taking share as its solver portfolio has been rounded out in recent years. We expect a recovery in the auto and aerospace industries as well as vaccine progression in FY21 to shift investor preferences toward more cyclically exposed names. Combined with an attractive revenue multiple compared to the rest of the industry, we believe a shift towards cyclical names and ALTR's expected outperformance justifies an Overweight rating.

Valuation

Our December 2021 price target of \$65, up from \$50, is based on our DCF analysis. This implies a ~9.9x EV/sales multiple applied to our 2022 sales estimate

We believe one of the best ways to value a cash-generative company is a 10-year, multi-stage DCF analysis based on FCFF per share to account for additional share dilution from stock-based compensation. The first stage is through 2022, when the growth and margin expansion profile of Altair coming out of the COVID-19 crisis should cause cash flow to grow rapidly. The next stage in cash flow growth is our projection that over the subsequent years cash flow growth will step down to 15% in 2031. Finally, the terminal stage applies a multiple of 22x to our 2031 FCFF estimate, in line with current multiples for that level of cash flow growth. Our DCF uses a discount rate of 11.7%.

Discounted cash flow analysis

	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
FCFF	28.0	7.4	29.3	57.9	84.0	117.6	158.8	209.6	264.1	327.5	399.6	479.5	565.8
Growth	4%	-74%	298%	98%	45%	40%	35%	32%	26%	24%	22%	20%	18%
Fully diluted shares	78.0	73.9	80.7	83.1	84.8	86.5	87.8	88.7	89.6	90.5	91.4	92.3	93.2
Y/Y change	0%	-5%	9%	3%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF				57.9	67.3	84.3	101.9	120.3	135.7	150.6	164.4	176.5	186.4
FCFF/Share	\$0.36	\$0.10	\$0.36	\$0.70	\$0.99	\$1.36	\$1.81	\$2.36	\$2.95	\$3.62	\$4.37	\$5.20	\$6.07
Y/Y change	3%	-72%	264%	92%	42%	37%	33%	31%	25%	23%	21%	19%	17%
Present Value of FCFF/Share				\$0.62	\$0.79	\$0.97	\$1.16	\$1.36	\$1.51	\$1.66	\$1.80	\$1.91	\$2.00

Source: Company reports and J.P. Morgan estimates.

Figure 1: Terminal multiple scenario analysis

Terminal multiple scenarios				
Terminal value/share	46.7	51.4	56.1	60.8
Last forecasted FCFF/share	6.1	6.1	6.1	6.1
Terminal EV/FCFF multiple	20.0x	22.0x	24.0x	26.0x
Total present value of FCFF/share	13.8	13.8	13.8	13.8
Terminal value/share	46.7	51.4	56.1	60.8
Total enterprise value/share	60.5	65.2	69.9	74.6
- CY21 debt/share	2.5	2.5	2.5	2.5
+ CY21 cash/share	2.5	2.5	2.5	2.5
/ CY21 shares outstanding	80.7	80.7	80.7	80.7
= Price per share	\$ 60.58	\$ 65.26	\$ 69.93	\$ 74.61
Based on 2022E				
Implied EV / Sales	9.2	9.9	10.6	11.3
Implied EV / EBITDA	134.5	144.9	155.3	165.7
Implied PE	229.3	247.0	264.7	282.3
Implied EV / FCFF	84.3	90.8	97.3	103.8

Source: Company reports and J.P. Morgan estimates.

Risks to Rating and Price Target

Downside

- The macro environment does not improve as quickly as expected following a vaccine rollout
- Deal expansions from auto and aerospace customers fall short of estimates

Altair: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	385	459	451	485	533	Revenue	131A	99A	106A	114	
COGS	(116)	(133)	(122)	(137)	(146)	COGS	(34)A	(25)A	(29)A	(34)	
Gross profit	269	326	328	348	386	Gross profit	97A	73A	77A	81	
SG&A	(160)	(188)	(195)	(219)	(241)	SG&A	(50)A	(46)A	(48)A	(51)	
Adj. EBITDA	37	40	42	32	46	Adj. EBITDA	22A	6A	8A	6	
D&A	(15)	(22)	(23)	(26)	(27)	D&A	(6)A	(6)A	(6)A	(6)	
Adj. EBIT	30	33	33	23	36	Adj. EBIT	19A	5A	6A	4	
Net Interest	(0)	(6)	(11)	(9)	(9)	Net Interest	(3)A	(3)A	(3)A	(3)	
Adj. PBT	33	28	24	15	27	Adj. PBT	18A	1A	4A	1	
Tax	(12)	(11)	(13)	(4)	6	Tax	(5)A	(3)A	(3)A	(3)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	20	15	10	11	21	Adj. Net Income	13A	(2)A	0A	(1)	
Reported EPS	0.04	(0.10)	(0.33)	(0.52)	(0.27)	Reported EPS	0.08A	(0.13)A	(0.11)A	(0.18)	
Adj. EPS	0.27	0.20	0.13	0.14	0.25	Adj. EPS	0.16A	(0.02)A	0.00A	(0.02)	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	75	76	78	78	81	Shares outstanding	78A	81A	81A	74	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	35	223	204	225	274	Gross margin	69.9%	71.1%	72.9%	71.8%	72.5%
Accounts receivable	97	105	95	104	106	EBITDA margin	9.7%	8.6%	9.2%	6.6%	8.6%
Inventories	2	0	0	0	0	EBIT margin	7.9%	7.2%	7.4%	4.8%	6.8%
Other current assets	20	24	28	30	41	Net profit margin	5.2%	3.3%	2.2%	2.3%	3.9%
Current assets	154	352	327	358	420	ROE	11.4%	4.7%	2.8%	3.1%	5.8%
PP&E	30	36	34	35	36	ROA	5.2%	2.5%	1.4%	1.5%	2.6%
LT investments	0	0	0	0	0	ROCE	9.7%	4.1%	2.6%	3.2%	4.8%
Other non current assets	299	354	382	369	354	SG&A/Sales	41.6%	41.0%	43.3%	45.2%	45.2%
Total assets	483	743	744	762	810	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	0	0	0	0	0	P/E (x)	206.3	277.0	429.8	388.9	217.3
Payables	8	9	6	6	7	P/BV (x)	12.6	11.3	11.4	11.9	11.8
Other short term liabilities	119	144	136	155	172	EV/EBITDA (x)	123.3	115.6	110.9	143.1	98.9
Current liabilities	128	153	142	161	179	Dividend Yield	-	-	-	-	-
Long-term debt	31	178	189	200	212	Sales/Assets (x)	1.0	0.7	0.6	0.6	0.7
Other long term liabilities	35	55	59	53	55	Interest cover (x)	187.0	6.2	3.7	3.7	5.2
Total liabilities	194	386	389	414	446	Operating leverage	358.2%	50.1%	(23.8%)	(392.0%)	577.7%
Shareholders' equity	289	357	354	348	364	Revenue y/y Growth	15.5%	19.2%	(1.8%)	7.7%	9.7%
Minority interests	0	0	0	0	0	EBITDA y/y Growth	66.1%	5.8%	4.9%	(22.7%)	43.5%
Total liabilities & equity	483	743	744	762	810	Tax rate	38.6%	46.7%	57.9%	25.0%	25.0%
BVPS	4.36	4.88	4.84	4.62	4.68	Adj. Net Income y/y Growth	24.4%	(24.5%)	(33.6%)	9.3%	87.2%
y/y Growth	263.1%	11.9%	(0.7%)	(4.6%)	1.3%	EPS y/y Growth	3.7%	(25.5%)	(35.5%)	10.5%	79.0%
Net debt/(cash)	(4)	(44)	(15)	(24)	(62)	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	36	31	18	31	60						
o/w Depreciation & amortization	15	22	23	26	27						
o/w Changes in working capital	7	3	(7)	(0)	5						
Cash flow from investing activities	(206)	(36)	(39)	(10)	(11)						
o/w Capital expenditure	(7)	(10)	(6)	(10)	(11)						
as % of sales	1.7%	2.1%	1.3%	2.0%	2.0%						
Cash flow from financing activities	168	192	1	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	31	(31)	0	0	0						
Net change in cash	(4)	188	(19)	21	49						
Adj. Free cash flow to firm	27	28	7	29	58						
y/y Growth	151.9%	3.8%	(73.7%)	297.9%	98.0%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Autodesk

Overweight

Company Data	
Shares O/S (mn)	224
52-week range (\$)	286.24-125.38
Market cap (\$ mn)	63,657.65
Exchange rate	1.00
Free float(%)	99.8%
3M - Avg daily vol (mn)	1.48
3M - Avg daily val (\$ mn)	367.3
Volatility (90 Day)	36
Index	S&P 500
BBG BUY HOLD SELL	16 4 3

Autodesk (ADSK;ADSK US)

Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	2,570	3,274	3,760	4,260	4,967
Adj. EBIT (\$ mn)	283	729	1,023	1,291	1,836
EBIT margin	11.0%	22.3%	27.2%	30.3%	37.0%
EBITDA margin	14.7%	26.2%	30.6%	33.4%	38.8%
Adj. EPS (\$)	1.01	2.80	3.94	4.84	6.72
BBG EPS (\$)	2.78	3.94	5.17	-	-
Reported EPS (\$)	(0.36)	0.97	1.89	3.11	4.97
Dividend yield	-	-	-	-	-
Adj. P/E	282.3	101.7	72.2	58.7	42.3
P/ BV	NM	NM	554.5	169.7	63.8

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Autodesk (Overweight; Price Target: \$345.00)

Investment Thesis

Cash flow delivered on the \$6 per share targets in FY20 and the outlook to FY23 for \$2.4B in free cash flow are within reach, in our opinion. With a vaccine improving the macro disruptions seen in FY21, we believe it is a good time to step into the cyclical names like ADSK. Adding to the cyclical upswing is the growing and underpenetrated construction market, which the company sizes at a \$13B TAM in FY25, and we think the company is positioned well given its longstanding presence in the architecture and building information management (BIM) spaces, which present strong opportunities for cross and upselling. The stock also offers an attractive valuation compared to its peers, where shares have consistently traded in line with or even at a discount to the likes of ANSS, PTC, AZPN and others despite showing better growth. We believe this all aligns to outperformance and supports an Overweight rating.

Valuation

Our December 2021 price target of \$345, up from \$239, is based on our 10-year DCF and FCFF per share analysis. Our price target assume a 10.0% discount rate and a 14x terminal multiple, in line with peers who have similar levels of cash flow growth. Our price target implies a 33x EV/FCFF multiple applied to our FY23 (calendar 2022) estimates.

Figure 1: DCF and FCFF per share analysis

	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
FCFF	1,401.4	1,384.8	1,620.8	2,348.9	3,006.6	3,728.1	4,511.1	5,323.1	6,174.7	7,039.2	7,883.9	8,672.3	9,366.1
YoY growth		-1.2%	17.0%	44.9%	28.0%	24.0%	21.0%	18.0%	16.0%	14.0%	12.0%	10.0%	8.0%
Fully diluted shares	222.2	223.8	225.0	226.1	227.2	228.4	229.5	230.6	231.8	233.0	234.1	235.3	236.5
YoY growth			0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
FCFF/share	\$6.31	\$6.19	\$7.20	\$10.39	\$13.23	\$16.33	\$19.66	\$23.08	\$26.64	\$30.22	\$33.67	\$36.86	\$39.61
YoY growth		-1.9%	16.5%	44.2%	27.4%	23.4%	20.4%	17.4%	15.4%	13.4%	11.4%	9.5%	7.5%
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF/share				\$9.44	\$10.94	\$12.27	\$13.43	\$14.33	\$15.04	\$15.51	\$15.71	\$15.63	\$15.27

Source: Company reports and J.P. Morgan estimates.

Figure 2: Terminal multiple scenarios

Terminal multiple scenarios				
Terminal value/share	149.2	179.0	208.9	238.7
Last forecasted FCFF/share	39.6	39.6	39.6	39.6
Terminal EV/FCFF multiple	10	12	14	16
Total present value of FCFF/share	137.6	137.6	137.6	137.6
Terminal value/share	149.2	179.0	208.9	238.7
Total enterprise value	286.7	316.6	346.4	376.2
- debt/share	7.3	7.3	7.3	7.3
+ excess cash/share	5.4	5.4	5.4	5.4
= equity value	\$ 284.79	\$ 314.62	\$ 344.46	\$ 374.30
/ shares outstanding	223.8	223.8	223.8	223.8
Implied EV / Sales	12.9	14.3	15.6	17.0
Implied EV / EBITDA	33.3	36.8	40.3	43.7
Implied PE	42.4	46.8	51.3	55.7
Implied EV / FCFF	27.3	30.2	33.0	35.9

Source: Company reports and J.P. Morgan estimates.

Risks to Rating and Price Target

Downside

- The macro environment does not improve as quickly as expected following a vaccine rollout
- Competition in growth markets lead to a reduction in our forecasts
- Multi-year deal mix does not come back to historical norms, which puts downward pressure on cash flow in the coming years

Autodesk: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	2,570	3,274	3,760	4,260	4,967	Revenue	886A	913A	952A	1,009	
COGS	(286)	(325)	(337)	(373)	(430)	COGS	(82)A	(81)A	(84)A	(90)	
Gross profit	2,284	2,949	3,423	3,887	4,537	Gross profit	804A	832A	869A	918	
SG&A	(1,524)	(1,716)	(1,835)	(1,936)	(2,018)	SG&A	(446)A	(444)A	(458)A	(487)	
Adj. EBITDA	378	857	1,152	1,423	1,926	Adj. EBITDA	261A	275A	302A	313	
D&A	(95)	(127)	(128)	(132)	(90)	D&A	(30)A	(30)A	(32)A	(36)	
Adj. EBIT	283	729	1,023	1,291	1,836	Adj. EBIT	231A	245A	270A	277	
Net Interest	(18)	(48)	(82)	(29)	(17)	Net Interest	(40)A	(17)A	(12)A	(13)	
Adj. PBT	276	758	1,041	1,312	1,819	Adj. PBT	224A	260A	276A	281	
Tax	(38)	(80)	(113)	(230)	(368)	Tax	(24)A	(31)A	(24)A	(35)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	223	621	874	1,076	1,491	Adj. Net Income	188A	218A	232A	236	
Reported EPS	(0.36)	0.97	1.89	3.11	4.97	Reported EPS	0.30A	0.44A	0.59A	0.56	
Adj. EPS	1.01	2.80	3.94	4.84	6.72	Adj. EPS	0.85A	0.98A	1.04A	1.06	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	222	222	222	222	222	Shares outstanding	221A	222A	222A	222	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	954	1,844	2,050	2,501	3,974	Gross margin	88.9%	90.1%	91.0%	91.2%	91.3%
Accounts receivable	474	652	575	609	558	EBITDA margin	14.7%	26.2%	30.6%	33.4%	38.8%
Inventories	0	0	0	0	0	EBIT margin	11.0%	22.3%	27.2%	30.3%	37.0%
Other current assets	192	163	101	89	76	Net profit margin	8.7%	19.0%	23.3%	25.2%	30.0%
Current assets	1,620	2,659	2,725	3,199	4,608	ROE	(95.7%)	(355.0%)	(6558.6%)	448.6%	222.0%
PP&E	150	162	197	187	171	ROA	5.1%	11.4%	14.0%	16.5%	20.1%
LT investments	0	0	0	0	0	ROCE	14.3%	31.3%	46.5%	62.2%	76.9%
Other non current assets	2,960	3,358	3,407	3,358	3,330	SG&A/Sales	59.3%	52.4%	48.8%	45.4%	40.6%
Total assets	4,729	6,179	6,329	6,743	8,109	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	0	450	0	0	0	P/E (x)	282.3	101.7	72.2	58.7	42.3
Payables	102	84	71	111	121	P/BV (x)	NM	NM	55.5	169.7	63.8
Other short term liabilities	2,200	2,686	2,985	3,249	3,800	EV/EBITDA (x)	156.5	68.0	50.0	39.9	28.7
Current liabilities	2,301	3,219	3,056	3,360	3,921	Dividend Yield	-	-	-	-	-
Long-term debt	2,088	1,635	1,636	1,286	1,286	Sales/Assets (x)	0.6	0.6	0.6	0.7	0.7
Other long term liabilities	551	1,464	1,525	1,730	1,925	Interest cover (x)	21.3	17.8	14.1	49.9	113.4
Total liabilities	4,940	6,318	6,217	6,376	7,132	Operating leverage	(1411.5%)	576.8%	272.2%	196.6%	254.0%
Shareholders' equity	(211)	(139)	112	367	976	Revenue y/y Growth	25.0%	27.4%	14.8%	13.3%	16.6%
Minority interests	0	0	0	0	0	EBITDA y/y Growth	(1039.6%)	126.8%	34.5%	23.6%	35.3%
Total liabilities & equity	4,729	6,179	6,329	6,743	8,109	Tax rate	19.0%	18.0%	16.0%	18.0%	18.0%
BVPS	(0.96)	(0.63)	0.51	1.68	4.46	Adj. Net Income y/y Growth	(310.1%)	178.2%	40.7%	23.0%	38.7%
y/y Growth	(17.4%)	(34.3%)	(181.0%)	226.8%	166.0%	EPS y/y Growth	(308.0%)	177.5%	40.9%	23.0%	38.7%
Net debt/(cash)	1,134	241	(414)	(1,215)	(2,687)	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	377	1,415	1,425	1,651	2,389						
o/w Depreciation & amortization	95	127	128	132	90						
o/w Changes in working capital	0	0	0	0	0						
Cash flow from investing activities	(710)	(57)	(202)	(72)	(75)						
o/w Capital expenditure	(67)	(53)	(98)	(72)	(75)						
as % of sales	2.6%	1.6%	2.6%	1.7%	1.5%						
Cash flow from financing activities	152	(467)	(1,029)	(1,128)	(842)						
o/w Dividends paid	0	0	0	0	0						
o/w Net debt issued/(repaid)	0	(500)	(450)	0	0						
Net change in cash	(192)	889	197	451	1,472						
Adj. Free cash flow to firm	324	1,401	1,385	1,621	2,349						
y/y Growth	(2393.7%)	331.9%	(1.2%)	17.0%	44.9%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

Avalara

Neutral

Company Data	
Shares O/S (mn)	66
52-week range (\$)	175.67-55.50
Market cap (\$ mn)	11,224.20
Exchange rate	1.00
Free float(%)	95.7%
3M - Avg daily vol (mn)	0.60
3M - Avg daily val (\$ mn)	87.5
Volatility (90 Day)	47
Index	RUSSELL
	2000
BBG BUY HOLD SELL	13 0 0

Avalara Inc. (AVLR;AVLR US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	272	382	489	616	735
Adj. EBIT (\$ mn)	(45)	(11)	(8)	(12)	22
EBIT margin	(16.5%)	(2.9%)	(1.6%)	(2.0%)	3.0%
EBITDA margin	(14.0%)	(0.7%)	0.5%	0.3%	5.2%
Adj. EPS (\$)	(0.69)	(0.08)	(0.03)	(0.07)	0.23
BBG EPS (\$)	(0.70)	(0.14)	(0.04)	(0.15)	0.19
Reported EPS (\$)	(1.18)	(0.64)	(0.62)	(0.50)	(0.23)
Dividend yield	-	-	-	-	-
Adj. P/E	NM	NM	NM	NM	725.6
P/ BV	99.4	26.9	24.3	26.1	25.9

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Avalara Inc. (Neutral; Price Target: \$195.00)

Investment Thesis

The process of calculating the appropriate sales tax, collecting, and filing to all the required taxing jurisdictions is much harder than it sounds, especially for multi-location and online retailers. We estimate AVLR's TAM is \$8.6B, and with last year's Wayfair Supreme Court ruling, we expect a growing number of merchants to adopt automated solutions, creating a very good growth environment for AVLR and thus rate the stock Overweight.

Valuation

Our Dec-21 price target of \$195, up from our previous target of \$150, is based on our 10-year DCF and reflects our higher revised estimates for FCF in the future. Our analysis applies a terminal FCFF/share multiple of 25x to the final forecasted cash flow per share estimate, which we see as appropriate at that rate of growth rather than applying a terminal growth rate and believe a multiple-to-growth ratio of 1.0x is the right way to look at the terminal value. As for our discount rate, we have assumed a 13.0% WACC and a 21% statutory tax rate.

Table 4: 10-year DCF Analysis

	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
FCFF	6.5	2.9	-16.3	23.4	78.4	196.0	343.0	480.2	648.3	862.3	1121.0	1423.6	1779.5
Growth		-56%	-667%	-244%	235%	150%	75%	40%	35%	33%	30%	27%	25%
Fully diluted shares		82.7	84.4	86.1	87.8	89.5	91.3	93.2	95.0	96.9	98.9	100.8	102.9
Y/Y change			2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF				23.4	61.4	135.9	210.4	260.7	311.4	366.5	421.7	1,423.6	1,779.5
FCFF/Share				0.3	0.9	2.2	3.8	5.2	6.8	8.9	11.3	14.1	17.3
Y/Y change					228%	145%	72%	37%	32%	30%	27%	25%	23%

Source: Company Reports, J.P. Morgan Research

Table 5: Terminal Multiple Scenario Analysis

Terminal multiple scenarios				
Terminal value/share	121.0	133.8	146.5	159.3
Last forecasted FCFF/share	17.3	17.3	17.3	17.3
Terminal EV/FCFF multiple	19	21	23	25
Total present value of FCFF/share	28.7	28.7	28.7	28.7
Terminal value/share	121.0	133.8	146.5	159.3
Total enterprise value/share	149.7	162.5	175.2	188.0
- CY21 debt/share				
+ CY21 excess cash/share	6.8	6.8	6.8	6.8
= Price per share	\$ 156.55	\$ 169.29	\$ 182.03	\$ 194.78
/ CY21 shares outstanding	84.4	84.4	84.4	84.4

Source: Company Reports, J.P. Morgan Research

Risks to Rating and Price Target

- Economic downturn causes faster decline in transaction volumes than can be offset by new customer wins (secular adoption)
- Customer base is mid-market with over 8K companies that are in small segments that are more susceptible to economic downturns
- AVL R is still losing material amounts of money at the EBIT line, and investors could decide to limit exposure to this type of profile if markets continue to be volatile

Avalara: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	272	382	489	616	735	Revenue	111A	116A	128A	133	
COGS	(79)	(115)	(141)	(173)	(205)	COGS	(34)A	(33)A	(35)A	(38)	
Gross profit	193	267	348	443	531	Gross profit	77A	83A	93A	95	
SG&A	(218)	(237)	(289)	(356)	(410)	SG&A	(71)A	(66)A	(73)A	(79)	
Adj. EBITDA	(38)	(3)	2	2	39	Adj. EBITDA	(6)A	6A	4A	(2)	
D&A	(22)	(16)	(17)	(21)	(22)	D&A	(4)A	(4)A	(4)A	(5)	
Adj. EBIT	(45)	(11)	(8)	(12)	22	Adj. EBIT	(8)A	4A	2A	(5)	
Net Interest	(1)	6	2	4	5	Net Interest	1A	0A	0A	1	
Adj. PBT	(45)	(5)	(2)	(8)	27	Adj. PBT	(3)A	4A	2A	(4)	
Tax	1	(1)	(1)	2	(6)	Tax	(0)A	(0)A	(0)A	(0)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	(44)	(6)	(3)	(6)	21	Adj. Net Income	(4)A	4A	2A	(4)	
Reported EPS	(1.18)	(0.64)	(0.62)	(0.50)	(0.23)	Reported EPS	(0.20)A	(0.12)A	(0.15)A	(0.16)	
Adj. EPS	(0.69)	(0.08)	(0.03)	(0.07)	0.23	Adj. EPS	(0.05)A	0.04A	0.02A	(0.05)	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	64	73	84	88	90	Shares outstanding	78A	83A	87A	87	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	142	467	595	576	594	Gross margin	71.1%	69.9%	71.2%	71.9%	72.2%
Accounts receivable	40	52	68	78	112	EBITDA margin	(14.0%)	(0.7%)	0.5%	0.3%	5.2%
Inventories	0	0	0	0	0	EBIT margin	(16.5%)	(2.9%)	(1.6%)	(2.0%)	3.0%
Other current assets	25	48	53	75	94	Net profit margin	(16.3%)	(1.5%)	(0.6%)	(1.0%)	2.9%
Current assets	207	567	715	729	800	ROE	(102.4%)	(2.0%)	(0.6%)	(1.1%)	3.6%
PP&E	33	35	35	42	48	ROA	(17.7%)	(1.0%)	(0.3%)	(0.7%)	2.1%
LT investments	-	-	-	-	-	ROCE	(72.6%)	(4.7%)	(2.3%)	(2.5%)	3.0%
Other non current assets	82	205	207	203	199	SG&A/Sales	80.0%	62.1%	59.1%	57.8%	55.7%
Total assets	323	807	957	974	1,047	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	0	0	0	0	0	P/E (x)	NM	NM	NM	NM	725.6
Payables	47	12	19	20	22	P/BV (x)	99.4	26.9	24.3	26.1	25.9
Other short term liabilities	139	260	280	306	357	EV/EBITDA (x)	NM	NM	4,560.4	5,869.8	263.9
Current liabilities	186	272	298	326	379	Dividend Yield	-	-	-	-	-
Long-term debt	0	0	0	0	0	Sales/Assets (x)	1.1	0.7	0.6	0.6	0.7
Other long term liabilities	28	72	73	75	79	Interest cover (x)	NM	0.5	NM	NM	NM
Total liabilities	213	344	371	401	457	Operating leverage	73.0%	(184.9%)	(111.8%)	226.1%	(1442.3%)
Shareholders' equity	110	464	586	573	589	Revenue y/y Growth	27.7%	40.5%	27.8%	26.0%	19.3%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	21.0%	(93.2%)	(186.1%)	(22.2%)	2120.6%
Total liabilities & equity	323	807	957	974	1,047	Tax rate	(2.1%)	(20.6%)	(55.8%)	(20.0%)	21.0%
BVPS	1.71	6.33	7.00	6.50	6.55	Adj. Net Income y/y Growth	16.4%	(87.4%)	(47.8%)	119.7%	(428.2%)
y/y Growth	(526.2%)	270.0%	10.6%	(7.1%)	0.8%	EPS y/y Growth	2.6%	(89.0%)	(54.3%)	108.6%	(421.7%)
Net debt/(cash)	(142)	(467)	(595)	(576)	(594)	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	(3)	22	15	10	50						
o/w Depreciation & amortization	13	16	17	21	22						
o/w Changes in working capital	36	18	1	2	12						
Cash flow from investing activities	(20)	(52)	(480)	(28)	(32)						
o/w Capital expenditure	(15)	(10)	(10)	(22)	(22)						
as % of sales	5.7%	2.7%	2.0%	3.5%	3.0%						
Cash flow from financing activities	151	354	596	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	(41)	(0)	0	0	0						
Net change in cash	128	325	131	(19)	18						
Adj. Free cash flow to firm	(18)	6	3	(16)	23						
y/y Growth	12.7%	(136.9%)	(55.5%)	(667.3%)	(243.7%)						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Cadence Design Systems

Overweight

Company Data	
Shares O/S (mn)	290
52-week range (\$)	127.50-51.39
Market cap (\$ mn)	34,376.56
Exchange rate	1.00
Free float(%)	98.6%
3M - Avg daily vol (mn)	1.53
3M - Avg daily val (\$ mn)	169.3
Volatility (90 Day)	37
Index	RUSSELL
	2000
BBG BUY HOLD SELL	8 6 1

Cadence Design Systems (CDNS;CDNS US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	2,138	2,336	2,651	2,837	3,073
Adj. EBIT (\$ mn)	647	749	914	941	1,041
EBIT margin	30.2%	32.1%	34.5%	33.2%	33.9%
EBITDA margin	35.8%	37.3%	39.9%	38.6%	39.1%
Adj. EPS (\$)	1.87	2.20	2.70	2.75	2.98
BBG EPS (\$)	1.82	2.19	2.70	2.87	3.22
Reported EPS (\$)	1.23	3.53	2.03	1.88	2.09
Dividend yield	-	-	-	-	-
Adj. P/E	63.3	53.8	43.9	43.1	39.8
P/ BV	25.8	15.8	12.8	10.1	8.2

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Cadence Design Systems (Overweight; Price Target: \$145.00)

Investment Thesis

The EDA (electronic design automation) software segment should generate roughly mid-single-digit growth for its core tools with the potential for faster growth through ancillary product areas including pre-built design IP. The bulk of the market share in this space is divided among three vendors, Cadence, Synopsys (SNPS/OW), and Siemens (through its acquisition of Mentor Graphics). This provides a very stable but fierce competitive environment, with vendors constantly looking to gain and defend market share through incremental product innovation. We believe Cadence's investment into 3D solvers opens up a larger addressable market and believe that a shift towards more cyclically exposed names will further boost growth. That improved growth, combined with an attractive valuation compared to peers like ANSS, AZPN, and ADSK, should result in outperformance of our broader coverage universe.

Valuation

Our December 2021 price target of \$145, up from \$122, is based on a multiple of 36x applied to our FY22 FCFF estimate. Our price target reflects the higher multiples being assigned to consistent performers in the engineering software space like CDNS in today's market.

Risks to Rating and Price Target

Downside

- The macro environment does not improve as quickly as expected following a vaccine rollout
- SNPS regains share in core EDA thanks to new product innovations that could drive down growth
- Expansion into 3D solvers is slower than expected and costly investments reduce cash flow

Cadence Design Systems: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	2,138	2,336	2,651	2,837	3,073	Revenue	618A	638A	667A	728	
COGS	(213)	(219)	(270)	(287)	(274)	COGS	(62)A	(62)A	(69)A	(76)	
Gross profit	1,925	2,117	2,382	2,550	2,799	Gross profit	556A	576A	597A	652	
SG&A	(516)	(556)	(585)	(658)	(729)	SG&A	(145)A	(139)A	(142)A	(160)	
Adj. EBITDA	765	872	1,058	1,094	1,200	Adj. EBITDA	232A	260A	276A	289	
D&A	(119)	(123)	(144)	(153)	(159)	D&A	(33)A	(37)A	(37)A	(37)	
Adj. EBIT	647	749	914	941	1,041	Adj. EBIT	199A	224A	239A	252	
Net Interest	(21)	(14)	(16)	(13)	(22)	Net Interest	(1)A	(4)A	(4)A	(6)	
Adj. PBT	626	735	898	928	1,019	Adj. PBT	198A	220A	235A	246	
Tax	(100)	(118)	(144)	(148)	(163)	Tax	(32)A	(35)A	(38)A	(39)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	526	618	755	779	856	Adj. Net Income	166A	185A	197A	207	
Reported EPS	1.23	3.53	2.03	1.88	2.09	Reported EPS	0.44A	0.47A	0.58A	0.53	
Adj. EPS	1.87	2.20	2.70	2.75	2.98	Adj. EPS	0.60A	0.66A	0.70A	0.74	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	281	280	280	284	288	Shares outstanding	279A	279A	280A	280	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	533	705	1,332	2,301	3,391	Gross margin	90.0%	90.6%	89.8%	89.9%	91.1%
Accounts receivable	297	305	343	354	372	EBITDA margin	35.8%	37.3%	39.9%	38.6%	39.1%
Inventories	28	56	66	68	61	EBIT margin	30.2%	32.1%	34.5%	33.2%	33.9%
Other current assets	93	104	124	139	139	Net profit margin	24.6%	26.4%	28.5%	27.5%	27.8%
Current assets	951	1,169	1,864	2,862	3,964	ROE	46.1%	36.4%	32.2%	26.4%	22.9%
PP&E	253	276	304	321	336	ROA	21.5%	21.2%	19.7%	16.4%	14.9%
LT investments	-	-	-	-	-	ROCE	33.3%	30.8%	28.6%	24.0%	21.4%
Other non current assets	1,265	1,912	2,127	2,053	1,971	SG&A/Sales	24.2%	23.8%	22.1%	23.2%	23.7%
Total assets	2,469	3,357	4,295	5,236	6,270	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	0	0	0	0	0	P/E (x)	63.3	53.8	43.9	43.1	39.8
Payables	257	317	291	376	461	P/BV (x)	25.8	15.8	12.8	10.1	8.2
Other short term liabilities	452	355	796	895	993	EV/EBITDA (x)	44.9	39.2	31.7	29.8	26.2
Current liabilities	709	672	1,088	1,271	1,454	Dividend Yield	-	-	-	-	-
Long-term debt	345	346	346	346	346	Sales/Assets (x)	0.9	0.8	0.7	0.6	0.5
Other long term liabilities	126	236	280	291	318	Interest cover (x)	36.3	61.7	67.0	81.4	54.2
Total liabilities	1,180	1,254	1,715	1,909	2,118	Operating leverage	209.3%	171.2%	163.1%	41.9%	127.5%
Shareholders' equity	1,288	2,103	2,580	3,327	4,152	Revenue y/y Growth	10.0%	9.3%	13.5%	7.0%	8.3%
Minority interests	0	0	0	0	0	EBITDA y/y Growth	17.8%	13.9%	21.3%	3.4%	9.7%
Total liabilities & equity	2,469	3,357	4,295	5,236	6,270	Tax rate	16.0%	16.0%	16.0%	16.0%	16.0%
BVPS	4.58	7.50	9.23	11.73	14.44	Adj. Net Income y/y Growth	33.9%	17.5%	22.2%	3.3%	9.8%
y/y Growth	29.8%	63.6%	23.0%	27.2%	23.1%	EPS y/y Growth	33.4%	17.8%	22.5%	1.8%	8.3%
Net debt/(cash)	(188)	(359)	(985)	(1,955)	(3,045)	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	605	730	853	1,060	1,186						
o/w Depreciation & amortization	119	123	144	153	159						
o/w Changes in working capital	(22)	6	(47)	160	201						
Cash flow from investing activities	(174)	(106)	(294)	(91)	(95)						
o/w Capital expenditure	(62)	(75)	(97)	(91)	(95)						
as % of sales	2.9%	3.2%	3.6%	3.2%	3.1%						
Cash flow from financing activities	(568)	(444)	60	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	15	150	350	0	0						
Net change in cash	(155)	172	626	969	1,090						
Adj. Free cash flow to firm	561	667	770	981	1,109						
y/y Growth	29.9%	18.9%	15.4%	27.4%	13.1%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Check Point Software

Underweight

Company Data	
Shares O/S (mn)	148
52-week range (\$)	130.98-80.06
Market cap (\$ mn)	18,275.37
Exchange rate	1.00
Free float(%)	78.4%
3M - Avg daily vol (mn)	0.95
3M - Avg daily val (\$ mn)	114.6
Volatility (90 Day)	24
Index	S&P 500
BBG BUY HOLD SELL	5 21 3

Check Point Software (CHKP;CHKP US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	1,916	1,995	2,055	2,116	-
Adj. EBIT (\$ mn)	1,015	1,003	1,031	1,013	-
EBIT margin	53.0%	50.3%	50.2%	47.9%	-
EBITDA margin	53.4%	50.8%	50.8%	48.9%	-
Adj. EPS (\$)	5.71	6.13	6.73	6.80	-
BBG EPS (\$)	5.68	6.12	6.74	6.91	7.27
Reported EPS (\$)	5.15	5.43	5.91	6.08	-
Dividend yield	-	-	-	-	-
Adj. P/E	21.6	20.1	18.3	18.1	-
P/ BV	5.1	5.2	5.2	5.6	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Check Point Software (*Underweight; Price Target: \$134.00*)

Investment Thesis

Checkpoint Software is one of the largest pure-play network security vendors in the world and one of the most profitable software companies, which means it typically throws off significant cash flow. Security demand continues to be a high priority and defensive. Management has been investing more into sales and marketing in an effort to reaccelerate the top line, but results have been choppy, and the company has been losing market share in the core firewall market.

We are downgrading shares to Underweight from Neutral, as we believe the firewall space is entering a phase of secular headwinds as customers shift to the cloud. The majority of revenue is still coming from on-premise firewall spend, and we believe security spend is increasingly shifting to protecting cloud assets. As a result, we believe shares will have a tougher time performing in line with our overall coverage.

Valuation

Because of CHKP's stage in its lifecycle, P/E has been the valuation technique most utilized over the last two years. But we believe value investors will gravitate toward what we think is the more appropriate valuation methodology for this company, which is EV/FCFF. We are cutting our Dec 2021 price target to \$134 based on an EV/FCFF multiple of ~12.7 to our 2022 FCFF estimate, at the low end of the publicly traded security group. The target multiple at the lower end incorporates the overall loss of market share and margin compression we see ahead.

Risks to Rating and Price Target

- **Reacceleration in product revenue.** The company has invested in more resources, primarily headcount for its go-to-market operations—if it begins gaining incremental traction and product growth gets back to 7% or higher, shares could outperform from these levels.

- **Improvement in channel execution leads to better topline growth.** Changes in NA have led to overall improved execution and if that improvement continues and expand to other geographies could lead to better revenue growth.
- **Cloud quickly becomes a large enough portion of revenue** that helps accelerate revenue and ultimately cash flow. In particular, the Dome9 product has received some good initial customer reaction.

Check Point Software: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	1,916	1,995	2,055	2,116	-	Revenue	487A	506A	509A	554A	
COGS	(201)	(215)	(219)	(229)	-	COGS	(52)A	(54)A	(54)A	(59)A	
Gross profit	1,721	1,789	1,844	1,887	-	Gross profit	437A	454A	458A	495A	
SG&A	(590)	(658)	(676)	(710)	-	SG&A	(172)A	(168)A	(163)A	(174)A	
Adj. EBITDA	1,024	1,012	1,043	1,035	-	Adj. EBITDA	234A	255A	267A	287A	
D&A	(21)	(24)	(27)	(29)	-	D&A	(7)A	(6)A	(7)A	(7)A	
Adj. EBIT	1,015	1,003	1,031	1,013	-	Adj. EBIT	231A	253A	265A	282A	
Net Interest	0	0	0	0	-	Net Interest	0A	0A	0A	0A	
Adj. PBT	1,080	1,083	1,096	1,056	-	Adj. PBT	250A	272A	279A	295A	
Tax	(158)	(137)	(129)	(127)	-	Tax	(41)A	(43)A	(45)A	0A	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	911	933	956	925	-	Adj. Net Income	206A	225A	231A	295A	
Reported EPS	5.15	5.43	5.91	6.08	-	Reported EPS	1.23A	1.38A	1.42A	1.89A	
Adj. EPS	5.71	6.13	6.73	6.80	-	Adj. EPS	1.42A	1.58A	1.64A	2.11A	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	159	152	142	136	-	Shares outstanding	145A	143A	141A	139A	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	1,752	1,580	1,515	3,526	-	Gross margin	89.8%	89.7%	89.7%	89.2%	-
Accounts receivable	495	496	504	515	-	EBITDA margin	53.4%	50.8%	50.8%	48.9%	-
Inventories	0	0	0	0	-	EBIT margin	53.0%	50.3%	50.2%	47.9%	-
Other current assets	75	59	55	85	-	Net profit margin	47.5%	46.8%	46.5%	43.7%	-
Current assets	2,322	2,134	2,074	4,126	-	ROE	24.7%	25.4%	27.8%	29.5%	-
PP&E	79	88	94	100	-	ROA	16.1%	16.1%	16.8%	16.8%	-
LT investments	2,287	2,369	2,294	5	-	ROCE	23.2%	23.5%	26.1%	28.3%	-
Other non current assets	1,140	1,174	1,163	1,152	-	SG&A/Sales	30.8%	33.0%	32.9%	33.5%	-
Total assets	5,828	5,765	5,626	5,382	-	Net debt/equity	NM	NM	NM	NM	-
Short term borrowings	0	0	0	0	-	P/E (x)	21.6	20.1	18.3	18.1	-
Payables	352	385	410	396	-	P/BV (x)	5.1	5.2	5.2	5.6	-
Other short term liabilities	980	1,012	1,059	1,146	-	EV/EBITDA (x)	11.2	11.4	11.2	11.5	-
Current liabilities	1,332	1,397	1,468	1,542	-	Dividend Yield	-	-	-	-	-
Long-term debt	0	0	0	0	-	Sales/Assets (x)	0.3	0.3	0.4	0.4	-
Other long term liabilities	724	799	837	894	-	Interest cover (x)	-	-	-	-	-
Total liabilities	2,056	2,196	2,305	2,436	-	Operating leverage	(27.5%)	(29.5%)	94.2%	(58.5%)	-
Shareholders' equity	3,772	3,569	3,321	2,946	-	Revenue y/y Growth	3.3%	4.1%	3.0%	3.0%	-
Minority interests	0	0	0	0	-	EBITDA y/y Growth	(0.4%)	(1.1%)	3.1%	(0.8%)	-
Total liabilities & equity	5,828	5,765	5,626	5,382	-	Tax rate	15.6%	13.9%	12.8%	12.4%	-
BVPS	24.08	23.70	23.62	22.12	-	Adj. Net Income y/y Growth	2.6%	2.4%	2.5%	(3.3%)	-
y/y Growth	8.9%	(1.6%)	(0.3%)	(6.4%)	-	EPS y/y Growth	7.2%	7.3%	9.7%	1.1%	-
Net debt/(cash)	(1,752)	(1,580)	(1,515)	(3,526)	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	1,130	1,102	1,104	1,040	-						
o/w Depreciation & amortization	16	17	18	18	-						
o/w Changes in working capital	154	134	115	88	-						
Cash flow from investing activities	(172)	(64)	(48)	(23)	-						
o/w Capital expenditure	(17)	(26)	(25)	(23)	-						
as % of sales	0.9%	1.3%	1.2%	1.1%	-						
Cash flow from financing activities	(755)	(1,189)	(1,230)	(1,296)	-						
o/w Dividends paid	0	0	0	0	-						
o/w Net debt issued/(repaid)	0	0	0	0	-						
Net change in cash	191	(90)	(139)	(279)	-						
Adj. Free cash flow to firm	1,113	1,076	1,080	1,017	-						
y/y Growth	4.9%	(3.3%)	0.3%	(5.8%)	-						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Cloudflare

Neutral

Company Data	
Shares O/S (mn)	324
52-week range (\$)	84.36-15.05
Market cap (\$ mn)	27,046.54
Exchange rate	1.00
Free float(%)	84.9%
3M - Avg daily vol (mn)	5.92
3M - Avg daily val (\$ mn)	326.7
Volatility (90 Day)	63
Index	RUSSELL
	2000
BBG BUY HOLD SELL	14 3 0

Cloudflare Inc (NET;NET US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	193	287	423	565	726
Adj. EBIT (\$ mn)	(57)	(71)	(38)	(24)	0
EBIT margin	(29.6%)	(24.8%)	(8.9%)	(4.3%)	0.0%
EBITDA margin	(19.8%)	(14.5%)	2.7%	7.6%	10.7%
Adj. EPS (\$)	(0.73)	(0.48)	(0.13)	(0.06)	0.02
BBG EPS (\$)	-	(0.50)	(0.13)	(0.09)	(0.01)
Reported EPS (\$)	(1.08)	(0.73)	(0.35)	(0.23)	(0.17)
Dividend yield	-	-	-	-	-
Adj. P/E	NM	NM	NM	NM	3,443.0
P/ BV	31.0	16.8	30.7	32.4	35.5

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Cloudflare Inc (Neutral; Price Target: \$83.00)

Investment Thesis

Protecting and accelerating companies' Internet properties

Internet properties include a company's domain (e.g., jpmorgan.com), its websites, application program interfaces (APIs), and mobile applications. These represent the face of the company to the world and often the critical applications that help generate revenue. Ensuring that these solutions are available and performing at a high level 24/7/365 can be a complex and costly endeavor. Cloudflare makes that happen through a platform solution that it delivers from the cloud. However, given the stock's current valuation and the underperformance of the 2009 highest multiple stocks in 2010, we believe the market is no longer going to provide the same level of outperformance and therefore are downgrading the stock to Neutral.

\$32 billion TAM growing 10%

Traditionally, in order to accomplish the uptime and security goals mentioned above, companies will look to on-premise hardware/software ranging from firewall/VPNs, load-balancing, application delivery controllers (ADCs), proxies, and much more. In the S1 management points to ~\$32 billion being spent on these types of offerings from companies including Cisco, Juniper, F5, Check Point, Palo Alto Networks, FireEye, and Riverbed. That market is expected to grow at a 10% rate moving forward. This is the market that Cloudflare is increasingly disrupting, starting with small companies and now moving up into the largest companies.

Easy-to-use single platform

Getting up and running with Cloudflare to protect Internet properties like websites can take under 5 minutes in many cases. Customers can then add additional features (security, reliability, etc.) quickly because of the platform approach, and this makes the solution attractive to customers ranging from those dealing with a current attack to those looking to improve performance proactively.

Disruptive business model with compelling pricing

The four elements that we find disruptive in the business model are: (1) Freemium option allowing customers to use the Cloudflare solution for free and then deciding on premium options. (2) Rather than seeding new industries or territories with heavy marketing dollars and direct sales reps, Cloudflare has used the Freemium model to test the waters of new markets, and when momentum hits key milestones, it knows it is time to invest with direct sales resources. (3) Unlike generic video delivery CDN services that charge based on usage, Cloudflare relies on monthly/annual subscriptions for its solution bundles, which we believe can generate higher long-term growth and profitability. (4) Gross margins show how effective the bundled pricing combined with partnering with ISP/Telco providers for delivering infrastructure can be.

Competitive position is different than classic CDN

At first glance, we think investors can be confused about Cloudflare's core value proposition. Less than 5% of its business comes from usage-based pricing from solutions like generic video delivery, which in some cases makes up as much as ~30% or more for traditional CDN providers like Akamai and Fastly. Cloudflare is positioned more to go after providers of traditional layer 3-4 networking and security solutions from the edge of the enterprise, a very different value proposition than a traditional CDN. In addition, Workers serverless edge computing platform ultimately competes with the public cloud vendors that are currently partners of the company.

Edge networking and Workers are massive potential markets

Providing website acceleration and security is enough to support the 49.0% revenue growth that the company showed in FY2019 and 30%+ through FY2020 that we are forecasting. But the evolution of zero trust models and enterprise computing is opening up the opportunity for companies to shift spending from purchasing edge hardware networking and security solutions like routers, firewall/VPNs, load-balancers, ADCs, to SaaS services that supply the same functionality. We view Cloudflare as one of the companies best positioned to enable that shift. We believe that move likely starts more in the SMB segment, but grows into enterprise branch offices and presents a good portion of that potential \$32 billion TAM. Separately, serving applications from the Cloudflare network through what they call Workers is an edge computing serverless model perfectly suited for latency sensitive high-performance applications. Use cases range from security and authentication, marketing, to fin-tech applications. While this idea has been around for years, the timing and capabilities of the Cloudflare solution appear to be exactly what the market wants.

Valuation

For a company at the stage of Cloudflare, we believe a multi-stage discounted cash flow and free cash flow per share analysis is the best way to determine our price target. We forecast all three financial statements in detail out to 2024, then assume still hypergrowth but a deceleration in FCF growth through the end of the 10-year period, before then applying a terminal multiple for the terminal value. We believe a terminal free cash flow multiple is appropriate rather than a terminal growth rate since we do not anticipate the company will be in its terminal growth phase in ten years. The discount rate we use is ~12%, which is equal to the cost of equity, and assumes a beta of 1.5.

Unlevered FCFF Forecasts

	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E
Unlevered free cash flow (uFCFF)	(96.2)	(91.4)	(36.4)	(2.1)	11.0	70.0	175.0	350.0	665.0	1197.0	1855.4	2412.0	3014.9
Y/Y Change		NM	NM	NM	NM	536%	150%	100%	90%	80%	55%	30%	25%
Fully Diluted Share Count	321.7	330.5	341.1	347.4	353.8	360.4	367.6	376.0	381.7	389.3	397.1	405.0	413.1
Y/Y Change		3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
uFCFF/Share	(\$0.30)	(\$0.28)	(\$0.11)	(\$0.01)	\$0.03	\$0.19	\$0.48	\$0.93	\$1.74	\$3.07	\$4.67	\$5.95	\$7.30
Y/Y Change		NM	NM	NM	NM	525%	145%	96%	87%	76%	52%	27%	23%
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF				(\$0.01)	\$0.02	\$0.14	\$0.30	\$0.53	\$0.88	\$1.39	\$1.88	\$2.14	\$2.34

Source: Company reports, J.P. Morgan estimates.

Scenario Analysis

Terminal multiple scenarios				
Terminal value/share	69.0	71.8	74.7	77.6
Last forecasted FCFF/share	7.3	7.3	7.3	7.3
Terminal EV/FCFF multiple	24.0x	25.0x	26.0x	27.0x
Total present value of FCFF/share	9.6	9.6	9.6	9.6
+ Terminal value/share	69.0	71.8	74.7	77.6
Total enterprise value/share	78.6	81.5	84.3	87.2
- CY21 pro forma debt/share	1.3	1.3	1.3	1.3
+ CY21 pro forma cash/share	3.1	3.1	3.1	3.1
/ CY21 shares outstanding	341.1	341.1	341.1	341.1
= Price per share	\$80.40	\$83.28	\$86.15	\$89.03

Source: J.P. Morgan estimates.

Risks to Rating and Price Target

Sales execution

The most common item that trips up newly public, smaller fast-growing companies is sales execution as the demands to hire, train, and evolve management span of control are difficult. Cloudflare employs a different sales model in terms of how it enters new territories and targets industries that has yet to be proven at scale and is part of that sales execution risk.

Outages and customer backlash

Cloudflare had two outages last year, at the end of June and start of July, which impacted thousands of sites on the Internet. It does not appear that the company has seen a major financial hit, and the way the company and CEO Matthew Prince handled the situation has been praised in the press. However, if this becomes a more common issue, we would expect churn to grow and revenue to suffer.

SMBs show less churn than anticipated

Cloudflare now counts 16% of the Fortune 1,000 as customers, and customers paying over \$100,000 per year make up less than 50% of revenue, suggesting a higher exposure to SMB customers. This is supported by the revenue-based net dollar retention rate, which has ranged from 117-122%, that we believe is typically weighed down by the churn of smaller customers. The SMB segment tends to be more cyclically sensitive, and if the economy does begin to open back up, causing strength

in the SMB segment, this area of Cloudflare's customer base could show less churn than anticipated.

Cloudflare: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	193	287	423	565	726	Revenue	91A	100A	114A	118	
COGS	(43)	(63)	(96)	(133)	(171)	COGS	(20)A	(23)A	(26)A	(27)	
Gross profit	150	224	327	432	555	Gross profit	71A	77A	88A	91	
SG&A	(154)	(218)	(267)	(324)	(385)	SG&A	(60)A	(65)A	(69)A	(73)	
Adj. EBITDA	(38)	(42)	11	43	78	Adj. EBITDA	(4)A	2A	8A	5	
D&A	(19)	(29)	(49)	(67)	(78)	D&A	(11)A	(12)A	(13)A	(14)	
Adj. EBIT	(57)	(71)	(38)	(24)	0	Adj. EBIT	(14)A	(9)A	(5)A	(9)	
Net Interest	1	5	4	9	9	Net Interest	3A	1A	0A	0	
Adj. PBT	(58)	(68)	(34)	(18)	7	Adj. PBT	(11)A	(9)A	(5)A	(10)	
Tax	(1)	(2)	(4)	(0)	2	Tax	(1)A	(1)A	(1)A	(1)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	(59)	(70)	(38)	(18)	8	Adj. Net Income	(12)A	(10)A	(6)A	(11)	
Reported EPS	(1.08)	(0.73)	(0.35)	(0.23)	(0.17)	Reported EPS	(0.11)A	(0.09)A	(0.09)A	(0.06)	
Adj. EPS	(0.73)	(0.48)	(0.13)	(0.06)	0.02	Adj. EPS	(0.04)A	(0.03)A	(0.02)A	(0.04)	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	81	146	301	311	343	Shares outstanding	296A	299A	302A	304	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	25	139	101	111	155	Gross margin	77.7%	78.2%	77.3%	76.5%	76.5%
Accounts receivable	25	34	54	75	93	EBITDA margin	(19.8%)	(14.5%)	2.7%	7.6%	10.7%
Inventories	-	-	-	-	-	EBIT margin	(29.6%)	(24.8%)	(8.9%)	(4.3%)	0.0%
Other current assets	147	517	968	973	981	Net profit margin	(30.9%)	(24.2%)	(9.1%)	(3.2%)	1.1%
Current assets	197	690	1,123	1,159	1,229	ROE	(35.0%)	(14.7%)	(5.0%)	(2.2%)	1.0%
PP&E	73	101	128	138	149	ROA	(25.8%)	(12.3%)	(3.5%)	(1.3%)	0.6%
LT investments	0	0	0	0	0	ROCE	(34.2%)	(15.4%)	(5.5%)	(3.0%)	0.0%
Other non current assets	28	39	121	130	142	SG&A/Sales	79.9%	76.0%	63.1%	57.3%	53.0%
Total assets	298	831	1,371	1,427	1,520	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	0	0	0	0	0	P/E (x)	NM	NM	NM	NM	3,443.0
Payables	14	11	17	34	46	P/BV (x)	31.0	16.8	30.7	32.4	35.5
Other short term liabilities	47	72	112	121	150	EV/EBITDA (x)	NM	NM	2,217.8	580.7	318.9
Current liabilities	61	84	129	155	195	Dividend Yield	-	-	-	-	-
Long-term debt	0	0	0	0	0	Sales/Assets (x)	0.8	0.5	0.4	0.4	0.5
Other long term liabilities	19	21	424	470	517	Interest cover (x)	42.2	8.9	NM	NM	NM
Total liabilities	80	105	553	626	712	Operating leverage	1811.8%	50.7%	(99.1%)	(107.7%)	(354.9%)
Shareholders' equity	218	726	819	801	808	Revenue y/y Growth	42.8%	49.0%	47.4%	33.5%	28.5%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	(773.6%)	9.4%	(127.0%)	281.8%	81.8%
Total liabilities & equity	298	831	1,371	1,427	1,520	Tax rate	(2.1%)	(2.3%)	(11.6%)	(2.0%)	25.0%
BVPS	2.69	4.98	2.72	2.58	2.35	Adj. Net Income y/y Growth	820.1%	16.9%	(44.8%)	(53.4%)	(146.6%)
y/y Growth	70.7%	84.9%	(45.4%)	(5.2%)	(8.7%)	EPS y/y Growth	776.8%	(35.1%)	(73.3%)	(54.8%)	(142.1%)
Net debt/(cash)	(25)	(139)	(101)	(111)	(155)	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	(43)	(39)	(12)	40	85						
o/w Depreciation & amortization	26	40	61	67	78						
o/w Changes in working capital	(12)	(13)	(43)	(10)	0						
Cash flow from investing activities	(121)	(418)	(534)	(76)	(87)						
o/w Capital expenditure	(25)	(43)	(62)	(63)	(75)						
as % of sales	13.2%	15.1%	14.7%	11.2%	10.3%						
Cash flow from financing activities	169	571	510	46	46						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	(0)	(0)	(0)	0	0						
Net change in cash	5	114	(36)	10	44						
Adj. Free cash flow to firm	(70)	(87)	(79)	(33)	3						
y/y Growth	316.2%	24.9%	(9.4%)	(57.7%)	(108.9%)						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

CrowdStrike

Neutral

Company Data		CrowdStrike Holdings (CRWD;CRWD US)					
		Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Shares O/S (mn)	229	Revenue (\$ mn)	250	481	858	1,183	1,538
52-week range (\$)	178.88-31.95	Adj. EBIT (\$ mn)	(116)	(66)	46	25	85
Market cap (\$ mn)	40,700.54	EBIT margin	(46.6%)	(13.7%)	5.4%	2.1%	5.5%
Exchange rate	1.00	EBITDA margin	(40.4%)	(8.9%)	9.9%	6.7%	10.4%
Free float(%)	96.0%	Adj. EPS (\$)	(2.62)	(0.42)	0.23	0.14	0.39
3M - Avg daily vol (mn)	4.48	BBG EPS (\$)	(0.52)	0.21	0.34	-	-
3M - Avg daily val (\$ mn)	627.7	Reported EPS (\$)	(3.12)	(0.96)	(0.43)	(0.22)	(0.04)
Volatility (90 Day)	60	Dividend yield	-	-	-	-	-
Index	S&P 500	Adj. P/E	NM	NM	756.4	1,294.1	455.6
BBG BUY HOLD SELL	18 3 1	P/ BV	-	35.4	46.2	48.7	46.2

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

CrowdStrike Holdings (Neutral; Price Target: \$175.00)

Investment Thesis

Only solutions that are 100% developed for the cloud can take advantage of the hyper scale and performance benefits of cloud computing. That is the approach that CrowdStrike took from day one. In addition, this has allowed the company to work off a single lightweight agent that runs on the endpoint that requires significantly less CPU resources than the competition. Data is stored into a proprietary time sequenced graph database in the cloud that is used as the basis for artificial intelligence algorithms to find security threats. The +80% revenue growth at a ~\$800M run rate is significantly faster and larger than the competition and is benefiting from superior technology, leading to market share gains from legacy competitors, as well as the shift to the cloud that is creating an explosion in cloud workloads. We believe the company is the best positioned to capitalize on the consolidation of endpoint with its technology advantage and experienced management team.

However, our US economists are forecasting a rebound in growth in 2021 that we believe will not provide the same level of outperformance for high multiple stocks based on current valuations. Our analysis shows that the highest valuation stocks in 2009 underperformed the market in 2010 as economic growth returned following the 2008 recession. Based on the current valuation, we believe the stock will not provide the same level of outperformance relative to our coverage in 2021 and, as a result, downgrade shares to Neutral.

Valuation

December 2021 price target of \$175 on 10yr DCF

The primary valuation methodology that we focus on for our cloud/subscription-based business models in our coverage is using a 10 year discounted cash flow (DCF) analysis. The growth in cash flow at the end of the 10 years for most of our companies is still running at well over 10%, so it makes more sense to base the terminal value on a terminal EV/FCFF multiple.

Within our 10-year DCF for CRWD, we forecast all three financials statements out to FY22 and then use the assumption of growth tailing off in the second phase, decelerating from 46% to 23% in FY32. In addition, we factor in the impact of dilution from stock-based compensation by assuming a 2-3% yoy increase each year in the fully diluted share count throughout the 10 years. In the case of CRWD, our analysis uses a 30x terminal EV/FCFF multiple and a discount rate of 11%, which points to a December 2021 price target of \$175. Below, we show our FCFF/share analysis for the 10 years in our DCF spanning FY23-32.

FCFF per share analysis

	FY 2018	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
Free Cash Flow to Firm (FCFF) Analysis															
FCFF	-85.8	-62.4	12.8	228.3	206.5	321.3	469.1	642.6	861.1	1128.1	1455.3	1848.2	2328.7	2887.6	3551.7
Growth		NM	NM	1683%	-10%	56%	46%	37%	34%	31%	29%	27%	26%	24%	23%
Fully diluted shares				241.2	248.4	255.9	263.6	271.5	279.6	288.0	296.7	302.6	308.6	314.8	
Y/Y change					3%	3%	3%	3%	3%	3%	3%	2%	2%	2%	
Period					1	2	3	4	5	6	7	8	9	10	
Present value of FCFF					289.5	381.0	470.3	568.0	670.5	779.5	892.2	1,013.1	1,132.1	1,254.9	
FCFF/Share					\$1.29	\$1.83	\$2.44	\$3.17	\$4.03	\$5.05	\$6.23	\$7.70	\$9.36	\$11.28	
Y/Y change					NM	41.7%	33.0%	30.1%	27.2%	25.2%	23.3%	23.5%	21.6%	20.6%	
Present Value of FCFF/Share					\$1.17	\$1.49	\$1.78	\$2.09	\$2.40	\$2.71	\$3.01	\$3.35	\$3.67	\$3.99	

Source: Company Reports, J.P. Morgan estimates

EV/Sales multiple of ~34x at \$175 price target

The table below shows the implication that the terminal EV/FCFF multiple ranges have on the price per share and forward EV/Sales multiple based on our FY22 revenue estimate.

Terminal multiples scenario analysis on a per share basis

Terminal multiple scenarios				
Terminal value	134.6	144.2	153.8	163.4
Last forecasted FCFF	11.3	11.3	11.3	11.3
Terminal EV/FCFF multiple	28	30	32	34
Total present value of FCFF	25.6	25.6	25.6	25.6
Terminal value	134.6	144.2	153.8	163.4
Total enterprise value	160.2	169.8	179.5	189.1
- debt				
+ CY21 cash	5.5	5.5	5.5	5.5
/ shares outstanding	236.1	236.1	236.1	236.1
Price per Share	\$165.74	\$175.35	\$184.96	\$194.58
Based on FY2022E				
Implied EV / Sales	32.0	33.9	35.8	37.7

Source: J.P. Morgan estimates

Risks to Rating and Price Target

- Competition is crowded, and we acknowledge the challenges of competing in such a crowded category.
- Price commoditization – The endpoint market is one of the more crowded spaces in cybersecurity, and if something is successful in driving price commoditization, it will likely erode the growth opportunity for all vendors including CRWD.
- Valuation – High multiple stocks suffer from rotation into cyclical sectors.

- Market opportunity in cloud workloads could help drive continued revenue outperformance.
- Legacy share losses accelerate as the shift to the cloud is accelerated.

CrowdStrike: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	250	481	858	1,183	1,538	Revenue	178A	199A	232A	249	
COGS	(86)	(134)	(209)	(284)	(353)	COGS	(44)A	(50)A	(56)A	(59)	
Gross profit	164	348	649	898	1,185	Gross profit	134A	149A	176A	190	
SG&A	(203)	(299)	(429)	(641)	(804)	SG&A	(97)A	(99)A	(111)A	(121)	
Adj. EBITDA	(101)	(43)	85	80	161	Adj. EBITDA	9A	17A	29A	30	
D&A	(15)	(24)	(39)	(55)	(76)	D&A	(8)A	(10)A	(10)A	(11)	
Adj. EBIT	(116)	(66)	46	25	85	Adj. EBIT	1A	8A	19A	19	
Net Interest	(4)	(0)	0	6	8	Net Interest	(0)A	(0)A	(0)A	1	
Adj. PBT	(118)	(61)	52	31	93	Adj. PBT	5A	8A	19A	19	
Tax	-	(2)	(2)	(2)	0	Tax	(1)A	(0)A	(0)A	(0)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	(118)	(63)	51	32	97	Adj. Net Income	5A	8A	19A	20	
Reported EPS	(3.12)	(0.96)	(0.43)	(0.22)	(0.04)	Reported EPS	(0.08)A	(0.13)A	(0.10)A	(0.09)	
Adj. EPS	(2.62)	(0.42)	0.23	0.14	0.39	Adj. EPS	0.02A	0.03A	0.08A	0.08	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	45	148	217	237	250	Shares outstanding	230A	233A	235A	236	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	88	265	1,092	1,299	1,620	Gross margin	65.6%	72.3%	75.6%	75.9%	77.1%
Accounts receivable	92	165	198	247	307	EBITDA margin	(40.4%)	(8.9%)	9.9%	6.7%	10.4%
Inventories	-	-	-	-	-	EBIT margin	(46.6%)	(13.7%)	5.4%	2.1%	5.5%
Other current assets	151	742	112	197	169	Net profit margin	(47.1%)	(13.0%)	5.9%	2.7%	6.3%
Current assets	331	1,172	1,402	1,743	2,097	ROE	(455.6%)	(15.4%)	6.5%	3.8%	10.7%
PP&E	74	136	178	242	319	ROA	(36.2%)	(6.8%)	3.1%	1.6%	3.9%
LT investments	-	-	-	-	-	ROCE	(344.2%)	(16.8%)	5.6%	2.7%	9.3%
Other non current assets	28	97	291	282	283	SG&A/Sales	81.3%	62.0%	50.0%	54.2%	52.3%
Total assets	433	1,405	1,871	2,266	2,698	Net debt/equity	-	-	-	-	-
Short term borrowings	-	-	-	-	-	P/E (x)	NM	NM	756.4	1,294.1	455.6
Payables	7	1	1	10	28	P/BV (x)	-	35.4	46.2	48.7	46.2
Other short term liabilities	275	492	756	1,045	1,307	EV/EBITDA (x)	NM	NM	235.1	249.4	121.6
Current liabilities	281	493	757	1,055	1,334	Dividend Yield	-	-	-	-	-
Long-term debt	-	-	-	-	-	Sales/Assets (x)	0.8	0.5	0.5	0.6	0.6
Other long term liabilities	82	169	280	348	404	Interest cover (x)	NM	NM	-	-	-
Total liabilities	363	662	1,037	1,402	1,738	Operating leverage	(2.1%)	(46.6%)	(216.8%)	(121.3%)	799.3%
Shareholders' equity	70	743	834	864	960	Revenue y/y Growth	110.4%	92.7%	78.3%	37.8%	30.0%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	(9.3%)	(57.8%)	(300.3%)	(6.7%)	101.8%
Total liabilities & equity	433	1,405	1,871	2,266	2,698	Tax rate	-	(3.3%)	4.5%	8.0%	0.5%
BVPS	-	5.02	3.84	3.65	3.84	Adj. Net Income y/y Growth	(3.2%)	(46.8%)	(181.4%)	(36.3%)	199.4%
y/y Growth	-	-	(23.5%)	(5.0%)	5.4%	EPS y/y Growth	(9.7%)	(83.9%)	(155.5%)	(41.6%)	184.0%
Net debt/(cash)	-	-	-	-	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	(23)	100	300	321	470						
o/w Depreciation & amortization	15	24	39	55	76						
o/w Changes in working capital	49	97	162	236	299						
Cash flow from investing activities	(142)	(630)	487	(114)	(149)						
o/w Capital expenditure	(36)	(80)	(61)	(92)	(120)						
as % of sales	14.4%	16.7%	7.1%	7.8%	7.8%						
Cash flow from financing activities	190	706	40	-	-						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	10	-	-	-	-						
Net change in cash	25	176	827	207	321						
Adj. Free cash flow to firm	(55)	20	239	229	350						
y/y Growth	(30.4%)	(136.9%)	1084.6%	(4.4%)	53.1%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

DocuSign

Neutral

Company Data	
Shares O/S (mn)	215
52-week range (\$)	290.23-64.88
Market cap (\$ mn)	50,454.75
Exchange rate	1.00
Free float(%)	96.5%
3M - Avg daily vol (mn)	4.67
3M - Avg daily val (\$ mn)	1,014.1
Volatility (90 Day)	68
Index	S&P 500
BBG BUY HOLD SELL	13 5 1

DocuSign Inc. (DOCU;DOCU US)

Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	701	974	1,428	1,825	2,217
Adj. EBIT (\$ mn)	15	47	149	207	328
EBIT margin	2.2%	4.9%	10.4%	11.3%	14.8%
EBITDA margin	7.6%	10.0%	15.5%	16.0%	19.2%
Adj. EPS (\$)	0.11	0.31	0.71	0.93	1.40
BBG EPS (\$)	0.25	0.71	1.04	-	-
Reported EPS (\$)	(2.69)	(1.09)	(1.03)	(0.63)	(0.28)
Dividend yield	-	-	-	-	-
Adj. P/E	2,123.7	760.9	328.9	251.5	168.1
P/ BV	60.6	82.0	104.6	80.9	58.6

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

DocuSign Inc. (Neutral; Price Target: \$271.00)

Investment Thesis

The move to electronic signatures is roughly a \$25 billion opportunity, and we believe digital contracting offers the opportunity to build on top of that level. DocuSign is the clear leader in this space by at least a factor of 2x. We believe electronic signatures and digital contracting will continue to see secular adoption regardless of the macro-environment because of the improved efficiency and cost savings it brings to companies. Leading this large and growing space creates significant growth and profit opportunities for DOCU, but based on the current valuation and the fact that the highest multiple stocks of late 2009 underperformed the entire software industry in 2010, we believe the market is no longer going to provide the same level of outperformance for DOCU shares in 2021. Therefore, we are downgrading from Overweight to Neutral.

Valuation

Our \$271 December 2021 price target is based on our 10-year discounted cash flow (DCF) valuation framework. In our valuation, we include the ongoing dilution from stock-based compensation and utilize a 10.7% discount rate. Growth in unlevered free cash flow even at the end of the 10-year period should still be growing above 20%, so we use a terminal multiple on unlevered free cash flow of ~25x (in line with terminal growth rate) to calculate the terminal value.

Free cash flow analysis

	FY 2019	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
Free Cash Flow to Firm (FCFF) Analysis														
Cash Flow from Operations (CFO)														
+ After Tax Net Interest Expense (Income)														
- Capital expenditures														
FCFF	45.7	43.7	229.9	335.7	450.6	666.9	947.0	1297.4	1712.5	2234.9	2871.8	3632.8	4522.9	5540.5
Growth	27%	-4%	427%	46%	34%	48%	42%	37%	32%	31%	29%	27%	25%	23%
Fully diluted shares	187.7	193.7	207.1	214.9	225.4	229.9	234.5	239.1	243.9	248.8	253.8	258.9	264.0	269.3
Y/Y change						2%	2%	2%	2%	2%	2%	2%	2%	2%
Period					1	2	3	4	5	6	7	8	9	10
Present value of FCFF					407.0	544.2	698.0	863.8	1,029.9	1,214.1	1,409.3	1,610.4	1,811.0	2,004.0
FCFF/Share	0.2	0.2	1.1	1.6	2.0	2.9	4.0	5.4	7.0	9.0	11.3	14.0	17.1	20.6
Y/Y change		-7.4%	392.7%	40.8%	28.0%	45.1%	39.2%	34.3%	29.4%	27.9%	26.0%	24.0%	22.1%	20.1%
Present Value of FCFF/Share				\$1.56	\$1.81	\$2.37	\$2.98	\$3.61	\$4.22	\$4.88	\$5.55	\$6.22	\$6.86	\$7.44

Source: Company reports and J.P. Morgan estimates.

Multiple scenario analysis

Terminal multiple scenarios				
Terminal value	187.7	223.4	241.3	259.2
Last forecasted FCFF	20.6	20.6	20.6	20.6
Terminal EV/FCFF multiple	21	25	27	29
Total present value of FCFF	45.9	45.9	45.9	45.9
Terminal value	187.7	223.4	241.3	259.2
Total enterprise value	233.6	269.4	287.3	305.1
- debt	2.7	2.7	2.7	2.7
+ CY20 excess cash	5.0	5.0	5.0	5.0
/ shares outstanding	214.9	214.9	214.9	214.9
Price per Share	\$235.94	\$271.69	\$289.57	\$307.45
Based on FY2022E				
Implied EV / Sales	27.5	31.7	33.8	35.9

Source: Company reports and J.P. Morgan estimates.

Risks to Rating and Price Target

- Pricing in e-signature or e-roads from predatory competition causes growth to fall short of expectations.
- Payment platforms successfully embed e-signature digital contracting capabilities that software applications decide to build upon.
- DocuSign continues its market share gains amid a backdrop of growth in eSignature technology adoption.

DocuSign: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	701	974	1,428	1,825	2,217	Revenue	297A	342A	383A	406	
COGS	(192)	(243)	(354)	(404)	(476)	COGS	(74)A	(91)A	(98)A	(91)	
Gross profit	509	731	1,074	1,421	1,741	Gross profit	223A	252A	285A	315	
SG&A	(749)	(739)	(987)	(1,204)	(1,393)	SG&A	(211)A	(246)A	(260)A	(270)	
Adj. EBITDA	53	98	222	292	426	Adj. EBITDA	37A	52A	69A	64	
D&A	-	-	-	-	-	D&A	-	-	-	-	
Adj. EBIT	15	47	149	207	328	Adj. EBIT	23A	34A	49A	43	
Net Interest	0	(10)	(24)	(20)	(17)	Net Interest	(4)A	(5)A	(8)A	(7)	
Adj. PBT	23	64	153	218	344	Adj. PBT	26A	36A	48A	43	
Tax	2	(5)	(7)	(20)	(34)	Tax	(2)A	(1)A	(2)A	(3)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	18	59	145	198	309	Adj. Net Income	24A	35A	46A	40	
Reported EPS	(2.69)	(1.09)	(1.03)	(0.63)	(0.28)	Reported EPS	(0.24)A	(0.32)A	(0.28)A	(0.19)	
Adj. EPS	0.11	0.31	0.71	0.93	1.40	Adj. EPS	0.12A	0.17A	0.22A	0.19	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	159	191	203	212	221	Shares outstanding	197A	203A	206A	207	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	518	241	434	770	1,221	Gross margin	72.5%	75.0%	75.2%	77.9%	78.5%
Accounts receivable	175	238	341	399	515	EBITDA margin	7.6%	10.0%	15.5%	16.0%	19.2%
Inventories	-	-	-	-	-	EBIT margin	2.2%	4.9%	10.4%	11.3%	14.8%
Other current assets	292	465	301	324	371	Net profit margin	2.5%	6.0%	10.2%	10.9%	13.9%
Current assets	985	944	1,076	1,492	2,106	ROE	4.3%	10.1%	28.9%	36.9%	41.2%
PP&E	76	128	166	190	212	ROA	1.6%	3.4%	7.1%	8.2%	10.3%
LT investments	164	240	77	77	77	ROCE	3.4%	7.5%	28.2%	35.1%	39.3%
Other non current assets	391	579	876	905	945	SG&A/Sales	106.8%	75.8%	69.1%	66.0%	62.8%
Total assets	1,615	1,891	2,195	2,663	3,340	Net debt/equity	-	-	-	-	-
Short term borrowings	-	-	-	-	-	P/E (x)	2,123.7	760.9	328.9	251.5	168.1
Payables	20	28	37	30	35	P/BV (x)	60.6	82.0	104.6	80.9	58.6
Other short term liabilities	497	666	954	1,228	1,580	EV/EBITDA (x)	972.4	533.4	233.7	176.0	119.9
Current liabilities	516	694	991	1,258	1,615	Dividend Yield	-	-	-	-	-
Long-term debt	-	-	-	-	-	Sales/Assets (x)	0.6	0.6	0.7	0.8	0.7
Other long term liabilities	485	651	747	789	838	Interest cover (x)	NM	9.7	9.2	14.7	25.7
Total liabilities	1,001	1,345	1,738	2,048	2,454	Operating leverage	(647.9%)	543.7%	459.1%	141.5%	270.8%
Shareholders' equity	614	546	457	616	887	Revenue y/y Growth	35.2%	38.9%	46.6%	27.8%	21.5%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	442.1%	83.3%	127.5%	31.9%	45.5%
Total liabilities & equity	1,615	1,891	2,195	2,663	3,340	Tax rate	7.7%	7.5%	4.9%	9.0%	10.0%
BVPS	3.87	2.86	2.25	2.90	4.00	Adj. Net Income y/y Growth	(409.3%)	235.5%	146.5%	36.5%	56.1%
y/y Growth	(40.1%)	(26.0%)	(21.6%)	29.3%	38.0%	EPS y/y Growth	(162.9%)	179.1%	131.3%	30.8%	49.6%
Net debt/(cash)	-	-	-	-	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	76	116	315	420	545						
o/w Depreciation & amortization	38	50	73	85	98						
o/w Changes in working capital	6	(48)	48	50	53						
Cash flow from investing activities	(664)	(321)	79	(84)	(94)						
o/w Capital expenditure	(30)	(72)	(85)	(84)	(94)						
as % of sales	4.3%	7.4%	6.0%	4.6%	4.3%						
Cash flow from financing activities	853	(70)	(202)	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	0	0	0	0	0						
Net change in cash	265	(276)	192	336	451						
Adj. Free cash flow to firm	46	44	230	336	451						
y/y Growth	26.7%	(4.4%)	426.6%	46.1%	34.2%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

Fortinet, Inc

Underweight

Company Data	
Shares O/S (mn)	168
52-week range (\$)	151.95-70.20
Market cap (\$ mn)	22,176.85
Exchange rate	1.00
Free float(%)	84.9%
3M - Avg daily vol (mn)	1.19
3M - Avg daily val (\$ mn)	142.7
Volatility (90 Day)	38
Index	RUSSELL
	2000
BBG BUY HOLD SELL	12 17 1

Fortinet, Inc (FTNT;FTNT US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	1,801	2,156	2,564	2,957	3,374
Adj. EBIT (\$ mn)	403	529	679	753	875
EBIT margin	22.4%	24.5%	26.5%	25.5%	25.9%
EBITDA margin	25.0%	26.9%	28.6%	27.4%	27.9%
Adj. EPS (\$)	1.84	2.47	3.24	3.35	3.83
BBG EPS (\$)	1.76	2.41	3.25	3.61	4.15
Reported EPS (\$)	1.91	1.87	2.79	2.38	2.58
Dividend yield	-	-	-	-	-
Adj. P/E	71.7	53.4	40.6	39.2	34.3
P/ BV	22.7	17.4	24.5	14.6	10.2

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Fortinet, Inc (Underweight; Price Target: \$140.00)

Investment Thesis

We believe Fortinet continues to be competitive in the network security space at the high, mid, and low ends. The overall market grows at an estimated rate of 8%, and we think the company will continue to generate mid-teens growth moving forward with expanding operating margins. FTNT and other firewall providers saw a boost during the height of the COVID-19 pandemic with enterprises expanding VPN capacity, but we see that demand fading as companies prepare for a bigger move to the cloud and methods of remote access that are less dependent on traditional network security solutions like Fortinet, though SD-WAN has helped drive Product growth to the mid-teens.

We are downgrading shares to Underweight from Neutral, as we believe the firewall space is entering a phase of secular headwinds. Though FTNT is shifting its portfolio to benefit from securing cloud initiatives, the majority of revenue is still coming from on-premise firewall spend that we believe is increasingly shifting to spend in protecting cloud assets. We are downgrading shares to Underweight, as it will be difficult for performance to match our overall coverage during this phase.

Valuation

Our December 2021 price target of \$140 is based on 18x our 2022 FCFF estimate. This multiple is in line with mid- to high-teens growth rate that we expect in top-line revenue, and, combined with the expectations for margin expansion, we expect long-term cash flow growth to be in line with this relative multiple level.

Risks to Rating and Price Target

- SD-WAN demand helps lift product revenue higher than our expectations.
- FCFF continues to outperform as margins expand and collections come in better than expected in the COVID-19 environment.
- Cloud portfolio becomes robust and large enough to accelerate overall revenue.

Fortinet, Inc: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	1,801	2,156	2,564	2,957	3,374	Revenue	577A	616A	651A	721	
COGS	(432)	(485)	(538)	(638)	(727)	COGS	(123)A	(129)A	(134)A	(152)	
Gross profit	1,369	1,671	2,026	2,318	2,647	Gross profit	454A	486A	518A	568	
SG&A	(758)	(903)	(1,051)	(1,248)	(1,410)	SG&A	(256)A	(248)A	(262)A	(285)	
Adj. EBITDA	450	580	733	811	943	Adj. EBITDA	142A	182A	193A	216	
D&A	(47)	(51)	(54)	(58)	(67)	D&A	(14)A	(14)A	(14)A	(12)	
Adj. EBIT	403	529	679	753	875	Adj. EBIT	128A	168A	179A	204	
Net Interest	27	43	18	15	23	Net Interest	9A	5A	3A	2	
Adj. PBT	421	568	693	757	884	Adj. PBT	134A	173A	180A	206	
Tax	(101)	(136)	(147)	(182)	(212)	Tax	(30)A	(38)A	(35)A	(45)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	320	432	545	575	672	Adj. Net Income	104A	135A	145A	161	
Reported EPS	1.91	1.87	2.79	2.38	2.58	Reported EPS	0.60A	0.68A	0.75A	0.77	
Adj. EPS	1.84	2.47	3.24	3.35	3.83	Adj. EPS	0.60A	0.82A	0.88A	0.96	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	174	175	168	171	175	Shares outstanding	174A	165A	166A	168	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	1,112	1,223	1,041	2,046	3,261	Gross margin	76.0%	77.5%	79.0%	78.4%	78.5%
Accounts receivable	445	544	671	732	814	EBITDA margin	25.0%	26.9%	28.6%	27.4%	27.9%
Inventories	90	118	144	159	169	EBIT margin	22.4%	24.5%	26.5%	25.5%	25.9%
Other current assets	574	884	825	858	840	Net profit margin	17.7%	20.0%	21.3%	19.5%	19.9%
Current assets	2,221	2,769	2,682	3,794	5,084	ROE	40.0%	37.0%	49.0%	46.8%	35.3%
PP&E	271	344	450	536	570	ROA	12.0%	12.4%	14.0%	12.6%	11.5%
LT investments	67	144	118	118	118	ROCE	38.3%	34.5%	48.0%	46.6%	34.9%
Other non current assets	519	628	680	718	760	SG&A/Sales	42.1%	41.9%	41.0%	42.2%	41.8%
Total assets	3,078	3,886	3,930	5,166	6,532	Net debt/equity	-	-	-	-	-
Short term borrowings	-	-	-	-	-	P/E (x)	71.7	53.4	40.6	39.2	34.3
Payables	86	96	94	103	122	P/BV (x)	22.7	17.4	24.5	14.6	10.2
Other short term liabilities	1,170	1,377	1,626	1,966	2,294	EV/EBITDA (x)	39.3	30.3	24.2	20.6	16.5
Current liabilities	1,256	1,474	1,720	2,069	2,416	Dividend Yield	-	-	-	-	-
Long-term debt	-	-	-	-	-	Sales/Assets (x)	0.7	0.6	0.7	0.7	0.6
Other long term liabilities	811	1,090	1,304	1,545	1,854	Interest cover (x)	-	-	-	-	-
Total liabilities	2,068	2,564	3,024	3,615	4,270	Operating leverage	275.9%	159.1%	149.6%	71.6%	114.6%
Shareholders' equity	1,010	1,322	906	1,551	2,262	Revenue y/y Growth	20.5%	19.7%	18.9%	15.3%	14.1%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	48.6%	29.0%	26.4%	10.7%	16.2%
Total liabilities & equity	3,078	3,886	3,930	5,166	6,532	Tax rate	24.0%	24.0%	21.3%	24.0%	24.0%
BVPS	5.80	7.55	5.38	9.05	12.91	Adj. Net Income y/y Growth	73.1%	35.0%	26.4%	5.5%	16.8%
y/y Growth	75.2%	30.3%	(28.8%)	68.1%	42.6%	EPS y/y Growth	77.0%	34.4%	31.3%	3.5%	14.3%
Net debt/(cash)	-	-	-	-	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	639	808	989	1,144	1,312						
o/w Depreciation & amortization	56	62	67	66	75						
o/w Changes in working capital	135	301	294	482	581						
Cash flow from investing activities	(135)	(502)	(52)	(148)	(105)						
o/w Capital expenditure	(53)	(92)	(138)	(148)	(105)						
as % of sales	2.9%	4.3%	5.4%	5.0%	3.1%						
Cash flow from financing activities	(203)	(196)	(1,118)	8	8						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	-	-	-	-	-						
Net change in cash	301	110	(181)	1,004	1,215						
Adj. Free cash flow to firm	586	716	851	996	1,207						
y/y Growth	27.6%	22.2%	18.9%	17.1%	21.2%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Intuit

Overweight

Company Data	
Shares O/S (mn)	256
52-week range (\$)	380.50-187.68
Market cap (\$ mn)	95,383.04
Exchange rate	1.00
Free float(%)	97.1%
3M - Avg daily vol (mn)	1.23
3M - Avg daily val (\$ mn)	411.4
Volatility (90 Day)	33
Index	S&P 500
BBG BUY HOLD SELL	13 6 2

Intuit Inc. (INTU;INTU US)

Year-end Jul (\$)	FY19A	FY20A	FY21E (Prev)	FY21E (Curr)	FY22E (Prev)	FY22E (Curr)	FY23E (Prev)	FY23E (Curr)
Revenue (\$ mn)	6,784	7,679	8,328	8,888	9,203	10,181	10,086	11,293
Adj. EBIT (\$ mn)	2,282	2,668	2,980	3,005	3,336	3,497	3,696	3,983
EBIT margin	33.6%	34.7%	35.8%	33.8%	36.2%	34.3%	36.6%	35.3%
EBITDA margin	36.6%	37.2%	37.9%	35.7%	38.4%	36.3%	38.8%	37.2%
Adj. EPS (\$)	6.78	7.86	8.49	8.29	9.58	9.67	10.78	11.16
BBG EPS (\$)	6.69	7.13	-	8.44	-	9.56	-	-
Reported EPS (\$)	5.92	6.92	7.35	5.39	8.18	6.65	10.47	8.89
Dividend yield	0.5%	0.6%	0.6%	0.6%	0.6%	0.6%	0.3%	0.3%
Adj. P/E	55.0	47.4	43.9	45.0	38.9	38.5	34.6	33.4
P/ BV	26.1	19.3	15.4	16.1	12.5	13.1	10.1	10.3

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Intuit Inc. (Overweight; Price Target: \$450.00)

Investment Thesis

Fiscal 2020 saw one of the biggest category shifts away from assisted tax prep over to DIY that we can remember, and that directly benefited INTU, as it remains the dominant number one provider of DIY tax prep solutions. This will make for a very tough comparison in the upcoming tax year if vaccines prove effective prior to tax filing deadlines. But the significant increase in tax customers from this past tax year still creates an attractive ongoing cash flow stream. On the small business front, there still could be two more quarters of significant headwinds on business closures, but there was a material increase in new business applications that could signal a rebound is on the way. If interest rates remain low and capital available as we head into the release of vaccines, we would expect the continued robust small business creation environment. Separately, INTU was finally able to close the Credit Karma acquisition without very many restrictions. We think this opens up a very large cross-sell opportunity and perhaps we will see further innovation and how they can monetize the data from both operations. We believe this makes for a powerful potential growth improvement as calendar 2021 unfolds. As a result, we are upgrading INTU shares all the way to Overweight from Underweight.

Valuation

Our December 2021 price target of \$450, up from \$300, is based on a target P/E multiple of 30x applied to our calendar-year 2022 estimates. This target multiple reflects a higher level than the average over the last five years and reflects the robust backdrop that we described above.

Risks to Rating and Price Target

- **Consumer revenue growth underperforms on tough tax compare.** If vaccines prove successful earlier than anticipated, we could see a stall in category shift towards DIY tax prep that causes consumer tax revenue to not live up to expectations this year.

- **Small businesses close at a more rapid rate than anticipated.** Based on the data, it is clear we have entered the second wave of COVID-19, and while businesses have soldiered through the pandemic, it may prove too much for some if a broader part of the economy goes back into lockdown.

Intuit: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21E	3Q21E	4Q21E	
Revenue	6,784	7,679	8,888	10,181	11,293	Revenue	1,323A	1,951	4,113	1,501	
COGS	(1,167)	(1,378)	(1,731)	(1,896)	(1,953)	COGS	(256)A	(414)	(581)	(481)	
Gross profit	5,617	6,301	7,157	8,285	9,340	Gross profit	1,067A	1,536	3,533	1,021	
SG&A	(2,524)	(2,727)	(3,393)	(3,832)	(4,064)	SG&A	(531)A	(913)	(1,124)	(824)	
Adj. EBITDA	2,481	2,858	3,171	3,698	4,197	Adj. EBITDA	371A	504	2,284	13	
D&A	(225)	(218)	(367)	(430)	(392)	D&A	(46)A	(81)	(115)	(125)	
Adj. EBIT	2,282	2,668	3,005	3,497	3,983	Adj. EBIT	334A	462	2,242	(33)	
Net Interest	(15)	(14)	(20)	(3)	44	Net Interest	(8)A	(3)	(5)	(4)	
Adj. PBT	2,315	2,695	2,978	3,494	4,026	Adj. PBT	328A	456	2,233	(39)	
Tax	(324)	(372)	(460)	(545)	(728)	Tax	(12)A	(42)	(495)	90	
Minority Interest	0	0	0	0	0	Minority Interest	0A	0	0	0	
Adj. Net Income	1,782	2,075	2,264	2,655	3,060	Adj. Net Income	250A	347	1,697	(30)	
Reported EPS	5.92	6.92	5.39	6.65	8.89	Reported EPS	0.75A	0.44	5.07	(0.92)	
Adj. EPS	6.78	7.86	8.29	9.67	11.16	Adj. EPS	0.94A	1.27	6.10	(0.11)	
DPS	1.89	2.12	2.12	2.12	1.20	DPS	0.53A	0.53	0.53	0.53	
Payout ratio	31.9%	30.7%	39.3%	31.9%	13.5%	Payout ratio	70.9%A	120.4%	10.5%	NM	
Shares outstanding	263	264	273	274	274	Shares outstanding	265A	274	278	276	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	2,740	7,050	4,120	6,156	8,969	Gross margin	82.8%	82.1%	80.5%	81.4%	82.7%
Accounts receivable	87	149	132	168	188	EBITDA margin	36.6%	37.2%	35.7%	36.3%	37.2%
Inventories	-	-	-	-	-	EBIT margin	33.6%	34.7%	33.8%	34.3%	35.3%
Other current assets	767	781	734	662	595	Net profit margin	26.3%	27.0%	25.5%	26.1%	27.1%
Current assets	3,594	7,980	4,985	6,986	9,752	ROE	54.3%	46.9%	39.6%	37.6%	34.5%
PP&E	780	734	747	732	725	ROA	31.2%	24.1%	20.4%	21.9%	21.4%
LT investments	13	19	28	28	28	ROCE	50.4%	39.5%	34.8%	35.9%	32.9%
Other non current assets	1,896	2,198	5,493	5,265	5,087	SG&A/Sales	37.2%	35.5%	38.2%	37.6%	36.0%
Total assets	6,283	10,931	11,253	13,011	15,592	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	50	1,338	325	325	325	P/E (x)	55.0	47.4	45.0	38.5	33.4
Payables	274	305	285	375	457	P/BV (x)	26.1	19.3	16.1	13.1	10.3
Other short term liabilities	1,642	1,886	2,012	2,201	2,568	EV/EBITDA (x)	28.9	24.0	22.3	18.5	15.7
Current liabilities	1,966	3,529	2,622	2,901	3,350	Dividend Yield	0.5%	0.6%	0.6%	0.6%	0.3%
Long-term debt	145	42	50	50	50	Sales/Assets (x)	1.2	0.9	0.8	0.8	0.8
Other long term liabilities	423	2,254	2,260	2,260	2,260	Interest cover (x)	165.4	204.1	157.6	1,271.2	NM
Total liabilities	2,534	5,825	4,932	5,211	5,660	Operating leverage	92.4%	128.2%	80.3%	112.4%	127.3%
Shareholders' equity	3,749	5,106	6,321	7,800	9,932	Revenue y/y Growth	12.6%	13.2%	15.7%	14.5%	10.9%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	9.0%	15.2%	11.0%	16.6%	13.5%
Total liabilities & equity	6,283	10,931	11,253	13,011	15,592	Tax rate	23.0%	23.0%	24.0%	24.0%	24.0%
BVPS	14.25	19.34	23.14	28.50	36.32	Adj. Net Income y/y Growth	17.9%	16.4%	9.1%	17.3%	15.3%
y/y Growth	31.2%	35.7%	19.6%	23.2%	27.5%	EPS y/y Growth	17.1%	16.0%	5.4%	16.7%	15.4%
Net debt/(cash)	(2,558)	(5,689)	(3,773)	(5,809)	(8,622)	DPS y/y Growth	21.0%	12.4%	0.0%	0.0%	(43.4%)
Cash flow from operating activities	2,324	2,414	2,838	3,465	4,009						
o/w Depreciation & amortization	225	218	367	430	392						
o/w Changes in working capital	133	132	34	315	496						
Cash flow from investing activities	(566)	(97)	(3,663)	(187)	(207)						
o/w Capital expenditure	(155)	(137)	(171)	(187)	(207)						
as % of sales	2.3%	1.8%	1.9%	1.8%	1.8%						
Cash flow from financing activities	(1,034)	2,034	(2,087)	(1,242)	(989)						
o/w Dividends paid	(501)	(561)	(597)	(582)	(329)						
o/w Net debt issued/(repaid)	(2)	950	(1,013)	0	0						
Net change in cash	721	4,345	(2,912)	2,036	2,812						
Adj. Free cash flow to firm	2,181	2,288	2,683	3,281	3,768						
y/y Growth	7.8%	4.9%	17.3%	22.3%	14.9%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jul. o/w - out of which

Model N

Underweight

Company Data	
Shares O/S (mn)	32
52-week range (\$)	44.56-15.00
Market cap (\$ mn)	1,094.80
Exchange rate	1.00
Free float(%)	86.3%
3M - Avg daily vol (mn)	0.36
3M - Avg daily val (\$ mn)	12.5
Volatility (90 Day)	40
Index	RUSSELL
	2000
BBG BUY HOLD SELL	7 2 0

Model N, Inc (MODN;MODN US)

Year-end Sep (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	141	161	171	194	-
Adj. EBIT (\$ mn)	12	21	18	26	-
EBIT margin	8.4%	12.8%	10.8%	13.3%	-
EBITDA margin	9.3%	13.3%	11.2%	13.6%	-
Adj. EPS (\$)	0.23	0.48	0.28	0.42	-
BBG EPS (\$)	0.18	0.43	0.33	0.46	-
Reported EPS (\$)	(0.58)	(0.39)	(0.63)	(0.54)	-
Dividend yield	-	-	-	-	-
Adj. P/E	149.5	71.4	121.1	80.1	-
P/ BV	21.3	9.6	10.2	10.1	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Model N, Inc (Underweight; Price Target: \$33.00)

Investment Thesis

Model N is in the process of shifting its business from on-premise to the cloud, causing maintenance revenues to decline as subscription revenues grow. While we believe this transition is a smart move in the long run, slower bookings and RPO growth this year just barely offset declines in maintenance revenue. In light of increased ramped deal structures for both renewals and new bookings, coupled with slower subscription revenue build, we have reduced our FY22 FCF estimates. Further, we believe a shift to cyclically exposed names will not benefit Model N to the same degree as other names in our coverage, as the company's technology and life sciences end markets are less sensitive. With some concerns over business execution capabilities as well as an expected shift away from more defensive names, we believe Model N will have difficulty performing in line with our overall coverage.

Valuation

Our December 2021 price target of \$33, down from \$48, is based on our 10-year DCF and FCFF estimates and assumes an unlevered beta of 1.4, a 7.0% market risk premium and a terminal EV/FCFF multiple of 22x, in line with peers who have similar growth profiles. Our price target implies an EV/forward sales multiple of 6.7x, which is in line with MODN's peers.

FCFF per share analysis

	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	2019	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
FCFF	12.4	16.1	18.3	28.5	35.7	44.2	54.4	65.8	79.0	91.6	104.4	117.0	131.0	144.1	158.1
Growth	47%	30%	13%	56%	25%	24%	23%	21%	20%	16%	14%	12%	12%	10%	10%
Fully diluted shares	34.1	35.4	37.1	37.5	38.3	39.0	39.8	40.6	41.4	42.2	43.1	43.9	44.8	45.7	46.6
Y/Y change	9%	4%	5%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Period				1	2	3	4	5	6	7	8	9	10	11	
Present value of FCFF				25.8	29.1	32.6	36.2	39.5	42.9	44.9	46.2	46.8	47.3		
FCFF/Share			\$0.49	\$0.76	\$0.93	\$1.13	\$1.37	\$1.62	\$1.91	\$2.17	\$2.42	\$2.66	\$2.92	\$3.15	\$3.38
Y/Y Change				55%	23%	22%	21%	19%	18%	14%	12%	10%	10%	8%	8%
Present Value of FCFF/Share			\$0.49	\$0.69	\$0.77	\$0.86	\$0.94	\$1.01	\$1.09	\$1.12	\$1.14	\$1.14	\$1.14		

Source: Company reports and J.P. Morgan estimates.

Risks to Rating and Price Target

Upside:

- Subscription revenue and bookings grow faster than expected, raising cash flow above estimates
- The macro environment does not improve as quickly as expected following a vaccine rollout, and investors continue to focus on more defensive markets

Model N: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21E	2Q21E	3Q21E	4Q21E	
Revenue	141	161	171	194	-	Revenue	40	42	44	44	
COGS	(59)	(60)	(65)	(71)	-	COGS	(16)	(16)	(16)	(17)	
Gross profit	82	101	106	123	-	Gross profit	25	26	28	28	
SG&A	(45)	(50)	(56)	(62)	-	SG&A	(13)	(14)	(14)	(15)	
Adj. EBITDA	13	21	19	26	-	Adj. EBITDA	4	5	5	5	
D&A	(1)	(1)	(1)	(1)	-	D&A	(0)	(0)	(0)	(0)	
Adj. EBIT	12	21	18	26	-	Adj. EBIT	4	4	5	5	
Net Interest	(3)	(3)	(5)	(5)	-	Net Interest	(1)	(1)	(1)	(1)	
Adj. PBT	9	18	14	21	-	Adj. PBT	3	3	4	4	
Tax	(1)	(1)	(3)	(5)	-	Tax	(1)	(1)	(1)	(1)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	8	17	10	16	-	Adj. Net Income	2	2	3	3	
Reported EPS	(0.58)	(0.39)	(0.63)	(0.54)	-	Reported EPS	(0.16)	(0.16)	(0.15)	(0.16)	
Adj. EPS	0.23	0.48	0.28	0.42	-	Adj. EPS	0.06	0.06	0.08	0.08	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	33	35	37	38	-	Shares outstanding	37	37	37	38	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	61	200	215	241	-	Gross margin	58.3%	62.6%	62.1%	63.5%	-
Accounts receivable	27	36	38	42	-	EBITDA margin	9.3%	13.3%	11.2%	13.6%	-
Inventories	-	-	-	-	-	EBIT margin	8.4%	12.8%	10.8%	13.3%	-
Other current assets	7	10	13	15	-	Net profit margin	5.3%	10.5%	6.1%	8.2%	-
Current assets	95	246	266	298	-	ROE	16.2%	19.0%	8.4%	12.7%	-
PP&E	1	1	1	0	-	ROA	4.5%	6.9%	3.2%	4.5%	-
LT investments	-	-	-	-	-	ROCE	10.9%	11.7%	5.7%	7.6%	-
Other non current assets	74	73	69	66	-	SG&A/Sales	31.7%	31.3%	32.7%	32.1%	-
Total assets	170	320	336	364	-	Net debt/equity	NM	NM	NM	NM	-
Short term borrowings	5	-	-	-	-	P/E (x)	149.5	71.4	121.1	80.1	-
Payables	2	3	3	3	-	P/BV (x)	21.3	9.6	10.2	10.1	-
Other short term liabilities	69	75	80	93	-	EV/EBITDA (x)	83.3	51.1	57.1	41.3	-
Current liabilities	76	78	83	96	-	Dividend Yield	-	-	-	-	-
Long-term debt	39	114	124	136	-	Sales/Assets (x)	0.8	0.7	0.5	0.6	-
Other long term liabilities	1	4	5	6	-	Interest cover (x)	4.5	7.0	4.2	5.8	-
Total liabilities	117	196	213	237	-	Operating leverage	(388.0%)	534.5%	(178.1%)	290.2%	-
Shareholders' equity	53	125	124	127	-	Revenue y/y Growth	(9.0%)	14.0%	6.0%	13.7%	-
Minority interests	-	-	-	-	-	EBITDA y/y Growth	14.4%	63.1%	(10.5%)	38.3%	-
Total liabilities & equity	170	320	336	364	-	Tax rate	12.1%	4.6%	25.0%	25.0%	-
BVPS	1.60	3.53	3.33	3.38	-	Adj. Net Income y/y Growth	475.3%	124.2%	(38.1%)	52.7%	-
y/y Growth	21.1%	120.9%	(5.6%)	1.4%	-	EPS y/y Growth	428.9%	109.4%	(41.1%)	51.1%	-
Net debt/(cash)	(16)	(86)	(91)	(105)	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	10	14	15	26	-						
o/w Depreciation & amortization	7	5	5	5	-						
o/w Changes in working capital	(1)	(6)	1	6	-						
Cash flow from investing activities	(0)	(1)	(0)	(0)	-						
o/w Capital expenditure	(0)	(1)	(0)	(0)	-						
as % of sales	0.2%	0.4%	0.2%	0.2%	-						
Cash flow from financing activities	(6)	126	0	0	-						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	(10)	122	0	0	-						
Net change in cash	4	140	15	25	-						
Adj. Free cash flow to firm	13	17	18	29	-						
y/y Growth	33.2%	31.4%	9.0%	56.3%	-						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Sep. o/w - out of which

Okta

Neutral

Company Data	
Shares O/S (mn)	144
52-week range (\$)	258.75-88.66
Market cap (\$ mn)	36,201.33
Exchange rate	1.00
Free float(%)	99.1%
3M - Avg daily vol (mn)	1.26
3M - Avg daily val (\$ mn)	282.6
Volatility (90 Day)	48
Index	RUSSELL
	2000
BBG BUY HOLD SELL	15 8 0

Okta Inc. (OKTA;OKTA US)

Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	399	586	822	1,067	1,376
Adj. EBIT (\$ mn)	(41)	(49)	(2)	(42)	26
EBIT margin	(10.4%)	(8.3%)	(0.2%)	(4.0%)	1.9%
EBITDA margin	(8.6%)	(6.2%)	2.4%	(2.7%)	2.9%
Adj. EPS (\$)	(0.32)	(0.31)	0.04	(0.24)	0.31
BBG EPS (\$)	(0.35)	0.04	(0.01)	-	-
Reported EPS (\$)	(1.17)	(1.78)	(1.87)	(2.23)	(1.62)
Dividend yield	-	-	-	-	-
Adj. P/E	NM	NM	5,729.1	NM	799.2
P/ BV	106.9	72.5	48.5	60.6	66.3

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Okta Inc. (Neutral; Price Target: \$258.00)

Investment Thesis

Okta is the leading provider of identity and access management (IAM) solutions for use with both internal employees and external customers (partners, etc.). We believe this market in total has the opportunity to reach \$25B+. Being the first mover in developing a cloud native platform for IAM has put the company in a unique competitive position that it was able to bolster through the support of many applications natively out of the box and through partnerships with other technology companies ranging from ServiceNow to Palo Alto Networks. While Okta serves a market that is regarded as the #1 security priority for enterprises, our economists believe growth will rebound in 2021 as a vaccine is rolled out. The 2009-2010 time frame provides a similar period of snapback in growth following a recession, and our analysis shows that the highest valuation software stocks in 2009 underperformed the software industry in 2010. Based on the current valuation, we believe OKTA shares will perform in line with our coverage universe and downgrade to Neutral.

Valuation

The primary way we value subscription-based business models is on a free cash flow basis utilizing a 10-year DCF and then triangulating/supporting the analysis with peer multiples. In our opinion, the closest security and infrastructure peers multiples to Okta are Zscaler (ZS/OW), ServiceNow (NOW/N), and CrowdStrike (CRWD/N). Our December 2021 price target of \$258 is based on our DCF model, employing a discount rate of 10.7% and a 23x terminal EV/FCFF multiple that is in line with the projected growth rate in terminal year.

Our price target implies a ~37x CY21E EV/Sales multiple, one of the most expensive stocks in our coverage. However, we note that using a FCF margin of 35% at FY32, our DCF implies a CAGR of <30% growth through FY32, which we believe is attainable.

Our DCF calculations, including a scenario table showing the impact of various terminal multiples on estimated stock prices, are shown below.

Discounted Cash Flow Analysis

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
FCFF	(53.8)	(37.2)	(7.5)	39.0	110.4	118.3	205.9	329.5	510.8	766.1	1110.9	1555.2	2099.6	2729.5	3411.8	4128.3
Growth	NM	NM	NM	NM	183%	7%	74%	60%	55%	50%	45%	40%	35%	30%	25%	21%
Fully Diluted Share Count				143.8	148.1	152.6	155.6	158.7	161.9	165.1	168.4	171.8	175.2	178.7	182.3	186.0
Y/Y Change					3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
uFCFF/Share				0.3	0.7	0.8	1.3	2.1	3.2	4.6	6.6	9.1	12.0	15.3	18.7	22.2
Y/Y Change				#DIV/0!	174%	4%	71%	57%	52%	47%	42%	37%	32%	27%	23%	19%
Intrayear adjustment																
Period							1	2	3	4	5	6	7	8	9	10
Present value of FCFF/share							1.2	1.7	2.3	3.1	4.0	4.9	5.9	6.8	7.5	8.0

Source: Company reports, J.P. Morgan estimates

Terminal Multiple Scenario

Terminal multiple scenarios				
Terminal value	208.9	218.4	227.9	237.4
Last forecasted FCFF	22.2	22.2	22.2	22.2
Terminal EV/FCFF multiple	22.0x	23.0x	24.0x	25.0x
Total present value of FCFF	37.3	37.3	37.3	37.3
+ Terminal value	208.9	218.4	227.9	237.4
Total enterprise value	246.2	255.7	265.2	274.7
- CY21 debt	14.8	14.8	14.8	14.8
+ CY21 cash	17.3	17.3	17.3	17.3
/ CY21 shares outstanding	152.6	152.6	152.6	152.6
= Price per share	\$ 248.66	\$ 258.15	\$ 267.65	\$ 277.15
Implied multiples on CY 2021				
EV / Sales	35.2x	36.6x	37.9x	39.3x
EV / EBITDA	NM	NM	NM	NM
P / E	NM	NM	NM	NM
EV / FCFF	NM	NM	NM	NM

Source: J.P. Morgan estimates

Risks to Rating and Price Target

- Premium multiple can create material downside risk if the market rolls over and we see multiple compression in the software sector.
- If a security breach occurred in the platform and undermined customer confidence in the solutions offered by Okta, growth would likely suffer.
- International becomes a larger part of revenue and helps drive topline upside
- Market gains increase faster than expected as shift to cloud is accelerated and revenue growth exceeds long-term target

Okta: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	399	586	822	1,067	1,376	Revenue	183A	200A	217A	222	
COGS	(113)	(159)	(213)	(269)	(335)	COGS	(48)A	(51)A	(57)A	(57)	
Gross profit	286	427	609	798	1,041	Gross profit	134A	149A	160A	165	
SG&A	(303)	(453)	(582)	(750)	(905)	SG&A	(138)A	(141)A	(154)A	(149)	
Adj. EBITDA	(34)	(36)	20	(28)	41	Adj. EBITDA	(8)A	12A	15A	2	
D&A	(8)	(18)	(28)	(20)	(21)	D&A	(5)A	(7)A	(11)A	(5)	
Adj. EBIT	(41)	(49)	(2)	(42)	26	Adj. EBIT	(12)A	6A	6A	(2)	
Net Interest	0	(27)	(70)	(73)	(58)	Net Interest	(11)A	(17)A	(22)A	(20)	
Adj. PBT	(34)	(38)	5	(35)	53	Adj. PBT	(8)A	9A	6A	(2)	
Tax	0	1	1	5	(4)	Tax	0A	0A	(0)A	0	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	(34)	(37)	6	(31)	48	Adj. Net Income	(8)A	10A	6A	(2)	
Reported EPS	(1.17)	(1.78)	(1.87)	(2.23)	(1.62)	Reported EPS	(0.47)A	(0.42)A	(0.51)A	(0.47)	
Adj. EPS	(0.32)	(0.31)	0.04	(0.24)	0.31	Adj. EPS	(0.07)A	0.07A	0.04A	(0.01)	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	107	117	135	130	154	Shares outstanding	123A	142A	143A	130	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	298	520	439	552	753	Gross margin	71.6%	72.8%	74.0%	74.7%	75.7%
Accounts receivable	92	130	177	229	306	EBITDA margin	(8.6%)	(6.2%)	2.4%	(2.7%)	2.9%
Inventories	-	-	-	-	-	EBIT margin	(10.4%)	(8.3%)	(0.2%)	(4.0%)	1.9%
Other current assets	318	950	2,187	2,205	2,238	Net profit margin	(8.6%)	(6.2%)	0.7%	(2.9%)	3.5%
Current assets	708	1,600	2,803	2,986	3,297	ROE	(15.1%)	(11.1%)	1.1%	(5.1%)	9.3%
PP&E	53	54	64	75	87	ROA	(4.9%)	(2.5%)	0.2%	(0.9%)	1.3%
LT investments	-	-	-	-	-	ROCE	(11.5%)	(5.4%)	(0.1%)	(2.0%)	1.0%
Other non current assets	223	302	356	358	374	SG&A/Sales	75.9%	77.3%	70.8%	70.3%	65.8%
Total assets	984	1,955	3,224	3,420	3,757	Net debt/equity	NM	1.0	2.0	2.4	2.4
Short term borrowings	272	101	36	38	40	P/E (x)	NM	NM	5,729.1	NM	799.2
Payables	2	4	4	9	11	P/BV (x)	106.9	72.5	48.5	60.6	66.3
Other short term liabilities	299	442	584	786	1,049	EV/EBITDA (x)	NM	NM	1,382.3	NM	683.4
Current liabilities	573	547	624	832	1,100	Dividend Yield	-	-	-	-	-
Long-term debt	0	837	1,733	1,827	1,923	Sales/Assets (x)	0.6	0.4	0.3	0.3	0.4
Other long term liabilities	159	166	209	220	236	Interest cover (x)	-	NM	0.3	NM	0.7
Total liabilities	732	1,550	2,566	2,879	3,259	Operating leverage	(58.0%)	36.4%	(238.4%)	7147.2%	(560.7%)
Shareholders' equity	252	405	658	541	498	Revenue y/y Growth	55.6%	46.8%	40.3%	29.8%	28.9%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	(36.8%)	5.6%	(155.6%)	(240.8%)	(243.0%)
Total liabilities & equity	984	1,955	3,224	3,420	3,757	Tax rate	(0.0%)	(3.7%)	13.4%	(13.0%)	8.0%
BVPS	2.35	3.46	5.18	4.14	3.79	Adj. Net Income y/y Growth	(42.4%)	7.2%	(116.1%)	(619.4%)	(257.7%)
y/y Growth	(2.2%)	47.5%	49.5%	(19.9%)	(8.6%)	EPS y/y Growth	(55.5%)	(1.6%)	(114.0%)	(636.4%)	(233.7%)
Net debt/(cash)	(27)	418	1,330	1,313	1,210	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	15	56	127	137	226						
o/w Depreciation & amortization	8	18	28	20	21						
o/w Changes in working capital	20	52	52	83	84						
Cash flow from investing activities	(197)	(688)	(1,272)	(24)	(25)						
o/w Capital expenditure	(20)	(15)	(15)	(19)	(21)						
as % of sales	5.0%	2.6%	1.8%	1.8%	1.5%						
Cash flow from financing activities	358	853	1,066	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	-	-	-	-	-						
Net change in cash	175	221	(79)	113	201						
Adj. Free cash flow to firm	(7)	39	110	118	206						
y/y Growth	(79.9%)	(621.3%)	182.7%	7.2%	74.0%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

Palo Alto Networks

Underweight

Company Data	
Shares O/S (mn)	104
52-week range (\$)	315.11-125.47
Market cap (\$ mn)	32,169.45
Exchange rate	1.00
Free float(%)	97.2%
3M - Avg daily vol (mn)	1.03
3M - Avg daily val (\$ mn)	264.2
Volatility (90 Day)	34
Index	RUSSELL 2000
BBG BUY HOLD SELL	29 8 0

Palo Alto Networks (PANW;PANW US)

Year-end Jul (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	2,900	3,408	4,121	4,836	-
Adj. EBIT (\$ mn)	637	599	745	933	-
EBIT margin	22.0%	17.6%	18.1%	19.3%	-
EBITDA margin	25.5%	21.4%	20.5%	21.5%	-
Adj. EPS (\$)	5.45	4.88	5.75	7.44	-
BBG EPS (\$)	5.40	4.80	5.76	6.91	-
Reported EPS (\$)	(0.83)	(2.69)	(2.84)	(0.91)	-
Dividend yield	-	-	-	-	-
Adj. P/E	57.0	63.6	53.9	41.7	-
P/ BV	19.4	28.0	26.5	15.7	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Palo Alto Networks (Underweight; Price Target: \$308.00)

Investment Thesis

Palo Alto Networks is the leading independent network security company targeting one of the largest segments of the cybersecurity industry with one of the best integrated product lines (platforms) on the market. The combination of its market-leading technology, breadth of solutions that tie together network, endpoint, and orchestration/analytics, along with go-to-market execution, is helping the company gain market share against legacy incumbents like Check Point (CHKP/UW) and Cisco (CSCO/N/covered by Samik Chatterjee). PANW has made a series of cloud asset acquisitions and built out a solid cloud portfolio; however, sales execution issues around product revenues in the 1H20 and a shift to the cloud are leading to continued product revenue declines. Out of the firewall vendors, PANW is the one that is furthest along in building out security for Cloud Assets. When Next Gen Security is large enough to drive growth acceleration is when we think shares can again sustainably perform in line with our coverage or better, but until then we believe the decline in product will put pressure on growth and hence we are downgrading to UW.

Valuation

UW rating and December 2021 price target to \$308

Our previous price target was based on 18x EV/FCFF multiple applied to our CY22 FCF estimates. We are moving to a DCF and FCFF/share analysis for our valuation methodology, as PANW is increasing the amount of the business that is coming from cloud, subscription-based offerings, and that is creating a clearer future FCF growth profile. We forecast detailed income statement and balance sheet estimates through FY23 to arrive at FCFF, and then forecast FCFF growth decelerating from 17% to 7% in FY32. Utilizing a discount rate of 9.3% and a terminal FCFF multiple of 7x in line with the last forecasted FCFF growth rate, results in our Dec-21 price target of \$308. Our DCF FCFF/share and terminal multiple scenarios are below.

Table 4: DCF and FCFF/share forecast

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
Free Cash Flow to Firm (FCFF) Analysis																
FCFF	797.4	921.1	1075.9	979.1	1188.5	1429.9	1737.7	2033.1	2317.7	2595.9	2855.4	3112.4	3361.4	3630.3	3884.5	4156.4
Growth		16%	17%	-9%	21%	20%	22%	17%	14%	12%	10%	9%	8%	8%	7%	7%
Fully diluted shares		95.5	99.1	99.3	99.5	100.5	101.5	102.6	103.6	104.6	105.7	106.7	107.8	108.9	110.0	111.1
Y/Y change			4%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Period						0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
Present value of FCFF						1,367.6	1,520.5	1,627.5	1,697.4	1,739.1	1,750.1	1,745.2	1,724.3	1,703.7	1,667.7	1,632.5
FCFF/Share						\$14.22	\$17.11	\$19.82	\$22.37	\$24.81	\$27.02	\$29.16	\$31.18	\$33.34	\$35.33	\$37.42
Y/Y change							20.3%	15.8%	12.9%	10.9%	8.9%	7.9%	6.9%	6.9%	5.9%	5.9%
Present Value of FCFF/Share						\$13.60	\$14.97	\$15.87	\$16.39	\$16.62	\$16.56	\$16.35	\$16.00	\$15.65	\$15.17	\$14.70

Source: Company reports, J.P. Morgan estimates

Table 5: Terminal Multiple scenarios

Terminal value	93.4	119.2	136.2	153.2
Last forecasted FCFF	37.4	37.4	37.4	37.4
Terminal EV/FCFF multiple	6	7	8	9
Total present value of FCFF per share	171.9	171.9	171.9	171.9
Terminal value per share	93.4	119.2	136.2	153.2
Total enterprise value per share	265.3	291.0	308.0	325.1
- CY21 debt per share	37.1	37.1	37.1	37.1
+ CY21 cash per share	54.2	54.2	54.2	54.2
= Price per share	\$ 282.43	\$ 308.15	\$ 325.17	\$ 342.20
/ CY21 shares outstanding	99.7	99.7	99.7	99.7

Source: Company reports, J.P. Morgan estimates

Risks to Rating and Price Target

- Product revenue accelerates and comes in ahead of our expectations
- Cloud security revenue becomes majority of revenue faster than our model, while ultimately drives topline acceleration and FCFF generation.
- Increased win rates versus cloud native security companies like Zscaler increases momentum in NGS

Palo Alto Networks: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly				
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21E	3Q21E	4Q21E
Revenue	2,900	3,408	4,121	4,836	-	Revenue	946A	986	1,039	1,149
COGS	(674)	(833)	(1,032)	(1,185)	-	COGS	(229)A	(244)	(265)	(293)
Gross profit	2,226	2,575	3,089	3,651	-	Gross profit	717A	742	774	856
SG&A	(1,241)	(1,488)	(1,717)	(2,012)	-	SG&A	(370)A	(409)	(446)	(492)
Adj. EBITDA	738	729	847	1,041	-	Adj. EBITDA	240A	201	192	213
D&A	(101)	(130)	(102)	(108)	-	D&A	(35)A	(21)	(22)	(24)
Adj. EBIT	637	599	745	933	-	Adj. EBIT	205A	180	170	189
Net Interest	25	9	13	22	-	Net Interest	4A	2	3	4
Adj. PBT	692	621	734	960	-	Adj. PBT	203A	182	168	181
Tax	(152)	(137)	(161)	(211)	-	Tax	(45)A	(40)	(37)	(40)
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-
Adj. Net Income	539	485	573	748	-	Adj. Net Income	158A	142	131	142
Reported EPS	(0.83)	(2.69)	(2.84)	(0.91)	-	Reported EPS	(0.94)A	(0.69)	(0.76)	(0.46)
Adj. EPS	5.45	4.88	5.75	7.44	-	Adj. EPS	1.62A	1.44	1.31	1.39
DPS	-	-	-	-	-	DPS	-	-	-	-
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-
Shares outstanding	99	99	100	101	-	Shares outstanding	98A	99	100	102
Balance Sheet & Cash Flow Statement						Ratio Analysis				
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E
Cash and cash equivalents	961	2,958	2,806	4,217	-	Gross margin	76.8%	75.6%	75.0%	75.5%
Accounts receivable	582	1,037	1,222	1,486	-	EBITDA margin	25.5%	21.4%	20.5%	21.5%
Inventories	-	-	-	-	-	EBIT margin	22.0%	17.6%	18.1%	19.3%
Other current assets	2,121	1,134	1,636	1,804	-	Net profit margin	18.6%	14.2%	13.9%	15.5%
Current assets	3,665	5,129	5,665	7,507	-	ROE	39.3%	36.1%	50.5%	47.5%
PP&E	296	348	429	562	-	ROA	8.6%	6.2%	5.9%	6.7%
LT investments	575	554	873	873	-	ROCE	36.2%	34.8%	51.2%	46.2%
Other non current assets	2,056	3,034	3,244	3,312	-	SG&A/Sales	42.8%	43.7%	41.7%	41.6%
Total assets	6,592	9,065	10,211	12,254	-	Net debt/equity	-	-	-	-
Short term borrowings	-	-	-	-	-	P/E (x)	57.0	63.6	53.9	41.7
Payables	73	64	34	40	-	P/BV (x)	19.4	28.0	26.5	15.7
Other short term liabilities	1,980	2,628	3,277	4,043	-	EV/EBITDA (x)	30.9	28.6	24.8	18.8
Current liabilities	2,053	2,692	3,312	4,083	-	Dividend Yield	-	-	-	-
Long-term debt	-	-	-	-	-	Sales/Assets (x)	0.5	0.4	0.4	0.4
Other long term liabilities	2,953	5,272	5,734	6,182	-	Interest cover (x)	NM	NM	NM	NM
Total liabilities	5,006	7,964	9,046	10,266	-	Operating leverage	100.8%	(34.1%)	116.2%	145.8%
Shareholders' equity	1,586	1,102	1,165	1,988	-	Revenue y/y Growth	27.5%	17.5%	20.9%	17.4%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	27.3%	(1.2%)	16.2%	23.0%
Total liabilities & equity	6,592	9,065	10,211	12,254	-	Tax rate	22.0%	22.0%	22.0%	22.0%
BVPS	16.02	11.10	11.71	19.77	-	Adj. Net Income y/y Growth	34.6%	(10.2%)	18.1%	30.7%
y/y Growth	31.6%	(30.7%)	5.5%	68.9%	-	EPS y/y Growth	29.7%	(10.4%)	17.8%	29.4%
Net debt/(cash)	-	-	-	-	-	DPS y/y Growth	-	-	-	-
Cash flow from operating activities	1,056	1,036	1,360	1,656	-					
o/w Depreciation & amortization	154	206	192	187	-					
o/w Changes in working capital	235	72	198	217	-					
Cash flow from investing activities	(1,826)	288	(1,047)	(246)	-					
o/w Capital expenditure	(131)	(214)	(188)	(242)	-					
as % of sales	4.5%	6.3%	4.6%	5.0%	-					
Cash flow from financing activities	(774)	673	(464)	0	-					
o/w Dividends paid	-	-	-	-	-					
o/w Net debt issued/(repaid)	-	-	-	-	-					
Net change in cash	(1,544)	1,997	(151)	1,410	-					
Adj. Free cash flow to firm	905	814	1,163	1,397	-					
y/y Growth	0.5%	(10.0%)	42.8%	20.2%	-					

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jul. o/w - out of which

Pluralsight

Underweight

Company Data	
Shares O/S (mn)	145
52-week range (\$)	22.69-6.59
Market cap (\$ mn)	2,621.71
Exchange rate	1.00
Free float(%)	92.0%
3M - Avg daily vol (mn)	1.46
3M - Avg daily val (\$ mn)	24.2
Volatility (90 Day)	67
Index	RUSSELL
	2000
BBG BUY HOLD SELL	12 4 0

Pluralsight Inc. (PS;PS US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	232	317	388	437	-
Adj. EBIT (\$ mn)	(54)	(50)	(25)	(11)	-
EBIT margin	(23.4%)	(15.6%)	(6.4%)	(2.5%)	-
EBITDA margin	(18.0%)	(12.2%)	(2.2%)	2.0%	-
Adj. EPS (\$)	(0.60)	(0.31)	(0.13)	(0.04)	-
BBG EPS (\$)	(0.61)	(0.36)	(0.13)	(0.10)	0.01
Reported EPS (\$)	(1.29)	(1.20)	(1.08)	(0.88)	-
Dividend yield	-	-	-	-	-
Adj. P/E	NM	NM	NM	NM	-
P/ BV	8.7	10.1	12.8	15.5	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Pluralsight Inc. (Underweight; Price Target: \$20.00)

Investment Thesis

Pluralsight is a leading provider of online technology learning with over 6,500 courses focused on technology being offered to over 810,000 B2B users in 16,000+ business customers. The solution is attacking what we estimate to be a \$24 billion addressable market that has traditionally been led by in-classroom learning and legacy e-learning systems. We believe the quality of the instructors and content (including assessment and management capabilities), combined with the self-driven approach that allows users to access course content from virtually anywhere, sets the solution apart. Increasingly, the business is shifting to the B2B segment, which currently accounts for 86% of total billings, and we believe that will be the driver to sustained high levels of revenue growth. Though we see a path to further improvement down the line, September quarter billings weakness suggests that delivering on the fourth quarter revenue is at greater risk, as Pluralsight needs to convert a larger-than-normal amount of newly generated pipeline from the delayed Pluralsight Live event. We believe it is going to take longer for topline metrics to re-accelerate and headwinds to revenue growth are likely to continue, as it will likely take time for companies to not only increase their headcount, but also their training budgets. As a result, we do not believe Pluralsight is going to keep up with other cyclically-sensitive names over the next few quarters and are downgrading from a Neutral to Underweight rating.

Valuation

Our December 2021 price target of \$20 is based on an EV/sales multiple of 6x applied to our FY22 estimate and represents a decrease from our previous price target of \$29. Lower-than-anticipated billings growth in the quarter makes us believe it is going to take longer for top-line metrics to re-accelerate and create the right demand to drive the multiple to the previously utilized 8x. Looking at other companies in our coverage that are going through similar challenges on the top line, including MIME, FEYE, RP, and NEWR, these companies tend to trade at 5-6x

revenue, and we believe Pluralsight should trade at the high end of those comparisons.

Risks to Rating and Price Target

- Improvement in the macro economy increases spending from businesses on training solutions
- Conversions of the pipeline generated from Pluralsight Live come in higher than anticipated, leading to revenue upside in the fourth quarter
- Google decides to develop a truly competitive solution built on top of its YouTube brand
- Authors find a platform that creates a broader reach and more monetization opportunities

Pluralsight: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	232	317	388	437	-	Revenue	93A	95A	99A	101	
COGS	(55)	(67)	(74)	(85)	-	COGS	(18)A	(18)A	(19)A	(19)	
Gross profit	177	250	314	352	-	Gross profit	75A	77A	81A	82	
SG&A	(175)	(220)	(247)	(265)	-	SG&A	(66)A	(60)A	(59)A	(62)	
Adj. EBITDA	(42)	(39)	(9)	9	-	Adj. EBITDA	(10)A	(1)A	2A	1	
D&A	(13)	(11)	(16)	(19)	-	D&A	(3)A	(4)A	(4)A	(5)	
Adj. EBIT	(54)	(50)	(25)	(11)	-	Adj. EBIT	(14)A	(5)A	(1)A	(4)	
Net Interest	(5)	1	(1)	5	-	Net Interest	(1)A	(1)A	(1)A	1	
Adj. PBT	(60)	(41)	(19)	(6)	-	Adj. PBT	(12)A	(3)A	0A	(3)	
Tax	(1)	(1)	(0)	(0)	-	Tax	(0)A	0A	(0)A	(0)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	(60)	(42)	(19)	(6)	-	Adj. Net Income	(13)A	(3)A	(0)A	(3)	
Reported EPS	(1.29)	(1.20)	(1.08)	(0.88)	-	Reported EPS	(0.34)A	(0.28)A	(0.23)A	(0.23)	
Adj. EPS	(0.60)	(0.31)	(0.13)	(0.04)	-	Adj. EPS	(0.09)A	(0.02)A	(0.00)A	(0.02)	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	100	137	143	146	-	Shares outstanding	141A	142A	144A	145	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	194	91	114	146	-	Gross margin	76.4%	78.8%	80.9%	80.5%	-
Accounts receivable	63	102	109	124	-	EBITDA margin	(18.0%)	(12.2%)	(2.2%)	2.0%	-
Inventories	-	-	-	-	-	EBIT margin	(23.4%)	(15.6%)	(6.4%)	(2.5%)	-
Other current assets	8	365	342	337	-	Net profit margin	(26.0%)	(13.2%)	(4.9%)	(1.4%)	-
Current assets	266	557	565	607	-	ROE	(71.3%)	(18.4%)	(8.5%)	(3.2%)	-
PP&E	32	23	64	61	-	ROA	(17.6%)	(5.7%)	(1.8%)	(0.5%)	-
LT investments	-	106	115	115	-	ROCE	(38.5%)	(10.8%)	(3.3%)	(1.4%)	-
Other non current assets	150	346	381	379	-	SG&A/Sales	75.6%	69.6%	63.6%	60.7%	-
Total assets	447	1,032	1,124	1,161	-	Net debt/equity	NM	1.6	2.3	2.6	-
Short term borrowings	0	0	0	0	-	P/E (x)	NM	NM	NM	NM	-
Payables	7	11	6	1	-	P/BV (x)	8.7	10.1	12.8	15.5	-
Other short term liabilities	200	273	320	376	-	EV/EBITDA (x)	4.7	NM	NM	52.0	-
Current liabilities	207	284	326	377	-	Dividend Yield	-	-	-	-	-
Long-term debt	0	481	572	597	-	Sales/Assets (x)	0.7	0.4	0.4	0.4	-
Other long term liabilities	32	20	24	17	-	Interest cover (x)	NM	46.1	NM	NM	-
Total liabilities	239	786	922	991	-	Operating leverage	9.3%	(23.9%)	(222.9%)	(450.8%)	-
Shareholders' equity	209	246	202	171	-	Revenue y/y Growth	39.1%	36.6%	22.5%	12.5%	-
Minority interests	-	-	-	-	-	EBITDA y/y Growth	(3.3%)	(7.2%)	(77.9%)	(201.4%)	-
Total liabilities & equity	447	1,032	1,124	1,161	-	Tax rate	(1.1%)	(2.0%)	(1.8%)	(3.0%)	-
BVPS	2.09	1.80	1.41	1.17	-	Adj. Net Income y/y Growth	(6.2%)	(30.6%)	(54.6%)	(68.5%)	-
y/y Growth	(354.8%)	(14.0%)	(21.3%)	(17.3%)	-	EPS y/y Growth	(55.0%)	(49.4%)	(56.5%)	(69.1%)	-
Net debt/(cash)	(194)	391	458	451	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	(6)	(12)	22	46	-						
o/w Depreciation & amortization	19	39	39	20	-						
o/w Changes in working capital	43	2	10	33	-						
Cash flow from investing activities	(12)	(617)	(20)	(14)	-						
o/w Capital expenditure	(9)	(11)	(33)	(12)	-						
as % of sales	3.8%	3.5%	8.6%	2.7%	-						
Cash flow from financing activities	201	537	9	0	-						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	(120)	617	0	0	-						
Net change in cash	183	(92)	12	32	-						
Adj. Free cash flow to firm	(9)	(24)	(10)	29	-						
y/y Growth	47.4%	153.1%	(55.9%)	(381.1%)	-						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

PTC Inc

Overweight

Company Data	
Shares O/S (mn)	120
52-week range (\$)	112.04-43.90
Market cap (\$ mn)	13,336.06
Exchange rate	1.00
Free float(%)	89.9%
3M - Avg daily vol (mn)	0.77
3M - Avg daily val (\$ mn)	69.1
Volatility (90 Day)	35
Index	RUSSELL
	2000
BBG BUY HOLD SELL	11 4 2

PTC Inc (PTC;PTC US)

Year-end Sep (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	1,256	1,458	1,575	1,731	-
Adj. EBIT (\$ mn)	255	423	443	509	-
EBIT margin	20.3%	29.0%	28.2%	29.4%	-
EBITDA margin	22.5%	30.7%	30.9%	31.7%	-
Adj. EPS (\$)	1.65	2.56	2.75	3.32	-
BBG EPS (\$)	1.70	2.36	2.80	3.53	-
Reported EPS (\$)	(0.23)	1.12	1.52	1.94	-
Dividend yield	-	-	-	-	-
Adj. P/E	67.5	43.4	40.5	33.5	-
P/ BV	10.8	9.0	8.6	8.1	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

PTC Inc (Overweight; Price Target: \$130.00)

Investment Thesis

PTC is one of the leading companies across MCAD (mechanical computer-aided design), PLM (product lifecycle management), and is the leading independent software company providing Internet of Things (IoT) software. The company sells across a broad range of industries from automotive to aerospace and defense, and even into high tech and consumer package goods companies. We view an expected economic recovery in 2021 as a tailwind to PTC, especially within its MCAD segment, as investors shift focus towards more cyclically exposed names. Furthermore, we expect increased contribution from Rockwell as the companies extend their strategic alliance to include PTC's PLM and SaaS products. With improved growth prospects, an investor shift towards cyclical names, and an attractive valuation relative to peers, we expect shares to outperform our broader coverage universe.

Valuation

We are raising our December 2021 price target to \$130 from \$88, based on a DCF and FCFF per share analysis. We assume cash flow growth in the mid-to-high teens through FY28 before declining to growth rates of 13% by the tenth year of the DCF. We assume a 20x terminal EV/FCFF multiple, based on macro backdrop and current multiples for that level of cash flow growth, and our WACC of 10.1% is based on a beta of 1.4 and a 4% cost of debt.

10 year DCF analysis

	FY 2019	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E
Free Cash Flow to Firm (FCFF) Analysis													
FCFF	259.8	260.7	368.7	414.3	484.3	571.5	662.9	769.0	884.4	1017.0	1159.4	1321.7	1493.5
YoY Change	3%	0%	41%	12%	17%	18%	16%	16%	15%	15%	14%	14%	13%
Fully Diluted Share Count		116.5	116.4	115.0	113.2	114.4	115.5	116.7	117.8	119.0	120.2	121.4	122.6
YoY Change			0%	-1%	-2%	1%	1%	1%	1%	1%	1%	1%	1%
FCFF/share		2.24	3.17	3.60	4.28	5.00	5.74	6.59	7.51	8.55	9.65	10.89	12.18
YoY Change			41%	14%	19%	17%	15%	15%	14%	14%	13%	13%	12%
Intrayear adjustment													
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF				3.3	3.5	3.7	3.9	4.1	4.2	4.3	4.5	4.6	4.6

Source: Company reports and J.P. Morgan estimates.

Terminal multiple scenario analysis

Terminal multiple scenarios				
Terminal value/share	85.6	95.1	104.6	114.1
Last forecasted FCFF/share	12.2	12.2	12.2	12.2
Terminal EV/FCFF multiple	18	20	22	24
Total present value of FCFF/share	40.7	40.7	40.7	40.7
Terminal value/share	85.6	95.1	104.6	114.1
Total enterprise value/share	126.3	135.8	145.3	154.8
- debt/share	8.4	8.4	8.4	8.4
+ excess cash/share	3.6	3.6	3.6	3.6
= Price per share	\$ 121.50	\$ 131.01	\$ 140.51	\$ 150.02
/ shares outstanding	119.8	119.8	119.8	119.8

Source: Company reports and J.P. Morgan estimates

Risks to Rating and Price Target

Downside:

- The macro environment does not improve as quickly as expected following a vaccine rollout
- Rockwell and Ansys partnerships are less accretive than expected
- Bookings growth is lower than expected, reducing ARR growth

PTC Inc: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21E	2Q21E	3Q21E	4Q21E	
Revenue	1,256	1,458	1,575	1,731	-	Revenue	382	388	394	411	
COGS	(325)	(334)	(394)	(427)	-	COGS	(96)	(97)	(99)	(103)	
Gross profit	930	1,124	1,180	-	-	Gross profit	286	291	295	308	
SG&A	(545)	(595)	(617)	(666)	-	SG&A	(145)	(152)	(152)	(168)	
Adj. EBITDA	282	448	487	548	-	Adj. EBITDA	123	124	123	116	
D&A	(78)	(81)	(105)	(107)	-	D&A	(26)	(26)	(26)	(26)	
Adj. EBIT	255	423	443	509	-	Adj. EBIT	113	113	112	105	
Net Interest	(43)	(76)	(43)	(32)	-	Net Interest	(11)	(11)	(11)	(11)	
Adj. PBT	213	366	400	477	-	Adj. PBT	102	102	102	95	
Tax	(48)	(4)	(44)	(56)	-	Tax	(12)	(12)	(11)	(10)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	195	298	320	382	-	Adj. Net Income	81	82	81	76	
Reported EPS	(0.23)	1.12	1.52	1.94	-	Reported EPS	0.39	0.40	0.39	0.34	
Adj. EPS	1.65	2.56	2.75	3.32	-	Adj. EPS	0.69	0.70	0.70	0.65	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	118	116	116	115	-	Shares outstanding	117	117	116	116	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	270	275	494	116	-	Gross margin	74.1%	77.1%	75.0%	-	-
Accounts receivable	373	415	432	412	-	EBITDA margin	22.5%	30.7%	30.9%	31.7%	-
Inventories	0	0	0	0	-	EBIT margin	20.3%	29.0%	28.2%	29.4%	-
Other current assets	140	141	160	189	-	Net profit margin	15.5%	20.5%	20.3%	22.1%	-
Current assets	783	832	1,086	717	-	ROE	18.7%	22.6%	21.8%	24.8%	-
PP&E	106	101	85	67	-	ROA	7.8%	9.9%	9.2%	11.4%	-
LT investments	30	31	31	31	-	ROCE	13.8%	15.9%	13.8%	16.6%	-
Other non current assets	1,748	2,417	2,373	2,329	-	SG&A/Sales	43.4%	40.8%	39.2%	38.5%	-
Total assets	2,666	3,381	3,575	3,143	-	Net debt/equity	0.3	0.5	0.4	0.4	-
Short term borrowings	0	35	35	35	-	P/E (x)	67.5	43.4	40.5	33.5	-
Payables	0	0	0	0	-	P/BV (x)	10.8	9.0	8.6	8.1	-
Other short term liabilities	638	645	665	649	-	EV/EBITDA (x)	48.6	31.4	28.7	-	-
Current liabilities	638	679	700	684	-	Dividend Yield	-	-	-	-	-
Long-term debt	669	1,005	1,120	635	-	Sales/Assets (x)	0.5	0.5	0.5	0.5	-
Other long term liabilities	157	258	252	250	-	Interest cover (x)	6.6	5.9	11.2	17.1	-
Total liabilities	1,464	1,943	2,072	1,568	-	Operating leverage	987.8%	407.9%	59.2%	149.3%	-
Shareholders' equity	1,202	1,438	1,503	1,575	-	Revenue y/y Growth	1.1%	16.2%	8.0%	9.9%	-
Minority interests	-	-	-	-	-	EBITDA y/y Growth	8.7%	58.9%	8.6%	12.5%	-
Total liabilities & equity	2,666	3,381	3,575	3,143	-	Tax rate	8.5%	18.4%	20.0%	20.0%	-
BVPS	10.27	12.44	12.99	13.78	-	Adj. Net Income y/y Growth	13.6%	53.4%	7.2%	19.3%	-
y/y Growth	36.7%	21.0%	4.5%	6.0%	-	EPS y/y Growth	13.8%	55.4%	7.2%	20.7%	-
Net debt/(cash)	400	764	660	553	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	285	234	361	416	-						
o/w Depreciation & amortization	78	81	105	107	-						
o/w Changes in working capital	148	(93)	(36)	(41)	-						
Cash flow from investing activities	(150)	(517)	(27)	(28)	-						
o/w Capital expenditure	(64)	(20)	(27)	(28)	-						
as % of sales	5.1%	1.4%	1.7%	1.6%	-						
Cash flow from financing activities	(123)	288	(116)	(767)	-						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	-	-	0	(485)	-						
Net change in cash	10	5	218	(378)	-						
Adj. Free cash flow to firm	260	276	369	414	-						
y/y Growth	7.0%	6.1%	33.7%	12.4%	-						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Sep. o/w - out of which

SecureWorks

Underweight

Company Data	
Shares O/S (mn)	85
52-week range (\$)	18.23-5.29
Market cap (\$ mn)	1,080.28
Exchange rate	1.00
Free float(%)	50.5%
3M - Avg daily vol (mn)	0.10
3M - Avg daily val (\$ mn)	1.2
Volatility (90 Day)	46
Index	-
BBG BUY HOLD SELL	0 7 3

SecureWorks Corp. (SCWX;SCWX US)

Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	519	553	560	578	621
Adj. EBIT (\$ mn)	(2)	(4)	21	26	50
EBIT margin	(0.3%)	(0.8%)	3.7%	4.5%	8.0%
EBITDA margin	2.3%	1.9%	5.9%	7.1%	10.1%
Adj. EPS (\$)	0.02	0.00	0.22	0.26	0.49
BBG EPS (\$)	(0.03)	0.23	0.22	-	-
Reported EPS (\$)	(0.48)	(0.39)	(0.26)	(0.19)	0.06
Dividend yield	-	-	-	-	-
Adj. P/E	769.9	5,535.1	58.6	48.7	26.1
P/ BV	-	-	-	-	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

SecureWorks Corp. (Underweight; Price Target: \$15.00)

Investment Thesis

SCWX is leading what we see as a \$34B market for security outsourcing as one of the largest MSSPs (Managed Security Service Providers). This space is seeing secular growth because of the lack of security talent in the workforce and the growing number of threats that companies of all sizes must deal with on a daily basis. But, the company has gone through its fair share of challenges in terms of sales execution. SCWX is now looking to move the lower-margin MSS revenue towards partners and putting its focus on the managed detection and response (MDR) opportunity that has driven customer spending higher. This should continue to drive headwinds on the top line for the next several quarters before the more durable higher-margin subscription revenue becomes a large enough part of the mix to drive acceleration, and, as a result, we expect shares to underperform our coverage in 2021. As a result, we are downgrading shares to UW from our previous N rating.

Valuation

December 2021 price target of \$15

Even though sales execution has been spotty, the improved profit profile and increased M&A activity in the space are helping bolster shares. Our price target is based on ~1.5x our CY22E sales. This ~1.5x multiple is still a significant discount to the overall cybersecurity peer group, because the company continues to have inconsistent sales execution.

Risks to Rating and Price Target

Upside Risks

- Improved sales execution;
- Security is a consolidating industry.
- Average revenue per customer increases in new platform enough to accelerate revenue

SecureWorks: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	519	553	560	578	621	Revenue	141A	138A	142A	139	
COGS	(232)	(238)	(223)	(214)	(217)	COGS	(59)A	(56)A	(56)A	(53)	
Gross profit	287	315	337	364	404	Gross profit	82A	83A	86A	86	
SG&A	(205)	(229)	(216)	(237)	(248)	SG&A	(57)A	(50)A	(51)A	(59)	
Adj. EBITDA	12	10	33	41	63	Adj. EBITDA	6A	13A	11A	3	
D&A	(13)	(15)	(13)	(15)	(13)	D&A	(4)A	(3)A	(3)A	(3)	
Adj. EBIT	(2)	(4)	21	26	50	Adj. EBIT	2A	10A	8A	0	
Net Interest	3	1	1	2	3	Net Interest	1A	0A	(0)A	0	
Adj. PBT	1	(4)	22	28	52	Adj. PBT	3A	10A	8A	1	
Tax	0	4	(4)	(6)	(11)	Tax	(1)A	(2)A	(2)A	(0)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	1	0	18	22	41	Adj. Net Income	3A	8A	7A	1	
Reported EPS	(0.48)	(0.39)	(0.26)	(0.19)	0.06	Reported EPS	(0.09)A	(0.01)A	(0.04)A	(0.11)	
Adj. EPS	0.02	0.00	0.22	0.26	0.49	Adj. EPS	0.03A	0.10A	0.08A	0.01	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	82	81	84	84	85	Shares outstanding	83A	84A	84A	84	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	130	182	217	275	368	Gross margin	55.3%	57.0%	60.1%	63.0%	65.0%
Accounts receivable	141	112	106	112	121	EBITDA margin	2.3%	1.9%	5.9%	7.1%	10.1%
Inventories	0	1	1	1	1	EBIT margin	(0.3%)	(0.8%)	3.7%	4.5%	8.0%
Other current assets	28	27	25	25	22	Net profit margin	0.3%	0.0%	3.2%	3.8%	6.6%
Current assets	299	322	349	412	512	ROE	0.2%	0.0%	2.7%	3.3%	6.1%
PP&E	36	28	18	10	3	ROA	0.1%	0.0%	1.7%	2.1%	3.7%
LT investments	-	-	-	-	-	ROCE	(0.2%)	(1.3%)	2.6%	3.1%	5.8%
Other non current assets	701	699	682	652	624	SG&A/Sales	39.6%	41.4%	38.6%	41.0%	40.0%
Total assets	1,036	1,048	1,049	1,074	1,139	Net debt/equity	-	-	-	-	-
Short term borrowings	-	-	-	-	-	P/E (x)	769.9	5,535.1	58.6	48.7	26.1
Payables	16	19	21	31	39	P/BV (x)	-	-	-	-	-
Other short term liabilities	244	275	277	268	300	EV/EBITDA (x)	88.9	97.1	29.1	22.3	12.9
Current liabilities	261	293	298	298	339	Dividend Yield	-	-	-	-	-
Long-term debt	-	-	-	-	-	Sales/Assets (x)	0.5	0.5	0.5	0.5	0.6
Other long term liabilities	83	88	87	107	108	Interest cover (x)	-	-	-	-	-
Total liabilities	343	381	385	406	448	Operating leverage	(879.2%)	2640.4%	(43579.2%)	819.0%	1216.1%
Shareholders' equity	693	667	664	668	692	Revenue y/y Growth	10.7%	6.6%	1.3%	3.2%	7.5%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	(192.0%)	(13.0%)	222.4%	22.7%	54.2%
Total liabilities & equity	1,036	1,048	1,049	1,074	1,139	Tax rate	17.3%	(105.2%)	17.5%	21.0%	21.0%
BVPS	-	-	-	-	-	Adj. Net Income y/y Growth	(109.4%)	(86.2%)	9621.0%	21.0%	87.6%
y/y Growth	-	-	-	-	-	EPS y/y Growth	(109.2%)	(86.1%)	9341.8%	20.4%	86.9%
Net debt/(cash)	-	-	-	-	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	57	79	59	65	100						
o/w Depreciation & amortization	41	43	41	45	41						
o/w Changes in working capital	44	75	15	16	35						
Cash flow from investing activities	(10)	(13)	(19)	(7)	(6)						
o/w Capital expenditure	(10)	(13)	(4)	(7)	(6)						
as % of sales	2.0%	2.3%	0.6%	1.2%	1.0%						
Cash flow from financing activities	(19)	(14)	(5)	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	-	-	-	-	-						
Net change in cash	28	52	35	58	94						
Adj. Free cash flow to firm	47	66	55	58	93						
y/y Growth	(629.3%)	41.0%	(16.9%)	5.1%	61.6%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

SS&C Technologies

Neutral

Company Data	
Shares O/S (mn)	272
52-week range (\$)	74.00-29.51
Market cap (\$ mn)	19,899.25
Exchange rate	1.00
Free float(%)	87.4%
3M - Avg daily vol (mn)	1.06
3M - Avg daily val (\$ mn)	67.5
Volatility (90 Day)	23
Index	RUSSELL
	2000
BBG BUY HOLD SELL	12 4 0

SS&C Technologies Holdings Inc (SSNC;SSNC US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	3,421	4,633	4,611	4,734	4,908
Adj. EBIT (\$ mn)	1,210	1,743	1,742	1,750	1,818
EBIT margin	35.4%	37.6%	37.8%	37.0%	37.1%
EBITDA margin	37.5%	39.5%	39.6%	39.7%	40.1%
Adj. EPS (\$)	2.92	3.83	4.18	4.15	4.20
BBG EPS (\$)	2.72	3.72	4.22	4.44	4.72
Reported EPS (\$)	0.42	1.66	2.16	2.35	2.33
Dividend yield	-	-	-	-	-
Adj. P/E	25.1	19.2	17.5	17.6	17.4
P/ BV	3.9	3.8	3.5	3.3	3.1

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates. Note sum of parts may not add to total due to rounding

Investment Thesis, Valuation and Risks

SS&C Technologies Holdings Inc (Neutral; Price Target: \$78.00)

Investment Thesis

SS&C Technologies is a leading provider of software to the financial services industry. The company has pursued an aggressive M&A strategy, acquiring over 50 companies in the 30+ years it has been in business, allowing the company to expand across geographies and product lines. After the stock's recent run-up, gaining 23% since the end of October vs. 13% growth for the S&P 500, we view room for upside as limited. Additionally, while we like the company's recent bid for Link, an Australian provider of pension fund management software, there are multiple other bidders, which could cause offer prices to rise out of reasonable reach. With the stock's recent rebound, we view valuation as less attractive and downgrade to a Neutral rating.

Valuation

We are maintaining our Dec 2021 price target of \$78 but reducing our rating to Neutral. Our price target is based on a 14x multiple on an estimated combined FY22E adjusted EBITDA of \$1.97B, in line with the historical multiple.

Risks to Rating and Price Target

Downside

- Passive investment management wave accelerates
- Hedge fund performance continues to lag the market, leading to industry outflows
- DST churn weighs on the overall organic revenue growth

Upside

- SS&C is able to acquire targets at a reasonable purchase price and extract synergies

- The financial services industry recovers faster than expected, driving revenue growth

SS&C Technologies: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	3,421	4,633	4,611	4,734	4,908	Revenue	1,174A	1,138A	1,153A	1,147	
COGS	(2,051)	(2,612)	(2,532)	(2,475)	(2,587)	COGS	(666)A	(627)A	(629)A	(611)	
Gross profit	1,370	2,021	2,079	2,260	2,322	Gross profit	508A	511A	524A	536	
SG&A	(528)	(723)	(710)	(770)	(800)	SG&A	(184)A	(173)A	(170)A	(182)	
Adj. EBITDA	1,281	1,828	1,827	1,881	1,970	Adj. EBITDA	464A	448A	466A	449	
D&A	(519)	(775)	(717)	(705)	(777)	D&A	(185)A	(179)A	(180)A	(173)	
Adj. EBIT	1,210	1,743	1,742	1,750	1,818	Adj. EBIT	444A	430A	449A	419	
Net Interest	(271)	(405)	(247)	(209)	(196)	Net Interest	(77)A	(61)A	(55)A	(55)	
Adj. PBT	954	1,366	1,506	1,543	1,624	Adj. PBT	370A	373A	398A	365	
Tax	(22)	(93)	(164)	(227)	(234)	Tax	(25)A	(30)A	(59)A	(52)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	712	1,011	1,114	1,142	1,202	Adj. Net Income	274A	276A	294A	270	
Reported EPS	0.42	1.66	2.16	2.35	2.33	Reported EPS	0.37A	0.64A	0.60A	0.55	
Adj. EPS	2.92	3.83	4.18	4.15	4.20	Adj. EPS	1.03A	1.04A	1.10A	1.01	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	244	264	267	275	286	Shares outstanding	266A	266A	267A	268	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	167	153	321	481	666	Gross margin	40.0%	43.6%	45.1%	47.7%	47.3%
Accounts receivable	682	670	641	731	719	EBITDA margin	37.5%	39.5%	39.6%	39.7%	40.1%
Inventories	0	0	0	0	0	EBIT margin	35.4%	37.6%	37.8%	37.0%	37.1%
Other current assets	1,200	1,963	1,001	1,090	1,164	Net profit margin	20.8%	21.8%	24.2%	24.1%	24.5%
Current assets	2,048	2,786	1,963	2,302	2,549	ROE	19.6%	20.9%	20.9%	19.5%	18.5%
PP&E	553	466	423	434	429	ROA	6.6%	6.2%	6.9%	7.4%	8.0%
LT investments	-	-	-	-	-	ROCE	10.3%	10.3%	10.5%	10.7%	11.3%
Other non current assets	13,446	13,489	13,051	12,481	11,870	SG&A/Sales	15.4%	15.6%	15.4%	16.3%	16.3%
Total assets	16,047	16,741	15,437	15,217	14,847	Net debt/equity	1.8	1.4	1.2	0.9	0.6
Short term borrowings	88	76	78	78	78	P/E (x)	25.1	19.2	17.5	17.6	17.4
Payables	41	37	46	49	44	P/BV (x)	3.9	3.8	3.5	3.3	3.1
Other short term liabilities	1,793	2,663	1,683	1,772	1,752	EV/EBITDA (x)	21.8	14.7	14.3	13.4	12.2
Current liabilities	1,922	2,776	1,807	1,899	1,874	Dividend Yield	-	-	-	-	-
Long-term debt	8,169	7,078	6,603	5,792	4,894	Sales/Assets (x)	0.3	0.3	0.3	0.3	0.3
Other long term liabilities	1,377	1,771	1,500	1,369	1,274	Interest cover (x)	4.7	4.5	7.4	9.0	10.0
Total liabilities	11,467	11,625	9,911	9,060	8,042	Operating leverage	78.6%	124.3%	5.5%	15.9%	107.2%
Shareholders' equity	4,580	5,116	5,526	6,157	6,805	Revenue y/y Growth	104.2%	35.4%	(0.5%)	2.7%	3.7%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	85.4%	42.7%	(0.0%)	2.9%	4.8%
Total liabilities & equity	16,047	16,741	15,437	15,217	14,847	Tax rate	25.3%	26.0%	26.0%	26.0%	26.0%
BVPS	18.80	19.36	20.73	22.40	23.80	Adj. Net Income y/y Growth	74.1%	41.9%	10.2%	2.4%	5.3%
y/y Growth	48.3%	3.0%	7.1%	8.1%	6.2%	EPS y/y Growth	51.4%	30.8%	9.3%	(0.6%)	1.2%
Net debt/(cash)	8,089	7,001	6,360	5,388	4,306	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	640	1,328	1,113	1,225	1,343						
o/w Depreciation & amortization	519	775	717	705	777						
o/w Changes in working capital	(36)	128	(130)	(120)	(97)						
Cash flow from investing activities	(7,103)	(141)	(228)	(142)	(147)						
o/w Capital expenditure	(34)	(63)	(35)	(57)	(59)						
as % of sales	1.0%	1.4%	0.8%	1.2%	1.2%						
Cash flow from financing activities	7,517	(513)	(1,668)	(922)	(1,012)						
o/w Dividends paid	(71)	(108)	(127)	(110)	(114)						
o/w Net debt issued/(repaid)	5,603	(1,124)	(493)	(812)	(897)						
Net change in cash	1,049	676	(784)	161	185						
Adj. Free cash flow to firm	809	1,565	1,261	1,323	1,430						
y/y Growth	58.2%	93.5%	(19.4%)	4.9%	8.1%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Veeva Systems

Underweight

Company Data		Veeva Systems Inc (VEEV;VEEV US)					
		Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Shares O/S (mn)	163	Revenue (\$ mn)	862	1,104	1,447	1,708	2,014
52-week range (\$)	313.99-118.11	Adj. EBITDA (\$ mn)	312	430	577	642	714
Market cap (\$ mn)	43,970.46	EBITDA margin	36.2%	38.9%	39.9%	37.6%	35.5%
Exchange rate	1.00	Adj. net income (\$ mn)	254	347	456	509	569
Free float(%)	99.5%	Adj. EPS (\$)	1.63	2.19	2.83	3.07	3.35
3M - Avg daily vol (mn)	0.90	BBG EPS (\$)	2.17	2.84	3.12	-	-
3M - Avg daily val (\$ mn)	249.4	Reported EPS (\$)	1.47	1.90	2.24	2.36	2.55
Volatility (90 Day)	40	DPS (\$)	-	-	-	-	-
Index	RUSSELL 2000	Dividend yield	-	-	-	-	-
BBG BUY HOLD SELL	15 7 1	Adj. P/E	165.3	123.0	95.2	87.9	80.5

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Veeva Systems Inc (Underweight; Price Target: \$297.00)

Investment Thesis

Veeva is the leading provider of cloud-based software solutions for the life sciences industry with its core CRM solution complemented by newer products like Vault and Network that are poised to drive company growth going forward.

In total, we estimate Veeva's addressable market is >\$12B, a fraction of the \$50B+ per year that life sciences companies' spend on IT solutions. This fertile market provided 29% growth in subscription revenue in FY20 after growing 25.3% in FY19.

Veeva is one of the few software and services companies to combine solid revenue growth and operating margins moving to the mid-30% range, according to our estimates. However, we are downgrading VEEV shares from Neutral to Underweight based on valuation, as we believe the current multiple presents limited room for upside, in addition to ongoing headline risk related to the upcoming administration changes. If the Georgia runoff elections do end up going blue, there is potential for at least headline risk for VEEV given that the new administration could look to enact material drug pricing reforms. Though we have not seen immediate evidence to suggest that pricing reforms would have an impact on spending for R&D products, such as Veeva Vault, headline risk related to these reforms could serve as a negative catalyst for VEEV's stock to a level that we could see as a better entry point.

Valuation

December 2021 price target of \$297 based on 10-year DCF

In the case of Veeva, we believe free cash flow will be growing approximately 19% at the end of the 10-year horizon, so we look at terminal multiple scenarios of 23-26x, and based on its competitive position and the consistency of performance, we believe 25x is the appropriate multiple based on our estimated growth in FCF in FY2031 and FY2032 being at 19%. Using this terminal multiple, along with a discount rate of ~9.5%, we arrive at our \$297 December 2021 price target.

Terminal multiple analysis and DCF

	FY 2019	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
Free Cash Flow to Firm (FCFF) Analysis														
Cash Flow from Operations (CFO)	310.8	437.4	502.4	587.5	705.8									
+ After Tax Net Interest Expense (Income)	(12.5)	(21.7)	(8.3)	(10.8)	(12.7)									
- Capital expenditures	8.4	3.1	10.3	8.5	10.1									
FCFF	289.9	412.6	483.8	568.1	683.0	836.7	1,012.4	1,225.0	1,482.2	1,778.6	2,134.4	2,539.9	3,022.5	3,596.7
Growth	33%	42%	17%	17%	20%	23%	21%	21%	21%	20%	20%	19%	19%	19%
Fully diluted shares	156.9	158.8	162.1	166.9	171.6	173.3	175.1	176.8	178.6	180.4	182.2	184.0	185.8	187.7
Y/Y change	2%	1%	2%	3%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Period					1	2	3	4	5	6	7	8	9	10
Present value of FCFF					623.7	697.8	771.1	852.0	941.5	1,031.8	1,130.8	1,228.9	1,335.5	1,451.3
FCFF/Share	1.8	2.6	3.0	3.4	4.0	4.8	5.8	6.9	8.3	9.9	11.7	13.8	16.3	19.2
Y/Y change	30%	41%	15%	14%	17%	21%	20%	20%	20%	19%	19%	18%	18%	18%

Terminal multiple scenarios				
Terminal value/share	209.5	218.7	227.8	236.9
Last forecasted FCFF/share	19.2	19.2	19.2	19.2
Terminal EV/FCFF multiple	23.0x	24.0x	25.0x	26.0x
Total present value of FCFF/share	55.7	55.7	55.7	55.7
Terminal value/share	209.5	218.7	227.8	236.9
Total enterprise value/share	265.2	274.3	283.4	292.6
- CY21 debt				
+ CY21 cash	13.7	13.7	13.7	13.7
= Price per share	\$278.96	\$288.07	\$297.18	\$306.29
/ CY21 shares outstanding	166.9	166.9	166.9	166.9

Source: Company reports and J.P. Morgan estimates.

Risks to Rating and Price Target

Risks to the upside

Revenue beats expectations. The company has a strong track record of beating and raising expectations. We could see outperformance if the company were to significantly outperform our revenue and margin estimates.

Faster product adoption outside life sciences. Veeva has expanded with solutions focused on quality and safety that can be used by manufacturing operations in industries outside of just life sciences. If that ramp is able to prop up revenue growth at current levels, then performance could persist to be at least in line with our coverage.

Veeva Systems: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	862	1,104	1,447	1,708	2,014	Revenue	337A	354A	378A	379	
COGS	(229)	(279)	(368)	(466)	(541)	COGS	(87)A	(87)A	(93)A	(101)	
Gross profit	633	825	1,079	1,242	1,473	Gross profit	250A	267A	284A	278	
SG&A	(189)	(240)	(283)	(348)	(455)	SG&A	(70)A	(69)A	(67)A	(78)	
Adj. EBITDA	312	430	577	642	714	Adj. EBITDA	132A	147A	158A	140	
D&A	(6)	(18)	(10)	(11)	(10)	D&A	(3)A	(2)A	(2)A	(3)	
Adj. EBIT	306	412	567	631	704	Adj. EBIT	130A	144A	156A	137	
Net Interest	0	0	0	0	0	Net Interest	0A	0A	0A	0	
Adj. PBT	322	440	577	644	720	Adj. PBT	133A	147A	159A	138	
Tax	(68)	(92)	(121)	(135)	(151)	Tax	(28)A	(31)A	(33)A	(29)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	254	347	456	509	569	Adj. Net Income	105A	116A	126A	109	
Reported EPS	1.47	1.90	2.24	2.36	2.55	Reported EPS	0.54A	0.58A	0.60A	0.51	
Adj. EPS	1.63	2.19	2.83	3.07	3.35	Adj. EPS	0.66A	0.72A	0.78A	0.67	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	156	159	161	166	170	Shares outstanding	159A	161A	162A	162	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	551	477	758	1,337	2,032	Gross margin	73.4%	74.7%	74.6%	72.7%	73.2%
Accounts receivable	303	390	490	588	694	EBITDA margin	36.2%	38.9%	39.9%	37.6%	35.5%
Inventories	-	-	-	-	-	EBIT margin	35.5%	37.3%	39.2%	36.9%	35.0%
Other current assets	579	665	1,051	1,063	1,073	Net profit margin	29.5%	31.5%	31.5%	29.8%	28.2%
Current assets	1,433	1,531	2,298	2,988	3,799	ROE	23.7%	23.9%	23.5%	20.5%	18.6%
PP&E	55	55	54	52	51	ROA	17.6%	17.7%	17.5%	15.5%	14.1%
LT investments	-	-	-	-	-	ROCE	22.5%	22.4%	23.0%	20.0%	18.2%
Other non current assets	165	686	584	585	587	SG&A/Sales	21.9%	21.7%	19.5%	20.4%	22.6%
Total assets	1,654	2,272	2,936	3,624	4,437	Net debt/equity	-	-	-	-	-
Short term borrowings	-	-	-	-	-	P/E (x)	165.3	123.0	95.2	87.9	80.5
Payables	9	19	19	9	11	P/BV (x)	33.9	25.7	19.5	16.2	13.6
Other short term liabilities	392	532	642	802	1,012	EV/EBITDA (x)	140.3	102.0	75.5	66.9	59.2
Current liabilities	401	551	661	811	1,023	Dividend Yield	-	-	-	-	-
Long-term debt	-	-	-	-	-	Sales/Assets (x)	0.6	0.6	0.6	0.5	0.5
Other long term liabilities	15	55	55	58	60	Interest cover (x)	-	-	-	-	-
Total liabilities	416	606	715	869	1,082	Operating leverage	171.8%	123.9%	120.7%	62.4%	64.9%
Shareholders' equity	1,238	1,666	2,221	2,755	3,355	Revenue y/y Growth	25.8%	28.1%	31.1%	18.0%	17.9%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	43.5%	37.8%	34.2%	11.3%	11.3%
Total liabilities & equity	1,654	2,272	2,936	3,624	4,437	Tax rate	21.0%	21.0%	21.0%	21.0%	21.0%
BVPS	7.94	10.51	13.79	16.59	19.75	Adj. Net Income y/y Growth	77.8%	36.7%	31.3%	11.6%	11.8%
y/y Growth	34.4%	32.3%	31.3%	20.3%	19.0%	EPS y/y Growth	75.0%	34.4%	29.3%	8.2%	9.3%
Net debt/(cash)	-	-	-	-	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	311	437	502	587	706						
o/w Depreciation & amortization	14	28	27	17	16						
o/w Changes in working capital	(17)	(18)	(80)	13	66						
Cash flow from investing activities	(104)	(517)	(251)	(9)	(10)						
o/w Capital expenditure	(8)	(3)	(10)	(9)	(10)						
as % of sales	1.0%	0.3%	0.7%	0.5%	0.5%						
Cash flow from financing activities	26	10	25	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	-	-	-	-	-						
Net change in cash	231	(72)	279	579	696						
Adj. Free cash flow to firm	302	434	492	579	696						
y/y Growth	34.5%	43.6%	13.3%	17.6%	20.2%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

VeriSign

Overweight

Company Data		VeriSign (VRSN;VRSN US)					
		Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Shares O/S (mn)	120	Revenue (\$ mn)	1,215	1,232	1,265	1,331	-
52-week range (\$)	221.30-148.77	Adj. EBIT (\$ mn)	767	806	822	866	-
Market cap (\$ mn)	24,914.28	EBIT margin	63.2%	65.5%	65.0%	65.1%	-
Exchange rate	1.00	EBITDA margin	67.1%	69.2%	68.4%	69.7%	-
Free float(%)	87.5%	Adj. EPS (\$)	4.75	5.31	7.29	5.76	-
3M - Avg daily vol (mn)	0.65	BBG EPS (\$)	4.66	5.33	6.80	5.93	6.78
3M - Avg daily val (\$ mn)	131.6	Reported EPS (\$)	4.75	5.15	6.90	5.49	-
Volatility (90 Day)	27	Dividend yield	-	-	-	-	-
Index	RUSSELL 2000	Adj. P/E	43.5	39.0	28.4	35.9	-
BBG BUY HOLD SELL	1 2 1	P/ BV	NM	NM	NM	NM	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

VeriSign (Overweight; Price Target: \$246.00)

Investment Thesis

Being the registry operator for .com, the largest TLD on the internet, is a very lucrative position. VeriSign is one of the most lucrative unit economic franchises in our coverage given its exclusive position for .com registry operations, and it has the highest operating margins in our coverage. The growth in .com / .net has matured, but VeriSign has regained the ability to raise prices, which should allow for sustainable high-single-digit and even low-double-digit top-line revenue growth. That top-line growth, combined with some margin expansion, even at these lofty margin levels, and continued share repurchases should deliver earnings and cash flow growth that exceed the S&P 500 over the course of the business cycle. Lastly, we see the .web opportunity as a call option for the company, as VeriSign could market and monetize the new gTLD in a way that is beneficial to top-line growth. As a result, we are upgrading VRSN shares from a Neutral to Overweight rating.

Valuation

Our December 2021 price target is \$246. We use a DCF analysis that assumes a 9.2% WACC and a ~7% terminal growth rate assumption, which factors in the growth in domain pricing.

FCFF per share analysis

\$ in millions except per share amount

	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E
Free Cash Flow to Firm (FCFF) Analysis													
FCFF	784.3	799.0	850.5	929.9	1,022.9	1,115.0	1,204.2	1,288.5	1,378.7	1,475.2	1,578.4	1,688.9	1,807.1
Growth	5%	2%	6%	9%	10%	9%	8%	7%	7%	7%	7%	7%	7%
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF				851.4	857.5	855.8	846.2	829.0	812.2	795.7	779.5	763.6	748.1
Fully diluted shares	119.0	115.6	113.9	110.9	107.6	104.3	101.2	98.2	95.2	92.4	89.6	86.9	84.3
Growth	-2.9%	-2.8%	-1.5%	-2.7%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%
FCFF/Share				7.7	8.0	8.2	8.4	8.4	8.5	8.6	8.7	8.8	8.9
Growth					3.8%	2.9%	1.9%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Source: Company reports and J.P. Morgan estimates

Terminal growth analysis on a per share basis

Terminal growth rate scenario	
Terminal value per share	165.6
Cash flow per share	8.9
Terminal growth rate	6.9%
Total present value of FCFF per share	84.2
Terminal value per share	165.6
Total enterprise value per share	249.8
- debt per share	16
+ cash per share	12
= equity value per share	246.1
/ Dec-21 shares outstanding	112.7

Source: Company reports and J.P. Morgan estimates

Risks to Rating and Price Target

Downside risks

- Margins come under pressure as the company attempts to accelerate revenue growth through incremental investment for the new .web TLD
- Macro—domain names are cyclical, and if the broader global economy rolls over, we could see downward pressure on name growth and renewal rates

VeriSign: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	1,215	1,232	1,265	1,331	-	Revenue	313A	314A	318A	320	
COGS	(192)	(180)	(181)	(200)	-	COGS	(46)A	(44)A	(45)A	(47)	
Gross profit	1,023	1,051	1,084	1,131	-	Gross profit	267A	271A	273A	273	
SG&A	(145)	(134)	(134)	(142)	-	SG&A	(32)A	(34)A	(34)A	(35)	
Adj. EBITDA	816	852	866	928	-	Adj. EBITDA	214A	216A	218A	217	
D&A	(48)	(46)	(43)	(61)	-	D&A	(8)A	(10)A	(11)A	(15)	
Adj. EBIT	767	806	822	866	-	Adj. EBIT	206A	207A	207A	202	
Net Interest	(115)	(91)	(90)	(84)	-	Net Interest	(23)A	(23)A	(23)A	(22)	
Adj. PBT	730	759	745	782	-	Adj. PBT	191A	192A	185A	177	
Tax	(147)	(146)	53	(156)	-	Tax	143A	(39)A	(14)A	(37)	
Minority Interest	0	0	0	0	-	Minority Interest	0A	0A	0A	0	
Adj. Net Income	582	631	843	656	-	Adj. Net Income	346A	164A	184A	150	
Reported EPS	4.75	5.15	6.90	5.49	-	Reported EPS	2.86A	1.32A	1.49A	1.22	
Adj. EPS	4.75	5.31	7.29	5.76	-	Adj. EPS	2.96A	1.42A	1.60A	1.30	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	123	119	116	114	-	Shares outstanding	117A	116A	115A	115	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	1,270	1,218	1,205	1,365	-	Gross margin	84.2%	85.3%	85.7%	85.0%	-
Accounts receivable	0	0	0	0	-	EBITDA margin	67.1%	69.2%	68.4%	69.7%	-
Inventories	0	0	0	0	-	EBIT margin	63.2%	65.5%	65.0%	65.1%	-
Other current assets	47	61	45	47	-	Net profit margin	47.9%	51.3%	66.7%	49.3%	-
Current assets	1,317	1,279	1,250	1,411	-	ROE	(44.0%)	(43.9%)	(58.7%)	(49.0%)	-
PP&E	254	250	244	236	-	ROA	24.0%	33.5%	46.1%	34.8%	-
LT investments	0	0	0	0	-	ROCE	132.9%	186.6%	216.4%	153.4%	-
Other non current assets	344	325	311	319	-	SG&A/Sales	11.9%	10.9%	10.6%	10.7%	-
Total assets	1,915	1,854	1,805	1,966	-	Net debt/equity	NM	NM	NM	NM	-
Short term borrowings	0	0	0	0	-	P/E (x)	43.5	39.0	28.4	35.9	-
Payables	215	210	230	250	-	P/BV (x)	NM	NM	NM	NM	-
Other short term liabilities	732	755	759	781	-	EV/EBITDA (x)	30.7	29.5	29.1	26.9	-
Current liabilities	948	965	989	1,031	-	Dividend Yield	-	-	-	-	-
Long-term debt	1,785	1,788	1,790	1,793	-	Sales/Assets (x)	0.5	0.7	0.7	0.7	-
Other long term liabilities	567	591	407	440	-	Interest cover (x)	7.1	9.4	9.6	11.0	-
Total liabilities	3,300	3,344	3,186	3,263	-	Operating leverage	197.0%	367.4%	74.3%	101.8%	-
Shareholders' equity	(1,385)	(1,490)	(1,382)	(1,297)	-	Revenue y/y Growth	4.3%	1.4%	2.7%	5.3%	-
Minority interests	0	0	0	0	-	EBITDA y/y Growth	7.7%	4.5%	1.5%	7.2%	-
Total liabilities & equity	1,915	1,854	1,805	1,966	-	Tax rate	20.2%	19.3%	7.1%	20.0%	-
BVPS	(12.22)	(12.57)	(11.98)	(11.44)	-	Adj. Net Income y/y Growth	27.4%	8.4%	33.6%	(22.2%)	-
y/y Growth	(2.7%)	2.9%	(4.7%)	(4.4%)	-	EPS y/y Growth	29.1%	11.7%	37.5%	(21.1%)	-
Net debt/(cash)	515	570	585	428	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	698	754	751	820	-						
o/w Depreciation & amortization	48	46	43	61	-						
o/w Changes in working capital	73	57	(139)	72	-						
Cash flow from investing activities	1,070	167	(337)	(141)	-						
o/w Capital expenditure	(37)	(40)	(47)	(53)	-						
as % of sales	3.0%	3.3%	3.8%	4.0%	-						
Cash flow from financing activities	(1,875)	(770)	(741)	(600)	-						
o/w Dividends paid	0	0	0	0	-						
o/w Net debt issued/(repaid)	0	0	0	0	-						
Net change in cash	(108)	151	(328)	80	-						
Adj. Free cash flow to firm	752	787	787	835	-						
y/y Growth	(0.6%)	4.5%	0.0%	6.1%	-						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Wix.com

Overweight

Company Data	
Shares O/S (mn)	63
52-week range (\$)	319.34-76.81
Market cap (\$ mn)	15,931.34
Exchange rate	1.00
Free float(%)	96.7%
3M - Avg daily vol (mn)	0.59
3M - Avg daily val (\$ mn)	152.8
Volatility (90 Day)	56
Index	RUSSELL
	2000
BBG BUY HOLD SELL	18 2 0

WIX.COM LTD (WIX;WIX US)

Year-end Dec (\$)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (\$ mn)	604	761	975	1,204	-
Adj. EBIT (\$ mn)	47	41	(28)	64	-
EBIT margin	7.8%	5.4%	(2.9%)	5.3%	-
EBITDA margin	9.3%	6.3%	(1.5%)	6.5%	-
Adj. EPS (\$)	0.89	0.98	(0.31)	1.22	-
BBG EPS (\$)	0.88	1.00	(0.51)	0.37	1.51
Reported EPS (\$)	(0.65)	(1.43)	(3.72)	(2.05)	-
Dividend yield	-	-	-	-	-
Adj. P/E	281.7	256.9	NM	206.5	-
P/ BV	-	-	-	-	-

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

WIX.COM LTD (Overweight; Price Target: \$305.00)

Investment Thesis

Wix is a cloud-based website creation platform that allows users to create web sites through the use of their online drag and drop tools. Wix ADI, Wix Code (now named Corvid) and the new payments solution create a significant market opportunity ahead of Wix that is attractive and remains underpenetrated. The focus on technology is the main differentiator for Wix versus the competition. We are upgrading our rating from Neutral to Overweight on the back of recent strength in small business creation, in addition to the growing opportunity on the e-commerce/payments side of the business. While the gross margin percentages for the payments business can be low, the dollars are incremental to what is being generated, and we believe that will benefit cash flow and ultimately the stock going forward.

Valuation – Increasing December 2021 price target to \$305

Our Dec-21 price target of \$305 is based on our 10-year discounted cash flow model using a discount rate of 9.1% and a terminal EV/FCFF multiple of 16x, in line with a terminal growth rate of 17% in the last forecast FCFF. We switched our valuation methodology from a FCFF multiple on FY21E FCFF to a 10-year DCF analysis four quarters ago, as the company has shown sustainable free cash flow growth over the last couple of years. In our DCF we model the FCFF growth slowing from 45% in FY23 to 17% in FY31, incorporating a 2% increase in the fully diluted share count every year to account for dilution from stock-based compensation. Our new price target incorporates a faster cash flow trajectory as a result of this quarter's earnings.

Unlevered FCFF Forecasts

	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E
Free Cash Flow to Firm (FCFF) Analysis													
FCFF	128.1	123.0	255.2	315.4	457.3	617.4	771.8	957.0	1167.5	1401.1	1653.2	1934.3	2263.1
Change	26%	-4%	107%	24%	45%	35%	25%	24%	22%	20%	18%	17%	17%
Fully Diluted shares outstanding	60.5	62.5	67.7	69.5	70.8	72.3	73.7	75.2	76.7	78.2	79.8	81.4	83.0
Change	5.2%	3.3%	8.4%	2.5%	2%	2%	2%	2%	2%	2%	2%	2%	2%
FCFF/Share	2.1	2.0	3.8	4.5	6.5	8.5	10.5	12.7	15.2	17.9	20.7	23.8	27.3
Growth	19.4%	-7.1%	91.5%	20.6%	42.2%	32.4%	22.5%	21.6%	19.6%	17.6%	15.7%	14.7%	14.7%
Period				1	2	3	4	5	6	7	8	9	10
Present value of FCFF				4.2	5.4	6.6	7.4	8.2	9.0	9.7	10.3	10.8	11.4

Source: Company Reports, J.P. Morgan Research

Terminal Multiple Scenarios

Terminal multiple scenarios				
Terminal value/share	130.4	156.5	182.6	208.7
Last forecasted FCFF/share	27.3	27.3	27.3	27.3
Terminal EV/FCFF multiple	10	12	14	16
Total present value of FCFF	83.0	83.0	83.0	83.0
Terminal value	130.4	156.5	182.6	208.7
Total enterprise value	213.4	239.5	265.5	291.6
- FY21 debt/share	13.0	13.0	13.0	13.0
+ FY21 cash/share	26.7	26.7	26.7	26.7
= equity value	227.1	253.2	279.3	305.3
/ FY21 shares outstanding	67.8	67.8	67.8	67.8
= Price per share	\$ 227.09	\$ 253.18	\$ 279.26	\$ 305.34

Source: J.P. Morgan Research

Risks to Rating and Price Target

Downside risks

- Large, high-profile technology companies may decide to enter the space, increasing the competition or causing pricing pressure; and
- Pricing changes lead to higher-than-anticipated churn in premium subscriptions that weigh on near-term revenue growth.

Wix.com: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY18A	FY19A	FY20E	FY21E	FY22E		1Q20A	2Q20A	3Q20A	4Q20E	
Revenue	604	761	975	1,204	-	Revenue	216A	236A	254A	268	
COGS	(122)	(189)	(285)	(359)	-	COGS	(60)A	(68)A	(77)A	(79)	
Gross profit	-	-	-	-	-	Gross profit	-	-	-	-	
SG&A	(278)	(337)	(478)	(493)	-	SG&A	(105)A	(128)A	(122)A	(123)	
Adj. EBITDA	56	48	(15)	79	-	Adj. EBITDA	(3)A	(13)A	(5)A	5	
D&A	(9)	(7)	(13)	(14)	-	D&A	(2)A	(4)A	(4)A	(4)	
Adj. EBIT	47	41	(28)	64	-	Adj. EBIT	(4)A	(17)A	(9)A	2	
Net Interest	0	0	0	0	-	Net Interest	0A	0A	0A	0	
Adj. PBT	54	62	(14)	86	-	Adj. PBT	2A	(13)A	(8)A	7	
Tax	(3)	(3)	(3)	(5)	-	Tax	(2)A	(1)A	0A	(1)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	51	59	(17)	81	-	Adj. Net Income	(0)A	(14)A	(8)A	6	
Reported EPS	(0.65)	(1.43)	(3.72)	(2.05)	-	Reported EPS	(0.76)A	(1.06)A	(1.03)A	(0.75)	
Adj. EPS	0.89	0.98	(0.31)	1.22	-	Adj. EPS	(0.01)A	(0.26)A	(0.14)A	0.09	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	57	61	54	66	-	Shares outstanding	52A	55A	55A	64	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY18A	FY19A	FY20E	FY21E	FY22E		FY18A	FY19A	FY20E	FY21E	FY22E
Cash and cash equivalents	331	268	175	430	-	Gross margin	-	-	-	-	-
Accounts receivable	14	17	21	27	-	EBITDA margin	9.3%	6.3%	(1.5%)	6.5%	-
Inventories	0	0	0	0	-	EBIT margin	7.8%	5.4%	(2.9%)	5.3%	-
Other current assets	386	480	879	887	-	Net profit margin	8.5%	7.8%	(1.7%)	6.7%	-
Current assets	730	765	1,075	1,344	-	ROE	62.7%	32.9%	(7.1%)	29.1%	-
PP&E	22	32	37	42	-	ROA	8.7%	6.1%	(1.2%)	4.2%	-
LT investments	47	177	540	540	-	ROCE	53.6%	21.9%	(14.6%)	21.7%	-
Other non current assets	45	125	141	138	-	SG&A/Sales	46.1%	44.2%	49.0%	40.9%	-
Total assets	845	1,100	1,793	2,064	-	Net debt/equity	NM	NM	NM	NM	-
Short term borrowings	0	0	0	0	-	P/E (x)	281.7	256.9	NM	206.5	-
Payables	46	38	34	52	-	P/BV (x)	-	-	-	-	-
Other short term liabilities	295	406	548	716	-	EV/EBITDA (x)	284.0	330.5	NM	200.5	-
Current liabilities	340	444	582	769	-	Dividend Yield	-	-	-	-	-
Long-term debt	1	1	1	1	-	Sales/Assets (x)	1.0	0.8	0.7	0.6	-
Other long term liabilities	351	447	946	998	-	Interest cover (x)	-	-	-	-	-
Total liabilities	692	892	1,530	1,768	-	Operating leverage	1002.1%	(46.9%)	(597.0%)	(1402.5%)	-
Shareholders' equity	152	208	262	294	-	Revenue y/y Growth	41.8%	26.1%	28.1%	23.5%	-
Minority interests	-	-	-	-	-	EBITDA y/y Growth	277.8%	(13.7%)	(131.0%)	(626.3%)	-
Total liabilities & equity	845	1,100	1,791	2,062	-	Tax rate	5.9%	4.2%	(22.8%)	6.0%	-
BVPS	-	-	-	-	-	Adj. Net Income y/y Growth	(9436.6%)	15.4%	(128.2%)	(584.8%)	-
y/y Growth	-	-	-	-	-	EPS y/y Growth	41.8%	9.7%	(131.4%)	23.5%	-
Net debt/(cash)	(330)	(267)	(174)	(429)	-	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	116	150	142	275	-						
o/w Depreciation & amortization	12	17	17	17	-						
o/w Changes in working capital	61	85	151	179	-						
Cash flow from investing activities	(288)	(243)	(776)	(19)	-						
o/w Capital expenditure	(14)	(21)	(19)	(19)	-						
as % of sales	2.3%	2.8%	1.9%	1.6%	-						
Cash flow from financing activities	418	31	542	0	-						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	393	0	575	0	-						
Net change in cash	246	(62)	(93)	255	-						
Adj. Free cash flow to firm	102	128	123	255	-						
y/y Growth	44.3%	25.6%	(4.0%)	107.5%	-						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

Zoom Video

Neutral

Company Data	
Shares O/S (mn)	300
52-week range (\$)	588.84-62.02
Market cap (\$ mn)	123,624.00
Exchange rate	1.00
Free float(%)	94.9%
3M - Avg daily vol (mn)	10.86
3M - Avg daily val (\$ mn)	4,989.5
Volatility (90 Day)	99
Index	S&P 500
BBG BUY HOLD SELL	12 15 3

Zoom Video Communications (ZM;ZM US)

Year-end Jan (\$)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (\$ mn)	331	623	2,577	3,527	4,393
Adj. EBIT (\$ mn)	15	89	867	923	1,188
EBIT margin	4.6%	14.2%	33.7%	26.2%	27.0%
EBITDA margin	10.9%	4.7%	22.1%	16.2%	18.2%
Adj. EPS (\$)	0.06	0.35	2.90	2.89	2.97
BBG EPS (\$)	0.27	2.89	2.95	-	-
Reported EPS (\$)	0.03	0.09	1.82	1.65	1.62
Dividend yield	-	-	-	-	-
Adj. P/E	6,492.9	1,187.8	142.1	142.8	138.9
P/ BV	228.7	115.4	67.4	46.7	35.8

Source: Company data, Bloomberg Finance L.P., J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Zoom Video Communications (Neutral; Price Target: \$450.00)

Investment Thesis

Zoom is fundamentally changing how professionals communicate through the use of its video-first collaboration platform. This is a \$40B TAM that Zoom is penetrating at a rapid rate, as shown by one of the most attractive financial profiles seen in all of software at this stage of the company's lifecycle. The COVID-19 pandemic proved to be a catalyst unlike any we have seen in software for Zoom usage, and the company responded incredibly efficiently and admirably to the challenge, allowing for commerce, education, healthcare and many more functions to continue through the difficult year. The stock responded as well generating the best performance in our entire coverage universe in 2020, up ~500%. At this point we believe the revenue multiple fully reflects the upside potential and believe the under 10-employee segment of the user group poses a risk to churn rates as the vaccine allows for more in-person interaction moving forward which means we expect the shares to perform more in line with our coverage.

Valuation

December 2021 price target \$450, up from \$425

We use a 10-year discounted cash flow (DCF) analysis to value shares of ZM. Although Zoom currently generates free cash flow and our expectations are for continued positive generation in the coming years, the financial model is far from its maturity, and so a multiples-based valuation approach would not be appropriate, in our opinion. We assume a 26x terminal EV/FCFF multiple, reflective of the company's high cash flow growth, and a 9.5% discount rate to arrive at our price target.

The main driver of our price target increase is the significant pull-forward of revenue and cash flow generation due to the surge in remote working, which leads to big increases in our near- and long-term cash flow estimates.

Discounted cash flow analysis

	FY 2019	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E	FY 2031E	FY 2032E
FCFF	20.9	113.8	1,174.0	1,220.7	1,622.3	2,141.4	2,783.8	3,563.3	4,489.8	5,567.3	6,792.1	8,218.5	9,862.2	11,736.0
Growth	116%	445%	932%	4%	33%	32%	30%	28%	26%	24%	22%	21%	20%	19%
Fully diluted shares	272.8	292.8	306.0	318.7	331.7	338.3	345.1	352.0	359.0	366.2	373.5	381.0	388.6	396.4
Y/Y change						2%	2%	2%	2%	2%	2%	2%	2%	2%
Period					1	2	3	4	5	6	7	8	9	10
Present value of FCFF					1,481.7	1,786.4	2,121.1	2,479.8	2,853.8	3,232.1	3,601.5	3,980.2	4,362.4	4,741.5
FCFF/Share					4.9	6.3	8.1	10.1	12.5	15.2	18.2	21.6	25.4	29.6
Y/Y change						29.4%	27.5%	25.5%	23.5%	21.6%	19.6%	18.6%	17.6%	16.7%
Present Value of FCFF/Share					\$4.47	\$5.28	\$6.15	\$7.05	\$7.95	\$8.83	\$9.64	\$10.45	\$11.23	\$11.96

Source: Company reports and J.P. Morgan estimates.

Terminal multiple scenarios

Terminal multiple scenarios				
Terminal value	334.9	362.8	390.8	418.7
Last forecasted FCFF	29.6	29.6	29.6	29.6
Terminal EV/FCFF multiple	24	26	28	30
Total present value of FCFF	83.0	83.0	83.0	83.0
Terminal value	334.9	362.8	390.8	418.7
Total enterprise value	417.9	445.8	473.8	501.7
- debt				
+ CY21 excess cash	6.6	6.6	6.6	6.6
= Price per share	\$ 424.55	\$ 452.47	\$ 480.38	\$ 508.29
/ shares outstanding	318.7	318.7	318.7	318.7
Based on 2023E				
Implied EV / Sales	30.3	32.3	34.4	36.4

Source: Company reports and J.P. Morgan estimates.

Risks to Rating and Price Target

Upside risks

- User adoption continues to outperform expectations with video communication becoming the norm rather than the exception
- Zoom phone and chat become material contributors to revenue growth leading to upward revisions
- The vaccine does not lead to increased user churn

Downside risks

- High valuation stocks underperform the market with a preference for cyclical and value leading the way
- Churn across all segments ticks up as people return to in-person meetings

Zoom Video: Summary of Financials

Income Statement - Annual						Income Statement - Quarterly					
	FY19A	FY20A	FY21E	FY22E	FY23E		1Q21A	2Q21A	3Q21A	4Q21E	
Revenue	331	623	2,577	3,527	4,393	Revenue	328A	664A	777A	808	
COGS	(61)	(115)	(835)	(1,185)	(1,360)	COGS	(104)A	(192)A	(259)A	(281)	
Gross profit	270	507	1,741	2,343	3,033	Gross profit	224A	471A	518A	527	
SG&A	(230)	(427)	(1,035)	(1,539)	(1,843)	SG&A	(175)A	(240)A	(284)A	(337)	
Adj. EBITDA	36	29	570	570	801	Adj. EBITDA	29A	195A	200A	146	
D&A	(30)	(16)	(26)	(35)	(52)	D&A	(5)A	(6)A	(8)A	(6)	
Adj. EBIT	15	89	867	923	1,188	Adj. EBIT	55A	277A	291A	245	
Net Interest	0	11	12	41	39	Net Interest	6A	2A	2A	2	
Adj. PBT	17	102	879	964	1,227	Adj. PBT	60A	279A	293A	247	
Tax	(1)	(1)	(12)	(58)	(258)	Tax	(2)A	(4)A	5A	(10)	
Minority Interest	-	-	-	-	-	Minority Interest	-	-	-	-	
Adj. Net Income	17	101	868	906	969	Adj. Net Income	58A	275A	297A	237	
Reported EPS	0.03	0.09	1.82	1.65	1.62	Reported EPS	0.09A	0.63A	0.66A	0.43	
Adj. EPS	0.06	0.35	2.90	2.89	2.97	Adj. EPS	0.20A	0.92A	0.99A	0.78	
DPS	-	-	-	-	-	DPS	-	-	-	-	
Payout ratio	-	-	-	-	-	Payout ratio	-	-	-	-	
Shares outstanding	260	292	299	314	327	Shares outstanding	295A	297A	299A	306	
Balance Sheet & Cash Flow Statement						Ratio Analysis					
	FY19A	FY20A	FY21E	FY22E	FY23E		FY19A	FY20A	FY21E	FY22E	FY23E
Cash and cash equivalents	64	283	891	2,112	3,734	Gross margin	81.5%	81.5%	67.6%	66.4%	69.0%
Accounts receivable	64	120	372	467	610	EBITDA margin	10.9%	4.7%	22.1%	16.2%	18.2%
Inventories	-	-	-	-	-	EBIT margin	4.6%	14.2%	33.7%	26.2%	27.0%
Other current assets	149	692	1,631	1,684	1,703	Net profit margin	5.0%	16.3%	33.7%	25.7%	22.1%
Current assets	277	1,096	2,894	4,263	6,046	ROE	11.6%	20.5%	67.5%	41.4%	31.0%
PP&E	37	57	140	226	306	ROA	5.8%	12.3%	37.4%	22.2%	16.9%
LT investments	-	-	-	-	-	ROCE	9.6%	17.5%	66.6%	39.6%	30.0%
Other non current assets	41	137	318	318	318	SG&A/Sales	69.7%	68.7%	40.2%	43.6%	42.0%
Total assets	355	1,290	3,352	4,807	6,671	Net debt/equity	NM	NM	NM	NM	NM
Short term borrowings	0	0	0	0	0	P/E (x)	6,492.9	1,187.8	142.1	142.8	138.9
Payables	5	2	16	28	24	P/BV (x)	228.7	115.4	67.4	46.7	35.8
Other short term liabilities	147	332	1,450	1,940	2,772	EV/EBITDA (x)	1,733.2	2,132.5	108.0	105.9	73.3
Current liabilities	152	334	1,466	1,968	2,796	Dividend Yield	-	-	-	-	-
Long-term debt	15	0	0	0	0	Sales/Assets (x)	1.2	0.8	1.1	0.9	0.8
Other long term liabilities	35	122	149	196	262	Interest cover (x)	-	NM	NM	NM	NM
Total liabilities	202	456	1,615	2,164	3,058	Operating leverage	148.0%	550.8%	279.8%	17.4%	117.0%
Shareholders' equity	152	834	1,737	2,643	3,613	Revenue y/y Growth	118.2%	88.4%	313.8%	36.9%	24.6%
Minority interests	-	-	-	-	-	EBITDA y/y Growth	(1858.3%)	(19.0%)	1854.4%	0.0%	40.5%
Total liabilities & equity	355	1,290	3,352	4,807	6,671	Tax rate	4.4%	1.0%	1.3%	6.0%	21.0%
BVPS	1.80	3.57	6.11	8.82	11.52	Adj. Net Income y/y Growth	154.0%	512.9%	756.9%	4.4%	7.0%
y/y Growth	5.9%	98.2%	71.2%	44.3%	30.7%	EPS y/y Growth	(23.8%)	446.6%	735.6%	(0.4%)	2.8%
Net debt/(cash)	(49)	(283)	(891)	(2,112)	(3,734)	DPS y/y Growth	-	-	-	-	-
Cash flow from operating activities	51	152	1,271	1,341	1,754						
o/w Depreciation & amortization	30	16	26	35	52						
o/w Changes in working capital	-	-	-	-	-						
Cash flow from investing activities	(40)	(495)	(682)	(121)	(132)						
o/w Capital expenditure	(30)	(38)	(97)	(121)	(132)						
as % of sales	9.2%	6.1%	3.8%	3.4%	3.0%						
Cash flow from financing activities	18	616	296	0	0						
o/w Dividends paid	-	-	-	-	-						
o/w Net debt issued/(repaid)	-	-	-	-	-						
Net change in cash	29	273	885	1,221	1,622						
Adj. Free cash flow to firm	21	114	1,174	1,221	1,622						
y/y Growth	115.5%	445.0%	931.5%	4.0%	32.9%						

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Jan. o/w - out of which

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