MICROSOFT NDQ-MSFT

RECENT PRICE **165.46** | P/E RATIO **29.3** (Trailing: 33.2 / Median: 16.0) | RELATIVE P/E RATIO **1.58** | DIV'D YLD **1.2%** | **VALUE LINE**

TIMELINESS 1 Raised 8/16/19
SAFETY 1 Raised 5/26/06
TECHNICAL 3 Raised 1/3/20
BETA 1.10 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$129-$222	$176 (5%)

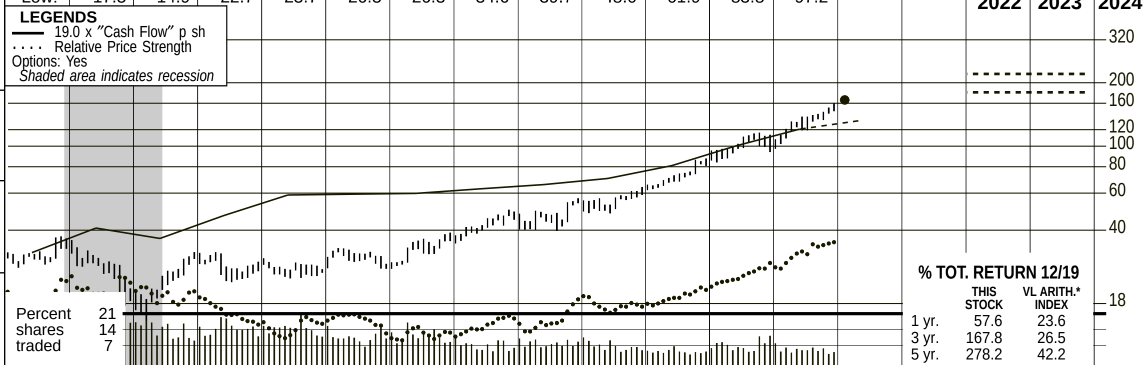
2022-24 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	205	(+25%)	7%
Low	170	(+5%)	2%

Institutional Decisions

	1Q2019	2Q2019	3Q2019
to Buy	1449	1307	1347
to Sell	1465	1579	1548
Hld's(000)	5539998	5600565	5567498

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High:	36.0	31.5	31.6	29.5	32.9	39.0	50.0	56.8	64.1	87.5	116.2	159.5
Low:	17.5	14.9	22.7	23.7	26.3	26.3	34.6	39.7	48.0	61.9	83.8	97.2



Target Price Range

2022	2023	2024

% TOT. RETURN 12/19

	THIS STOCK	VL ARITH.* INDEX
1 yr.	57.6	23.6
3 yr.	167.8	26.5
5 yr.	278.2	42.2

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	© VALUE LINE PUB. LLC	22-24
3.00	3.39	3.72	4.40	5.45	6.60	6.56	7.21	8.35	8.80	9.34	10.54	11.66	11.78	12.54	14.38	16.47	18.80	Revenues per sh A	26.50
1.12	1.15	1.27	1.34	1.65	2.16	1.92	2.47	3.09	3.12	3.15	3.31	3.47	3.71	4.26	5.28	6.35	7.40	"Cash Flow" per sh	10.50
.97	1.04	1.16	1.20	1.42	1.87	1.62	2.10	2.69	2.72	2.65	2.63	2.65	2.79	3.08	3.88	4.75	5.65	Earnings per sh B	8.00
.08	.16	.32	.34	.40	.44	.52	.52	.64	.80	.89	1.12	1.24	1.44	1.56	1.68	1.80	1.99	Div'ds Decl'd per sh E■	3.00
.08	.10	.08	.16	.24	.35	.35	.23	.28	.28	.51	.67	.74	1.07	1.05	1.52	1.82	2.00	Cap'l Spending per sh	2.00
5.69	6.89	4.49	3.99	3.32	3.97	4.44	5.33	6.82	7.92	9.48	10.90	9.98	9.22	9.39	10.77	13.39	15.85	Book Value per sh D	22.25
10718	10862	10710	10062	9380.0	9151.0	8908.0	8668.0	8376.0	8381.0	8328.0	8239.0	8027.0	7808.0	7708.0	7677.0	7643.0	7575.0	Common Shs Outst'g C	7425.0
26.1	25.8	22.9	21.7	19.9	16.3	13.4	13.1	9.6	10.4	11.2	14.0	17.0	18.1	20.2	22.1	23.7		Avg Ann'l P/E Ratio	25.0
1.49	1.36	1.22	1.17	1.06	.98	.89	.83	.60	.66	.63	.74	.86	.95	1.02	1.19	1.34		Relative P/E Ratio	1.40
.3%	.6%	1.2%	1.3%	1.4%	1.4%	2.4%	1.9%	2.5%	2.8%	3.0%	3.0%	2.7%	2.9%	2.5%	2.0%	1.6%		Avg Ann'l Div'd Yield	1.5%
						58437	62484	69943	73723	77811	86833	93580	91964	96657	110360	125843	142500	Revenues ($mill) A	197500
						39.2%	42.9%	42.8%	41.9%	40.3%	38.0%	36.5%	37.6%	39.4%	41.1%	43.4%	45.0%	Operating Margin	45.5%
						2562.0	2673.0	2766.0	2967.0	3755.0	5212.0	5957.0	6622.0	8778.0	10261	11682	12500	Depreciation ($mill)	17000
						14569	18760	23150	23171	22453	22074	21885	22329	24084	30267	36830	43460	Net Profit ($mill)	61000
						26.5%	25.0%	17.5%	18.6%	19.6%	20.7%	23.3%	18.8%	20.2%	17.0%	15.7%	17.0%	Income Tax Rate	17.0%
						24.9%	30.0%	33.1%	31.4%	28.9%	25.4%	23.4%	24.3%	24.9%	27.4%	29.3%	30.5%	Net Profit Margin	30.9%
						22246	29529	46144	52396	64049	68621	74854	80303	95324	111174	106132	100000	Working Cap'l ($mill)	125000
						3746.0	4939.0	11921	10713	12601	20645	27808	40783	76073	72242	66662	68000	Long-Term Debt ($mill)	80000
						39558	46175	57083	66363	78944	89784	80083	71997	72394	82718	102330	120000	Shr. Equity ($mill) D	165000
						33.6%	36.8%	33.8%	30.3%	24.7%	20.3%	20.6%	20.3%	17.0%	20.4%	22.6%	23.5%	Return on Total Cap'l	25.5%
						36.8%	40.6%	40.6%	34.9%	28.4%	24.6%	27.3%	31.0%	33.3%	36.6%	36.0%	36.0%	Return on Shr. Equity	37.0%
						25.5%	30.7%	31.5%	25.3%	19.0%	14.7%	15.0%	15.7%	16.9%	21.2%	22.5%	23.5%	Retained to Com Eq	23.5%
						31%	24%	22%	28%	33%	40%	45%	49%	49%	42%	37%	35%	All Div'ds to Net Prof	37%

CAPITAL STRUCTURE as of 12/31/19
Total Debt $69608 mill. **Due in 5 Yrs** $19720 mill.
LT Debt $63361 mill. **LT Interest** $2175 mill.
(37% of Cap'l)

Leases, Uncapitalized $1678 mill.

No Defined Benefit Pension Plan
Pfd Stock None

Common Stock 7,606,047,010 shs.
as of 1/24/20
MARKET CAP: $1263 billion (Large Cap)

CURRENT POSITION ($MILL.)	2018	2019	12/31/19
Cash Assets	133768	133819	134253
Receivables	26481	29524	23525
Inventory (Avg Cst)	2662	2063	1823
Other	6751	10146	7473
Current Assets	169662	175552	167074
Accts Payable	8617	9382	8811
Debt Due	3998	5516	6247
Unearned Revenue	28905	32676	27343
Other	16968	21846	17239
Current Liab.	58488	69420	59640

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '22-'24
Revenues	9.0%	8.5%	12.0%
"Cash Flow"	10.5%	10.5%	13.0%
Earnings	9.0%	8.0%	14.0%
Dividends	14.0%	12.5%	11.5%
Book Value	11.0%	3.5%	12.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Sep.30	Dec.31	Mar.31	Jun.30	Full Fiscal Year
2016	21660	25506	22156	22642	91964
2017	22334	26066	23557	24700	96657
2018	24538	28918	26819	30085	110360
2019	29084	32471	30571	33717	125843
2020	33055	36906	34600	37939	142500

Fiscal Year Ends	EARNINGS PER SHARE AB Sep.30	Dec.31	Mar.31	Jun.30	Full Fiscal Year
2016	.70	.77	.63	.69	2.79
2017	.76	.83	.73	.75	3.08
2018	.84	.96	.95	1.13	3.88
2019	1.14	1.10	1.14	1.37	4.75
2020	1.38	1.51	1.32	1.44	5.65

Cal-endar	QUARTERLY DIVIDENDS PAID E■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.36	.36	.39	.39	1.50
2017	.39	.39	.42	.42	1.62
2018	.42	.42	.42	.46	1.72
2019	.46	.46	.46	.51	1.89
2020					

BUSINESS: Microsoft Corp. is the largest independent maker of software. It develops and sells software products for a wide range of computing environments in consumer and enterprise markets. Hardware products include the *Xbox* video game console and *Surface* laptops. Revenue sources in fiscal 2019: Productivity & Business Processes, 33%; Intelligent Cloud, 31%; More Personal Computing, 36%. R&D, 13.4% of 2019 revenues. Employed 144,000 at 6/30/19. Stock owners: William H. Gates, 1.34%;, other offs. & dirs., 0.05%; The Vanguard Group, 7.8%; BlackRock, Inc., 6.6%; (10/19 proxy). Chrmn: John W. Thompson. CEO: Satya Nadella. Inc.: Washington. Addr.: One Microsoft Way, Redmond, Washington 98052-6399. Tel.: 425-882-8080. Internet: www.microsoft.com.

Microsoft's revenue and earnings should continue moving forward nicely. The company's published key performance metrics are generally trending in the positive direction, particularly in its Commercial business where commercial bookings, cloud revenue, and cloud gross margin are each advancing nicely. Meanwhile, our sense is *Office 365* will remain an important factor in Microsoft's fortunes, both in the commercial and consumer arenas. We look for seat growth in commercial and subscriber growth in consumer to remain favorable. In addition, the company's collaborative offering, *Teams*, which appears to be well received given the rapid adoption, should work to expand *Office 365* in commercial markets.

Server products and cloud services are progressing at a good pace. Microsoft *Azure* is continuing to advance at a high rate, and the platform's gross margin is expanding with increasing scale and the offering of higher-valued services. Traditional server products should remain a sweet spot, as well, as large corporations balance their needs with respect to the private/public clouds. That said, the cloud platform business is very competitive, with Amazon Web Services (AWS) and Google Cloud staking claims. At this juncture, AWS seems to have the lead, but *Azure* is getting a lot of attention, particularly given Microsoft's long-term relationships with its commercial customers. We would also not discount Google's efforts with its cloud platform, which seems to be getting better traction in the market.

These high-quality shares have been stellar performers. We envision average annual revenue growth of 11%-12% over the next few years, with earnings (and net income) progressing at a 12%-13% rate. Dividends may advance at a somewhat faster pace, say 14%. In this regard, the dividend payout should range between 35% and 37%, as shares outstanding continue to trend lower. That said, at a price/earnings ratio of nearly 30, there is the question whether the stock's current valuation is on the rich side, despite the company's prospects. Indeed, one may posit that earnings may need some time to catch up to the stock's current price, making new commitments less interesting.

Charles Clark *February 7, 2020*

(A) Fiscal year ends June 30th.
(B) Diluted earnings. Quarters may not add to total. Excl. nonrec. items: '03, d5¢; '04, d29¢; '05, d4¢; '12, d72¢; '13, d7¢; '15, d$1.17; '16, d70¢; '17, d37¢; '18, d$1.75; '19, d33¢. Next earnings report late April.
(C) In mill.
(D) Includes intangibles. In 2019: $42.0 billion, $5.50 a share.
(E) Dividends historically paid in March, June, Sept., and Dec. ■Dividend reinvestment plan available. Special dividend of $3.00 a share paid December 2, 2004.

Company's Financial Strength	A++
Stock's Price Stability	80
Price Growth Persistence	90
Earnings Predictability	85