

Intel Corp INTC (XNAS)

Morningstar Rating ★★★★ 20 Aug 2015	Last Price 27.53 USD 20 Aug 2015	Fair Value Estimate 31.00 USD	Price/Fair Value 0.89	Dividend Yield % 3.43 20 Aug 2015	Market Cap (Bil) 130.88 20 Aug 2015	Industry Semiconductors	Stewardship Standard
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Morningstar Pillars	Analyst	Quantitative
Economic Moat	Wide	Wide
Valuation	★★★★	Undervalued
Uncertainty	Medium	Medium
Financial Health	—	Strong

Source: Morningstar Equity Research

Quantitative Valuation

INTC



Undervalued	Fairly Valued	Overvalued
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	Current	5-Yr Avg	Sector	Country
Price/Quant Fair Value	0.85	0.92	0.87	0.89
Price/Earnings	11.7	13.1	20.5	20.4
Forward P/E	11.4	—	15.1	15.0
Price/Cash Flow	7.1	7.1	13.4	11.9
Price/Free Cash Flow	12.6	13.7	19.2	18.7
Dividend Yield %	3.43	3.28	1.91	2.24

Source: Morningstar

Bulls Say

- ▶ Intel is the largest semiconductor company in the world. The firm has sustained its position at the forefront of technology by investing heavily in R&D, and this trend should continue.
- ▶ The firm holds a roughly four fifths share in the microprocessor market.
- ▶ Intel has an immense budget for capital expenditures, allowing it to maintain the most cutting-edge semiconductor manufacturing technologies in the world.

Bears Say

- ▶ PC industry growth has slowed from the heady rates of the 1990s. As a result, Intel's opportunities to expand may be limited.
- ▶ Intel must successfully maintain its technology lead in the processor market. Any missteps by the firm could trigger market share loss to AMD.
- ▶ AMD's purchase of ATI in 2006 has given Intel's smaller rival the know-how and technology to offer platform solutions as well.

Intel's server processor business will be a key growth driver over time, but keep an eye on mobile.

Abhinav Davuluri, Analyst, 21 August 2015

Investment Thesis

Intel is the pre-eminent leader in the integrated design and manufacturing of microprocessors found in traditional personal computers. With the rise in interconnectivity of devices ranging from PCs to smartphones and tablets, Intel strives to provide the most powerful and energy-efficient silicon solution to any product "smart and connected." Additionally, the data centers used to facilitate the information stored, analyzed, and accessed by various front-end devices are largely run with Intel server chips.

Intel differentiates itself first and foremost via the continued execution of Moore's law, which predicts transistor density on integrated circuits will double about every two years, meaning subsequent chips have substantial power, cost, and size improvements. This scaling advantage is perpetuated through a higher than peer average R&D and capital expenditure budget that allows Intel to control the entire design and manufacturing process in an industry where the majority of competition focuses on only one phase.

In recent years, Intel has seen a shifting competitive landscape resulting from the proliferation of mobile devices, at the expense of the mature PC market, with ARM replacing Advanced Micro Devices as chief rival. Consequently, Intel has been forced to shift its characteristic approach of offering high-performance, power-hungry processors in lieu of variants similar to ARM's low-power consuming designs that inhabit most smartphones and tablets. Intel's latest Atom processor, running on its Silvermont architecture 22-nanometer platform, has bridged that gap to become comparable in power efficiency relative to ARM offerings. We believe this progress will be rewarded with more design wins for the Atom over the next year, which should mitigate ARM's current stronghold in the space.

As cloud computing continues to garner significant investment, Intel's server processor business will be an indirect beneficiary. Tablets are becoming the preferred device to perform computing tasks and access data via cloud infrastructures that require considerable server buildouts, which will provide tailwinds for Intel's lucrative

server processor business.

Abhinav Davuluri, Analyst, 28 July 2015

Analyst Note

IM Flash (the NAND joint venture between Micron and Intel) announced on July 28 a new development in memory technology called 3D XPoint (cross-point), which is projected to be up to 1,000 times faster than current NAND flash technologies and 10 times denser than today's DRAM products. As a result, shares of Micron rose about 9%, closing in on \$20 per share. Although shares are in 4-star territory, we reiterate our very high uncertainty relative to the volatile memory space in addition to our view that Micron will not begin materially recovering until early 2016.

3D XPoint is slated to be the latest class of memory since the 1989 introduction of NAND flash memory. While production has already begun in the joint venture's dedicated fabrication plant in Lehi, Utah, commercial shipments aren't expected until 2016. Previously, it was announced that the latest 3D NAND would also ramp in 2016. We see the potential for cannibalization in certain memory markets, primarily in functions that require a massive in-memory database, fast system recovery, low latency, and high endurance. High-performance computing is the primary target application, including high-fidelity pattern recognition (facial, speech, biometrics, etc.) but there is also the potential for more advanced gaming and scientific uses that need to access immense amounts of data at high speeds.

With respect to the technology itself, IM Flash representatives described the cost for 3D XPoint to be somewhere between that of NAND and DRAM. 3D XPoint uses a crosspoint structure that allows denser packing, in addition to newer materials with unique properties that are able to store memory in a fundamentally different way than current memory products. The proposed specifications look impressive at face value, but we are reluctant to significantly recognize additional growth on just this announcement.

Economic Moat

Abhinav Davuluri, Analyst, 21 August 2015

We believe Intel's wide moat emanates from its superior

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Semiconductors

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cost advantages realized in the design and manufacturing of its cutting-edge microprocessors. This in-house capability supports a streamlined supply chain, shorter time to market, and the ability to scale promising products more rapidly. Semiconductor manufacturing is inherently capital-intensive thus requires methodical planning and execution to keep the cost per chip at a reasonable level. Intel accomplishes this through investments in the latest process equipment technologies. However, in order for the economics of the business to be pragmatic, there needs to be strong demand via differentiated products that can be sold at high margins, which Intel achieves with its massive research and development budget that averaged \$10.7 billion annually from 2012 to 2014.

Following along the pathway prescribed by Moore's law, coined by one of Intel's chief founders Gordon Moore, the number of transistors per unit area doubles approximately every two years. As process technologies develop, the cost per unit area increases while the unit area per transistor decreases. Thus, by netting these two trends, Intel is able to decrease the cost per transistor with each successive technology node. This fundamental realization is at the core of Intel's one- to two-year lead over the rest of the chip industry. We believe Intel's moat is encapsulated in its "tick-tock" strategy, in which the firm advances its technology node every two years (the tick), while it launches a new architecture for its microprocessors during the years in between (the tock).

Server processors are manufactured with the same technology and many identical process steps as chips designated for PCs. Therefore, we believe that as the product mix offered by Intel shifts from the PC to servers, there will be minimal requirement to overhaul any portion of wafer fabrication equipment. Generally, server processors favor performance over power efficiency, which we believe is Intel's forte and justifies its strong presence in the market. However, different classes of data centers have separate needs, and the potential for ARM-based server chips making a push into microservers is a plausible scenario. We see the lessons learned by Intel in mobile carrying over across other domains, as its Atom chips for microservers are now much more energy efficient than the Haswell and Broadwell variations.

While previous mobile processor efforts have failed to make a meaningful impact, Intel has yet to fully exert its manufacturing prowess on a market laden with ARM

process designs. We believe that Intel's Silvermont Atom chips, manufactured on its 22-nanometer process technology, will help increase its presence in the mobile device market. Looking further, any significant design wins would set up the 14-nanometer Airmont Atom chip quite nicely for next year. In addition, Intel has been building its wireless connectivity portfolio with multiple acquisitions to give it in-house Wi-Fi, Bluetooth, GPS, and near field communication technologies. The logic behind this strategy is to combine these components on an LTE modem chipset with an application processor to increase its footprint in mobile devices. These investments have the potential to make an impact not only in mobile, but also in adjacent products ranging from tablets to the Internet of Things. Although these developments don't move the needle for us just yet, we believe Intel is making a step in the right direction to establishing its presence in the mobile space.

Furthermore, the x86 ecosystem (in which Intel's core products coexist), is representative in the majority of PC and server chips. Network effects have played a big role in its dominance, as proprietary computer software has been written specifically for the x86 architecture, leading to significant switching costs to shift architectures. The growth in the PC market allowed Intel to invest heavily in R&D to fuel continued progress in the x86 architecture. However, with the PC market stagnating and ARM architecture exhibiting a commanding lead in mobile devices, x86 has continued to flourish in server processors, as x86-based server revenue accounted for 82% of the total server market in 2014, according to Gartner. ARM has announced plans to enter the server market by way of microservers, a class of server tailored for energy efficiency, which results in a smaller footprint and lower total cost of ownership relative to traditional servers. Intel's Atom processors are incumbent in today's microservers, and we believe the x86 ecosystem coupled with the newer versions of the Atom developed with 14-nanometer technology will thwart offerings by ARM.

Valuation

Abhinav Davuluri, Analyst, 09 April 2015

Our fair value estimate is \$31 per share, up from \$29 as we take into account slightly higher revenue projections for the data center group. As the PC market continues to decline, we see server processors supplanting sales in PC processors, ultimately leading to overall revenue growth in the mid-single-digits in the near-term. As a relatively

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smaller growth driver, we believe mobile chip sales will be approximately 5% of revenue by 2018, after representing a nominal percentage in 2014.

The PC market experienced a temporary revival in 2014 with a 6% revenue increase stemming from an enterprise refresh. In the near-term, we see Intel's PC-derived revenue declining in the low-single-digits. However, the proliferation of cloud computing and big data trends will provide tailwinds for the data center group, which we see growing by about 13% annually until 2019. By then, we believe the PC and data center groups will converge in percentage of total revenue, with both accounting for about 40% each.

Intel's lead in process technology benefits from sizable R&D expenses (20% of revenue on average) and we believe this rate must continue to sustain its advantage. Gross margins in 2014, at almost 64%, benefited from higher desktop and notebook unit sales as well as higher average selling prices in the data center group. Going forward, we believe lower ASPs for PC chips will be partially offset by increasing unit sales of server chips, which as a segment have gross margins in excess of 70%. As Intel shifts its focus toward server and mobile chips, utilization of its fabrication plants will become more efficient, which will alleviate margin depression from PC-related headwinds. Operating margins were relatively high in 2014 (28%) mainly attributed to strong PC and server chip sales, but we see margins normalizing to 25% in the long run.

Intel's dominant manufacturing operations require massive capital outlays for expensive equipment, fabrication plant construction, and the maintenance of a clean room environment. Our estimates utilize historical patterns and the expected progression of Moore's law to attain an average capital expenditure of \$10.75 billion in the near term. Approximately 70% of this outlay is for maintaining existing capacity, with the rest split between process development and wafer size transition from 300 millimeters to 450 in order to have more chips on a sole substrate to mitigate cost challenges with 10-nanometer and beyond.

Risk

Abhinav Davuluri, Analyst, 21 August 2015

The cyclical industry in which Intel operates will cause its profitability to fluctuate regardless of how successful it

is in tailoring its processors to new markets. Our uncertainty rating is medium and reflects the underlying risk faced by Intel regarding the proliferation of mobile devices at the expense of personal computers, the expanding role of server processors in its product mix, and the advancement of technology nodes to 10-nanometer, 7-nanometer, and so on. In the PC space, any misstep by Intel will lead to AMD capturing market share. While it is more likely that ARM-based processors could begin to steal server market share from Intel, it is also theoretically possible ARM processing power catches up to Intel core processors. Any prolonged delay in process technology by Intel would allow other semiconductor manufacturers to quell Intel's lead and offer processors at the same node as Intel or even surpass it.

Management

Abhinav Davuluri, Analyst, 16 January 2015

We view Intel's stewardship of shareholder capital as standard. Brian Krzanich took over as CEO in May 2013 from Paul Otellini, who retired. Krzanich was previously COO and has been with the firm since 1982. Before becoming COO in January 2012, he held leadership positions in Intel's manufacturing organization. Stacy Smith became CFO in 2007. Smith joined Intel in 1988 and has held various positions at the company, including finance, information technology, and sales and marketing roles. Former CFO Andy Bryant remains at Intel and is now chairman of the board. We consider the firm to have a deep management bench.

Management has made the right moves to allow Intel to maintain its dominant position in computer processors in recent years, but the success of the firm's recent forays into new markets is still up for debate. Intel has been making a concerted effort to break into smartphone and tablet processors, which has traditionally been the stronghold of ARM, with its Atom chips, and even paid \$1.4 billion to acquire Infineon's wireless connectivity chip business in 2011 to support the endeavor. Although Intel has seen limited success so far, there are signs that it is starting to make some progress on that front. In addition, Intel acquired antivirus and security software maker McAfee for \$6.7 billion (net of cash) in 2011, with the vision of adding security features to its chips and hardware, which when integrated with software will provide more effective security solutions. Although strategically sound, we think it remains to be seen whether Intel can successfully execute its vision for McAfee.

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Analyst Notes Archive

Micron and Intel Joint Venture Announce 3D XPoint Memory; Maintain Very High Uncertainty for Micron

Abhinav Davuluri, Analyst, 28 July 2015

IM Flash (the NAND joint venture between Micron and Intel) announced on July 28 a new development in memory technology called 3D XPoint (cross-point), which is projected to be up to 1,000 times faster than current NAND flash technologies and 10 times denser than today's DRAM products. As a result, shares of Micron rose about 9%, closing in on \$20 per share. Although shares are in 4-star territory, we reiterate our very high uncertainty relative to the volatile memory space in addition to our view that Micron will not begin materially recovering until early 2016.

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Intel Beats Expectations, but Updated Product Roadmap Is Real Story; Shares Fairly Valued

Abhinav Davuluri, Analyst, 16 July 2015

Shares of Intel rose in after-hours trading after the firm reported solid second-quarter results and even better guidance relative to expectations. Seasonally a rough period for personal computer sales, Intel's second quarter featured better-than-projected client computing group performance, while the data center group continued its recent streak of year-over-year growth. Management also shed light on an updated product roadmap that will have implications across the semiconductor landscape. Our fair value estimate of \$31 for this wide-moat firm is intact, as we believe the current share price accurately reflects Intel's prospects.

Second-quarter revenue was \$13.2 billion, up 3% sequentially due to strength in the data center, but down 5% from the same period in 2014 because of weaker PC sales. The client computing group, which encompasses the PC and mobile groups, had revenue of \$7.5 billion, which was surprisingly up 2% from last quarter. Of note was desktop platform average selling prices up 6% from last year due to a stronger product mix skewed to higher-end core i7 processors. The data center group had revenue of \$3.9 billion as platform volume and ASPs rose 10% and 5%, respectively. Even amid a difficult quarter, we were impressed by the 200-basis-point increase in gross margin, primarily due to lower start-up costs, higher ASPs, and fewer 14-nanometer write-offs for poorly processed wafers. We believe this shows how Intel's 14-nanometer process technology has matured to the point that we can see incremental gross margin expansion as challenges encountered during the initial ramp subside.

Intel to Acquire Altera Amid Wave of Semiconductor Consolidation

Abhinav Davuluri, Analyst, 02 June 2015

On June 1, Intel and Altera confirmed the deal for the former to purchase the latter for \$54 per share, or approximately \$16.7 billion. The agreed-upon price represents a 56% premium to where Altera traded before the initial report of a potential deal on March 27 by The Wall Street Journal. We maintain our wide and narrow moat ratings for Intel and Altera, respectively, and expect the deal to clear regulatory hurdles after being approved by both companies' boards. It is expected the acquisition will close within six to nine months while being accretive to Intel's earnings per share and free cash flow in the subsequent year.

Accounting for Altera's net cash of about \$2.4 billion, the

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purchase price is reduced to \$14.3 billion. The acquisition is to be financed with cash on hand as well as new debt. Based on Intel's current capital structure, the current low interest rate environment, and the fact that only \$2.3 billion cash and investments is domiciled in the United States, we believe Intel will finance the deal roughly evenly between cash on hand and new debt.

Relative to our discounted cash flow-based fair value estimate of \$41 per share, Altera shareholders are being well compensated, especially after reportedly rejecting the same offer a few months prior. At first glance, the premium paid by Intel, a company with \$55.9 billion in sales in 2014 (compared with \$1.9 billion for Altera during the same period), appears excessive. However, as M&A activity has heated up recently in the semiconductor industry, we believe this premium is justified amid an environment devoid of material growth. We expect to increase our \$31 fair value estimate for Intel as additional details come to light.

Extreme Jump in ASML Share Price After Major Extreme Ultraviolet Tool Order

Abhinav Davuluri, Analyst, 23 April 2015

ASM Lithography sent shockwaves through the semiconductor industry on April 22, announcing that it had signed an agreement with a major U.S. customer to provide at least 15 extreme ultra-violet lithography tools for advanced manufacturing technologies. On the heels of the announcement, ASML shares shot up 10%, as the market applauded the progress. Although the firm did not confirm a particular customer, two particular facts strongly support Intel being the aforementioned. The NXE:3350, ASML's fourth-generation EUV system, is listed at EUR 95 million (approximately \$102 million) which would make it a hefty capital outlay that only a handful of manufacturers, like Intel, could afford. Furthermore, in 2012 Intel made a \$4.1 billion investment to support research and development of ASML's EUV endeavors, giving it a sizeable vested interest in its proliferation. At this point in time, we reiterate our fair value estimate of \$82 per share, as we would like further color on the arrangement before considerably changing our valuation.

During its first-quarter call, ASML noted its EUV shipment target for 2015 was six, with Taiwan Semiconductor having previously committing to two, Intel potentially another two, and perhaps Samsung the remainder. Tools of this magnitude are generally incrementally shipped

over the course of multiple quarters, and we believe there will be conditional performance milestones that must be met by ASML for each subsequent delivery. Intel has already begun early production of 10-nanometer technology and has publicly stated EUV will not be implemented until 7-nanometer, which would likely be fully ramped by 2018 depending on development challenges. Although this announcement offers some visibility for EUV adoption which should serve as a growth driver for ASML, we feel our annual growth projection of 10% is appropriate for the current market landscape.

Satisfactory First Quarter for Intel, Capital Outlays Lower on Weak PC Demand; FVE Unchanged

Abhinav Davuluri, Analyst, 15 April 2015

Intel's first-quarter results arrived in line with its lowered guidance amid a difficult landscape for personal computers, especially in the enterprise segment. Although the firm forecasted flat revenue for the year, we were pleased with the lower capital spending budget, now at \$8.7 billion from \$10 billion previously, to better align capacity with demand. We think this bodes well for Intel going forward as it shows the ability to tactically adapt to challenging environments. Additionally, revenue from server chips exceeded our expectations and continues to be a key growth driver. At this point, we maintain our \$31 fair value estimate and wide economic moat rating.

First-quarter revenue for Intel was \$12.8 billion, down 13% sequentially and flat year-over-year. Intel's newly titled client computing group, which combines the mobile and PC groups, had revenue of \$7.4 billion, down 8% year-over-year as desktop volumes were down 16% on lower enterprise demand. Data center revenue was up 19% year-over-year, with unit volumes up 15% and average selling prices up 5% as cloud growth accelerates. Gross margin was down 4.9% sequentially to 60.5% due to higher unit costs stemming from a higher mix of 14-nanometer product, lower platform volumes, and higher factory start-up costs. Diluted EPS was \$0.41, up 8% from a year ago, thus illustrating solid growth driven by strong server demand.

Management outlined their logic behind the cut in capital expenditures and lower second quarter guidance as reacting to inventory depletion in the PC supply chain in preparation for the release of Microsoft's Windows 10 operating system and Intel's Skylake microarchitecture in the second half of 2015. The combination of lower

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expected capital investment and full year gross margin (61% versus prior guidance of 62%) leave our free cash flow estimate relatively intact despite a tough start, as we expect a stronger second half, especially in the PC segment.

PC Unit Trends Come in a Bit Better Than Expected in 1Q, but Faced Tough Year-Over-Year Comps

Peter Wahlstrom, Analyst, 10 April 2015

During the first quarter, personal computer unit sales fell 6.7% year over year, according to IDC, as shipments slipped below 69 million units for the first time in five years. The drop was widely expected, though, particularly following last year's Windows XP refresh, so we're not placing outsize emphasis on the April 9 release.

That said, our long-term outlook for PCs is unchanged, and we assume that mobile devices in general will continue to pressure PC volumes, as smartphone and tablet global penetration rates are still low relative to PCs. There were a few challenges within certain product categories this quarter (notably Windows Bing-based notebooks), and we're cognizant of extraneous macro factors such as currency fluctuations and mixed GDP data. We haven't yet seen widespread cautious commentary out of the global PC supply chain players (only in select areas), but we're keeping an eye out for potential signs of incremental weakness.

On the plus side, PC shipments in the U.S. market were relatively strong, down only 1% year over year (to 14.2 million units). Hewlett-Packard, the current market leader in the region with 28% share, was the clear winner this quarter, as its shipments jumped by nearly 400,000 to 4 million units, up 9.8% versus the prior year. Shipments at Dell and Toshiba dropped an estimated 4% and 21%, respectively, while others (19% of the U.S. market) fell 9%.

Intel Speculated to be in Talks to Purchase Altera; Maintaining Our Fair Value Estimate, for Now

Peter Wahlstrom, Analyst, 29 March 2015

Media reports circulating late Friday suggested that Intel is in talks on a potential acquisition of Altera. Investors drove Altera's shares 28% higher on this news. While no terms or time frame were released, and the potential remains that a deal won't materialize, we believe an Intel-Altera combination would provide benefits mainly in Intel's data center segment. The Natural Resources

Defense Council estimated that, in 2013, nearly three percent of all power in the United States was consumed by data centers. As a result, we see Intel's server customers looking to reduce the total cost of ownership by reducing power consumption. Programmable logic devices, such as those offered by Altera, can be integrated with server chips, not only to allow developers to reconfigure the chip's functionality, but also reduce power consumption by running applications more optimally. Due to the prior experience working together, we think there are synergies that can be unlocked with an acquisition. For now, we maintain our fair value estimates, economic moat, and moat trend ratings for both Intel and Altera.

As customers seek more customized solutions in server chips, working with a PLD designer is the next logical step. Intel has already begun the collaboration, but may find a complete acquisition as making more strategic sense, since it would be able to incorporate Altera's research and development with its own efforts. Intel's last major acquisition, McAfee in 2011, was an all-cash deal, and at the end of the fourth quarter, Intel reported \$14.1 billion in cash, short-term investments, and trading assets. However, with only \$2.3 billion cash and investments domiciled in the U.S., it is likely Intel would take on additional debt.

Intel Tempers 1Q Guidance Amid Weaker PC Demand, Lower Inventory Levels, and Currency Headwinds

Peter Wahlstrom, Analyst, 12 March 2015

Intel on March 12 lowered its guidance for first-quarter revenue primarily as a result of weaker-than-expected demand across the embattled PC space. The company cited a subsequent reduction in inventory throughout the PC supply chain as an additional reason, which we believe is partially a consequence of holiday-associated production limitations in Asia, meaning that solid fourth-quarter 2014 results may have come at the expense of first-quarter 2015 performance. This would have been contemplated in the initial revenue guidance range that management set in January, though. The other segments of the company, including the data center group, which has been the key growth driver, are performing as expected. Furthermore, currency headwinds mainly attributed to Europe (with the euro hitting a 12-year low versus the U.S. dollar) surely factor into the guidance revision, as a weaker euro provides a considerable hindrance to sales in the region. At this point, a quarterly

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warning does not materially affect our fair value estimate or wide economic moat rating, but we suggest investors seek a more enticing entry point.

Revenue was guided downward to a midpoint of \$12.8 billion, which is a sizable revision (down 6%) relative to an initial guidance of \$13.7 billion. Our internal model had taken into account a normalization in the revenue derived from the PC group, albeit not to the extent indicated by the lower guidance. Specifically, the refresh cycle for small and midsize businesses upgrading Windows XP systems (a key driver for PC group outperformance in 2014) is diminishing. With respect to profit, Intel maintained gross margin of 60% plus or minus a few hundred basis points justified by the fact that lower volumes are offset by higher average selling prices.

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Quantitative Fair Value Estimate
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Sector
Technology

Industry
Semiconductors

Country of Domicile
USA United States

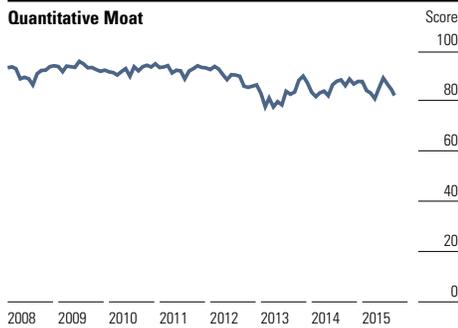
Intel Corporation is a semiconductor chip maker. It develops integrated digital technology products like integrated circuits, for industries such as computing and communications.

Quantitative Scores		Scores		
		All	Rel Sector	Rel Country
Quantitative Moat	Wide	100	100	100
Valuation	Undervalued	54	56	63
Quantitative Uncertainty	Medium	99	100	98
Financial Health	Strong	88	78	88



Valuation	Current	5-Yr Avg	Sector Median	Country Median
Price/Quant Fair Value	0.85	0.92	0.87	0.89
Price/Earnings	11.7	13.1	20.5	20.4
Forward P/E	11.4	—	15.1	15.0
Price/Cash Flow	7.1	7.1	13.4	11.9
Price/Free Cash Flow	12.6	13.7	19.2	18.7
Dividend Yield %	3.43	3.28	1.91	2.24
Price/Book	2.3	2.5	2.0	2.4
Price/Sales	2.5	2.6	1.4	1.8

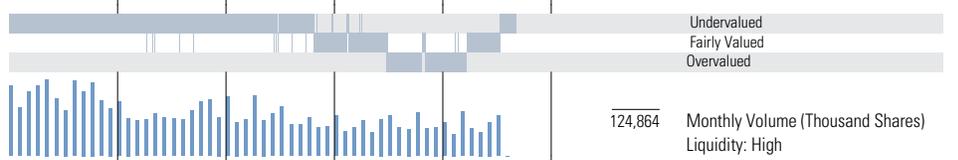
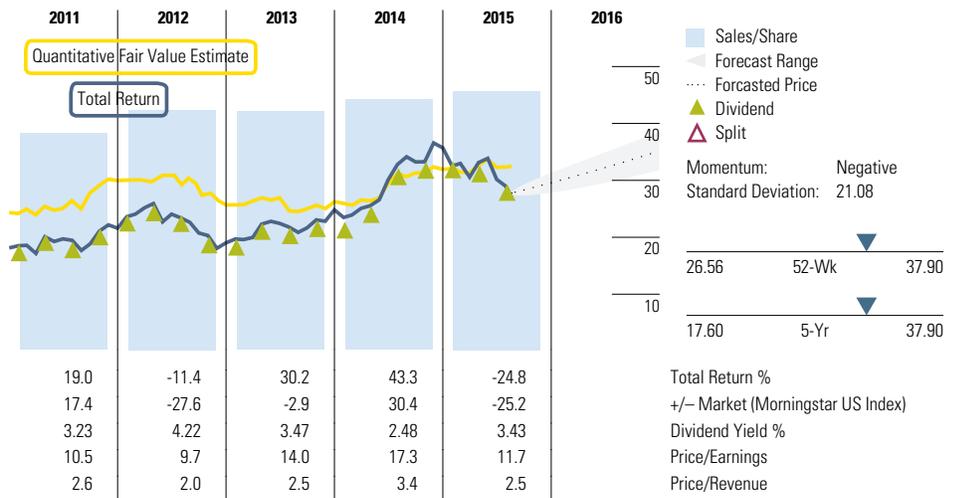
Profitability	Current	5-Yr Avg	Sector Median	Country Median
Return on Equity %	20.0	22.6	11.6	11.9
Return on Assets %	12.8	15.3	6.1	4.8
Revenue/Employee (K)	517.8	517.9	358.3	304.6



Financial Health	Current	5-Yr Avg	Sector Median	Country Median
Distance to Default	0.8	0.8	0.6	0.6
Solvency Score	—	—	462.2	566.5
Assets/Equity	1.6	1.5	1.6	1.7
Long-Term Debt/Equity	0.2	0.2	0.1	0.3

Growth Per Share	1-Year	3-Year	5-Year	10-Year
Revenue %	6.0	1.1	9.7	5.0
Operating Income %	24.9	-4.2	21.9	4.2
Earnings %	22.6	-1.1	24.5	7.2
Dividends %	0.0	4.8	9.9	18.9
Book Value %	0.4	9.3	9.3	6.7
Stock Total Return %	-21.7	3.9	10.3	2.7

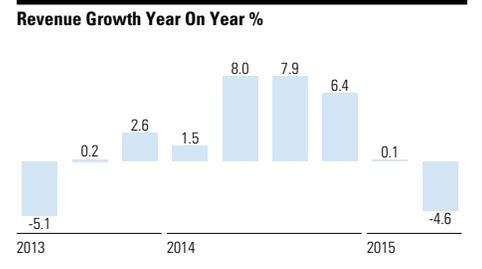
Price Versus Quantitative Fair Value



2010	2011	2012	2013	2014	TTM	Financials (Fiscal Year in Mil)
43,623	53,999	53,341	52,708	55,870	55,251	Revenue
24.2	23.8	-1.2	-1.2	6.0	-1.1	% Change
15,588	17,477	14,638	12,291	15,347	14,504	Operating Income
172.9	12.1	-16.2	-16.0	24.9	-5.5	% Change
11,464	12,942	11,005	9,620	11,704	11,676	Net Income
16,692	20,963	18,884	20,776	20,418	19,319	Operating Cash Flow
-5,207	-10,764	-11,027	-10,747	-10,197	-8,472	Capital Spending
11,485	10,199	7,857	10,029	10,221	10,847	Free Cash Flow
26.3	18.9	14.7	19.0	18.3	19.6	% Sales
2.01	2.39	2.13	1.89	2.31	2.36	EPS
161.0	18.9	-10.9	-11.3	22.2	2.1	% Change
2.02	1.83	1.52	2.16	1.91	2.19	Free Cash Flow/Share
0.63	0.78	0.87	0.90	0.90	0.93	Dividends/Share
8.97	9.22	10.36	11.16	11.81	12.14	Book Value/Share
5,000	4,944	4,967	4,748	4,754	4,754	Shares Outstanding (Mil)

2010	2011	2012	2013	2014	2015	2016	Profitability
25.2	27.1	22.7	17.6	20.5	20.0	20.0	Return on Equity %
19.7	19.3	14.2	10.9	12.7	12.8	12.8	Return on Assets %
26.3	24.0	20.6	18.3	20.9	21.1	21.1	Net Margin %
0.75	0.80	0.69	0.60	0.61	0.61	0.61	Asset Turnover
1.3	1.5	1.6	1.6	1.6	1.6	1.6	Financial Leverage
65.3	62.5	62.1	59.8	63.7	63.5	63.5	Gross Margin %
35.7	32.4	27.4	23.3	27.5	26.3	26.3	Operating Margin %
2,077	7,084	13,136	13,165	12,107	12,116	12,116	Long-Term Debt
49,430	45,911	51,203	58,256	55,865	57,695	57,695	Total Equity
2.5	2.6	2.1	1.8	1.7	1.7	1.7	Fixed Asset Turns

Quarterly Revenue & EPS					
Revenue (Mil)	Mar	Jun	Sep	Dec	Total
2015	12,781.0	13,195.0	—	—	—
2014	12,764.0	13,831.0	14,554.0	14,721.0	55,870.0
2013	12,580.0	12,811.0	13,483.0	13,834.0	52,708.0
2012	12,906.0	13,501.0	13,457.0	13,477.0	53,341.0
Earnings Per Share					
2015	0.41	0.55	—	—	—
2014	0.38	0.55	0.66	0.74	2.31
2013	0.40	0.39	0.58	0.51	1.89
2012	0.53	0.54	0.58	0.48	2.13



Morningstar Equity Research Methodology

Fundamental Analysis

At Morningstar, we believe buying shares of superior businesses at a discount and allowing them to compound over time is the surest way to create wealth in the stock market. The long-term fundamentals of businesses, such as cash flow, competition, economic cycles, and stewardship, are our primary focus. Occasionally, this approach causes our recommendations to appear out of step with the market, but willingness to be contrarian is an important source of outperformance and a benefit of Morningstar's independence. Our analysts conduct primary research to inform our views on each firm's moat, fair value and uncertainty.



Economic Moat

The economic moat concept is a cornerstone of Morningstar's investment philosophy and is used to distinguish high-quality companies with sustainable competitive advantages. An economic moat is a structural feature that allows a firm to sustain excess returns over a long period of time. Without a moat, a company's profits are more susceptible to competition. Companies with narrow moats are likely to achieve normalized excess returns beyond 10 years while wide-moat companies are likely to sustain excess returns beyond 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe lower-quality no-moat companies will see their returns gravitate to-

ward the firm's cost of capital more quickly than companies with moats will. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

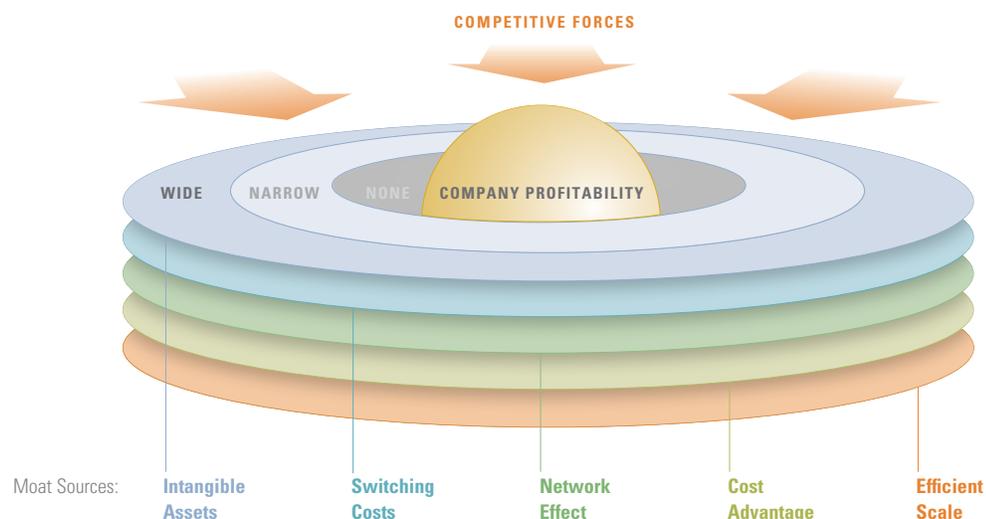
Fair Value Estimate

Our analyst-driven fair value estimate is based primarily on Morningstar's proprietary three-stage discounted cash flow model. We also use a variety of supplementary fundamental methods to triangulate a company's worth, such as sum-of-the-parts, multiples, and yields, among others. We're looking well beyond next quarter to determine the cash-generating ability of a company's assets because we believe the market price of a security will migrate toward the firm's intrinsic value over time. Economic moats are not only an important sorting mechanism for quality in our framework, but the designation also directly contributes to our estimate of a company's intrinsic value through sustained excess returns on invested capital.

Uncertainty Rating

The Morningstar Uncertainty Rating demonstrates our assessment of a firm's cash flow predictability, or valuation risk. From this rating, we determine appropriate margins of safety: The higher the uncertainty, the wider the margin of safety around our fair value estimate before our recommendations are triggered. Our uncertainty ratings are low, medium, high, very high, and extreme. With each uncertainty rating is a corresponding set of price/fair value ratios that drive our recommendations: Lower price/fair value ratios (<1.0) lead to positive recommendations, while higher price/fair value

Economic Moat



Morningstar Equity Research Methodology

ratios (>1.0) lead to negative recommendations. In very rare cases, the fair value estimate for a firm is so unpredictable that a margin of safety cannot be properly estimated. For these firms, we use a rating of extreme. Very high and extreme uncertainty companies tend to have higher risk and volatility.

Quantitatively Driven Valuations

To complement our analysts' work, we produce Quantitative Ratings for a much larger universe of companies. These ratings are generated by statistical models that are meant to divine the relationships between Morningstar's analyst-driven ratings and key financial data points. Consequently, our quantitative ratings are directly analogous to our analyst-driven ratings.

Quantitative Fair Value Estimate (QFVE): The QFVE is analogous to Morningstar's fair value estimate for stocks. It represents the per-share value of the equity of a company. The QFVE is displayed in the same currency as the company's last close price.

Valuation: The valuation is based on the ratio of a company's quantitative fair value estimate to its last close price.

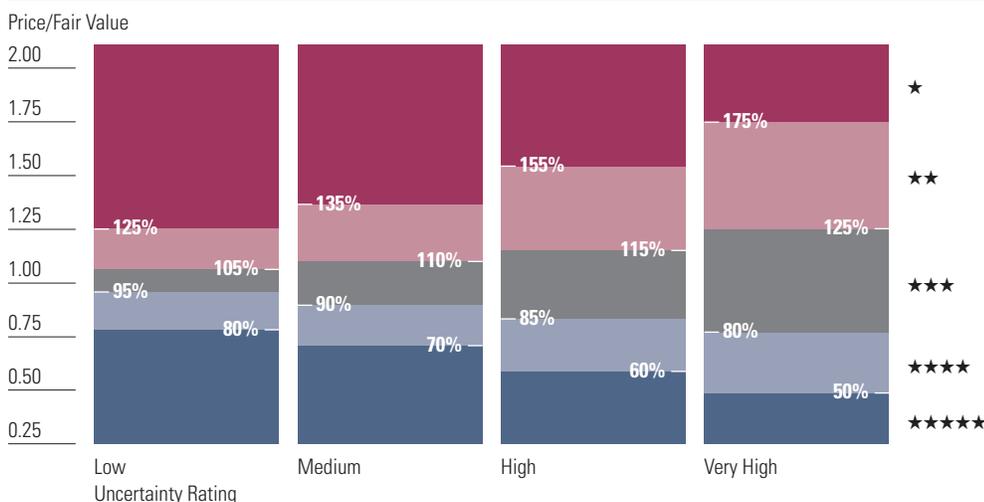
Quantitative Uncertainty: This rating describes our level of uncertainty about the accuracy of our quantitative fair value estimate. In this way it is analogous to Morningstar's fair value uncertainty ratings.

Quantitative Economic Moat: The quantitative moat rating is analogous to Morningstar's analyst-driven economic moat rating in that both are meant to describe the strength of a firm's competitive position.

Understanding Differences Between Analyst and Quantitative Valuations

If our analyst-driven ratings did not sometimes differ from our quantitative ratings, there would be little value in producing both. Differences occur because our quantitative ratings are essentially a highly sophisticated analysis of the analyst-driven ratings of comparable companies. If a company is unique and has few comparable companies, the quantitative model will have more trouble assigning correct ratings, while an analyst will have an easier time recognizing the true characteristics of the company. On the other hand, the quantitative models incorporate new data efficiently and consistently. Empirically, we find quantitative ratings and analyst-driven ratings to be equally powerful predictors of future performance. When the analyst-driven rating and the quantitative rating agree, we find the ratings to be much more predictive than when they differ. In this way, they provide an excellent second opinion for each other. When the ratings differ, it may be wise to follow the analyst's rating for a truly unique company with its own special situation, and follow the quantitative rating when a company has several reasonable comparable companies and relevant information is flowing at a rapid pace.

Uncertainty Rating



Intel Corp INTC (XNAS)

Morningstar Rating ★★★★★ 20 Aug 2015	Last Price 27.53 USD 20 Aug 2015	Fair Value Estimate 31.00 USD	Price/Fair Value 0.89	Dividend Yield % 3.43 20 Aug 2015	Market Cap (Bil) 130.88 20 Aug 2015	Industry Semiconductors	Stewardship Standard
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