

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Samsung Galaxy S 4 Poised to Be Worthy iPhone Competitor

by Brian Colello, CPA
Senior Stock Analyst
Analyst covering this company do not own its stock.

Pricing as of Mar 15, 2013.
Rating as of Mar 15, 2013.

Currency amounts expressed with "\$" are in U.S. dollars (USD) unless otherwise denoted.



Analyst Note Mar. 15, 2013

Samsung announced its long-awaited Galaxy S 4 smartphone Thursday, and at first glance, we're impressed by some of the new and innovative services associated with the device and expect it to be a worthy challenger to Apple's AAPL iPhone in the premium smartphone market. Initial reviews from a variety of tech websites have been mixed thus far, but we anticipate that if nothing else, Samsung's brand and marketing muscle will probably make the GS4 the premier Android-based phone in the market. Samsung intends to launch the phone in 155 countries, beginning at the end of April.

We have two key takeaways from the announcement. First, Samsung didn't focus much on hardware, but rather a host of innovative services that differentiate the device from not only the iPhone but also other Android handsets. This is indicative of our long-term thesis that software, not hardware, will be the more important differentiator in the smartphone market. Some examples include S Translator, S Voice Drive for navigation, Story Album for photo sharing, and Samsung Hub, which allows for syncing of content among devices. Second, the GS4 launch did not mention Google GOOG or highlight its Android operating system, and no third-party apps partners were highlighted, as they took a back seat to more gadgetlike product features built internally by Samsung.

Our initial take is that the GS4 will continue to make the premium smartphone market a two-horse race between Samsung and Apple. We certainly see the GS4 as a compelling device for new smartphone adopters and current Android users, and it may crush the efforts of HTC, Blackberry BBRY, and Nokia NOK to regain share in the premium smartphone market. Since the iPhone 5 will be more than seven months old by the time the GS4 arrives, Samsung may again do a great job of capitalizing on a window of opportunity between iPhone cycles and raising

the bar that Apple must hurdle with its new product launches. That said, we believe a slowdown in iPhone 5 sales over the next few months, as well as the competitive threat from Samsung, is already baked into Apple's stock price today, and we think the shares remain attractively valued. We maintain our fair value estimate for Apple.

Thesis Jan. 24, 2013

We believe Apple's strength lies in its experience and expertise in integrating hardware, software, services, and third-party applications into differentiated, premium devices that provide superior functionality and ease of use for the end customer. Although Apple has a robust product pipeline and ample opportunity to gain share in its various end markets, short product life cycles and intense competition will prevent the firm from resting on its laurels or carving out a wide economic moat, in our opinion.

Although Apple originated as an innovator in the PC market and rose from the ashes in the mid-2000s on the heels of its wildly popular iPods, its fortunes are likely to remain tied to the iPhone and, to a lesser extent, the iPad for quite some time. We believe the key to Apple's success has been the firm's ability to seamlessly integrate hardware and software into easy-to-use devices. Its multiyear head start in this integration gives the firm an advantage over software providers (like Google GOOG and Microsoft MSFT) and hardware providers (such as Samsung and Hewlett-Packard HPQ) alike. Although Apple didn't invent the handset, or even the smartphone, its elegant iPhone design revolutionized the industry. Handset makers caught up with their own touchscreen smartphones, and certain devices have at times outperformed Apple's hardware in terms of screen size and data speed, but we see Apple remaining at or ahead the rest of the pack on the hardware front as it continues to add innovative, differentiated features (like retina display and a devout focus on battery technology) into its devices.

We believe Apple's bigger battles are in software and services today. The early iPhone success was driven by easy portability of iTunes media (leveraged from its dominant

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

| Close Competitors | Currency (Mil) | Market Cap | TTM Sales | Oper Income | Net Income |
|-----------------------|----------------|------------|-----------|-------------|------------|
| Google, Inc. | USD | 268,445 | 50,175 | 12,760 | 10,737 |
| Microsoft Corporation | USD | 234,828 | 72,930 | 19,645 | 15,459 |
| Hewlett-Packard Co | USD | 43,118 | 118,680 | -11,347 | -12,886 |
| Dell Inc | USD | 25,003 | 56,940 | 3,012 | 2,372 |

position in iPod music players), as well as a first-mover advantage in the development of its iOS operating system and third-party app store. Ongoing enhancements, such as FaceTime and iMessage, help to differentiate Apple from Google's Android and other operating systems even further. Apple's current goal is to heighten the switching costs of its products, and we see iCloud, which allows for online storage and synchronization across iOS devices, as a key facet of this plan. Customers who own an iPhone and other iOS products (perhaps an iPad, Mac, iPod, or current and future Apple TV products) may become more reluctant to buy a new device that doesn't sync with iCloud and the rest of the ecosystem. Although iCloud and iOS won't provide Apple users with insurmountable switching costs, especially if the company's products are perceived to be stale or boring, the firm has done a much better job than predecessors (Motorola and Research in Motion RIMM come to mind) that failed to lock in customers when they were king of the hill. Finally, we view Apple's integration of third-party apps into iOS 6, including Siri, as an interesting, increasingly important part of its strategy. A Siri search that provides a restaurant review from Yelp YELP may enhance the iPhone's ease of use today and, given the complexity of voice recognition software, may emerge as a clear differentiator that other OS platforms may be unable to match for years to come.

Ultimately, Apple will have to continually develop superior products on all fronts (hardware, software, services and third-party apps) while fending off many strong rivals in end markets highlighted by short product life cycles and intense competition. We expect Apple to remain a premium supplier of devices, even though rivals will clearly compete on price; Amazon AMZN is essentially selling its hardware at cost in order to profit from higher online media sales, and Google

gives the Android OS to handset makers for free in order to drive search traffic. Apple may do a better job than any other phone or tablet maker in raising the switching costs associated with its devices, but as rivals like Samsung develop products with similar functionality and others offer serviceable products at much lower prices, a few missteps from Apple could drive customers to leave iOS altogether, especially as consumers replace phones every couple of years. In hardware, Samsung is the clear leader in smartphones and "phablets" (phone/tablets) with larger screen sizes today, and Apple may need to retaliate with a larger iPhone if more and more consumers prefer these larger devices. In software, Apple's decision to part ways with Google Maps and offer an inferior in-house mapping solution may have been one such misstep and may persist as an iOS weakness if Siri and other apps will not allow iOS users to select the mapping software of their choice and instead point all users toward Apple Maps. In our opinion, the maps issue highlights that, despite Apple's size and software expertise, the firm will still have to develop and maintain partnerships with third parties like Facebook FB and others in order to provide a favorable experience to end users.

Valuation, Growth and Profitability

We are lowering our fair value estimate for Apple to \$600 from \$770, based on more conservative iPhone, iPad, and Mac unit growth assumptions, modestly lower gross margin projections, and a lower terminal EPS growth beyond our five-year forecast horizon. This fair value estimate implies fiscal 2013 (ending September 2013) price/earnings of 13 times and 10 times after excluding \$145 per share of cash on hand as of December 2012. We project solid revenue growth of 19% in fiscal 2013, thanks to the success of the iPhone 5, iPad and iPad Mini, and a variety of Mac computers. However, our new fair value estimate incorporates slower revenue growth in 2014 and beyond, as iPhone and iPad unit sales increases are mostly offset by pricing declines and an unfavorable mix toward lower priced models. We currently model 9% revenue growth in fiscal 2014 and 6% in fiscal 2015, down from our prior projections of 14% and 9%, respectively.

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

We still see several avenues for long-term iPhone growth. We don't believe that smartphone adoption, as a percentage of total handsets, has peaked in developed markets like the U.S., and deals with new carriers like China Mobile CHL could bring the iPhone to entirely new sets of users. However, the next wave of growth in the smartphone market will likely come from low end phones sold in emerging markets, which we project will cause Apple's smartphone market share to decline from the low 20% range today down to the mid-to-high teens. We project 17% revenue growth for the iPhone in fiscal 2013.

We also anticipate robust long-term iPad revenue growth, as this device both displaces PCs and is purchased as a third device alongside of PCs and phones. However, a mix shift toward lower-priced iPad Minis will partially offset this strong unit sales growth. We assume that Apple's line of Mac PCs will see minimal revenue growth, as Macs gain share in the large but slow-growth (at best) PC market.

We project that a negative product mix shift, and perhaps more competitive pricing, will weigh on Apple's gross margins. We view Apple's fiscal 2012 gross margin of 44% as a peak, falling to 38% in fiscal 2013 and down to the 32% range by fiscal 2017. In turn, operating margins of 35% in fiscal 2012 would also be a peak, as we project that operating margins dip to the low 20% range in the long-term.

Risk

We believe a large, well-diversified company like Apple faces several risks. Despite its intentions to control as much of the user experience as possible for its products, the firm still relies on a robust app developer base and strong partnerships with third parties. Its decision (and subsequent apology) to use an in-house mapping solution may have

diminished Apple's reputation and its customers' user experience, at least in the near term, and switching costs around other iOS products might not be enough to retain unsatisfied customers. We think it is unlikely that a further split from Google involving search is next, as we believe Apple's and Google's map differences pertained to specific creative user interface differences around mapping features, whereas search has a much simpler user interface (i.e., typing in the search bar). We also view Facebook as a key third-party apps provider. Although Apple is on the record as stating that Facebook is a friend and not a foe, a Facebook-centric phone could lure customers away from iOS in the unlikely event that the two firms were to end their relationship.

Apple also faces several well-branded, well-capitalized rivals in software and hardware. It must continually deliver premium products in order to stave off these hungry competitors. If Apple were to falter and its exceptional brand be diminished as customers departed iOS in droves, we don't think its cash cushion could help the firm buy its way out of any problem. As a premium phone supplier, Apple also runs the risk that wireless carriers could reduce or eliminate the subsidies that they provide their customers on the iPhone, in turn raising customers' up-front costs and perhaps making other smartphones appear to be better alternatives. Finally, Apple lost cofounder and visionary Steve Jobs in October 2011, and while we believe that CEO Tim Cook is a more-than-capable leader, Apple runs the risk that its unique culture and sense of innovation may diminish over time.

Bulls Say

- ▶ Gartner expects the smartphone market to essentially double from 2011 to 2014, so Apple could see tremendous revenue growth even if it only grew at the market rate.
- ▶ The iPad has been Apple's fastest-growing product line

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

ever, which is a tremendous achievement given previous hits like the iPod and iPhone.

- For each iOS device purchased, customers may be less likely to switch to another provider and more likely to buy another Apple product, which could be a good sign for Mac sales, even in a soft PC environment.
- Apple's retail stores provide a platform for exposing new consumers to the breadth of the company's expanding product lines.

Bears Say

- Few firms have been able to maintain Apple's strong position in the handset market, as short product cycles and intense competition typically lead to new, innovative products that have historically prevented any single firm from dominating the marketplace.
- Apple will probably need to cut iPhone prices in order to grow in emerging markets, which in turn will weigh on gross margins.
- Apple may have lost much of its vision and creativity with the passing of cofounder Steve Jobs in October 2011.
- Apple is reliant on partnerships with third-party software providers like Google and Facebook, and it may struggle to sell premium products if it were to sever ties with these partners or offer inferior substitutes to these apps.

Financial Overview

Financial Health: As of December, Apple held about \$43 billion in cash and investments in the U.S. that can be used for dividend payments, stock repurchases, and domestic acquisitions. Apple held another \$94 billion in overseas cash and investments that it cannot repatriate to the U.S. without paying additional taxes. The company has no debt. We are not concerned about Apple's financial health.

Company Overview

Profile: Apple designs consumer electronic devices, including PCs (Mac), tablets (iPad), phones (iPhone), and portable music players (iPod). Its iTunes online store is the largest music distributor in the world; it sells and rents TV shows and movies and sells applications for the iPhone and iPad. In early 2011, Apple launched the Mac App Store, an online store that sells first- and third-party applications for Mac desktop and notebook computers. Apple's products are distributed online as well as through company-owned stores and third-party retailers.

Management: We view Apple as a good steward of shareholder capital. Arthur Levinson, former chairman and CEO of Genentech, is chairman of Apple's board of directors. Tim Cook became CEO in August 2011 after cofounder, longtime CEO, and visionary Steve Jobs stepped down from the CEO role before passing away in October 2011. Cook was considered to be Jobs' right-hand man and served in various operations roles with Apple before becoming COO in 2005. We believe Jobs' passing was a blow to the firm, as he was a one-of-a-kind leader and creative mind.

Although Tim Cook was a highly effective COO, one could question his leadership in the top spot thus far. Apple's formal apology after parting ways with Google Maps in iOS 6 and launching Apple Maps with a variety of bugs and errors may have put management in the spotlight. Given Cook's reputation as an operations guru, we're also modestly concerned with Apple's inability to build enough supply of a host of new products, such as iPad Minis and iMacs in the December 2012 quarter, potentially leaving revenue on the table. Finally, Apple recently hinted that a 4" screen is an adequate screen size for a smartphone, yet Samsung has done quite well in recent quarters with its much larger Galaxy S III (4.8" screen) and Note II (5.5") products, and we fear that Apple may miss out on part of the premium

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

smartphone market that seeks larger screen sizes. Apple continues to generate operating margins and cash flow well above its peers in various hardware industries. Although Apple may have frustrated investors under Jobs by holding a titanic cash cushion (\$117 billion as of June), we applaud the company's recent dividend initiation and buyback plan under Cook, although we recognize that many investors may believe that such steps are not nearly enough to adequately reward shareholders. That said, we also appreciate Apple's frugality by making smaller strategic acquisitions and developing products in-house, rather than splashy but questionable deals like Microsoft's purchase of Skype or Google's foray into hardware by acquiring Motorola Mobility.

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes

Apple Under Review Oct. 01, 2012

We are placing Apple AAPL under review while we transfer coverage to another analyst.

Apple's iPad Mini: Pricier Than Expected Oct. 23, 2012

Apple AAPL made several new product announcements today, the most important of which was the long-anticipated and widely rumored iPad Mini tablet. At first glance, the form factor and specifications, such as the use of an older A5 processor and a non-retina display, were consistent with our expectations. However, we're a bit disappointed at the starting price point of \$329, as we fear that price-sensitive consumers may continue to turn to alternative tablet solutions, such as Amazon's AMZN Kindle Fire and Google's GOOG Nexus tablet at \$200 price points. Since a \$329 iPad Mini likely carries similar gross margins to Apple's existing iPad portfolio, we don't expect to make a material change to our fair value estimate for Apple. However, we'll update our valuation assumptions for the firm once Apple reports fiscal fourth-quarter earnings on Thursday evening.

The iPad Mini includes a 7.9-inch display, as compared with the larger 9.7-inch displays in traditional iPads. It will come in its usual variety of versions (16/32/64 GB of memory, black or white bezel, Wi-Fi only versus 3G/4G cellular connectivity). We're not surprised that potential iPad Mini buyers will have to make some compromises, as the Mini won't have a retina display and will rely on Apple's older A5 processor, but we also thought that Apple would make an 8 GB model in order to reach an even lower price point.

We previously anticipated that Apple would make a \$249 Mini that would carry mid- to high-teens gross margins, which would be a few percentage points below our estimates for Apple's larger iPad gross margins. We had some fears that Apple may have taken a hit on profitability

with such a product, as these cheaper Minis may have significantly cannibalized larger iPad sales. However, Apple could have strengthened its narrow economic moat by bringing more customers onto the iOS platform, as we believe that iOS customers who own multiple Apple products face higher switching costs and are less likely to shift to alternative platforms. Instead, the opposite scenario may play out. We have little concern about larger iPad cannibalization or Apple's iPad gross margins going forward, as we roughly calculate that a \$329 Mini should carry gross margins equal to larger iPads. We also understand the rationale that it would be easier for Apple to cut prices on the Mini at a later date if it failed to gain adoption, rather than price it aggressively right off the bat and try to raise prices later on. However, the risk around the Mini, in our view, is that Apple's Mini pricing may concede more of the low-end tablet market to Amazon and Google, running the risk that these Android tablet users may buy compatible Android phones and/or shy away from Apple iPhones in the future. Apple may be able to target these buyers a year from now by selling older iPad Mini models at \$249 or \$269, but Amazon and Google may respond with similar price cuts as well. That said, if consumers buy the Mini in spite of Apple's relatively higher price point and drive up significant iPad unit volumes, the Mini launch could be a net positive for Apple.

Looking at the rest of Apple's product announcements today, we were also surprised that the company released a fourth-generation 9.7-inch iPad today. (It continues to be named simply "iPad" but we'll refer to it as the iPad 4). The main improvement in the iPad 4 is an advanced A6X processor, which Apple claims doubles the computing and graphics power of the device. The announcement takes Apple off of its traditional pattern of launching a new iPad in the March-April time frame, and we fear that Apple may face a bit of a backlash from its customers by supplanting its

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

third-generation iPad in just six months, especially because there aren't many more product enhancements beyond the faster processor. It appears that the "iPad 3" will simply be pulled from Apple's product portfolio and replaced with the iPad 4, as Apple will still sell the iPad 2 at the same \$399 price first discussed in March. Apple also announced new versions of its Macbook Pro laptops and Mac Mini and iMac desktops, but we view these new models as regular product refreshes that do not change our long-term thesis on the company.

Apple's New Products Should Drive Strong Near-Term Revenue Growth, but at Lower Margins

Oct. 25, 2012
Apple AAPL reported solid fiscal fourth-quarter earnings that were within the range of our expectations. After considering the company's usual conservatism with its forward-looking forecasts, its revenue outlook is a bit better than our prior estimates, although its earnings per share forecast was disappointing, as gross margins associated with new products will be lower than historical levels. We plan to maintain our fair value estimate.

Revenue in the September quarter was \$36 billion, ahead of the firm's forecast of \$34 billion discussed in July and modestly ahead of Wall Street consensus estimates of \$35.8 billion. By product line, iPhone sales of 26.9 million units were modestly below our expectations, but we believe sales at these levels still indicate a solid iPhone 5 launch at the tail end of the quarter. iPhone revenue of \$17.1 billion was in line with our forecast, thanks to a 2% average selling price increase to \$636. Mac sales were a surprising bright spot, as laptop PC unit sales and revenue were respectively up 31% and 47% sequentially and 9% and 17% on a year-over-year basis.

These results are miles ahead of the dismal results reported

by many other firms in the PC supply chain. Even if the PC end market were healthy, these sequential improvements were also substantially above Apple's typical seasonal patterns. We view Mac strength as a positive sign for Apple's narrow economic moat, as iPhone and iPad users may be trading up to Mac PCs, thereby incorporating more Apple products into the company's ecosystem.

The iPad was the big disappointment, as the firm only sold 14 million units in the quarter. We expected a weak iPad quarter, since CEO Tim Cook indicated that the firm sold its 100 millionth iPad a couple of weeks ago, which implied sales of no more than 16 million in the September quarter. Apple hinted that it will start to see a seasonal decline in iPad units in the September quarter, as educational sales spike in the June quarter before the back-to-school season, and we don't see lower iPad sales this quarter as a sign that iPad is losing its growth momentum.

Despite higher sales levels, gross margins deteriorated 280 basis points to 40%. We suspect that the decline was due to higher costs associated with the company's new products, such as the iPhone 5. Still, Apple earned a strong operating margin of 30% in the quarter, down from 33% in the June quarter. In turn, earnings per share were \$8.67, well ahead of the firm's forecast of \$7.65 but slightly under consensus estimates of \$8.75.

For the December quarter, Apple forecasts revenue of \$52 billion and EPS of \$11.75. The firm typically exceeds its financial forecasts, and we calculate that it only needs to beat its sales forecast by 6% to match consensus estimates of \$55 billion. We think there's a very good chance that the top line will meet or exceed these Street estimates. The company's EPS forecast of \$11.75 appears light to us and is well below consensus forecasts of \$15.41. The biggest

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

concern, in our opinion, revolves around Apple's forecast gross margins of 36%, well below 40% earned in the September quarter. New products like the iPhone 5 and various new Macs are expected to carry higher component costs than prior models. The iPad Mini will also be well below Apple's corporate gross margin average, although at a \$329 price point and given the specifications of the product (like an older processor), we still think the Mini has similar gross margins to the larger iPad, which we estimate to be around 20%.

Despite the disappointing gross margin and EPS forecasts, we're still encouraged by Apple's expected top-line growth. We also anticipate that Apple will focus on cutting costs, especially as new products mature and certain supply constraints ease in the months ahead, in order to see modest gross margin improvement over the next few quarters.

Report Says Apple May Move Away From Intel for Macs, but This Is Far From a Done Deal

Nov. 06, 2012

On Monday, a story from Bloomberg reported that Apple AAPL may be looking to switch from Intel INTC processors to its own in-house designed chips based on the ARM ARMH architecture to power its Mac line of computers. While such a move is possible, we believe it is hardly a done deal, though it's worth keeping an eye on in the next several years. Although Apple is a key customer, a switch would not be devastating to Intel, as we estimate Apple accounts for just 3% of total revenue.

Apple has been using Intel microprocessors for its Mac product line since 2005, after previously using PowerPC chips, which were backed by an alliance among IBM, Motorola, and Apple. The firm made the switch because PowerPC could no longer keep up with Intel's processors in terms of performance. However, Apple uses its own

internally designed A-series processors, which are based on the ARM architecture, to power its iPhones and iPads. The Bloomberg story indicated that the firm may also look to design ARM-based processors to replace Intel in its Macs a few years from now. We believe it is likely that Apple is looking into alternatives, but such inquiries are common research and development practices at tech companies, as it is necessary for firms to investigate various options before choosing the best technology solution. For example, the firm was rumored to have considered using Advanced Micro Devices' AMD Fusion processors for its MacBook Air notebooks last year.

We think the biggest obstacle to a possible switch is that Apple will need to be convinced that it will be able to come up with a better processor technology road map than Intel for years to come, or it will face the risk of having Mac products that aren't as competitive with PCs that incorporate Intel chips. This is a tall task, given that Intel, as the world's largest chipmaker, has a large R&D budget and the most advanced semiconductor manufacturing technologies at its disposal to focus on creating the most cutting-edge processors. The knock on Intel in recent years has been that its chips are too performance driven and lack the power efficiency that ARM-based chips can provide for mobile devices, such as smartphones and tablets. While this is given in the article as a reason behind a possible switch by Apple down the road, performance remains a paramount consideration in computers, which would play to Intel's strength. In addition, Intel has made significant strides in increasing the power efficiency of its chips in recent years, and we expect it to become more competitive with ARM's solutions on that front in the coming quarters. Even if Apple were to turn to internally developed processors in the years ahead, we suspect that it would do so in consumer-focused Macs, such as the MacBook Air, while continuing to rely on

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

Intel's most advanced processors for Macs that require extensive computing power, such as MacBook Pro. Such a scenario would be similar to Microsoft's MSFT Windows 8 launch, where some less functional Windows RT devices are powered by ARM-based processors while Intel continues to be the processor of choice in more powerful Win8 products.

Bloomberg said Apple may eventually use its in-house A-series chips for Macs, in order to offer a unified user experience based on a single operating system among the Mac, iPhone, and iPad, which would be possible with a common processor architecture. While we recognize the value of a unified user experience, it probably wouldn't make much sense for Apple to entirely switch away from Intel if it would be a detriment to the performance of its Mac computers. While the Bloomberg article highlights a potential risk for Intel, we believe the issue is far from decided. Nonetheless, it is something that bears following over the next several years. We estimate that Apple currently accounts for roughly 3% of Intel's total revenue. Therefore, Intel wouldn't be significantly affected if Apple did make a switch, though it would certainly be egg on the face for the firm.

Maintaining Our Fair Value Estimate for Apple Despite Stock Price Volatility Dec. 06, 2012

We are maintaining our fair value estimate for Apple AAPL despite a 6% stock decline Wednesday and a bout of recent selling pressure and stock price volatility. We believe many factors are at play regarding the stock price decline from an intraday high of \$705.07 on Sept. 21 to an intraday low of \$505.75 on Nov. 16. Primarily, we believe investors have been taking gains in Apple, as the September price of \$705 represented a 74% gain in nine months. We believe that such profit-taking was exacerbated in early November by U.S. President Barack Obama's re-election, which appears to

have heightened concerns about the U.S. fiscal cliff and higher tax rates on investment capital gains. Since Apple was probably the largest investment holding and/or the biggest 2012 winner for many investors, we suspect the stock has likely been a casualty of any profit-taking or trimming of holdings by large investors. More recently, we suspect that technical investors are steering the Apple boat, as evidenced by the massive recovery in the 12 trading hours following the Nov. 16 low of \$505, as the stock catapulted back to \$566 by the end of the following trading day.

Other nontrading data points have come out in recent days that may have contributed to Wednesday's slide. Taiwanese trade paper DigiTimes reported that Apple's component suppliers may expect a 20% drop in component orders in the March quarter, thereby hinting at a sharp decline in Apple production and, ultimately, sell through. We aren't sounding the alarms for Apple on the basis of this report, as DigiTimes' sources have not always exhibited an accurate record and component orders are always subject to change based on improving or deteriorating forecast product demand. Another potential negative catalyst was Nokia's NOK agreement with China Mobile CHL to sell the Windows-based Nokia Lumia 920T on the carrier's TD-SCDMA 3G network. We don't believe that this deal prohibits Apple from someday selling the iPhone with China Mobile, which is a key catalyst in our thesis for further iPhone growth in the long term, given China Mobile's massive subscriber base of more than 700 million people. At the same time, we are taking a wait-and-see approach toward Nokia and Windows phones in general, and availability with a given carrier is not a guarantee of future success.

Finally, at an investor conference Wednesday, the CEO of AT&T Mobility T, Ralph de la Vega, hinted that the carrier expects to sell 26 million smartphones in 2012, which implies

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

9.3 million devices in the fourth quarter, about equal to smartphones sold in the fourth quarter of 2011. Given the high proportion of iPhones sold by AT&T as a percentage of total smartphones, one could interpret this to presume that the iPhone 5 launch is not faring significantly better than the 4S launch in 2011. We view this data point as a slight negative, as it would imply that Apple and its loyal base of iPhone customers with AT&T might not wildly exceed expectations. However, we certainly don't see this news as a death blow either, as we think these comments still point to solid iPhone 5 sales with the carrier.

More important, the comparison with the year-ago quarter at AT&T and Apple is not exactly apples-to-apples, as the iPhone 5 was launched Sept. 21 and initial sales were included in AT&T's third-quarter results, versus the 4S launch Oct. 14 where opening weekend sales were captured in the fourth quarter. Additionally, while AT&T is a key iPhone carrier and the U.S. is Apple's most important iPhone market today, we can see a scenario where iPhone sales at Verizon VZ or Sprint S exceed expectations and contribute to an overall strong iPhone 5 launch. We also have not seen enough evidence that Nokia's Windows phones, Google's GOOG Nexus 4 phones made by LG, or Samsung's relatively older Galaxy S III phones are putting a serious dent in Apple's iPhone 5 momentum just yet. We keep a close eye on the competitive dynamics of the smartphone market, especially during this important holiday season, but we are maintaining our fair value estimate for Apple at this time.

Apple Reportedly Cuts Component Orders; We Maintain our Fair Value Estimate Jan. 14, 2013

We are maintaining our fair value estimate for Apple AAPL after reports from the Wall Street Journal and Japan's Nikkei news service indicate that Apple has cut component orders for the March quarter by as much as half for the iPhone 5.

The implication is that demand for the iPhone, especially in emerging markets, is weaker than anticipated, thus adding risk to Apple's near-term earnings and perhaps its long-term growth potential. However, we believe that such bad news is more than baked into Apple's share price today. We certainly recognize these headlines as adding another layer of risk to Apple's forecast for the March quarter, which will be announced on Jan. 23. However, we don't see the news as having much of an effect on Apple's December quarterly results. AT&T's T and Verizon's VZ recent announcements of strong smartphone unit sales in the December quarter bode well for a healthy iPhone 5 launch in the December quarter, at least in the United States.

Regarding the component order cuts, the news articles cite that Apple's forecast was for 65 million iPhone screens in the March quarter. If accurate, we suspect that such a forecast would have been unrealistically high to begin with and that some degree of order cuts should have been expected. Using rough calculations, and without knowledge of screen orders in either prior or future quarters, if we assume that Apple made a similar forecast for the prior quarter for at least 65 million screens (which seems reasonable, if not conservative, given the timing of the iPhone 5 launch), and considering consensus estimates for roughly 50 million iPhones to be sold in the December quarter, Apple could have 15 million excess units of screen inventory on hand entering the March quarter, even with a solid iPhone 5 launch. If Apple in fact cut its March screen orders in half to the 35-million-unit range, this implies that Apple could still be reasonably expected to sell at least 40 million iPhones, if not 50 million, in the March quarter, which we would consider to be a strong number. We should also note that screens were believed to be an area of component shortages for Apple just a couple of months ago. As is common in the handset component supply chain, shortages one quarter may lead to double ordering and, thus,

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

order cancellations once supply and demand come back in to balance. The forecast of 65 million units may imply double ordering across Apple's multiple suppliers, believed to be Sharp, Japan Display, and LG Display. The reports indicate that Japan Display will cut its orders by 80% from the December quarter, while orders to Sharp will decline by 40%. Given Sharp's recent financial struggles, double ordering from the other two screen suppliers may have been a case of reasonable risk management, with perhaps additional orders with Japan Display being the backup plan that is now being canceled. We cannot rule out the risk that these supply chain issues may truly be a result of tepid demand for the iPhone 5, especially in emerging markets, and perhaps the news reports rule out the chance of an absolute blowout March quarter for Apple, but we also believe there is a good chance that these supply chain bumps may not be all that closely related to Apple's sales to end customers, and that such a possibility is not factored into Apple's stock price.

More importantly, we believe that these news reports are already priced into Apple's stock price at this point, and we still view the stock as attractively valued today. We believe that a scenario with a tepid iPhone 5 launch with only modest annual growth is already priced into Apple's stock price in the low \$500 range. While these news reports provide some evidence of such a bearish launch, we think that Apple's stock price implies that there is no chance that these supply chain issues are just noise and will not hamper iPhone demand in early 2013, and we're fond of such a risk/reward opportunity today. Given the \$128 per share of cash that Apple has on hand, our estimates of at least \$48 of EPS over each of the next five years, the potential for better-than-expected iPad growth, and perhaps new innovations like Apple TV products, we still see Apple as attractively valued today.

Apple's Soft March Forecast Makes Us Take a Bite From Our Fair Value Estimate Jan. 24, 2013

We'll reduce our fair value estimate for Apple AAPL by 22% following its fiscal first-quarter results, reported Wednesday. Apple's latest quarterly earnings report was decent, in our view, and in line with both Wall Street's, and our own, expectations. However, Apple's highly disappointing March-quarter forecast implies slowing iPhone sales momentum, giving us less certainty about robust iPhone growth in the years ahead.

iPhone unit shipments of 47.8 million during the December quarter reflect a 29% increase from the 37 million iPhone 4S shipments during the year-ago period, but was modestly below consensus estimates of roughly 50 million. iPhone average selling prices (ASPs) of \$642 each were fairly solid, in our view. iPad unit sales of 22.9 million were about in line with our estimates, but also below consensus estimates of approximately 24 million, and failed to provide the robust, exponential growth that some growth investors were seeking. iPad average selling prices of \$467 each reflects a 21% decline from the prior year. In our view, this implies a sharp shift in product mix toward the iPad Mini. Apple will need to see tremendous iPad unit growth to make up for the negative mix shift toward these lower-priced tablets. In our view, Macs were the quarter's biggest disappointment. At only 4.1 million units, Mac sales were down 18%, sequentially. This marks a far cry from the bright spot they represented during the September quarter, when Apple's management noted that they couldn't build enough iMacs to meet demand. PC cannibalization from iPads and an overall soft PC market were also likely headwinds. Revenue of \$54.5 billion, gross margins of 38.6% and earnings per share (EPS) of \$13.81 all beat Apple's traditionally conservative forecasts, but were relatively in line with our expectations and the Street's. Apple's March-quarter forecast is the

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

bigger concern. First, the company provided a projected revenue range of \$41 billion-\$43 billion. This marks a departure from past practice, when management would give a single -- usually extremely conservative -- sales target that investors never took too seriously. Not only is this range below our prior estimates (and the Street's) of almost \$46 billion, but management's comments regarding a revenue range indicates that investors should expect revenue to fall within the range, rather than exceed a single data point. We think this approach is meant to temper expectations for a possible upside surprise. Given Apple's launch of several new products, we're disappointed that management expects sales to trail off so quickly. iPad, Mac and iPod sales should dip due to seasonal weakness after the holiday season, but we think the forecast also implies a sharp retreat in iPhone sales to the mid-30 million unit range, which may bode poorly for the allure of the iPhone 5, and perhaps hints at a stale product line, or a lack of innovation. In late 2011, Apple's iPhone 4S launch was a stellar success that led to its meteoric stock rise in early 2012, bolstered by a strong December launch of 37 million units, and a surprisingly robust follow up of 35 million units in the March 2012 quarter. Now, Apple's forecast implies that no such follow up is expected with the iPhone 5 launch. Furthermore, Apple noted that the iPhone 5, iPhone 4, iPad Mini, and iMacs all faced supply constraints in the December quarter, and the company was unable to meet demand. Yet, Apple's forecast doesn't suggest that the company will make up for these lost sales in the following quarter, but perhaps miss out on these opportunities entirely. Tim Cook's experience as an operations guru makes this issue all the more puzzling to us: Innovation, rather than supply chain hiccups, would have been our biggest concern around Apple's management after the passing of Steve Jobs. Longer term, we're cutting our iPhone unit sales estimates. The company's March forecast, along with iPhone 4 shortages and Verizon's commentary

that half of its December iPhone sales were of older models, among other data points, raise our fears that the iPhone 5 will fail to live up to our previously lofty expectations, and that consumers might be less willing to pay up for Apple's premium devices. If the 4S launch provides a historical perspective, iPhone ASPs will also likely decline in 2013 until a new product transition occurs. In turn, we have modestly trimmed our iPhone gross margin assumptions, which will lead to lower long-term EPS projections. Apple may be keeping its new product information close to the vest, but the firm also reiterated that a four-inch screen is the right size for a smartphone. In turn, Apple may concede sales of 4.8-inch and larger devices to firms like Samsung, which may end up costing the firm if screen size becomes a real differentiator among premium smartphone buyers. We also project lower long-term iPad and Mac unit sales, as future growth may come off of a lower sales base in 2013. Finally, we lowered our terminal long-term growth rate to account for the possibility that EPS may stagnate in 2017 and beyond if pricing and gross margin declines offset revenue growth in certain product categories. We should note that our fair value estimate does not account for any revolutionary Apple TV products or new innovations, but we recognize the optionality potential associated with Apple's ability to build a groundbreaking new product. In short, we may not see a strong catalyst for Apple (outside of increased cash distribution to shareholders) until its next wave of product launches, which may come in mid-2013 rather than year-end, but we certainly think there is a chance that Apple can bounce back from a potentially ho-hum early 2013. We should also note that Apple's forecast a year ago, in March 2012, was for a 30% sequential revenue decline. Instead, the firm offered up one of its biggest earnings beats, seeing only a 15% decline. If Apple's projected 22% sales decline in March 2013 turns out to be similarly conservative, bullish investors may benefit from the sort of blowout quarter that

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

Apple regularly reported in prior periods. Longer-term, we anticipate that an eventual iPhone introduction with China Mobile CHL could provide Apple with a strong unit sales boost, and we still fail to see many iPhone killers on the market today, although Samsung's Galaxy S III's and Note's may come close. Despite the recent slate of negative news, we still believe that Apple has a narrow economic moat and a positive moat trend. Apple's gloomy March forecast may imply that iPhone growth may not live up to our lofty expectations, but certainly doesn't indicate that consumers are abandoning the platform in droves. We still believe that Apple has a loyal customer base that will continue to buy iOS products, rather than switch to Android, in order to benefit from iCloud, synchronized content, and operating system familiarity. Apple will have to promote these advantages to future potential smartphone and tablet customers, but we think such switching costs provide a bit of a floor on future iOS product sales, unless new devices are a complete flop in the marketplace.

Our Take on Apple's Capital Allocation Feb. 08, 2013

We are maintaining our \$600 fair value estimate for Apple AAPL in light of the firm's press release stating that Apple is actively discussing whether to return additional cash to shareholders.

As of December, Apple held \$137 billion of cash on hand, or \$145 per share. About \$94 billion, or \$99 per share, is held overseas and is thus unavailable to shareholders in the way of dividends, buybacks, or U.S. acquisitions unless the firm pays additional repatriation taxes, which would probably be in the neighborhood of 30%. We believe Apple has used and will continue to use this offshore cash for supply-chain-type purchases, such as capital expenditures at its outsourced manufacturers like Foxconn or large component purchases like NAND flash memory or screen displays. For the most

part, however, we consider this cash to be somewhat stuck overseas unless U.S. federal tax policy changes so that it can be brought back to the United States without additional taxes. Given that lobbying efforts with the Obama administration have been unproductive so far, we're skeptical that a solution to this problem, which plagues many leading technology firms, is on the immediate horizon.

Apple's onshore cash, which can be used for dividends, buybacks, and domestic acquisitions, stands at \$43 billion, or \$46 per share. This balance, plus future U.S.-generated cash flows, should be more than sufficient to fund Apple's current 2% yield and \$10 billion stock-repurchase program. We project that the company will not expand its buyback in future years, other than to perhaps offset equity dilution similar to its current \$10 billion plan. Rather, we project decent dividend increases to \$3.90 per share per quarter by 2017. Thanks to these distributions, as well as onshore capital spending, we currently project that a substantial majority of Apple's cash balance will be in overseas accounts by 2017, as the firm distributes U.S. cash to investors while overseas cash piles up. We believe the board could alleviate this longer-term issue by issuing debt (presumably at low interest rates) that would be collateralized with offshore cash but would boost Apple's U.S. cash balance, thus allowing the firm to substantially increase its dividend or share-repurchase program. Still, we have no insight into the board's discussions at this time, and we would not anticipate changing our fair value estimate solely because of future changes to Apple's capital structure.

Samsung Galaxy S 4 Poised to Be Worthy iPhone Competitor Mar. 15, 2013

Samsung announced its long-awaited Galaxy S 4 smartphone Thursday, and at first glance, we're impressed by some of the new and innovative services associated with the device and

Apple Inc AAPL [XNAS] | ★★★★★

| Last Price | Fair Value | Consider Buy | Consider Sell | Uncertainty | Economic Moat™ | Stewardship | Morningstar Credit Rating | Industry |
|------------|------------|--------------|---------------|-------------|----------------|-------------|---------------------------|------------------|
| 443.66 USD | 600.00 USD | 420.00 USD | 810.00 USD | Medium | Narrow | Standard | | Computer Systems |

Analyst Notes (continued)

expect it to be a worthy challenger to Apple's AAPL iPhone in the premium smartphone market. Initial reviews from a variety of tech websites have been mixed thus far, but we anticipate that if nothing else, Samsung's brand and marketing muscle will probably make the GS4 the premier Android-based phone in the market. Samsung intends to launch the phone in 155 countries, beginning at the end of April.

We have two key takeaways from the announcement. First, Samsung didn't focus much on hardware, but rather a host of innovative services that differentiate the device from not only the iPhone but also other Android handsets. This is indicative of our long-term thesis that software, not hardware, will be the more important differentiator in the smartphone market. Some examples include S Translator, S Voice Drive for navigation, Story Album for photo sharing, and Samsung Hub, which allows for syncing of content among devices. Second, the GS4 launch did not mention Google GOOG or highlight its Android operating system, and no third-party apps partners were highlighted, as they took a back seat to more gadgetlike product features built internally by Samsung.

Our initial take is that the GS4 will continue to make the premium smartphone market a two-horse race between Samsung and Apple. We certainly see the GS4 as a compelling device for new smartphone adopters and current Android users, and it may crush the efforts of HTC, Blackberry BBRY, and Nokia NOK to regain share in the premium smartphone market. Since the iPhone 5 will be more than seven months old by the time the GS4 arrives, Samsung may again do a great job of capitalizing on a window of opportunity between iPhone cycles and raising the bar that Apple must hurdle with its new product launches. That said, we believe a slowdown in iPhone 5

sales over the next few months, as well as the competitive threat from Samsung, is already baked into Apple's stock price today, and we think the shares remain attractively valued. We maintain our fair value estimate for Apple.

Apple Inc(USD) AAPL

Last Close \$ \$428.35 **Sales \$Mil** \$164,687 **Mkt Cap \$Mil** \$402,245 **Industry** Computer Systems **Currency** USD

Apple Inc designs, manufactures, and markets personal computers, mobile communication devices, and portable digital music and video players and sells a variety of related software, services, peripherals, and networking solutions.

Morningstar Rating ★★★★★
As of 03-13-2013

Fair Value Uncertainty Medium **Fair Value** \$600.00 **Economic Moat** Narrow **Style** Large Growth **Sector** Technology

1 Infinite Loop
Cupertino, CA 95014
Phone: +1 408 996-1010
Website: <http://www.apple.com>

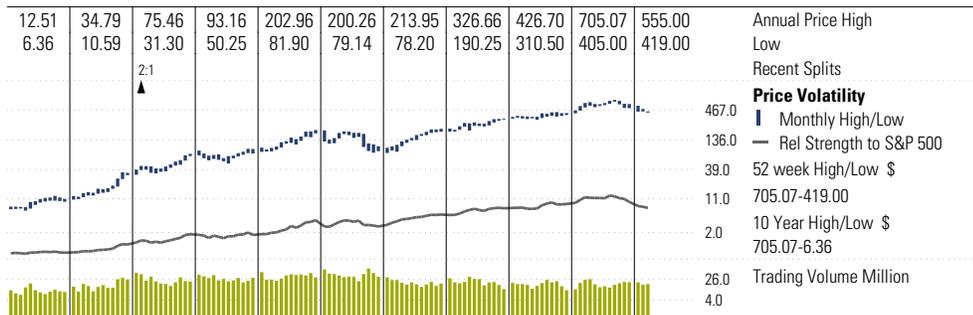
| Growth Rates Compound Annual | | | | |
|------------------------------|-------|------|------|-------|
| Grade: A | 1 Yr | 3 Yr | 5 Yr | 10 Yr |
| Revenue % | 44.6 | 53.9 | 45.5 | 39.2 |
| Operating Income % | 63.5 | 67.6 | 65.8 | 124.5 |
| Earnings/Share % | 59.5 | 69.4 | 62.2 | 85.8 |
| Dividends % | — | — | — | — |
| Book Value/Share % | 52.7 | 53.0 | 49.8 | 36.3 |
| Stock Total Return | -23.2 | 24.4 | 27.8 | 50.4 |
| +/- Industry | -8.7 | 11.0 | 14.8 | 36.6 |
| +/- Market | -37.1 | 11.5 | 22.1 | 41.8 |

| Profitability Analysis | | | | |
|------------------------|---------|----------|------|--------|
| Grade: A | Current | 5 Yr Avg | Ind | Mkt |
| Return on Equity % | 38.4 | 36.7 | 38.8 | 19.7 |
| Return on Assets % | 24.9 | 23.6 | 14.4 | 8.2 |
| Revenue/Employee \$K | 2262.2 | 1482.9 | — | 1040.6 |
| Fixed Asset Turns | 14.2 | 16.2 | 11.9 | 7.0 |
| Inventory Turns | 71.1 | 69.1* | 21.2 | 12.2 |
| Gross Margin % | 41.9 | 39.8 | 34.9 | 43.2 |
| Operating Margin % | 33.5 | 28.9 | 11.5 | 18.6 |
| Net Margin % | 25.4 | 21.5 | 13.6 | 13.1 |
| Free Cash Flow/Rev % | 28.1 | 24.6 | 15.0 | 11.7 |
| R&D/Rev % | 2.2 | 2.6 | 3.3 | — |

| Financial Position (USD) | | |
|--------------------------|-------------|-------------|
| Grade: B | 09-12 \$Mil | 12-12 \$Mil |
| Cash | 10746 | 16154 |
| Inventories | 791 | 1455 |
| Receivables | 18692 | 21534 |
| Current Assets | 57653 | 72348 |
| Fixed Assets | 15452 | 15422 |
| Intangibles | 5359 | 5843 |
| Total Assets | 176064 | 196088 |
| Payables | 22710 | 28391 |
| Short-Term Debt | — | — |
| Current Liabilities | 38542 | 46879 |
| Long-Term Debt | — | — |
| Total Liabilities | 57854 | 68742 |
| Total Equity | 118210 | 127346 |

| Valuation Analysis | | | | |
|----------------------|---------|----------|------|------|
| | Current | 5 Yr Avg | Ind | Mkt |
| Price/Earnings | 9.7 | 15.6 | 14.9 | 16.2 |
| Forward P/E | 8.2 | — | — | 13.6 |
| Price/Cash Flow | 7.1 | 10.9 | 7.8 | 9.4 |
| Price/Free Cash Flow | 8.8 | 12.7 | 9.9 | 27.5 |
| Dividend Yield % | 1.9 | — | 1.8 | 2.3 |
| Price/Book | 3.2 | 4.5 | 3.9 | 2.2 |
| Price/Sales | 2.5 | 3.3 | 1.6 | 2.6 |
| PEG Ratio | 0.9 | — | — | 2.3 |

*3Yr Avg data is displayed in place of 5 Yr Avg



| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | YTD | Stock Performance |
|------|-------|-------|-------|--------|-------|--------|--------|--------|--------|--------|-------------------|
| 49.1 | 201.4 | 123.3 | 18.0 | 133.5 | -56.9 | 146.9 | 53.1 | 25.6 | 32.7 | -19.0 | Total Return % |
| 20.4 | 190.5 | 118.3 | 2.2 | 128.0 | -19.9 | 120.4 | 38.0 | 23.4 | 16.7 | -28.5 | +/- Market |
| 22.2 | 188.0 | 123.9 | 0.0 | 99.0 | -17.7 | 72.8 | 32.3 | 10.7 | 17.3 | -12.7 | +/- Industry |
| — | — | — | — | — | — | — | — | — | 1.0 | 1.9 | Dividend Yield % |
| 7858 | 25893 | 60587 | 72901 | 173427 | 75997 | 190983 | 297089 | 377519 | 499696 | 402245 | Market Cap \$Mil |

| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | TTM | Financials (USD) |
|------|------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------------------------|
| 6207 | 8279 | 13931 | 19315 | 24006 | 37491 | 42905 | 65225 | 108249 | 156508 | 164687 | Revenue \$Mil |
| 27.5 | 27.3 | 29.0 | 29.0 | 34.0 | 35.2 | 40.1 | 39.4 | 40.5 | 43.9 | 41.9 | Gross Margin % |
| -1 | 313 | 1643 | 2453 | 4409 | 8327 | 11740 | 18385 | 33790 | 55241 | 55111 | Oper Income \$Mil |
| 0.0 | 3.8 | 11.8 | 12.7 | 18.4 | 22.2 | 27.4 | 28.2 | 31.2 | 35.3 | 33.5 | Operating Margin % |
| 69 | 266 | 1328 | 1989 | 3496 | 6119 | 8235 | 14013 | 25922 | 41733 | 41747 | Net Income \$Mil |
| 0.10 | 0.36 | 1.56 | 2.27 | 3.93 | 5.36 | 9.08 | 15.15 | 27.68 | 44.15 | 44.09 | Earnings Per Share \$ |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.65 | 5.30 | Dividends \$ |
| 727 | 775 | 857 | 878 | 889 | 902 | 907 | 925 | 937 | 945 | 947 | Shares Mil |
| 5.89 | 7.20 | 9.94 | 13.07 | 19.19 | 25.73 | 39.47 | 59.35 | 96.61 | 125.66 | 135.61 | Book Value Per Share \$ |
| 289 | 934 | 2535 | 2220 | 5470 | 9596 | 10159 | 18595 | 37529 | 50856 | 56728 | Oper Cash Flow \$Mil |
| -164 | -176 | -260 | -657 | -986 | -1199 | -1213 | -2121 | -7452 | -9402 | -10428 | Cap Spending \$Mil |
| 125 | 758 | 2275 | 1563 | 4484 | 8397 | 8946 | 16474 | 30077 | 41454 | 46300 | Free Cash Flow \$Mil |

| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | TTM | Profitability |
|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| 1.1 | 3.6 | 13.6 | 13.9 | 16.4 | 19.9 | 19.7 | 22.8 | 27.1 | 28.5 | 24.9 | Return on Assets % |
| 1.7 | 5.7 | 21.2 | 22.9 | 28.5 | 33.2 | 30.5 | 35.3 | 41.7 | 42.8 | 38.4 | Return on Equity % |
| 0.95 | 1.11 | 1.42 | 1.35 | 1.13 | 1.22 | 1.03 | 1.06 | 1.13 | 1.07 | 0.98 | Asset Turnover |
| 1.1 | 3.2 | 9.5 | 10.3 | 14.6 | 16.3 | 19.2 | 21.5 | 24.0 | 26.7 | 25.4 | Net Margin % |
| 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | Financial Leverage |

| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 12-12 | Financial Health (USD) |
|------|------|------|------|-------|-------|-------|-------|-------|--------|--------|------------------------|
| — | — | — | — | — | — | — | — | — | — | — | Long-Term Debt \$Mil |
| 4223 | 5076 | 7428 | 9984 | 14532 | 22297 | 31640 | 47791 | 76615 | 118210 | 127346 | Total Equity \$Mil |
| — | — | — | — | — | — | — | — | — | — | — | Debt/Equity |
| 3530 | 4404 | 6813 | 8038 | 12657 | 18645 | 20049 | 20956 | 17018 | 19111 | 25469 | Working Capital \$Mil |

| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | TTM | Valuation |
|------|------|------|------|------|------|------|------|------|------|-----|-----------------|
| 57.5 | 50.5 | 38.8 | 30.8 | 43.5 | 15.8 | 20.5 | 18.0 | 11.5 | 12.0 | 9.7 | Price/Earnings |
| 0.0 | 0.0 | — | — | 0.0 | 0.0 | 0.0 | 0.0 | — | 0.0 | 0.6 | P/E vs. Market |
| 1.2 | 2.6 | 3.8 | 3.6 | 6.7 | 2.3 | 4.1 | 3.9 | 3.0 | 3.2 | 2.5 | Price/Sales |
| 1.8 | 4.5 | 7.2 | 6.5 | 10.3 | 3.3 | 5.3 | 5.4 | 4.2 | 4.2 | 3.2 | Price/Book |
| 19.7 | 17.2 | 30.1 | 19.8 | 27.5 | 7.2 | 16.0 | 13.2 | 8.4 | 9.9 | 7.1 | Price/Cash Flow |

| Quarterly Results (USD) | | | | |
|-------------------------|---------|---------|---------|---------|
| Revenue \$Mil | Mar | Jun | Sep | Dec |
| Most Recent | 39186.0 | 35023.0 | 35966.0 | 54512.0 |
| Previous | 24667.0 | 28571.0 | 28270.0 | 46333.0 |
| Rev Growth % | Mar | Jun | Sep | Dec |
| Most Recent | 58.9 | 22.6 | 27.2 | 17.7 |
| Previous | 82.7 | 82.0 | 39.0 | 73.3 |
| Earnings Per Share \$ | Mar | Jun | Sep | Dec |
| Most Recent | 12.30 | 9.32 | 8.67 | 13.81 |
| Previous | 6.40 | 7.79 | 7.05 | 13.87 |

| Close Competitors | | | | |
|-----------------------|---------------|-----------|------|------|
| | Mkt Cap \$Mil | Rev \$Mil | P/E | ROE% |
| Google, Inc. Class A | 272074 | 50175 | 25.6 | 16.5 |
| Microsoft Corporation | 233823 | 72930 | 15.4 | 22.6 |

| Major Fund Holders | | % of shares |
|------------------------------|--|-------------|
| Vanguard Total Stock Mkt Idx | | 1.34 |
| Fidelity Contrafund | | 1.16 |
| PowerShares QQQ | | 1.05 |

Morningstar's Approach to Rating Stocks

Our Key Investing Concepts

- ▶ Economic Moat™ Rating
- ▶ Discounted Cash Flow
- ▶ Discount Rate
- ▶ Fair Value
- ▶ Uncertainty
- ▶ Margin of Safety
- ▶ Consider Buying/Consider Selling
- ▶ Stewardship Grades

At Morningstar, we evaluate stocks as pieces of a business, not as pieces of paper. We think that purchasing shares of superior businesses at discounts to their intrinsic value and allowing them to compound their value over long periods of time is the surest way to create wealth in the stock market.

We rate stocks 1 through 5 stars, with 5 the best and 1 the worst. Our star rating is based on our analyst's estimate of how much a company's business is worth per share. Our analysts arrive at this "fair value estimate" by forecasting how much excess cash--or "free cash flow"--the firm will generate in the future, and then adjusting the total for timing and risk. Cash generated next year is worth more than cash generated several years down the road, and cash from a stable and consistently profitable business is worth more than cash from a cyclical or unsteady business.

Stocks trading at meaningful discounts to our fair value estimates will receive high star ratings. For high-quality businesses, we require a smaller discount than for mediocre ones, for a simple reason: We have more confidence in our cash-flow forecasts for strong companies, and thus in our value estimates. If a stock's market price is significantly above our fair value estimate, it will receive a low star rating, no matter how wonderful we think the business is. Even the best company is a bad deal if an investor overpays for its shares.

Our fair value estimates don't change very often, but market prices do. So, a stock may gain or lose stars based

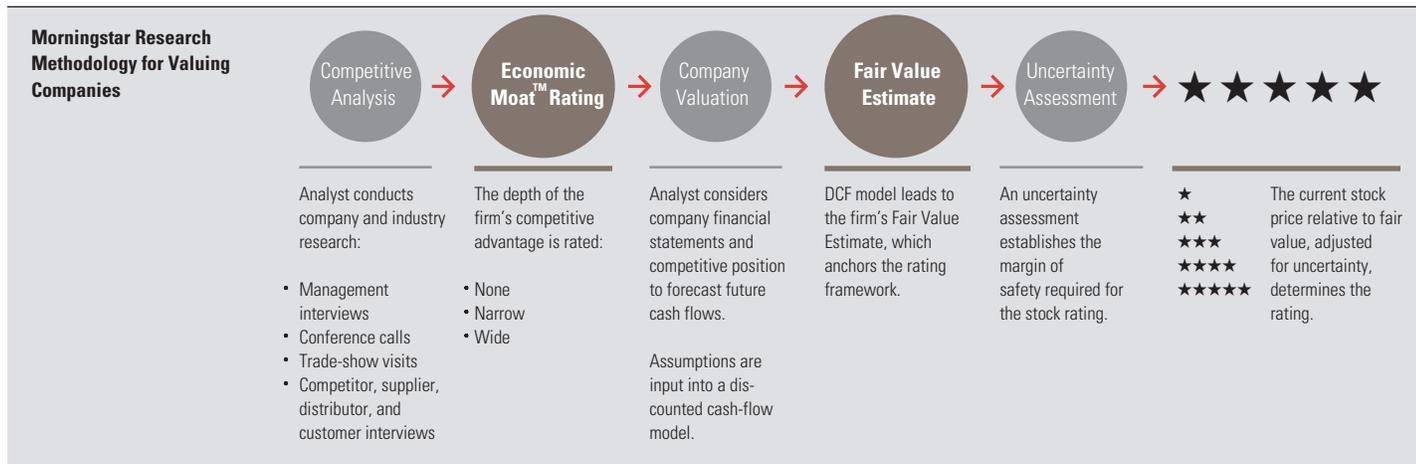
just on movement in the share price. If we think a stock's fair value is \$50, and the shares decline to \$40 without much change in the value of the business, the star rating will go up. Our estimate of what the business is worth hasn't changed, but the shares are more attractive as an investment at \$40 than they were at \$50.

Because we focus on the long-term value of businesses, rather than short-term movements in stock prices, at times we may appear out of step with the overall stock market. When stocks are high, relatively few will receive our highest rating of 5 stars. But when the market tumbles, many more will likely garner 5 stars. Although you might expect to see more 5-star stocks as the market rises, we find assets more attractive when they're cheap.

We calculate our star ratings nightly after the markets close, and issue them the following business day, which is why the rating date on our reports will always be the previous business day. We update the text of our reports as new information becomes available, usually about once or twice per quarter. That is why you'll see two dates on every Morningstar stock report. Of course, we monitor market events and all of our stocks every business day, so our ratings always reflect our analyst's current opinion.

Economic Moat™ Rating

The Economic Moat™ Rating is our assessment of a firm's ability to earn returns consistently above its cost of capital in the future, usually by virtue of some competitive advantage. Competition tends to drive down such



Morningstar's Approach to Rating Stocks (continued)

economic profits, but companies that can earn them for an extended time by creating a competitive advantage possess an Economic Moat. We see these companies as superior investments.

Discounted Cash Flow

This is a method for valuing companies that involves projecting the amount of cash a business will generate in the future, subtracting the amount of cash that the company will need to reinvest in its business, and using the result to calculate the worth of the firm. We use this technique to value nearly all of the companies we cover.

Discount Rate

We use this number to adjust the value of our forecasted cash flows for the risk that they may not materialize. For a profitable company in a steady line of business, we'll use a lower discount rate, also known as "cost of capital," than for a firm in a cyclical business with fierce competition, since there's less risk clouding the firm's future.

Fair Value

This is the output of our discounted cash-flow valuation models, and is our per-share estimate of a company's intrinsic worth. We adjust our fair values for off-balance sheet liabilities or assets that a firm might have--for example, we deduct from a company's fair value if it has issued a lot of stock options or has an under-funded pension plan. Our fair value estimate differs from a "target price" in two ways. First, it's an estimate of what the business is worth, whereas a price target typically reflects what other investors may pay for the stock. Second, it's a long-term estimate, whereas price targets generally focus on the next two to 12 months.

Uncertainty

To generate the Morningstar Uncertainty Rating, analysts consider factors such as sales predictability, operating leverage, and financial leverage. Analysts then classify their ability to bound the fair value estimate for the stock into one of several uncertainty levels: Low, Medium, High,

Very High, or Extreme. The greater the level of uncertainty, the greater the discount to fair value required before a stock can earn 5 stars, and the greater the premium to fair value before a stock earns a 1-star rating.

Margin of Safety

This is the discount to fair value we would require before recommending a stock. We think it's always prudent to buy stocks for less than they're worth. The margin of safety is like an insurance policy that protects investors from bad news or overly optimistic fair value estimates. We require larger margins of safety for less predictable stocks, and smaller margins of safety for more predictable stocks.

Consider Buying/Consider Selling

The consider buying price is the price at which a stock would be rated 5 stars, and thus the point at which we would consider the stock an extremely attractive purchase. Conversely, consider selling is the price at which a stock would have a 1 star rating, at which point we'd consider the stock overvalued, with low expected returns relative to its risk.

Stewardship Grades

Our corporate Stewardship Rating represents our assessment of management's stewardship of shareholder capital, with particular emphasis on capital allocation decisions. Analysts consider companies' investment strategy and valuation, financial leverage, dividend and share buyback policies, execution, compensation, related party transactions, and accounting practices. Corporate governance practices are only considered if they've had a demonstrated impact on shareholder value. Analysts assign one of three ratings: "Exemplary," "Standard," and "Poor." Analysts judge stewardship from an equity holder's perspective. Ratings are determined on an absolute basis. Most companies will receive a Standard rating, and this is the default rating in the absence of evidence that managers have made exceptionally strong or poor capital allocation decisions.