

# Apple is driving software and services innovation to capture premium pricing on hardware.



by [Brian Colello, CPA](#)

## Investment Thesis 07/22/2014

We believe Apple's strength lies in its experience and expertise in integrating hardware, software, services, and third-party applications into differentiated devices that allow Apple to capture a premium on hardware sales. Although Apple has a sterling brand, strong 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.

We believe Apple has developed a narrow economic moat, thanks to switching costs related to many attributes around the iOS platform that may make current iOS users more reluctant to stray outside the Apple ecosystem for future purchases. In our view, much of Apple's exponential growth in recent years has

stemmed not from the firm's economic moat, but from the achievement of building the first truly revolutionary smartphone, the iPhone, that integrated hardware and software, as well as a robust apps store and ecosystem that attracted new users to platform. Apple's first-mover advantage may be diminishing, and "easy growth" coming from early smartphone adopters may be winding down as the smartphone market moves up the adoption curve and competition ramps up. Yet we still foresee iPhone growth, coming from both attracting new customers to iOS (mostly in emerging markets, although we still see U.S. growth as well) and retaining Apple's existing premium iPhone customers, where we think the company's moat will play an increasingly important role. A partnership with China Mobile, the world's largest wireless carrier, should also give iPhone growth a shot in the arm.

Ultimately, we think future smartphone and tablet competition will stem from software and services, as hardware is already approaching commoditization. We view Apple as well positioned to develop and expand enough services to enhance the user experience, in order to build switching costs that will help the firm retain customers and generate significant repeat purchases will be critical for future iPhone growth in the years ahead.

## Economic Moat 07/22/2014

We believe Apple has a narrow economic moat based on modest, but not insurmountable, customer switching costs. We don't believe these switching costs are critical factors in attracting new iOS customers, especially in emerging markets, but that such switching costs will allow Apple to build a loyal iOS user base that may be less likely to flee to other operating systems for future device purchases in the long term. As the smartphone market matures and a greater proportion of purchases come from previous smartphone owners, we foresee these switching costs as extremely important differentiators in favor of Apple. That said, given the short product life cycles of two to four years for most of its devices, we still think competing products will have plenty of chances to lure iOS customers away from Apple's platform and overcome these switching costs, especially if Apple were to stumble in any given product refresh cycle. This prevents us from assigning the company a wide economic moat.

Inherently, we believe there are minimal switching costs associated with smartphones, as all of these devices can perform most necessary functions--place

## Morningstar's Take AAPL

### Analyst

**Price** 08-19-2014 **Fair Value Estimate** **Uncertainty**  
100.53 USD 87 USD High

**Consider Buy** **Consider Sell** **Economic Moat**  
52.2 USD 134.85 USD Narrow

**Morningstar Credit Rating** **Stewardship Rating**  
AA- Standard

### Bulls Say

- Smartphones should continue to grow as a piece of the total handset pie. This bodes well for future iPhone sales.
- Apple's iPhone and iOS operating system have consistently been rated at the head of the pack in terms of customer loyalty, engagement and security, which bodes well for the firm's ability to retain customers in the long-term.
- For each iOS device purchased, customers may be less likely to switch to another provider and more likely to buy repeat Apple products, which we view as a good sign for long-term hardware and iTunes revenue.

### Bears Say

- Apple's recent decisions to maintain a premium pricing strategy may help fend off gross margin compression but may also limit unit sales and market share as the low end of the smartphone space will likely grow faster than the premium market.
- Whereas Apple focuses on a handful of key products, Samsung has emerged as a strong rival by offering highly competitive devices of all sizes and prices at all times of the year.
- Some may question whether Apple has lost much of its vision and creativity with the passing of cofounder Steve Jobs in October 2011.

## Competitors AAPL

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Name	Price	% Chg	TTM Sales \$ mil
<b>Apple Inc</b>	<b>\$100.53</b>	<b>1.38</b>	<b>178,144</b>
Samsung Electronics Co Ltd	\$1,250.00	0.00	225,508
Panasonic Corp ADR	\$12.28	-0.12	75,438
Panasonic Corp	\$12.26	-0.21	75,438
Royal Philips NV ADR	\$30.37	0.26	30,413
Royal Philips NV	\$30.00	0.36	30,413

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calls, send texts, browse the web, and so on. However, we believe Apple has done a much better job at trying to develop switching costs than its handset predecessors (such as Motorola and BlackBerry) that failed to lock in customers when they were on top. Apple's speedy initial development of a robust third-party application ecosystem attracted early smartphone buyers and provided a difficult barrier to entry for other smartphone OS platforms. Although Google's Android was able to develop a similar network and applications developers focused on building products for both of these operating systems, Microsoft has been unable to build out a similarly robust developer network thus far, and we think Apple's early advantage in third-party apps will help fend off any potential competitors looking to build the next great mobile ecosystem.



## Pick and Choose in the Overheated Tech Sector

In our opinion, Apple's switching costs stem from its iOS operating system and appear to be increasing, thanks to its iCloud offering. Apple iOS users who purchase movies, TV shows, and applications from the iTunes store are unable to port these media to Android or other portable devices (music is transferrable). iCloud adds another layer of switching costs by synchronizing media, photos, notes, and other items across all Apple devices. We believe an owner of an iOS device (say, an iPad) is less likely to switch from an iPhone to an Android phone if it means that he or she will be unable to sync or access a portion of their content. Additional Apple devices, such as the Mac and potentially an iWatch, could raise these switching costs even further. By comparison, no other former handset leader (Nokia, Motorola, BlackBerry) offered secondary devices that partnered with their phones, giving Apple a unique edge. Other hardware vendors, such as Samsung, are emulating this model by bundling devices together. However, they don't control the operating system (Android) used to run these products. Along these lines, the inclusion of additional hardware products, like a smartwatch or similar type of wearable product, could enhance the iOS ecosystem even further.

Looking at other sources of economic moat, Apple holds intangible assets associated with patents for its hardware and software designs. However, both the value of such assets and the sustainable competitive advantage stemming from these assets remain cloudy. Regarding Apple's sterling brand equity, we view brands within technology differently than, say, consumer luxury goods. We doubt that Apple can charge double the price for a product that has the exact same hardware and software specifications as an unbranded product. However, we think that Apple benefits from intangible assets, or a brand, in terms of the (mostly) positive user experiences that customers capture from the firm's integrated hardware, software and services. This brand equity may encourage customers to go with Apple for their first smartwatch instead of a host of other offerings. Similarly, Apple might be the world's most trusted consumer technology firm in terms of delivering flawlessly working products in existing, and even new, product categories. However, we still think tech brands are relatively fleeting, as technological inferiority can supersede years of brand equity at any given time. As an example, Nokia was long considered a top-10 brand, but its failure to stay on the technological forefront overtook its brand recognition.

Apple is trying to improve the network effects of its devices with functions like iMessage and FaceTime. However, BlackBerry's demise proves that even highly popular smartphone-centric networks like BlackBerry Messenger can be broken if other smartphone features (or lack thereof) drive customers to flee. Network effects may be forming around Apple's apps developers, as a more robust apps store is likely helping Apple attract new customers. However, these same developers likely build for Android as well, so we think that developers will flock to the ecosystem that offers the most attractive return on investment. Finally, Apple may have some cost advantages associated with its supply chain, such as squeezing suppliers or making massive purchases of flash memory and other key components. However, we believe these advantages are predicated on the enormous forecast volume of Apple's products, and we suspect these advantages would evaporate if Apple's device production were to shrink.

### **Valuation** 07/22/2014

Our fair value estimate for Apple is \$87 per share, which implies fiscal 2014 (ending September 2014) price/earnings of 14 times (and only 10 times after excluding Apple's cash balance on hand). We project 5% revenue growth in fiscal 2014 and 9%

iPhone revenue growth, as iPhone 5s sales grow at a nice pace, especially in China where a recent partnership with China Mobile, the world's largest wireless carrier, should contribute to healthy iPhone unit sales growth. We project a 6% revenue decline from iPad, but 9% sales growth from Mac. Longer term, Apple should still attract late smartphone adopters in developed markets and new customers in emerging markets (especially China). As more consumers are previous smartphone owners, rather than first-time buyers, we think Apple has a good chance to retain a sizable portion of its iOS user base today, and perhaps gain further share at the high end of the market. However, although Apple has taken on the strategy of maintaining premium pricing, which may support gross margins in the years ahead, such pricing may weigh on future revenue growth. In turn, we model decent iPhone revenue growth in the next two years, but only low single-digit iPhone revenue growth in fiscal 2016 and beyond. Based on recent lackluster iPad sales, we project iPad revenue to decline in fiscal 2014, and remain relatively flattish in the long term. We anticipate intense competition in the tablet space, as well as headwinds to tablet adoption, as more customers simply opt to rely on large-screen smartphones rather than standalone tablets. We assume Apple's line of Mac PCs will gain share in the declining PC industry but that revenue will be flattish as pricing softens on these products. We also do not make any profitability assumptions for an Apple TV or iWatch, but recognize that future innovations may provide upside to our valuation. We project 39% gross margins in fiscal 2014 and mid-to-high 30% gross margins in the long term. In turn, operating margins hover in the mid-to-high 20% range. Our fair value uncertainty rating for Apple remains high.

#### **Risk** 07/22/2014

We believe a large, well-diversified company like Apple faces several risks. Smartphone and tablet competition is rising, as Samsung, in particular, has developed compelling iPhone alternatives in the premium smartphone space. Meanwhile, we anticipate that a greater portion of smartphone sales come from low-end devices in emerging markets where Apple does not participate. If these devices turn out to offer only a slightly worse user experience than iOS products, Apple may be unable to capture an adequate premium on future hardware sales. Apple also has to square off against several competitors with different strategies and financial profiles, as firms like Amazon (with its Kindle Fire tablet), Google (with its Nexus devices) and Xiaomi appear willing to sell hardware at close to cost, in order to drive other revenue streams.

Despite its intentions to control as much of the user experience as possible for its products, Apple still relies on a robust app developer base and strong partnerships with third parties. Its decision to use an in-house mapping solution (and subsequent apology) may have diminished Apple's reputation and its customers' user experience, and other similar missteps may cause customers to leave the iOS ecosystem altogether. If Apple were to falter and its exceptional brand be diminished as customers departed iOS in droves, we're not even sure that Apple's mighty 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 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.

#### **Management** 07/22/2014

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 Apple maintains sterling brand recognition and has hundreds of millions of loyal followers, the company has made a couple of missteps under Cook that, some would argue, would have never happened under Steve Jobs. Apple executed poorly when it decided to part ways with Google Maps in iOS 6 and launch Apple Maps with a variety of bugs and errors, leading to a formal apology and the ouster of VP Scott Forstall. Also, Apple hinted that it believes that a 4" screen is an adequate screen size for a smartphone, yet Samsung has done quite well in the near term with its much larger Galaxy smartphones and Galaxy Note phablets (phone/tablets). We fear that Apple may miss out on part of the premium smartphone market if it fails to build a larger-screen iPhone in the near-future, although rumors continue to swirl that an iPhone 6 launch in 2014 may include a larger screen version.

On the other hand, while many may have questioned Apple's management team about its decision to price the iPhone 5c at \$549, rather than at lower prices that more directly addresses emerging market demand, we tend to approve of Apple's decisions to maintain its premium pricing position. We also applaud Cook's decision to initiate dividend and stock buyback programs, as well as take on debt in order to fund such programs. We recognize that many high-profile investors have called for larger buyback programs, but we think that Apple's current plan of \$90 billion is satisfactory as long as buybacks (and the debt issuances needed to fund these buybacks) are made in a prudent manner. In retrospect, the misstep may have come from not front-loading the buyback program in 2013, when both Apple's share price and interest rates were lower than today.

Perhaps more importantly, we think Apple's frugality in terms of acquisitions is quite admirable. Apple's strategy of focusing on smaller, tuck-in deals 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 and Nest, appears to have served investors quite well in recent years. Even Apple's \$3.0 billion acquisition of Beats Music and Beats Electronics represented only a tiny portion of the firm's total cash balance, and we suspect that solid revenue growth and gross margins on headphone hardware sales may have justified the valuation. Apple has also done a good job of attracting top-notch talent to the company in recent months, such as former Burberry CEO Angela Ahrendts to run Apple's retail and online stores, and Paul Deneve, the former CEO of Yves Saint Laurent. We are comfortable that these hires have strengthened Apple's bench in the unlikely event that Cook were to depart the company. Both hires not only have experience managing luxury brands that sell aspirational goods, but also fuel speculation that an iWatch is on the horizon. All the while, Apple's ongoing operations continue to generate operating margins and cash flow well above its peers in various hardware industries, which bodes well for future free cash flow for investors.

## **Overview**

### **Profile:**

Apple designs consumer electronic devices, including PCs (Mac), tablets (iPad), phones (iPhone), and portable music players (iPod). Apple's products run internally developed software, and this integration of hardware and software often allows the firm to maintain premium pricing for its devices. Apple's products are distributed online as well as through company-owned stores and third-party retailers.

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