Executive summary

Apple Inc is one of the most iconic companies of the recent decade. Apple has not only been developing and selling great products. More importantly the company has been building an incredible platform and an ecosystem for its loyal users within which it could further sell apps and services. The company is not immune to general market trends and some of the product sales are slowing down either due to markets maturing (e.g. smartphones) or due to a general industry decline (e.g. music players and computers). Apple has a formidable competition within well established and well financed companies such as Alphabet, Samsung, Amazon, HP as well as newcomers from China like Huawei and Xiaomi. Despite strong competition the company managed to grow and thrive within its industries and enjoys one of the best balance sheets and financial metrics among its peers.

www. nasdaq.com

Key Statistics

Data provided by Capital IQ, except where noted.

Valuation Measures	
Market Cap (intraday)[5]:	585.95B
Enterprise Value (Apr 23, 2016)[3]:	612.17B
Trailing P/E (ttm, intraday):	11.25
Forward P/E (fye Sep 26, 2017)[1]:	10.60
PEG Ratio (5 yr expected)[1]:	1.05
Price/Sales (ttm):	2.50
Price/Book (mrq):	4.58
Enterprise Value/Revenue (ttm)[3]:	2.61
Enterprise Value/EBITDA (ttm)[6]:	7.39
Profitability	
Profit Margin (ttm):	22.87%
Operating Margin (ttm):	30.28%
Management Effectiveness	
Return on Assets (ttm):	16.02%
Return on Equity (ttm):	42.71%
Income Statement	
Revenue (ttm):	234.99B
Revenue Per Share (ttm):	41.35
Qtrly Revenue Growth (yoy):	1.70%
Gross Profit (ttm):	93.63B
EBITDA (ttm)[6]:	82.79B
Net Income Avl to Common (ttm):	53.73B
Diluted EPS (ttm):	9.40
Qtrly Earnings Growth (yoy):	1.90%
Balance Sheet	
Total Cash (mrq):	38.39B
Total Cash Per Share (mrq):	6.92
Total Debt (mrq):	62.99B
Total Debt/Equity (mrq):	49.11
Current Ratio (mrq):	1.00
Book Value Per Share (mrq):	23.13

www. finance.yahoo.com

Moat

Apple moat is built on a combination of economies of scale, great products protected by a wall of patents, very strong brand recognition and a unique ecosystem which holistically links everything together.

Valuation

In my opinion, Apple stock is undervalued. Stock has fallen over 19% in the last 12 month compared to a 1.5% fall for S&P 500. Currently, AAPL trades at TTM P/E of 11.25 which is lower than 5 year average P/E ratio of 13.8. I believe that market is incorrectly pricing the value of not only Apple's $164b of cash piled in LT equities but also of earning potential of existing and new products.

Apple stock has a decent dividend yield which currently stands at 1.94%. With a pay-out ratio of 21.5% the company can raise the dividends even higher. In addition, Apple had started a $140b share repurchase program in 2013 and still has $36b to utilize.

Recommendation and price target

Apple stock is a BUY with a price target of $162/share. The price is based on a combination of conservative DCF analysis and P/E valuation which gave a stock value of $132/share. The value of Apple's LT investments totaled additional $30/share.

Company overview

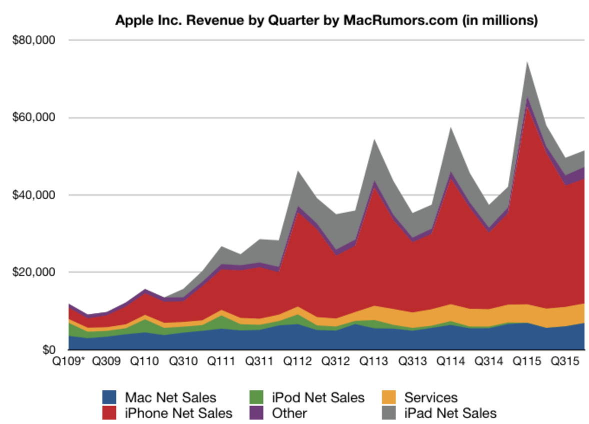
Apple Inc. designs, manufactures and sells mobile and media devices, personal computers and portable digital music players, and wide range of related software and services. Apple sells its products worldwide through its retail stores, online stores and direct sales force, as well as through third-party retailers. The Company sells to consumers, small and mid-sized businesses and education establishment, enterprise and government customers.

Business Strategy

Apple is committed to bringing the best user experience to its customers through its innovative hardware, software and services. The Company's business strategy leverages its unique ability to design and develop its own operating systems, hardware, application software and services to provide its customers products and solutions with innovative design, superior ease-of-use and seamless integration. As part of its strategy, the Company continues to expand its platform for the discovery and delivery of digital content and applications through its Internet Services, which allows customers to discover and download digital content.

Selling premium products at a premium price should come with a high-quality buying experience. Therefore, the Company's strategy also includes building and expanding its own retail and online stores and its third-party distribution network to effectively reach more customers and provide them with a high-quality sales and post-sales support experience.

Products



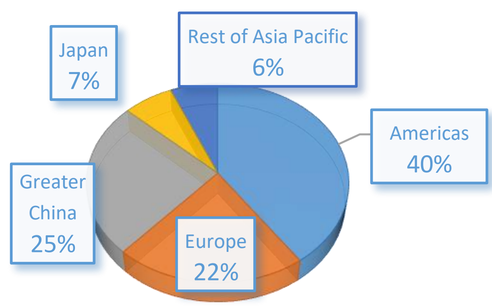
iPhone is by far the Apple's flagship product and brings the largest share of revenues**.** Iphone is the line of premium smartphones which operate on proprietary iOS operating system. iPhones work with the iTunes Store, App Store and iBooks Store for purchasing, and playing digital content and apps. iPhone is compatible with both Mac and Windows personal computers and Apple's iCloud services, which provide synchronization and integration across users' devices.
iPad is the line of tablets. Just like iPhones, iPads are compatible with both Mac and Windows personal computers and have easy access to Apple's digital stores like iTunes, App Store and iBooks Store.
Mac is the line of desktop and portable personal computers with iOS software.
Operating Systems Software like iOS, **watchOS and tvOS** serve as the foundation for

company's devices.
Application Software covers a broad range of products from simple every day applications to professional programs like photo and video editing suites.

Internet Services
iTunes Store allows customers to purchase and download music and video content.
App Store allows customers to find and download apps and purchase in-app content.
iBooks Store sells e-books from major and independent publishers.
Apple TV App Store gives customers access to apps and games specifically for the new Apple TV.
iCloud is the Company's cloud service which stores music, documents, photos, etc keeping them up-to-date and available across multiple devices and computers.
Apple Pay is the Company's mobile payment service that allows users to securely pay for purchases in stores by using mobile devices like iPhone and Apple Watch.

Other Products and Accessories
Apple also sells a variety of accessories for its products, including Apple TV, Apple Watch, headphones, displays, storage devices, Beats products, and various other connectivity products. Apple TV connects to consumers' TVs and allows them to access digital content like videos, music, games and photos and can synchronize to data stored across other user's devices.
Apple Watch is a personal electronic device that not only allows to see time, but also helps track user's health and fitness through activity and workout apps, and also includes Apple Pay.
iPod is the line of portable digital music and media players. All iPods work with iTunes to purchase and synchronize content.

Geographic Segments



Operating segments cover the Americas, Europe, Greater China, Japan and Rest of Asia Pacific. Europe segment includes European countries and interestingly enough India, the Middle East and Africa. The Greater China segment covers China, Hong Kong and Taiwan. The Rest of Asia Pacific includes Australia and other Asian countries not included in the other segments. Each region is separately managed to better align company's strategy to local markets.

Americas is the largest segment and brought in 40% of the total revenue in 2015. It is also worthy to be noted that China sales exploded in 2015 by 84% and overtook Europe as the second largest region. It also looks that, perhaps, Japan's market has reached saturation as the 3% growth lagged all other regions by a wide margin.

Markets and distribution

As of the end of 2015 indirect distribution through third party retailers accounted for 74% of total sales. In order to provide high quality buying experience, Apple continues to build and improve its distribution capabilities by growing the number of its own stores. During 2015 direct distribution accounted for 26% of Apple's sales. The Company's retail stores are usually located in high-traffic and quality locations. Apple sells to consumers as well as to the education market through direct sales force, select third-party resellers as well as its online and retail stores. The Company also sells its hardware and software products to enterprise and government customers in each of its reportable operating segments. No single customer accounted for more than 10% of net sales in 2015, 2014 or 2013.

Markets overview

Apple is focused on expanding its presence in personal computers, mobile communication and media devices. Markets for the Apple's products and services are highly competitive and experience frequent product introductions and rapid technological advances. Competitors have been known to be very aggressive in not only cutting prices but also in often imitating many features of Apple's successful products.

Most markets in which Apple competes, except for PC market, are growing, but margins due to stiff competition are razor thin for many players. Smartphone market grew at 9.8% in 2015 (idc.com) and reached 1.43 billion units shipped. Personal computer industry has been in decline for some time now with worldwide shipments down -10.6% YOY in 2016. Tablet market, has also experienced a 10% decline in 2015 (idc.com). Other markets where Apple competes such as smartwatches, software, Mobile apps, in-app purchases, phone accessories, digital content and other added services are growing but experience significant competition. Because of rapid technological advances, stiff competition and changing customer preferences for new products, companies in such industries need to constantly innovate in order to survive.

Most of the manufacturing for the majority of hardware players is outsourced to Asia with most of the components available from multiple sources. Apple competes for various components with other participants in the markets for mobile, media and personal computer device. Therefore, many components according to the company filings can sometimes experience industry-wide shortages and significant pricing fluctuations. However, due to the size of the business Apple has, it is reasonable to assume that the company has considerable buying power over most of its suppliers and contractors who provide manufacturing.

According to Apple filings, factors which are important in the industry often include price and performance, product features, product quality, product innovation and design, a strong software and accessories ecosystem, marketing and distribution capability, service and support and brand reputation.

Market trends

Smartphone industry growth is expected to decelerate in 2016 to ~5.7%. Annualized growth rate for the next 5 years is expected to be even lower than that at 4.3% YOY. Currently there are two dominating platforms: Google's Android which is used by many manufacturer's such as Samsung, Huawei, HTC, Lenovo and others and Apple's iOS which holds an estimated 82.6% and 15.2% respectively. Apple's share of the market is expected to drop by 1.2% to 14% of the total market and Apple's smartphone shipments are expected to increase ~3.2% YOY by 2020. Apples major competitors are South Korean Samsung and Chinese Huawei, Lenovo and Xiaomi.

Worldwide Smartphone Forecast by OS – Shipments, Market Share, Year-Over-Year Growth, and 5-Year CAGR (shipments in millions)

Region	2016* Shipment Volumes	2016* Market Share	2016* YoY Growth	2020* Shipment Volumes	2020* Market Share	2020* YoY Growth
Android	1,254.6	82.6%	7.6%	1,624.4	84.6%	4.6%
iOS	231.2	15.2%	-0.1%	269.0	14.0%	3.2%
Windows Phone	23.8	1.6%	-18.5%	17.8	0.9%	-5.7%
Others	9.5	0.6%	-15.1%	9.2	0.5%	4.8%
TOTAL	**1,519.0**	**100.0%**	**5.7%**	**1,920.4**	**100.0%**	**4.3%**

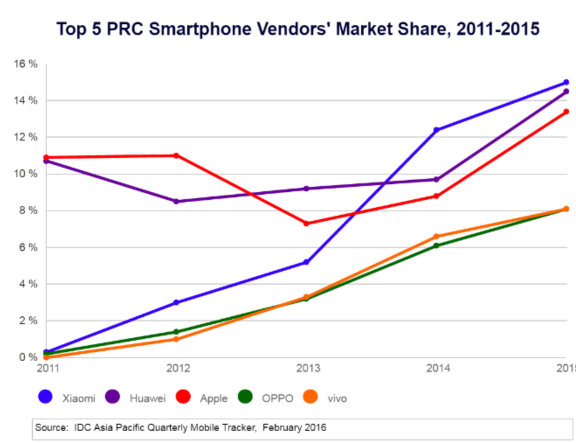
Source: IDC Worldwide Quarterly Mobile Phone Tracker, March 3, 2016.

Samsung has the largest market share in smartphone shipments so far. The company has been quite successful in providing phones for different price levels in many countries. Samsung's decline was partially due to a lower performance of its new line of Galaxy S6 smartphones. The higher shipments of its lower-end model in developing countries helped offset the decline in premium model. Samsung was also failing in a very important Chinese market where local makers especially Huawei and Xiaomi did a better job by to offering high-specs and low-cost Android devices tailored specifically to local preferences.

Global Smartphone Vendor Marketshare (%)	Q4 '14	2014	Q4 '15	2015
Samsung	19.6%	24.7%	20.1%	22.2%
Apple	19.6%	15.0%	18.5%	16.1%
Huawei	6.3%	5.8%	8.1%	7.4%
Lenovo-Motorola	6.5%	7.2%	5.0%	5.1%
Xiaomi	4.5%	4.8%	4.8%	5.0%
Others	43.5%	42.5%	43.5%	44.2%
Total	100.0%	100.0%	100.0%	100.0%

www. Idc.com

Huawei has been known to be very aggressive on pricing while still providing high-spec products. Huawei has experienced a very strong growth in the number of units shipped with a 44% YOY increase in 2015 and expected growth over 30% in 2016. The company boldly predicts to overtake Apple by number of units shipped by 2019 and Samsung by 2021. Huawei goes head to head with Xiaomi in China market and had recently moved into US and Western Europe where it is trying to position itself more toward premium smartphone makers.

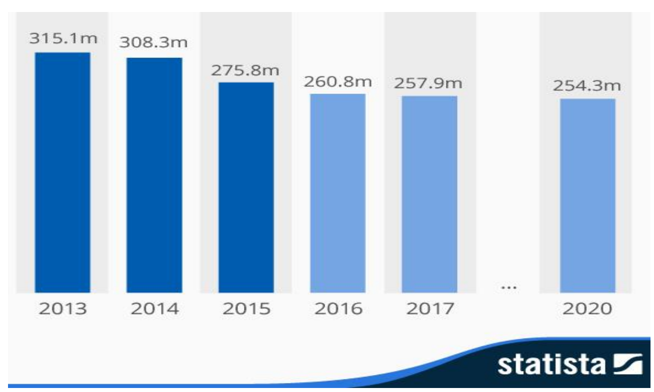


Xiaomi became world's 5th largest smartphone maker in less than 5 years. The company is often called Apple of China as it is often accused of producing cheap knockoffs of Apple's higher-end products. Xiaomi phones are, however, considered pretty trendy in China and due to a smart social media campaign enjoys pretty strong fan following. By selling most of its products at near cost, Xiaomi's goal is to get customers eventually buy internet service such as apps, games and digital media. Xiaomi's expansion and success in other markets especially more developed ones, however, is still questionable as the company could face possible lawsuits for patent violations. It is also yet to be seen if Xiaomi will be as successful with its direct selling model in other countries as it has been China.

Lenovo's smartphone division is not doing well. The company improved its earnings in the Q1 of 2016, but that was due primarily to a cost cutting initiated in a prior year. Sales are falling and Lenovo's global market share has dropped from 7.2% in 2014 to 5.1% at the end of 2015. Aggressive competition in China prompted Lenovo to focus on other markets. Lenovo blames sales slump in China, Brazil and Latin American markets on tougher competition and poor economic conditions and hopes that situation will improve soon.

Apple did extremely well in 2015 as iPhone sales in China exploded and reached new highs. Market share in US and all other markets was up as well. Overall iPhone sales increased 52% in 2015 compared to 2014. What is even more impressive is that despite strong competition it is estimated that Apple captured ~92% of profits of the smart phone market.
iPhone revenues in 2016, however, are expected to stay relatively flat due to a general smartphone market slowing down and consumers not upgrading higher end phones as often as they used too.

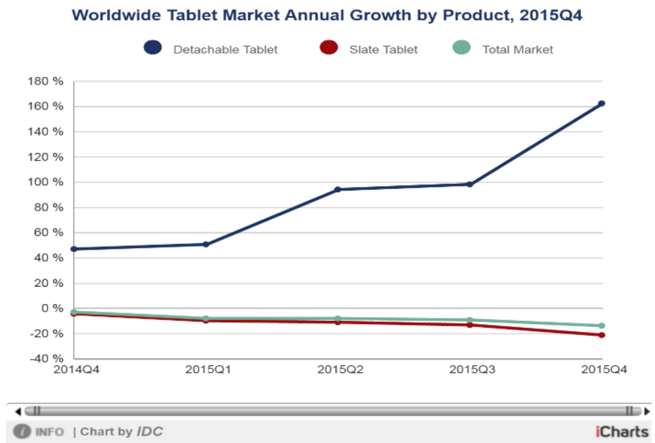
PC industry is not expected to grow in the next five years. In fact it is estimated to post a slight decline from 275.8m units in 2016 to 254.3 in 2020.
Apple so far has been quite successful in growing its Mac business in a declining environment. Sales grew at 12% and 6% in 2014 and 2015 respectively. Future growth is expected to decelerate and be only a slight notch above a relatively flat PC market.



PC industry it seems has permanently suffered due to the introduction of tablets and other communication devices such as smartphones, phablets and 2-in-1s.

Lenovo remained number one PC producer in 2015 with its market share increasing to 20.7% in 2015 from 19.2% in a prior year. Shipments fell less than a general PC industry decline of 10%, mostly due to strong sales in North America.
HP, Dell and Asus also suffered due to a general decline in a PC industry.

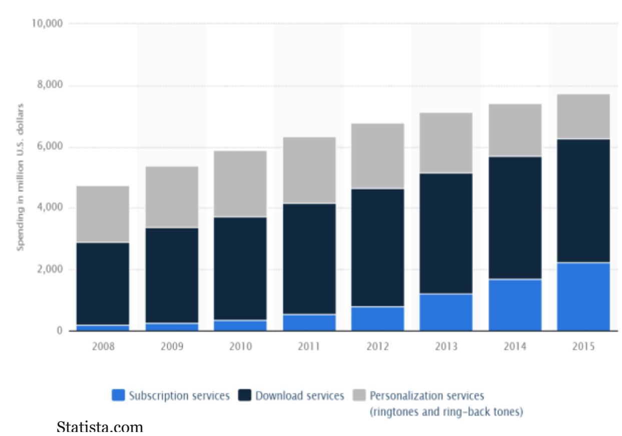
Apple, however, managed to grow its PC business at 6.2% and improved its market share to a 7.5% of a global PC market. It also looks like Apple is uniquely positioned to provide a different alternative to consumers in the otherwise commoditized Windows-Intel PC market.



Tablet market was pretty much reinvented when Apple introduced iPad. But with the introduction and rapid growth of lower priced tablets, phablets, 2-in-1s and just general market saturation, tablet market growth fell rapidly in 2014. Worldwide shipments of slate tablets are expected to decline further while detachable tables are making new highs but from a lower base. Apple managed to offset steeper losses from iPads with a higher priced iPad Pro and a shift to more expensive product mix. iPad Pro and Microsoft Surface Pro did extremely well in the detachable category with estimated shipments of 2m and 1.6m respectively.

A very interesting trend is also in the lower priced tablets as Amazon shipped a $50 units and finished among top 3 vendors in 2015 worldwide. Amazon's strategy is to offer its tablets at a cost in order to make it easier for customers to shop on Amazon's platform.
Other vendors such as Huawei and Lenovo are also moving into lower priced tablets as they try to capture share in new markets. Samsung managed to stay in 2nd place, although shipments declined 18% YOY. Samsung strategy for tablet market is similar to smartphones and PC markets where a wide range of products is offered for multiple price points.

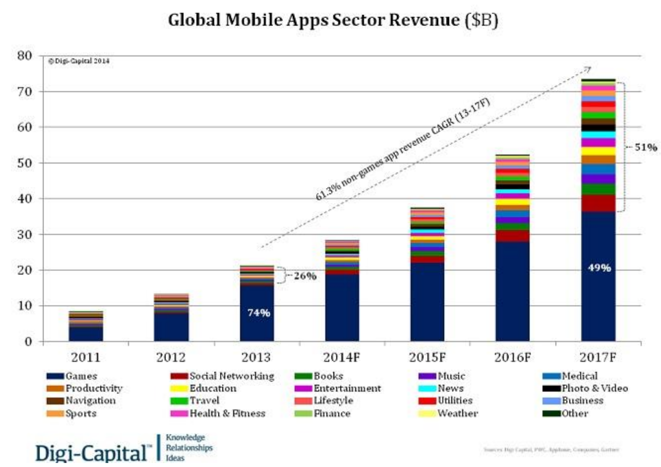
Digital Music/Digital Content/App sales



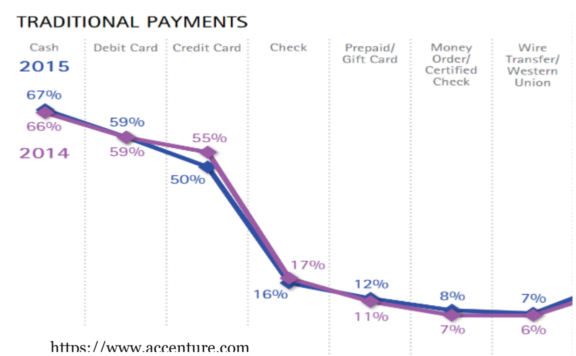
Apple's Services category covers iTunes and digital content sales, app sales and other services. Global digital sales of music continued to see a shift from permanent downloads to subscription model and add supported streaming. Thus, the share of the subscription model grew significantly. Subscription sales grew from $1.7b in 2014 to $2.2 in 2015. Such trend is expected to continue into the near future as consumers clearly prefer to pay anywhere from $3.99-$10/months instead of $1-1.29 per song. Apple's iTunes sales continued to fall in 2015 due to not only a shift in consumer preferences but also due to strong competition from Google Play, Amazon Music and other smaller providers.
To follow the streaming trend Apple introduced Apple Music, a subscription based music

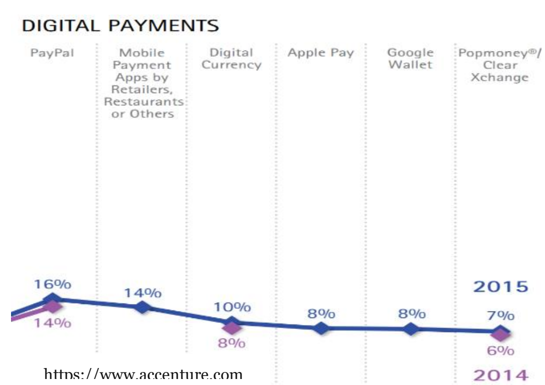
streaming service. As of beginning of 2016 its 11 million subscribers were adding ~$1.2b to the revenues. Competition in the segment is, however, very strong. Most notable competitors are Spotify, Pandora, iHeart Radio, Amazon Music, Google Play, Slacker and some others. For major player, the race right now is for attracting and keeping customers within their own ecosystems. Offering shopping, music videos, games is a part of the complete holistic system where companies want, just like supermarkets, sell one everything under one roof.

Global mobile app revenues are expected to reach over $100b by 2020. Apple does not break down its revenue by the parts of the Services segment, but a decline in iTunes was handsomely offset by the rise in revenues from App stores, Apple Music and Apple Pay. Since number of active Apple devices passed 1 billion mark in 2016, we can expect consumers to keep downloading apps at least at the same rate. In 2015, Apple also noted that China overtook US in the number of app downloads. There is clearly a demand for apps from consumers and major platform providers such as Apple, Google and Amazon are working on building their own ecosystems where apps are an integral part.



Mobile payment systems are systems that use customers phone to make payments in-stores through mobile devices and in the app stores. Currently NFC (near field communication) enabled systems are mainly provided by Apple Pay, Android Pay and Samsung Pay. These systems allow consumers to simply touch a payment terminal with their phone without opening any application. On the other side of mobile payments are applications like Paypal, Chase Pay, Walmart pay and some other applications which are slightly more cumbersome and require a customer to pay through an application and not through a simple tap. Currently the race is not only for companies to get retailers to accept their payment method but also to switch customer habits into using their phones as wallets. Adoption among consumers has been pretty slow so far. According to a recent Accenture survey, 52% of North Americans are "extremely aware" of mobile payments but only 18% use them on a regular basis.





Consumers it seems are not in a rush to leave wallets home yet. Another survey by Annapolis Consulting found that only about 2% of Apple iPhone owners use Apple Pay regularly (more than once a month). Although the adoption of mobile payments is slower as many had expected, the trend is in the right direction. And with the growth of smartphones, merchants accepting mobile payments and positive changes in the payment infrastructure not only in US but also globally, leading providers including Apple, Samsung, PayPal and Alphabet are confident that the mobile payment markets will experience enormous growth in the future.

The worldwide wearable device market is expected to see continued growth in the near future with a projected growth over 44% in 2016 and five year CAGR of 28%. The most common wearable are pretty much fitness trackers.

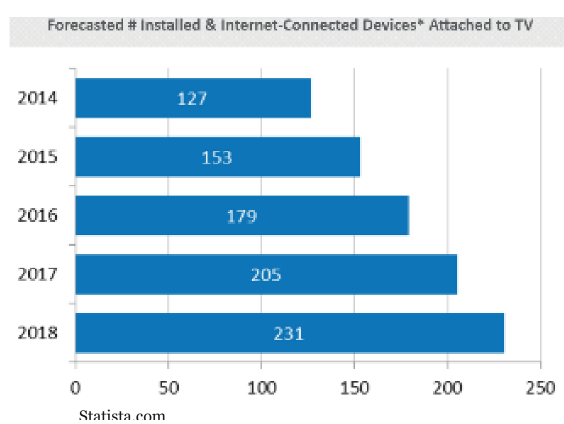
Top Smartwatch Operating Systems with Shipments, Market Share and 5-Year CAGR Growth (Units in Millions)

SmartWatch OS	2016 Units (M)	2016 Share	2020 Units (M)	2020 Share	2016 - 2020 CAGR
watchOS	14.0	49.4%	31.0	37.6%	22%

Source: IDC Worldwide Quarterly Wearable Device Tracker, March 17, 2015

Smartwatches should become the most popular type of wearables as they significantly expand the possibilities of both watches and trackers especially once later generation with cell connectivity and more power hit the markets. A watch has not changed for a very long time and a smartwatch will completely change how people view and interact with such a device. People already can check their emails, make in-store payments, answer calls, track their fitness activity and stay even more connected though Apple Watch, Samsung's Tizen and Android Wear. Apple Watch currently has over 49% market share and is expected to keep its dominance a market leader in the near future. IDC estimates that Apple could sell 14-20m units in 2016 and 31-40m units in 2020. Apple's watchOS will be competing pretty much with Android and Samsung's Tizen.

Apple TV is also a product in a relatively new market of TV streaming devices. Currently Apple TV competes with ROKU, Amazon, Google and some other providers within the Smart TV segment for a Connected TV user.



The number of installed and internet-connected devices attached to TV is expected to grow to over 230m from 153m in 2015 according to the NPD Group. Such growth will be fueled not only by the adoption of devices sold by Apple, Amazon, Roku and Google, but also by the enormous growth of media content services like Netflix, YouTube, Amazon, Hulu and HBO. Such streaming services are often free or low-priced and are available without a need to subscribe to expensive cable TV bundles. In addition, TV boxes from Amazon and Apple also provide access to plethora of apps for gaming and other digital entertainment thus opening even more possibilities for increased revenue from in app purchases within their ecosystems.

To sum up on markets and competition, we can expect a slowdown in growth of iPhones, Macs and iPads in 2016 and years ahead. Apple's Services and Other category are expected to grow strongly and to add a larger proportion of revenues in the years to come. Competition for most segments is extremely strong and well financed. Google and Amazon present formidable force in the digital space as they also try to build an ecosystem within which to offer customers everything they might need, while Chinese counterparts in a hardware space are moving swiftly in the lower priced market segments.

It is also worthy to note that Google's advertising business is the driving force behind building ecosystem for consumers. For Amazon, it is the desire to have customers buy everything they need through Amazon.com as the infrastructure to sell and delivery quickly almost anything within U.S. is already there. Apple, however, is building its ecosystem as the way to strengthen and insulate the brand and manages to make money on both hardware and digital offerings. Makes one wonder if Apple will ever attack Google and Amazon on their turfs with the same loss leading strategies they have used.

Key Risks for Apple include:

a) Failure to innovate and keep ahead of competition in offering premium products in rapidly changing markets.

b) Price competition can erode margins and lure new and existing customers away.

c) Competitors can provide better or similar quality offerings through partnerships and joint ventures.

d) Patent infringements and court litigations with especially Chinese rivals.

e) Management desire to rapidly use the enormous amount of cash to diversify into unrelated industries/products and/or grow through reckless acquisitions.

f) Issues with key components suppliers and manufacturing contractors.

Moat

Apple has been building an impressive platform/ecosystem within which its users now have devices they use the most like computers, smartphones, tablets and TVs seamlessly connected to each other and to services that Apple is selling to make all those devices more productive, more fun and more usable. No other company is coming close to providing the same ecosystem for the devices it produces. By controlling an entire process from hardware, software, and add-on services in its app stores, Apple is the most integrated computer and media devices company by far. It also managed to stay in line with its strategy to offer great products at premium pricing and it is yet to be seen whether lower priced competition will be able to make a dent in higher end segment that Apple is targeting.

In addition to great quality products, Apple enjoys among the best financial metrics in the industry among mature companies.

	Samsung	Apple	Microsoft	Alphabet	Amazon	Huawei	HP
Gross Margin %	38.3	40.1	62.9	62.4	33	46.5	23.9
Operating Margin%	13.16	30.3	28.4	25.8	2.09	21.3	7.15
Net Margin %	9.32	22.87	12.95	21.8	0.56	20.38	4.72
ROA %	6.99	19.36	8.8	8.75	2.33	5.57	3.18
ROE %	10.98	42.71	13.53	14.58	4.94	6	6.92
P/E	10.18	11.22	36.7	30.54	496.77	82.22	13.02

30% operating margin, 22.8% net margin, 19% ROA - these are terrific metrics, especially for the company that is involved in manufacturing. Apple is beating even software companies such as Microsoft and Google on most of those metrics**.** Apple has tremendous advantage in respect to possible price wars and who might suffer more should it come to such a showdown. The metrics above also hint how well established and tuned up Apple's operations are especially given their size and scope. According to Ben Graham, "Several forces can widen a moat: strong brand identity, monopoly or near monopoly, economies of scale, unique intangible asset and resistance to substitution." Among those, Apple definitely has economies of scale, solid market share in all the industries it competes in and a very strong brand identity. And Apple's ecosystem is a unique intangible asset that holistically links together all devices and services that are used by Apple's customers. Apple's IP portfolio further adds to the strength of such position.

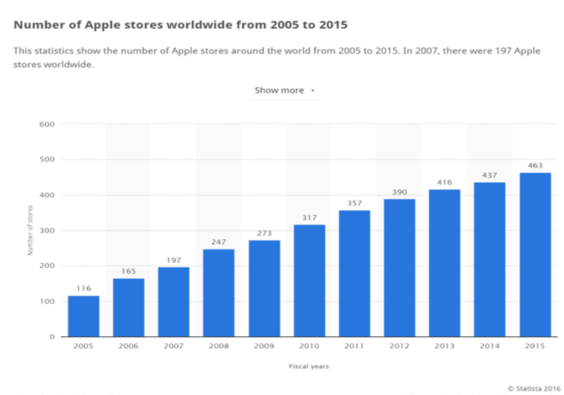
Key Growth Drivers

Demographics of India and China

During the most recent conference call Mr. Cook made some pointers on where Apple expects growth to come from in the near future. Among them are the demographic trends in India and China. "The population of India is incredibly young and the demographics there are incredibly great for a consumer brand and for people that really want the best products", believes Apple CEO. Apple is also betting on the growth of the middle-class in China that was projected to grow from 50m in 2010 to about half a billion in 2020. Other developing markets will also provide a boost to sales as standard of living and wireless network infrastructure improves.

Retail Stores

Apple continues to aggressively invest in retail stores. With 463 stores globally in 2015, the company currently also has 28 stores in Greater China and is expected to have 40 by the summer of 2016. With offering more products than ever, company now is planning to not only provide high class buying experience but also to cross sell other products to consumers. In addition, because Apple stores are usually doing much better job than third party retailers in selling Apple's products, the

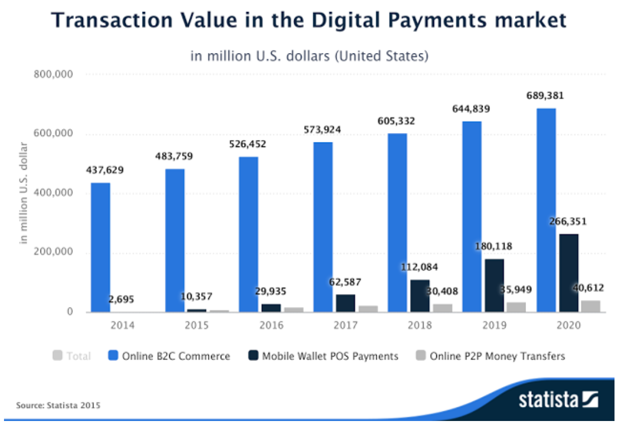


company should be able to further improve its margins while also gaining better control of its distribution network.

Services segment

Services will see continued strong growth as app revenues are expected to grow incredibly well in the years to come and Apple with its solid infrastructure and more than 1b connected devices is very well positioned to monetize on that. App sales grew by an estimated 30% to over $6b in 2015. As global app industry is projected to double by the end of 2017, so should Apple's app store sales under conservative assumptions.

Apple Pay



Apple's digital wallet has the potential to be a very important driver by attracting more people to iPhones. As the money making service on its own, Apple pay could bring an estimated $1.5b in 2020. Reportedly Apple will net 0.15% on each transaction in U.S. Commissions on transaction in countries outside U.S. are most likely to be lower as interchange fees are also lower in those countries. According to a study by Accenture: 8% of respondents in North American market use Apple Pay. And that number is expected to grow as consumers will become more familiar with mobile payments in general. In addition credit card transaction volume globally is over $8tr and growing strongly in high single digits. If Apple can capture at least 10% of that at an average commission of 0.125% it could add $1.3b+ to its revenues in 2020. There is also an online digital payments market. Partially overlapping with credit card market, it is expected to grow at 15% annually to reach $689b. Assuming a 15% market share at the same commission rate, Apple PAY could possibly add another $215m in 2020. So, even with quite generous assumptions Apple Pay is not changing the income statement picture significantly on its own anytime soon. What is more important, however, is the amount of marketing and boost in sales of related products such as iPhone and iWatch, Apple Pay could bring every time consumers see that "Pay"sign in the stores they shop.

Apple Watch

Apple is not releasing how many watches it sold in the recent quarter. Estimates from analysts range from 3-10m units. Taking a median number of 5m units in a historically strongest Q1 and assuming a robust growth in remaining quarters we can expect ~20m units to be sold in 2016 which is quite higher than IDC estimate presented earlier. High growth is expected to continue in the next 5 years reaching 40-50m units by 2020. At an average price of $400 per Apple Watch, it will translate into $20b in revenue by 2020. In addition, smartwatche will become obsolete much quicker than regular watch, requiring consumer to upgrade/buy new unit much more often.

Potential revenue drivers

iCar

German newspaper Handelsblatt has recently confirmed that BMW and Daimler ended talks with Apple on working together.Multiple sources also confirmed that Apple hired away quite a bit of people from Tesla. Thus, it is no longer a secret that Apple is planning to build a car. We can only speculate about car's release date, features and price range, but it should be reasonable to assume that new car will be connected to Apple's ecosystem, have a premium price tag and have a great design. As noted earlier, Apple is building an ecosystem through tech products people use the most in their everyday lives like computers, tablets, smartphones, TVs, and now smartwatches. Two remaining gaps are smart cars and smart homes. Apple car will move the company closer to filling remaining pieces of the puzzle.

Other possibilities

With as much cash as Apple has there are endless possibilities of what to pursue in the desire to grow. IOT (internet of things) and smart homes will get Apple closer to being involved in most technological aspects of its customers' lives while AR (augmented reality) can really complement the wearable market. Although far-fetched, Apple could also expand into advertising, as Apple's ecosystem, much like Google's and Facebook platforms is an ideal place to collect data and sell advertising space. And last, but not least, is of course a huge potential for future acquisitions of promising companies.

Quality and conduct of management

Quality and conduct of Apple's management can be seen in the consistency of great performance, growth, product innovation and terrific financial metrics. Mr. Cook was awarded $65.2 million in compensation last year which might seem high. However, in the pay-for-performance measure used in the Bloomberg ranking, Cook is ranked number one among U.S. CEOs. Altogether top 5 Apple executives are among top 100 highest paid in the U.S. and based on how Apple performed so far, these executives, it seems, are worth every dime.

Financial statements / Valuation

- ✓ Apple posted record sales in 2015. Up 28% from the prior year.
- ✓ All geographic regions except Japan posted robust growth. Sales in China exploded with the YOY growth of 84%.
- ✓ iPhone segment posted the largest gains of 52% from the prior year.
- ✓ Service and other products grew at 10% and 20% respectively.

- ✓ iPad and iTunes were laggards. iPad posted at 23% decline. Apple did not provide detailed numbers for iTunes sales.
- ✓ 2016 Revenues are expected to stay relatively flat due to expected growth slowdown in iPhone sales. Decline in iPad segment should be offset by expected strong performance of App store, Apple Pay, Apple Watch and Apple TV.

	2015	Change
Net Sales by Operating Segment:		
Americas	$ 93,864	17%
Europe	50,337	14%
Greater China	58,715	84%
Japan	15,706	3%
Rest of Asia Pacific	15,093	34%
Total net sales	$ 233,715	28%
Net Sales by Product:		
iPhone (1)	$ 155,041	52%
iPad (1)	23,227	(23)%
Mac (1)	25,471	6%
Services (2)	19,909	10%
Other Products (1)(3)	10,067	20%
Total net sales	$ 233,715	28%

- ✓ Diluted earnings per share grew 43% from $6.45 to $9.22.
- ✓ Dividends were also handsomely increased from $1.82 to $1.98/share

	2015	2014
Net sales	$ 233,715	$ 182,795
Net income	$ 53,394	$ 39,510
Earnings per share:		
Basic	$ 9.28	$ 6.49
Diluted	$ 9.22	$ 6.45
Cash dividends declared per share	$ 1.98	$ 1.82

Apple also continued with it share repurchase program with buying 131775 of its own shares, thus returning to shareholders over $36b in 2015. Cook also noted that Apple finished 2015 with "the mother of all balance sheets". Truly, the balance sheet is impressive. As of the end of 2015 Apple had $41b in cash and short term investments and over $164b in LT equity and other investments. Total debt was mere $64b.

Apple stock however, did not perform well and is down 19% in the last 12 months underperforming general market by almost 18%. The drop is most likely attributed to the expected slowdown of the iPhone sales in 2016 and general market orientation on the short term results. To long term investors this presents a great buying opportunity as the fundamentals of the Apple's business has not changed.

Apple stock price estimates based on DCF analysis vary significantly from high of $246 in "Management case", to low of $78/share in "Downside case" scenarios. More realistic price is perhaps best reflected by the "Base case" of $138/share. This calculation, however, does not includes the value of long term investments. Which at $164b in LT equity investments and 5503m shares outstanding add another $30/share.

From a P/E perspective, Apple's stock historical 5 year P/E ratio averaged 13.8x. It has been lower than the market average for the last 5 years for reasons difficult to understand. Current ratio of 11.2X (based on $105.49 as 4/22/16) is much lower than the historical value.

The price of $132/share is actually much closer to the average 5 years P/E ratio of 13.8. This price, also does not take into account the growing pile of cash that Apple keeps in LT investments, which grew from $55b in 2011 to $164b in 2015. Thus, adding $30/share from prior calculation gives a price target of $162 which is pretty close to $168/share estimate from a DCF analysis.

P/E Ratios	Samsung	Apple	Microsoft	Alphabet	Amazon	Huawei	HP
	10.18	11.22	36.7	30.54	496.77	82.22	13.02

Mr. Market it seems, not only underestimates Apple's potential for future growth, but also is pricing Apple stock lower than most of the competition, despite stronger balance sheet and huge amount of cash Apple has in its disposal.

Margin of safety

Ben Graham defined the bargain stock being at least 50% less than actual value. Based on my calculations and a price target of $162, Apple stock is a bargain at current price of $105. In addition, Mr. Graham also wanted to see a steady and sustainable growth, so the company is worth more in future than it is today. It is expected, due to Apple size, that the growth will slow down, but even with quite conservative assumptions in the model Apple is still expected to show a modest growth.

Mr. Buffett adds a new twist on Graham's ideas: he looks for "franchise companies with strong consumer brands, easily understandable businesses, robust financial health and near monopolies in their markets". He also wants managers to set realistic goals and organically built businesses instead of acquisitions. Although, Apple is far from monopoly, it has very strong financial position and a very strong global consumer brand. The company also tries to stay away from high profile and expensive acquisitions. The largest transaction so far was the purchase of Beats Electronics for $3b in 2014. Otherwise, the majority of purchases were of small tech companies.

In addition, Apple pays $2.08 in dividends, has a payout ratio of 21.5% and is expected to continue its share repurchase program. From 2013 to 2015, the company utilized $104b from authorized $140b to repurchase its shares. Despite all of this cash outflow, the balance sheet remains strong and the payout ratio can easily support higher dividends.

Looking from a different perspective, 9.3X was the lowest P/E for Apple stock in the last 5 years. The low was recorded in spring of 2013. If the stock were to return to such valuation, the price would be 89$. Thus, the upside potential of 54% is still higher than the downside of 15%.

Recommendations and price target

I have a buy recommendation with a one-year price target of $162/share. Mr. Market is quite unpredictable and it can quickly change its opinion on how much value is stored not only in future potential of the company but also in $164b of LT equity and other investments.

DCF Assumptions:

- ✓ Revenue growth is based on conservative “Base Case” assumptions
- ✓ Share repurchase program is expected to be continued
- ✓ Dividend pay-out ratio is expected to increase to 25%
- ✓ Interest expense on debt is expected to stay the same for 5 years
- ✓ Income taxes kept constant at 25.5%
- ✓ WACC is 10%
- ✓ Terminal growth rate is 3%

Conclusion

Despite its enviable financial strength, extremely strong margins and very popular brand Apple is out of favor with investors these days. Perhaps, people believe that Android will take over iOS, or that Chinese rivals will squeeze out margins and lure Apple’s customers away, or, perhaps, that Apple can’t find a good use to the pile of cash it is keeping outside U.S. In my view, the market is very short term oriented and does not want to wait given that sales in 2016 are expected to be relatively flat. For the value investor with a long term horizon, however, Apple’s low stock price presents a great buying opportunity.

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