Apple's Big Problem

Having a ton of cash is good. Having to invest a ton of cash is hard.

June 3, 2016

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Key Takeaways

- **While near-term results will be dominated by iPhone sales, Apple's medium-term growth is dependent on the firm's successful investment of its cash hoard.**
- **Apple had $234 billion of cash and marketable securities at the end of March 2016.** Much of this wealth is held overseas and cannot be repatriated without paying a hefty tax bill.
- **The strength of Apple's deeply-engrained design culture is a weakness in investing terms.** The characteristics that made Apple a terrific success as an innovator have already been shown to make it a poor investor.
- **Tim Cook has hinted that Apple will likely announce a big acquisition soon.** There are a few areas in which the firm might invest. The most likely area in which it may invest is likely the worst choice.

Introduction

Apple is proof that the winds of fortune can change very quickly. From being rescued from bankruptcy in 1997 by Microsoft, Apple is now the second most valuable firm in the world with a cash hoard of $234 billion.

The means it used to accomplish this feat is a study in concentrated investment. Steve Jobs' first act upon returning to Apple was to drastically pare down its product line up and to devote an enormous amount of energy and engineering talent on the line of software-enabled portable entertainment / communication devices that eventually morphed into the iPhone.

In option investing terms, Jobs' focus on portable entertainment devices represented an Out-of-the-Money call option, with a low probability of success but a large potential upside.

The upside has materialized so quickly and so thoroughly that Apple now generates around two-thirds of its revenues from iPhone sales (See also the IOI ChartBook on Apple).

This concentrated revenue source means that Apple now faces problems in both the near-term and the medium-term. In the near term, it has a secure and enviable position in the portable entertainment / communication device market, but this market has matured in developed economies and is characterized by cost sensitivity in developing markets. Near-term, Apple's operational results are bound to be dominated by its success in this crowded, competitive business.

In the medium-term, the only way it will grow is by successfully investing its sizable winnings from its successful concentrated investment in the portable entertainment device market. This report discusses the avenues of investment open to Apple.

Apple's Investment Assets

At the end of last quarter, Apple held $232,928 million of cash equivalents and marketable securities, balanced by $71,874 million of long-term debt and its current portion. This implies a net cash position of just over $161 billion.

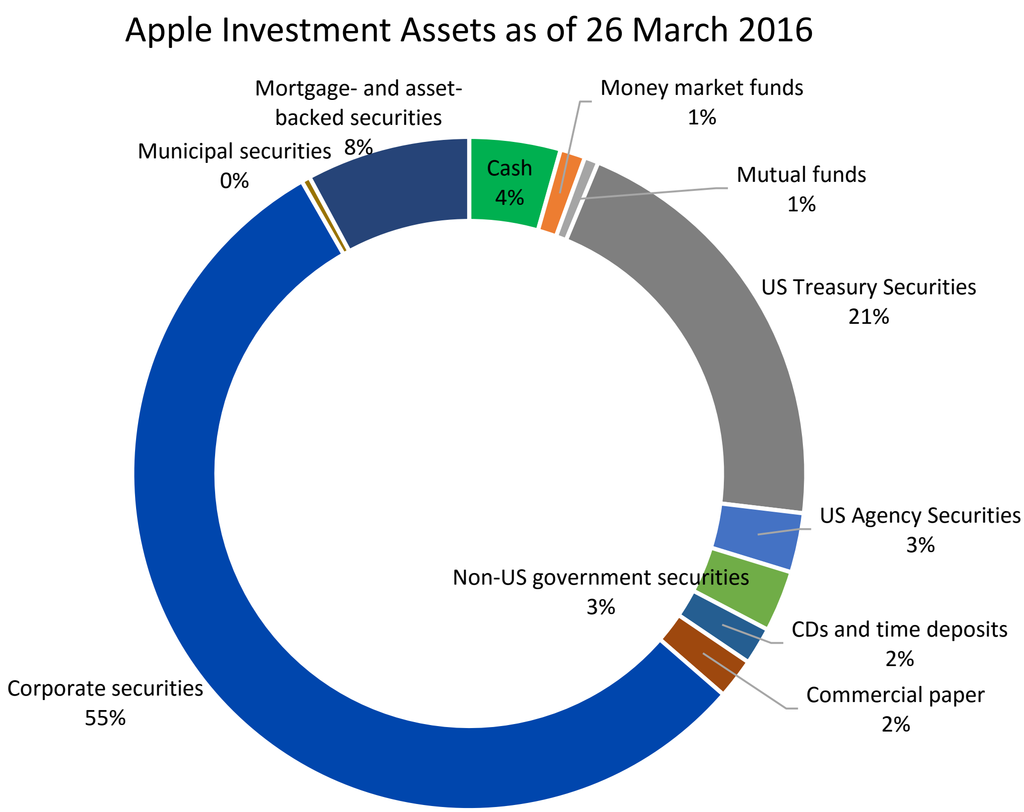

Figure 1. Source: Company Statements, IOI Analysis

We estimate that Apple has a large enough position in domestic securities to pay most, if not all, of its debt obligations without repatriating cash[1]. Repatriating cash overseas would lead to the company being assessed taxes on the repatriated portion. If Apple invests overseas, it can spend, let's say, the entire $161 billion net cash portion; if it pays a 35% tax to repatriate, it can spend about $105 billion at home.

[1] This is a back-of-the-envelope calculation. Roughly 40% of its sales are in the U.S., so if an equivalent amount of its liquid assets are denominated in USD, this would mean roughly $100 billion in onshore assets. Apple uses dollars to effect share repurchases, etc., so if we figure that only about 30% of its liquid assets are denominated in USD, this means around $70 billion is onshore -- nearly the same as Apple's long-term debt obligation. At the very least, all the US Treasuries it owns must be in US accounts, meaning that at minimum there is on the order of $50 billion of USD assets available.

Apple's Culture

"Walled garden" describes both Apple's technical and business strategy. In contrast with the "open source" model embraced by Google, Apple keeps tight control over its hardware and software development and tries to tie its users into a carefully managed technological ecosystem. This approach offers advantages to users in terms of interoperability and developers in terms of consistency.

However, while a wall is useful for protecting the confines of a controlled environment, it can also be stifling and can retard the adoption of good ideas developed externally. The "Not Invented Here" syndrome can certainly be said to be a feature of Apple's technology mindset.

This cultural trait has created real-world, observable business effects. The Apple Car is a prime example.

The Apple Car has been widely reported as one of Apple's biggest internal investment projects and Tesla founder, Elon Musk calls it an "open secret." Apple has apparently classified the development of a car as a "committed project" and has hired hundreds (or perhaps greater than a thousand) engineers to work on an electric automobile that may also feature some driverless technology. The targeted release date is 2019 or 2020, but this date may slip, rumors hold, due to internal frictions and recent changes in the project's upper management.

We will discuss the relative wisdom of Apple's investment in automobiles in the next section, but assuming that an investment in automobiles makes sense, we find it odd that the company chose to forego investment in an innovative designer of high-quality electric vehicles (Tesla) which is already overcome many technological and business hurdles, and instead is attempting to build a competitive product that may not reach market for another five years. Surely, this is a manifestation of Apple's Not Invented Here mentality, especially when a comparison of apple's Cash and Investments balance is made to Tesla's market capitalization.

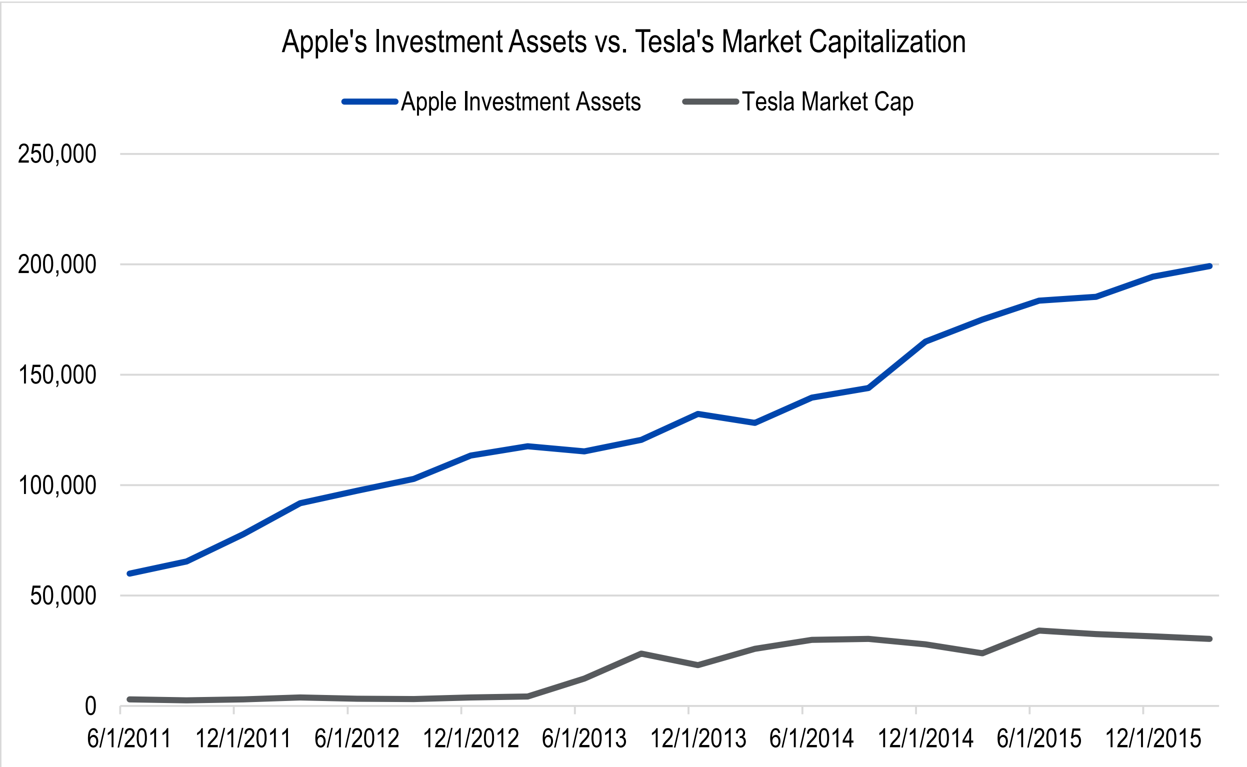

Figure 2. Source: YCharts, IOI Analysis

In addition to this emphasis on internally-developed solutions, we do not think it is too much to say that Apple's culture values concentrated investments in a single, big idea. The single big idea that saved Apple at the turn of the century was Jobs' vision of a portable entertainment / communication device which manifested itself in the successive products of the iPod, iPhone, and iPad.

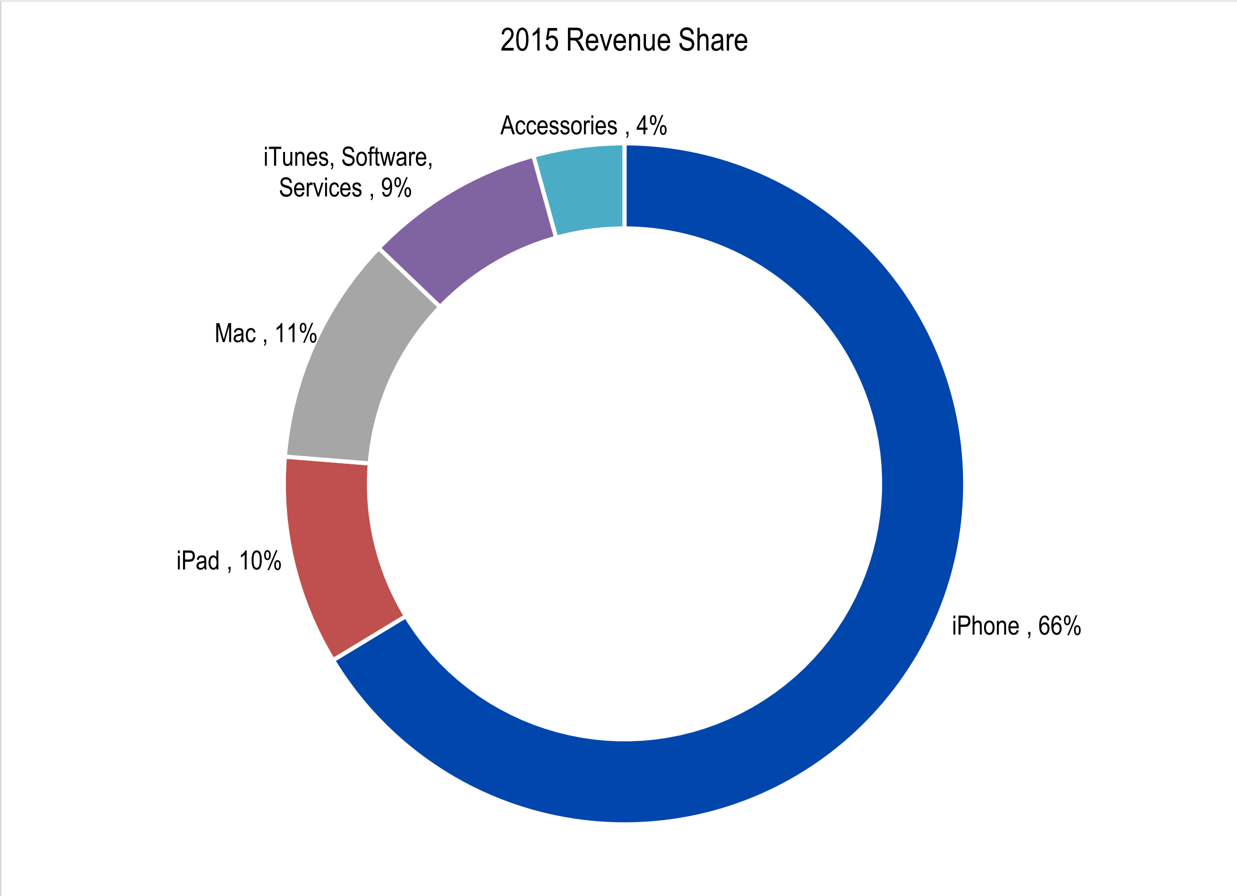

Figure 3. Source: Company Statements, IOI Analysis. We'll assume that half of the Accessories sold are related to portable devices and another half of the iTunes, Software, and Services segment relates to this business as well. With these assumptions, we find that 82.5% of Apple's revenues are dependent on the sale of portable entertainment / communications devices.

If one looks at the iPod, iPhone, and iPad as essentially the same product line only with slightly different form factors and capabilities, one sees that more than 80% of Apple's revenues comes from the same line.

In the investment world, Apple's strategy would be equivalent to a hedge fund manager investing 80% of his assets under management (AUM) in three oil exploration and production companies and the remaining amount in a natural gas pipeline company.

Concentration presents opportunity (as is clear from Apple's success with its iPhone business), but also risk (as is clear from countless companies who have put all their eggs in a single basket, then dropped the basket). We believe Apple managers have the cultural belief that a successful investment project means the development of a single, unique game-changing product line. If this were not the case, we doubt that Apple would be sitting on as much cash as it is.

With a slowing primary business, Apple managers may be leaning toward swinging for the fences for a culturally defined success whereas a more reasonable approach may be to aim for a succession of singles and doubles.

Apple's Future Acquisitions

CEO Tim Cook has suggested that future acquisitions may be larger than those Apple has historically made. Traditionally, the firm has tended to acquire smaller companies in order to gain specific people or technologies that fit into Apple's overall product and technology roadmap. These types of acquisitions are likely to continue, but also unlikely to be large enough to move the needle in terms of boosting Apple's medium-term profitability.

Were Apple to embark on a much larger acquisition, there are several areas that seem more or less likely:

1. Similar technology products (i.e., a handset maker)
2. Adjacent technology products (e.g., a gadget maker like GoPro)
3. Digital content owner / distributor (e.g., Netflix, Time Warner)
4. Automobile manufacturer (e.g., internal development of Apple Car)

Similar Technology

In this scenario, Apple would buy a handset maker with the express purpose of producing low-priced smartphones destined for emerging markets. This would allow Apple to maintain control over its brand and technology and, if done properly, would not cannibalize its iPhone sales in emerging markets.

Apple's revenue line would be helped by a more compelling offering in the developing world. Its profits would not.

This strategy would allow Apple to reinvigorate its revenue growth, but would almost certainly pull down its overall profitability, given that the low-end handset market is not a very profitable business and is intensely competitive.

This brand extension would likely not be as easy as it might seem. Apple designs its own CPUs for its iPhones (based on ARM designs), and we don't have any insight as to how difficult or easy it would be to run iOS on a non-Apple chip. These sorts of issues and other supply chain problems would mean that Apple would have to spend time and energy doing something that it is culturally averse to doing: getting involved with a hardware ecosystem that it does not have complete control over.

Likelihood rating: 2 out of 5

Adjacent Technology

A popular idea in the hedge fund world is that Apple will buy another cool tech company like GoPro. I think this is because young people working at hedge funds like using Apple products and also like using GoPro devices, so the business combination holds some sort of emotional appeal.

In addition to emotional appeal, there is also some precedence for it, since Apple's largest recent transaction was the purchase of a headphone company, Beats Audio.

Despite the emotional attraction and the historical precedence, we think this area is 1) fairly unimportant and 2) unlikely as one for an Apple acquisition. Our reasoning is two-fold: First, buying GoPro, for example, would not boost revenue by much (less than $2 billion – not even 100 basis points of Apple revenue). Second, unless Apple could acquire an accessory (for that's what an adjacent technology acquisition would be) that would somehow increase the stickiness of Apple's iPhone / the Apple ecosystem, it would not serve much business purpose for the company.

We like the idea of Apple as the pace-setter in the nascent smart home market, but culturally, this may be difficult for Apple.

Apple might be able to acquire home automation companies and this would be a sensible extension (and might also be made in conjunction with the acquisition of a digital content provider and the build-out of Apple TV – which we discuss in the next section).

Likelihood rating: 2 of 5

Digital Content Owner / Distributor

Apple would very much like to revolutionize the world of video with Apple TV in the same way that it revolutionized audio content with iTunes. However, the owners of digital video content are less excited after seeing the experience of the record labels.

One way for Apple to do an end run around this issue would be to buy a digital video content producer / distributor like Netflix or Time Warner.

This is an attractive business combination, assuming that it would breathe life into Apple TV and create more of a reason for consumers to consolidate their tech ecosystems around Apple products. The function of iTunes is essentially to tie users into Apple's technology solutions, and presumably, Apple TV would serve the same function – making it more likely for developed country customer to buy and maintain multiple Apple devices.

There are three problems with either of these acquisitions. First, both companies are domestic and large (NFLX: $43 billion, TWX: $60 billion), which means that the foreign investment assets could not be put to use and US investment assets would be stretched.

Buying Netflix or Time Warner is certainly big and bold. Is it smart?

Second, for reasons discussed in the IOI ChartBook on Apple, the "Digital Hub" strategy tends to work best in developed markets. As such acquiring a domestic content provider / distributor would further concentrate Apple's business in the developed world and potentially cut it off from growth in the developing world. Yes, Apple could buy a foreign content producer, but this would make the next point even more salient…

Third, Apple is a device manufacturer and industrial designer and its management has no experiencing managing a content business like these. If it acquired a foreign content producer, it would have the additional issue of attempting to manage a content business in a foreign country. Sony's experience with Columbia Pictures suggests that this is not an insurmountable issue, but it is another potential sticking point.

Likelihood rating: 3.5 out of 5

Automobile Manufacture

It seems as if rumors of the Apple Car have more than a little basis in fact, judging by recent hiring at Apple and the general level of buzz in the industry. This is unfortunate, but not impossible to imagine, considering Apple's investing culture.

Apple's culture is focused on big, bold game-changing moves. Apple Car is at least big and bold but I'm afraid that the game change would not be favorable to Apple's owners (reminding me of the Delphic prediction that Croesus would destroy a great empire if he attacked the Persians).

Apple is already several years behind Tesla in electric cars and Google and others in self-driving technology.

Apple turned the mobile telephony business on its head a decade ago. Can it do the same for the automobile industry?

We have our doubts.

Apple fans might reply that Apple was a decade behind Nokia and Motorola in the realm of mobile handsets, but it still succeeded in overturning the mobile handset world and contributing to the destruction of both of those firms. While this historical anecdote is true, it is hard to imagine Apple being able to fundamentally change our conception of what an automobile should be, more so than Tesla or Toyota Prius already has.

In addition to this criticism, it strikes us as strange that Apple would design a car simply to increase its share of digital automobile components. It would be like Amazon acquiring Toll Brothers builders so that it could sell more of its Alexa units.

If these criticisms were not enough, there is the lingering criticism that it would simply be quicker and easier to acquire a Tesla if Apple was so very interested in the auto market.

Likelihood rating: 4.5 out of 5

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