



# STEVE JOBS AND APPLE

# STEVE JOBS AND APPLE

## CONTENTS

PREFACE: STEVE JOBS' LEGACY .....	Page 3
THE MAN: GENIUS AND SICKNESS .....	Page 6
THE PRODUCTS: CREATION AND DISRUPTION .....	Page 14
THE COMPANY: VALUE AND THE FUTURE .....	Page 21
ABOUT US .....	Page 33

Front cover: With a projected image of the new Apple PowerBook G3 behind him, acting Apple CEO Steve Jobs speaks during a presentation of Apple's new G3 line of Macintoshes and PowerBooks at the Flint Centre in Cupertino, Nov. 10, 1997. Reuters/Lou Dematteis.

## PREFACE: STEVE JOBS' LEGACY

This collection of Breakingviews articles on Steve Jobs, Apple and its industry is best introduced by the view we published following news of his death on Oct. 5, 2011. The articles included here have been selected to offer insight into the Apple story, the competitive impact of Jobs' creative genius and the company's most likely bright future.

Richard Beales, Assistant Editor  
*October 2011*

### **JOBS' WORTH**

By Robert Cyran and Richard Beales

Steve Jobs has died at 56. He was no ordinary chief executive, and he leaves no ordinary company. The force behind the iPod, iPhone and iPad not only co-founded and then rescued Apple, building it into the most valuable tech company on the planet, worth some \$350 billion. He also changed the way people live. It's a rare entrepreneur who leaves that legacy – and a company that can thrive without him.

Jobs dropped out of college. And he was forced out of Apple less than a decade after starting it with Steve Wozniak, having lost his fight to promote new Macintosh computers instead of more profitable, less capable machines. But these moments of change proved central to his later success. In a 2005 Stanford commencement address, Jobs talked of how, for example, calligraphy classes he took after dropping out of college influenced the design of the Macintosh, arguably Apple's first world-changing device.

He was always ready to move on. He called being fired from Apple "the best thing that could have ever happened to me." It's easy to forget that Jobs built Pixar, the astonishingly successful computer animation company, while in exile from Apple. Even before Pixar, he founded Next Computer, making devices with an operating system far ahead of its time. This played a role in Apple's success after 1996 when it bought Next, bringing Jobs back into the fold.

Along with the vision, drive and perfectionism that led to a string of successful products, Jobs did bring a less desirable cult of secrecy to Apple after his return. In one sense, it served the company well – when the iPhone landed and showed the world the real potential of smartphones, it shocked the industry. It was, as an observer put it at the time, “like it dropped out of a wormhole from the future.” But in handling the boss’s health problems in recent years, Apple’s tight-lipped nature caused investors to get less information than they deserved.

Even so, the company’s greatest success, the iPhone, was developed after Jobs had survived the initial onslaught of cancer. And Apple just this year became the most valuable company in America for a time, and its market value now only just lags Exxon Mobil’s. By some measures, Jobs’ creation ought to be worth much more. The success of its latest category-creating product, the iPad, means its growth potential remains powerful. And the company has an impressive array of talent even without him.

“Don’t be trapped by dogma,” Jobs told that graduating Stanford class. “Don’t let the noise of others’ opinions drown out your own inner voice.” Apple is a legacy in itself, but it’s the devices born of that philosophy that arguably matter most. Like all great inventors, Jobs created things that people didn’t even know they wanted – until millions of them just had to have them.

*Published Oct. 6, 2011*

# APPLE'S STEVE JOBS



**Steve Jobs**  
1955-2011



- 1976**  
Steve Jobs and Steve Wozniak found Apple Computer
- 1984**  
Presents the Macintosh 128k personal computer
- 1985**  
Leaves Apple due to problems with other executives
- 1986**  
Founds animation studio Pixar
- 1997**  
Returns to Apple as Chief Executive
- 2001**  
Presents the iPod
- 2003**  
Apple launches iTunes
- 2004**  
Undergoes surgery to remove cancerous tumour from his pancreas
- 2007**  
Apple launches the iPhone
- 2009**  
Takes a six month break to undergo a liver transplant
- 2010**  
Apple launches the iPad
- 2011, Aug 24**  
Jobs resigns as Apple CEO
- Oct 5**  
Jobs dies in Palo Alto, California

## TOP PRODUCTS

Introduction date

- May 6 1998**  
First **iMac**, an all-in-one computer, reminiscent of the Macintosh
- Oct. 23 2001**  
First **iPod**. Mac OS X released early the same year
- Jan. 9 2007**  
Jobs unveils the first **iPhone**
- Jan. 2010** The **iPad**, a touchscreen tablet media device is launched

## SHARE PRICE

Daily close in dollars



Sources: Reuters, press reports





## THE MAN: GENIUS AND SICKNESS

### ROTTEN APPLE FOR THE TEACHER

By Rob Cox

Steve Jobs did a terrific job of pulling the company he started two decades ago up by its bootstraps when he rejoined in 1997. But investors in Apple Computer are still not giving him the benefit of the doubt. Witness the spectacular \$8 billion plus wipeout of market value following the surprise warning about fourth-quarter and 2001 earnings.

Apple certainly deserved a spanking for ambushing the market. Yet the extent of the punishment shows investors are not taking it on faith that the earnings shortfall is a simple “speedbump,” as Jobs called it. They may be right. Apple said sales to students, a big market for its products in September, were well below expectations. Since students tend to be more fashion conscious consumers, that may signal waning interest in the funky iMac and Cube models that have been the company’s recent salvation.

In a sense, Apple finds itself a victim of its own fashionable success and must now work furiously to keep its products looking cutting edge. If it fails, it could lose a hard core of customers, namely students, who the company is relying on as its next generation of users. Should the trendy computer geeks abandon Apple, the company's share certificates risk becoming collector’s items alongside its first Macintosh.

*Published Sept. 29, 2000*

### MISSED OPPORTUNITY

By Rob Cox

Steve Jobs may be a visionary when it comes to technology, but his financial foresight may not be so keen. Sure, his stake in Pixar Animation Studios, which Walt Disney is reportedly interested in acquiring, is currently worth around \$3.6 billion. This is not a bad return on the roughly \$60 million Jobs pumped into the business. And he is set to receive a windfall of nearly \$800 million when his 10 million shares in Apple Computer

vest in March. Yet had Jobs not exchanged a much bigger chunk of underwater stock options for these shares a few years back, he would now be sitting on an Apple fortune worth nearly as much as his Pixar pile.

In July 1997, Jobs returned to the floundering computer business he had co-founded two decades earlier. A few months later, rival computer mogul Michael Dell sneeringly suggested that Apple be closed down and its cash returned to shareholders. Last week, when Apple's market capitalisation for a brief moment surpassed Dell's, Jobs gloated that his rival hadn't been "perfect at predicting the future." Yet Jobs himself wasn't much better at anticipating iPod mania and the extraordinary revival of Apple's fortunes.

In early 2000, as the tech bubble was reaching its peak, the Apple boss received a controversial stock options package worth around \$548 million, according to company accounts. This 40 million split-adjusted options package had an exercise price of around \$22. In 2002, Mr. Jobs received another package, with 15 million stock options sporting an exercise price of around \$9. After these grants, the Apple share price declined precipitously.

That's when Jobs lost his nerve. In March 2003, as the stock hit a near 5-year low of around \$7.50, Jobs traded in his 55 million underwater options for a less risky but smaller package of restricted stock, then worth \$75 million.

In retrospect, Jobs, who declined to comment, couldn't have chosen a worse time to exchange his options. Apple's shares are currently trading at around \$80. True, the restricted stock is valued at more than 10 times its original value. But the options which Jobs divested would be now in the money to the tune of more than \$3.3 billion. So he effectively kissed goodbye to \$2.5 billion.

Still, Jobs has his \$3.6 billion Pixar stake for consolation. The only real loser is that other Californian visionary, George Lucas, who sold him the company that became Pixar for \$10 million in the first place.

*Published Jan. 20, 2006*

## CULT OF PERSONALITY

By Robert Cyran

How sick is the dear leader? Party officials aren't saying. Outsiders parse every gaunt appearance, or lack thereof, at party congresses for signs of serious illness. Insiders cannot imagine life without him. Supporters put on shows of technological force while talk swirls around the relative strength and official titles of his erstwhile heir apparent.

That sums up the situation in Pyongyang. But it could equally apply to goings-on in Cupertino, California, home of Apple – the company this week at the center of fervent speculation in the markets and media over the health of its visionary founder Steve Jobs.

Admittedly, it's a far stretch to compare the governance of one of the most successful technology companies in the world with the most bizarre and paranoid dictatorship on the planet. And even though Jobs is beloved within the company, even Apple would never attribute superhuman feats, such as shooting multiple holes-in-one the very first time he played golf (one of Kim Jong-Il's many reputed accomplishments), to him.

Yet pronouncements from Apple regarding its chief executive's health have repeatedly proven overly cheery. First Jobs had a virus in June 2008. In January of this year, he had a hormone imbalance. A week later, he was going on six month medical leave. Now it has emerged he received a liver transplant. Meantime, good news, such as Jobs' appearance at work on Monday, quickly appears in the press.

The risk of such selective silence is that it creates unrealistic expectations for its founder's ability to govern, while muddying succession planning.

Making an appearance at headquarters and running a company are two different things. Yet the company still maintains Jobs will soon be back in the saddle. Liver transplants are truly an amazing scientific advance. But recipients must take harsh immunosuppressant drugs, which can cause serious side effects, for the rest of their lives. Whether Jobs can fulfill the grueling demands of being the full-time chief executive isn't clear.

While it is hard to contemplate Jobs' mortality, avoiding the issue doesn't make it go away. About 30 percent of liver transplant patients die within five years. Jobs' fight against cancer adds further risk. Apple should have a clear succession plan in place. Yet



the executive currently running the company, Tim Cook, did not even receive the honorific of interim chief executive officer during Jobs' medical leave, including while he was undergoing surgery.

Jobs is an extraordinary executive and innovator. But for shareholders' sake Apple has to be larger, and hopefully more enduring, than any one man, including its founder. The company, and its board of directors, should have the confidence to proclaim as much.

*Published June 25, 2009*



Steve Jobs stands beneath a photograph of him and Apple co-founder Steve Wozniak during the launch of the company's iPad in San Francisco, California, Jan. 27, 2010. Reuters/Kimberly White.

## AD HOC INFINITUM

By Robert Cyran

Apple needs a more formal delegation of Steve Jobs' power. The tech giant's chief executive is handing day-to-day control to Chief Operating Officer Tim Cook due to health issues. Yet he retains his CEO title. This is the third such move, and this time the handover is indefinite. However painful, a more formal transfer to an acting CEO would have been better.

Both the company and its shareholders can take comfort from the fact that the last two transfers – also to Cook – took place smoothly. Apple's operations showed no signs whatsoever of impairment under caretaker management. Cook has worked at Apple for more than a decade and has been COO for several years. He's clearly a safe pair of hands. Moreover, Jobs has promised to retain control over big strategic choices.

But Jobs' fitness is, sadly, an increasing concern. The company hasn't said exactly what the matter is, but this latest setback follows previous treatment for pancreatic cancer and an organ transplant. Furthermore, the open-ended nature of Jobs' current respite will add to the worry for employees and investors alike.

In these circumstances, Apple would have been better served by explicitly naming Cook as acting CEO. That would leave Jobs as chairman where he could retain say over Apple's strategic direction without the gruelling daily chores of running the company. That is where he is most valuable anyhow. Such a division would provide clarity and give Cook a proper mandate, given the responsibility of overseeing a \$300 billion group.

Jobs plays an outsized role at Apple. He is arguably the best executive in technology. But his reputation also depends on keeping the company on the soundest footing possible – even if that means formally loosening his grip.

*Published Jan. 17, 2011*

## CREATIVE CONSTRUCTION

By Robert Cyran

Losing a visionary like Steve Jobs as chief executive is reasonable cause for shareholder concern. But Apple wouldn't be the first large and innovative company to weather a difficult succession. IBM, Wal-Mart and General Motors show how an obsessive focus on design, customer needs and tight control over supply chains can be ingrained in a culture by its creator. But these examples also provide warning signs about how those who follow Steve Jobs could go wrong.

Thomas Watson was a similarly iconic figure at IBM. When he joined in 1914, he established a near religious atmosphere. Salesmen wore buttoned-down vestments, engineer priests toiled away in labs and there was even a corporate mantra: THINK. This virtuous combination helped the company churn out high-quality equipment and gain a hard-won reputation that IBM couldn't be the wrong choice. Post-Watson leaders stuck to the formula with great success for several decades.

Wal-Mart also showed the value of wash-rinse-repeat. The mega-retailer didn't skip a beat when founder Sam Walton stepped down in 1988. New CEO David Glass wisely didn't tinker with the recipe: set up shop outside a small town not well served by rivals, embrace economies of scale to sell goods cheap and use technology to keep inventory at remarkably low levels. Wal-Mart's sales are 26 times as large now as they were when Walton stepped down.

Even General Motors thrived for a time after Alfred Sloan gave up the reins in the mid-1950s. Under his rule, the carmaker set up a system of distinct brands, dealers to support them and a systematic approach to management befitting its engineering culture. GM stayed on autopilot after Sloan left – and the company retained its solid position in the U.S. car market in the ensuing years.

While all three enjoyed success after their larger-than-life figures retired, their playbooks also paved the way for stagnation. IBM's buttoned-down culture and focus on big business meant it was slow to the PC revolution. GM's technocratic system failed when the firm became increasingly sclerotic and bean counters took over from the engineers. Wal-Mart has struggled to export its model and has experienced persistent labor problems at home.

As the new Apple boss, Tim Cook will have his work cut out avoiding such pitfalls. But history also suggests that trailblazers like Jobs leave behind some worthy blueprints to follow.

*Published Aug. 26, 2011*

## **GREATER THAN GRAVITY?**

By Martin Hutchinson

Steve Jobs leaves behind a company with a huge \$350 billion market capitalization, but it is actually much bigger than that. Apple, which Jobs co-founded and ran through most of its history, has changed the world several times.

The company's first great development was the Apple II, which made personal computers easy to use. It worked especially well with Dan Bricklin's VisiCalc software, the first successful spreadsheet program. Now automatic recalculation and easy adjustments are taken for granted, but then they were revolutionary for anyone who worked with numbers.

Apple lost the PC marketing wars to IBM and Microsoft, but remained the trend-setter. The 1984 Macintosh's point-and-click technology (partly derived from Xerox's 1970s Palo Alto Research Center) reduced the need to remember innumerable tricky-to-use DOS commands and brought out the visual and tactile potential of computers. The rivals only fully caught up a decade later with Windows 95.

The revolutions continued when Jobs returned to Apple after 12 years away (revolutionizing animation at Pixar while he was gone). The iPod set a new standard for storing and playing music digitally, but Apple's greatest effect on the world came with the iPhone.

The leap of imagination – the combination of mobile phone and computing capability, mixed in with cool design, and fun to use – still seems awesome. The cultural effect cannot be measured. It leveled the world: even the most remote tribesman with a smartphone is connected to the Internet cloud as if he were in a New York office. Apple

is losing share in smartphones, but still deserves most of the credit for their development.

Jobs' genius for design and understanding of the needs of non-technical users has helped make the tech sector a consumer business – and thereby revolutionized the economy and the lives of almost everyone. The latest effort is the iPad. Frank J. Fleming, a fan, called it “the only thing that’s met my childhood expectations of what 2011 would be like.” It is hard to argue. An earlier apple is said to have spurred Isaac Newton to discover gravity. This Apple may be just as important.

*Published Oct. 6, 2011*



## THE PRODUCTS: CREATION AND DISRUPTION

### OUT OF THE POD

By Robert Cyran

With customers queuing around the block for their iPod, it's no surprise Apple's net profit rose four-fold in the last quarter. The U.S. computer group sold 4.6 million of its iconic digital music players in the quarter, more than six times as many as it sold in the same period last year. But the real importance of the quarter came from the fact that iPod sales appear to be driving sales of its Mac computers. The group saw its first increase in market share for computers since 2000. And this trend looks set to run.

The case against Apple's computers has always been two-fold. First, unless one does a lot of graphics or audio work, there's little reason to prefer a Mac outside of their nice looks. Second, Apple charges a substantial premium for its computers. These two objections now look a bit out of date.

Digital cameras are rapidly supplanting film, which is increasing the number of people working with images. And Apple's introduction of a \$499 computer – albeit without monitor, keyboard or mouse – means the group now has a computer in the sub-\$1,000 range. The majority of computers sell under this barrier.

Throw in the fact that Macs currently have few problems with viruses, and there now appears to be a tailwind as iPod users switch to Macs. And even a small difference in market share will have a disproportionate effect on the group. Apple's share of the computer market is around 2 percent. Every 1 percent increase translates into about \$2 billion in revenue.

Of course, these sorts of projections are always dangerous. Big gains in market share are rather ambitious for a company with a long history of losing market share. And entering lower-priced markets has its own problems. The group currently has an operating margin of 12 percent, while the average consumer electronics firm earns less than 5 percent. Margins are likely to fall as the group enters more competitive, cheaper markets.

But Apple has now shown the first real sign of turning a vicious circle into a virtuous one. And if this is the case, there could be many more quarters like the last.

*Published Jan. 13, 2005*

## **PUSHY CALLER**

By Robert Cyran

Apple may carry self-promotion to extremes, but its long-awaited cell phone looks all it's cracked up to be. The tech company's iPhone, unveiled Tuesday by Steve Jobs at his annual MacWorld love fest, is likely to grab a sizeable chunk of the market. It will also irritate telecom operators in the process.

The phone is certainly impressive. It runs on Apple's easy-to-use operating system. In addition to offering basic phone services, it acts as an iPod music/video player. Its ultra-thin, high-definition 3.5 inch screen can be turned sideways to watch video. In short, it looks as stunningly fresh as the iPod did when it was introduced.

Of course, nobody can get everything right. All these features make the device an energy hog – the battery lasts just five hours. It's also pricy – the 8 gigabyte version runs \$599, a lot of money for not much memory. Finally, the lack of a keyboard makes it visually stunning, but its touch-screen may frustrate users.

But these are quibbles compared to the wow factor. Users, and especially Apple's maniacal fan base, are likely to flock to the new phone. Apple's willingness to go where other handset manufacturers have gone before, and failed, suggests as much.

During the tech bubble, Nokia started Club Nokia. It let users of its phones download games, ring-tones and other content. This wasn't popular with operators, who subsidise and distribute most phones. They resented Nokia muscling into what they considered their own turf. Nokia ultimately backed down in 2003. Like Nokia, Apple is encouraging iPhone users to buy movies and music from iTunes.

Intriguingly, the iPhone isn't using the most advanced wireless technology, 3G. One of the big reasons operators are rolling out 3G is to sell their own services and content.

Nonetheless, carrier Cingular is willing to play along in exchange for an exclusive right to market the iPhone. If Apple's latest gadget is as successful as the iPod, other operators may have no choice but to follow its lead.

*Published Jan. 10, 2007*



Steve Jobs holds the new iPhone at the Apple store in central London, Sept. 18, 2007. Reuters/Alessia Pierdomenico.

## **THEY'RE IN ISUITCASES**

By Robert Cyran

Where are all the iPhones? Apple sold 3.6 million of its hit mobile phones last year, but its official partners only registered 2.3 million new customers. Meanwhile, many of its U.S. retail stores are having trouble keeping the hit handsets on shelves. In Manhattan, for example, daily shipments are sold out before it's time for a second cup of coffee. Apple is tight-lipped, but the two stories could be related.

The iPhone is usually tied to a single phone network in each country. In the United States, software locks users into AT&T's network. Similar agreements exist in France, Germany, Ireland and the UK. In exchange for this exclusivity, Apple gets a cut of users' monthly fees. The problem, at least from Apple's point of view, is that the software can be relatively easily tweaked to allow the phones to run on other operators' GSM networks.

China Mobile, one of two mobile operators in China, doesn't have any deal with Apple but still reckons there were 400,000 iPhones on its network at the end of 2007. That number is probably much higher now. Those phones must have been bought somewhere.

That's where the stories come together. The fact is that iPhone smuggling has become a lucrative, if legally questionable, way for travelling students and flight attendants to earn a bit of extra cash. An iPhone costs \$499 plus tax in the United States – call it \$550. Unlock it, for \$50 or less, and you can sell the same phone for the equivalent of \$900 or so in Europe. The more the dollar falls, the more attractive this arbitrage.

Perhaps it's no coincidence that iPhones, unavailable in Apple's Manhattan stores, are in stock in Buffalo. Manhattan is full of tourists armed with strong euros, roubles and Brazilian reals. Few of them visit post-industrial cities in upstate New York.

Of course, there could be other explanations. Apple could be clearing the decks for a more advanced version of the iPhone. Or it could have simply misjudged demand or run into parts shortages. Listen to the Babel of languages in Apple's New York City stores, though, and it's easy to imagine the missing phones in suitcases flying overseas.

*Published April 4, 2008*

## **BIG APPLE**

By Robert Cyran

Apple's iTunes milestone proves who's piper. The tech giant just sold its 10 billionth song online, and the pace of downloading from its seven-year-old digital media service

continues to quicken. It took three years to get to a billion, one year to get from 1 billion to 2 billion and now iTunes sells a billion songs about every three months.

The more songs Apple sells, the more it entrenches itself. It has used music to make its various gadgets, and the software linked with them, so popular. Even though all songs purchased from iTunes have been playable on non-Apple devices since 2009, the formative years when this wasn't so helped establish the site's dominance. The continued ease of connecting to the online store and the volume of music available on it means customers find themselves increasingly buying from Apple.

Growing even more dependent on Apple than consumers is the entertainment industry. The tech company retains about two-thirds of the music download market, and one-quarter of all songs are now sold from the iTunes store, according to research outfit NPD Group. Apple's trying to duplicate the stranglehold on the market for TV and movies.

Content providers have found iTunes a welcome source of revenue. Illegal downloading has gutted the music industry and is starting to eat away at video sales. Unfortunately for the industry, it's increasingly clear they have to dance to Apple's tune.

Published Feb. 25, 2010

## HALO IN THE CLOUDS

By Robert Cyran

Apple holds its annual developers' conference on June 6. As happened with previous new product introductions, like that of the iPad, the tech group's objective will be to trigger a virtuous circle whereby whatever new gadget it unveils tends to encourage consumers to buy other Apple products. Expanding its cloud offerings, where data and programs are stored remotely, could set off more favorable feedback loops.

The company says Chief Executive Steve Jobs – currently still on medical leave – is addressing the crowd, and will talk about what it calls iCloud. Characteristically, Apple is keeping its cards close to its chest. But this appears a major effort into providing lots more music and computing services remotely via the Web, instead of being stored



locally by the user. The company has built a 500,000 square foot data center in North Carolina and signed deals with multiple music labels in preparation with the launch.

Putting music, movies and other programs on the cloud offers a few obvious benefits to Apple. Its computers, tablets, and phones would potentially need less local memory. That means devices can be cheaper – or simply higher margin – yet slimmer and more attractive. That's important for the design-conscious Apple.

But the secondary effects are more important. If users store data and programs remotely, devices blend together. Buy a song once and it can be listened to on any gadget. Likewise, edit a spreadsheet on the cloud, and the changes can be seen and modified on multiple platforms. That makes customers more likely to stick with a suite of Apple products.

And there's an additional plus. Cloud services eat up bandwidth. Telecom companies are hungry for revenue from data transmission. That makes them more willing to subsidize iPhone sales in exchange for locking customers into long-term contracts. If Apple users start needing more expensive data plans, then companies like AT&T and Verizon are more likely to fund the purchase of Apple gadgets.

Apple revenue grew by 83 percent in the last quarter. That must eventually slow. But its iCloud services halo affect could keep growth humming along a while longer.

*Published June 3, 2011*

## **PLEASE SIR, NOT ANOTHER**

By Robert Cyran

Apple has an astonishing ability to casually unleash creative destruction. Its latest iPhone, the 4S, offers faster data-processing and downloads, as well as voice-powered software. This may not have lived up to the most feverish expectations of investors: Apple shares fell while the market rallied. But it will do more than enough to create headaches for companies ranging from Research In Motion to American Greetings.

Smartphones started by devouring the personal digital assistant, as any former Palm Pilot aficionado can testify. They terrorized the market for fixed-line phones, which are now in sharp decline. Apple's newest gadget shows just how hungry smartphone makers, and Apple in particular, are to eat rivals' lunches.

The new iPhone's camera offers sharply better video. That will further hurt sales of digital still and video cameras. Its software allows easy and free texting to other Apple devices. That's bad news for telephone operators, who make fat margins on such services. Instant messaging has also been the killer app for BlackBerry users.

Apple also unveiled a function that lets users digitally create their own greeting cards and send them in physical form. That may not excite Apple's most ardent fans, but it was enough to send shares of card-makers American Greetings and International Greetings reeling. Oh, and the new iPod Nano allows runners to track their performance, which will take a chunk out of the market for personal fitness monitors and shoes with sensors.

In a sense, though, these are the easily quantifiable effects of the new iPhone. The device also comes with voice-powered software allowing users to search the Internet, answer queries, take dictation or set up phone commands. It's hard to judge how effective this software is until it actually hits the shelves. But investors on the lookout for Apple's creative-destructive impact are surely drawing up a new list of victims.

*Published Oct. 4, 2011*

## THE COMPANY: VALUE AND THE FUTURE

### THIS IS GOING TO HURT

By Robert Cyran

Apple sold 3.3 million iPads in the last quarter. That's one of the best starts ever for a consumer electronic device. It will probably sell 25 million, or more, tablets next year based on the trajectory of past hit consumer goods. While Apple and its suppliers, like parts maker Samsung, are celebrating, many firms will suffer. Breakingviews has compiled a list of the potential losers – from the obvious to the indirect.

**PC makers and sellers:** It stands to reason that if companies and consumers buy iPads, they will cut back on competing electronic items due to limited budgets. This effect probably hasn't fully kicked in. Early adopters are more willing to splurge on a new gadget. Yet Barclays Capital points out there are already signs of cannibalization. The number of lower-priced netbooks fell 19 percent in June compared to last year according to NPD. HP, Dell and Acer earn little money on selling these devices. But if the iPad starts to cannibalize higher-margin items, selling PCs could become a recipe for losses. Dell, for example, eked out less than a 3 percent net margin last year.

**Microsoft:** It doesn't take the IQ of Bill Gates to figure out that reduced sales of computers running Windows would hurt Microsoft. True, the company's most recent quarterly figures were robust, as users upgraded to Windows 7. But if PC cannibalization occurs, it won't be pretty. The company's Windows division has astonishingly high margins – it accounts for roughly a quarter of sales but half of operating profit. A small fall in revenue would lead to a disproportionately large hit to earnings.

**Intel and AMD:** Likewise, a shift from PCs to the iPad would hurt the two chipmakers. Instead of using a chip whose roots lie in desktop computing where Intel has its stronghold, Apple used one from the cellphone world. Intel may catch up in designing low-power chips, but it could lose its quasi-monopoly style margins if it doesn't. AMD, which perennially chases after Intel yet never catches up, would take a harsher hit.

**Software security companies:** Apple's devices are generally perceived as having fewer security holes than Windows. While most PC users install antiviral programs, many Apple

users don't bother. So an iPad shift would hit software sales at security companies such as McAfee and Symantec. True, the more popular Apple's systems become, the more effort criminals and hackers will make to crack them. But overall, antiviral vendors look like potential losers.

**Hard disk drive makers:** Apple was one of the first computer makers to eschew floppy disk drives. Likewise, the iPad could lead the charge away from hard disk drives. The device employs NAND flash memory, which is smaller and uses less power than the hard drives commonly used in laptops and desktops. If the iPad cannibalizes these markets, companies like Western Digital and Seagate would suffer. Moreover, Apple is already rumored to use a third of the world's supply of this memory. If it demands more, companies like Samsung would be encouraged to ramp up production in more advanced plants. That's almost always a recipe for an eventual price crash and consequent use of NAND in more consumer devices.

**Cellphone producers:** Apple says about half of Fortune 100 companies are testing the device. AT&T says business demand for the device is robust. Since the iPad and the iPhone essentially use the same operating system, the tablet could act as a Trojan Horse for the handset. Let employees use one and you might as well let them use the other. And since applications developed for the iPad often work equally well on the iPhone, the platform is more attractive for developers. Nokia and Research In Motion appear in danger of losing the app battle – if their phones are regarded as undifferentiated commodities by consumers, their profit margins could vaporize.

**Bookstores:** Other forms of collateral damage may seem surprising. Take bookstores. It seems clear that most texts will be eventually sold and consumed electronically. Amazon, Barnes & Nobel and Borders sell electronic devices specialized for reading. Yet the iPad's launch set off a vicious price war in e-readers. That suggests consumers prefer gadgets like the iPad that can read email, play games and download apps that perform other tasks. True, the book retailers have iPad apps that allow for easy purchase of electronic books. But consumers can download several and easily compare prices. Increased competition means margins on electronic books are likely to fall.

Published July 30, 2010

## GRAVITY'S RAINBOW

By Robert Cyran

When should investors sell Apple shares? The group's push overseas and into the business market still holds promise, as does the steady stream of fresh gadgets such as Apple TV, unveiled by Chief Executive Steve Jobs last week. Apple's trajectory should continue for some time, so its stock – which has gained more than 40 percent each year for the past five – looks attractive at 15 times estimated 2011 earnings.

But no company can grow sales at that pace forever. While it may sound premature or even churlish to do so, Breakingviews offers up some strategic cues that could act as warning signs for investors that Apple's growth is slowing:

**Discounting:** While Apple computers and handsets account for less than 5 percent of global unit sales, the company racks up extraordinary profits on them. Its reputation for producing quality gadgets means Apple can charge a premium over competing products. Its operating margin is almost 30 percent. Even small gains to its market share result in supercharged profit growth.

Apple has used the so-called halo effect, rather than price cuts, to gain market share. Its devices work well together. And users who try one often adopt Apple's other products. This can be seen now in the enterprise market, where Apple has traditionally been weak. The iPad appears to be a big hit among corporate executives and professionals. This should increase adoption of iPhones and Macs. Moreover, Apple appears to have avoided the discounts typically offered to big customers. If salespeople want iPads, there's nowhere else to turn but retail.

Apple could boost market share quickly by offering discounts or cheaper devices. While this would bump up profits in the short term, it would be a flashing yellow light because the high end of the tech market is disproportionately profitable.

While Apple could profit from selling lots of low-end gadgets, it's a tough place to make a buck because of greater competition and lower capacity to differentiate products. Nokia's operating margin on phones is around 11 percent. Those in the commodity PC market aren't better – Dell's are around 5 percent. There's a big risk, too, that selling cheaper goods could tarnish the brand. A loss in the company's ability to charge an Apple premium or a small fall in market share at the high end would hit profits hard.



**Raising tolls:** One way Apple has maintained premium pricing for its gadgets is by improving them each year. In the case of the iPhone, a large chunk of this improvement has come from the increased number of applications that can run on the handset.

Partners who develop these bear much of the cost. Apple vets the applications and distributes them in exchange for 30 percent of sales. Apple hasn't historically run its online stores to maximise profits. Instead, the goal has been to make the devices more valuable and entrenched. The result is a virtuous circle. Consumers like the gadgets because they have become increasingly useful, and software developers follow the customers. Apple could, theoretically, extract bigger tolls – take 50 percent of revenue from sales, for example. That increased revenue would fall right to the bottom line.

Yet developers could eventually turn elsewhere, and users might follow. Google, for example, plans to take only a 5 percent chunk of sales on games that it sells online, plus a small processing fee. Second, ratcheting up the toll might invite regulatory attention, because it smacks of anticompetitive behavior. While raising its revenue share could generate some short-run growth, it would be a bad sign for the company's future.

**Big acquisitions:** Apple has \$46 billion of cash and investments on its balance sheet. Jobs may find this fast-growing stash comforting. But it isn't earning much interest. Apple has wisely avoided big acquisitions. When many companies see their growth slowing, however, they often try to buy it through transformative acquisitions in the way Intel is purchasing McAfee or HP buying 3PAR. Apple's cash could buy a majority of companies in the S&P 500. Surely it could find a big firm that would generate a better return than what it earns in the bank, right?

Don't count on it. Integrating two big companies more often than not results in unproductive executive infighting and bloated expenses instead of valuable new product innovations. Most damningly, sellers usually extract the gains. Just look at Cisco. The firm is an efficient M&A machine, yet its shareholders have received little benefit over the past decade from CEO John Chambers' shopping. If Apple ever headed down this route, it would be a sign that the firm has transformed itself into a lesser company.

*Published Sept. 6, 2010*

## NUDGED

By Robert Cyran

Apple has taken a pre-emptive antitrust strike. U.S. regulators have grown increasingly worried by Apple's monopolistic potential in the mobile phone market. The company's decision to publish rules governing its online store, green-light Google to advertise within applications and allow developers to use Adobe may forestall government action.

The company run by Steve Jobs doesn't have a monopoly in the smartphone market. But some of its behavior seemed to suggest it was getting there. Apple barred big rivals like Google from placing ads within apps running on Apple's devices like the iPhone.

In addition, Apple prohibited developers from using popular Adobe Flash tools to build apps – a move that could have forced small companies to choose whether to produce programs for iPhones or handsets powered by Google's Android system. And the company's opaque standards for what could be sold in its online store resulted in some curious decisions, such as Apple's rejection of Google's VOIP tool.

Yet technology trust-busting is a tricky thing. Once established, monopolies are difficult to dislodge – as the history of Microsoft and Intel has shown. The more people use a given technological standard, the more useful and entrenched it becomes. And the monopolist usually has the financial clout to punish any rival that dares enter the market.

By poking around Apple earlier this year, the Federal Trade Commission and Department of Justice appear to have nudged the company ever so slightly toward more desirable behavior. The three changes announced on Sept. 9 certainly help developers. They have additional tools for creating apps, more clarity on how to get their products in Apple's storefront, and a greater chance to earn a bit of advertising revenue. Consumers should also benefit, since they should have even more programs to run on their iPhones.

Apple's climbdown may be awkward, but it can't really complain. If the moves make its devices more attractive to developers, that should benefit sales. More importantly, they may reduce the chances of governmental interference. Trust-busters may not be particularly effective in technology, but Jobs presumably would prefer spending the next decade talking to Apple's engineers, designers and fans instead of its lawyers.

*Published Sept. 9, 2010*

## MYSTERY OF THE FAITH

By Rob Cox

The mystique that Apple cloaks itself in when launching snazzy gadgets has served its bottom line well. But that same opacity doesn't translate well to corporate governance.

It took Apple's board far too long this week to reveal that, with its visionary leader Steve Jobs sick, 30 percent of its shareholders wanted more information on how the company would be run in the event he does not return to his position. Given Apple's stunning success, the low profile of the pension fund proposing the measure and the board's recommendation against, that should send a powerful message.

Late Thursday, Apple dropped into a regulatory filing the fact that 172 million shares were voted in favor of a proposal put forward by the Central Laborers' Pension Fund, which has under \$1 billion of assets, calling for the company to adopt and disclose an executive succession plan policy. With 400 million shares cast in opposition, or 70 percent of the vote, the company clearly prevailed.

But a more mainstream governance proposal from a far larger investor, the \$200 billion-plus Calpers, did get passed against the recommendation of the board. And even with the CLPF's effort, it's rare for non-traditional proposals from relatively unfamiliar special interests to capture so many votes. That's particularly true when boards in good standing with their stockholders recommend against them. Apple shares have, after all, roughly doubled in each of the past five years, so shareholders should be happy.

The support for the CLPF suggests many investors do want the company to be more forthcoming. That might also apply to the manner in which Apple reported the voting at Wednesday's annual meeting. At the time, it said shareholders defeated the succession planning proposal but it didn't reveal the vote tallies, something that is standard procedure at many big companies like Ford Motor and Goldman Sachs.

Apple instead slipped the results into a filing with the Securities and Exchange Commission the following day. That smacks of unnecessary reluctance to keep shareholders promptly informed. Whatever happens to Jobs, the company needs to do better at separating the justified secrecy of its product launches from keeping shareholders in the dark.

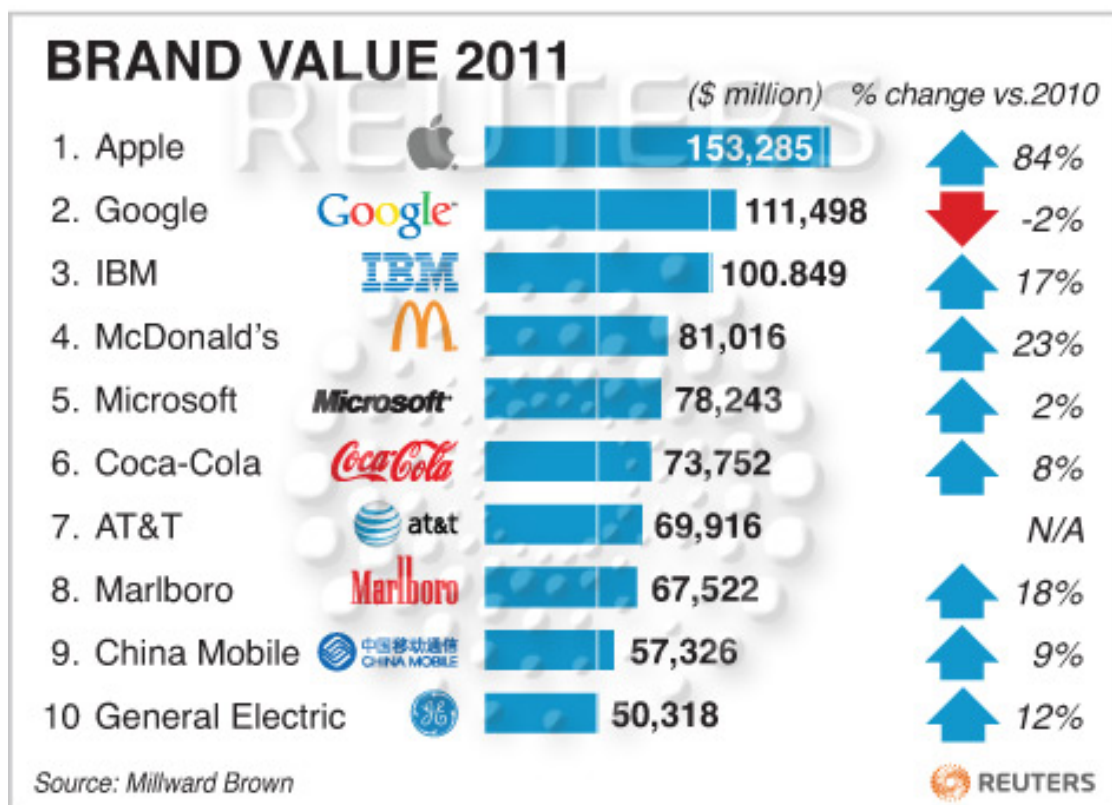
*Published Feb. 25, 2011*

## WHAT'S IN A NAME?

By Robert Cyran

Measuring a brand's worth is an imprecise art. Apple's has nevertheless been deemed the world's most valuable. At \$153 billion, according to a new survey, it accounts for about half the company's market capitalization and nearly 10 times its estimated value five years ago. Tech companies also populate the top ranks. There are good reasons they dominate the list – and why they're prone to big swings in value.

The survey, by a subsidiary of WPP, estimated the earnings resulting from big brands and attempted to put a multiple on them to account for future growth. The result is a tech-heavy list. Google's, at \$111 billion, ranks second, IBM is third and Microsoft fifth. This not only reflects the growing importance of hardware and software on the economy, but also how consumers spend more time online socializing and shopping. Facebook scored the biggest increase – its value nearly tripled to \$19 billion. And Amazon's brand overtook Wal-Mart's.



There are also economic reasons tech firms rate so highly. A large chunk of what they make is intangible, and therefore hard to capture on a balance sheet. Coding skills and patents are valuable, but not easily measured.

Further, technology is often a winner-take-all game. Network effects mean people want to use the same software or systems as their friends or employer. That helps explain why Apple's distinct label accounts for so much of its worth compared to, say, Exxon Mobil, whose name is estimated to represent just 4 percent of its \$414 billion market value.

Brand calculus nevertheless remains a squishy concept. Is Microsoft's really worth \$78 billion, or does its extraordinary market power account for the brand's value? Yet there's obviously something in a name. Just look at the premium prices Apple can tack onto its computers or gadgets – or how carefully it guards the use of its name.

Apple isn't alone. Google's most valuable real estate is its front page. It only puts its own logo there, instead of ads, to avoid diluting or sullyng its own brand.

Times still change, however. And evolution happens faster in tech, with new invasive species popping up regularly. Nokia lost more than a quarter of its brand value in a year, according to the survey, as users switched to Android-based and Apple handsets. Yes, a name has value, but it is far from timeless.

*Published May 9, 2011*

## **PIRATE BOOTY**

By Robert Cyran

Apple has thrown the music industry another life vest. Its new iTunes Match service lets users listen to songs on any device for \$25 a year. Significantly, it also works as an amnesty of sorts for customers with ill-gotten tunes in their hard drives. It looks a concession to piracy – but it at least offers a path to more revenue.

While other music services, such as Amazon's, allow customers to store music remotely, Apple's offers a clever twist. It compares digital signatures of music already stored by customers to the 18 million songs it sells on iTunes. If there's a match, the user gets



rights to listen to that content on any device. That makes it quicker and easier than services that require files to be uploaded. It also doesn't distinguish between legal and illegal content.

Apple will hand over 70 percent of the revenue it generates from the service to the music industry, according to people familiar with the plans. Labels and singers could use the money. Digital downloads haven't come close to making up for the cliff CD sales went over. The value of recorded music sold globally has shrunk by 40 percent over the past decade, to about \$16 billion, according to the industry's global trade group.

It is noteworthy Apple could even sign a deal with major record companies. The industry has fought hard against piracy, filing expensive lawsuits against everyone from Napster to geeky teenagers. It could of course continue to pursue such cases. But offering a path for pirates to go legit also looks like a pragmatic way to cash in.

Apple's history certainly helps. Digital revenue has been one of the few sources of growth for music companies. And the company led by Steve Jobs has played a huge part. The iTunes store has sold 15 billion songs since its inception in 2003. And Apple's U.S. share of legally downloaded music is about 70 percent, according to NPD. Whether Match will be a hit remains to be seen. But Apple may again be the recording industry's best chance for another platinum seller.

*Published June 6, 2011*

## **COGNITIVE DISSONANCE**

By Robert Cyran

Could Apple be worth \$1 trillion? It's conceivable. The \$342 billion iPhone and iPad maker became – if only briefly – the most valuable company in the United States when it surpassed Exxon Mobil on Aug. 9. Yet its sales have been surging 80 percent a year, and profit faster. And Apple trades roughly in line with the growing U.S. market – and at less than half the price-to-earnings multiple it fetched in 2006, when revenue growth was much slower.

Apple now trades at about 11 times estimated earnings for the fiscal year ending September 2012. The S&P 500 Index is valued at about 10 times next year's earnings. But Apple's sales growth is not far off 10 times faster than that of the average company. The gadget producer also sits on \$76 billion of cash and investments.

To get at this dissonance another way, consider Apple's PEG ratio. This hints at the price of growth by dividing a company's PE ratio by its projected percentage earnings growth. A smaller figure suggests a company is cheaper. Apple's is 0.2. That's low compared to growth darlings. Burrito purveyor Chipotle Mexican Grill, for instance, comes in at 2.1, and Salesforce.com at 13.2. Pandora and LinkedIn aren't even expected to make money.

Alternatively, put Apple on the same PE multiple it traded on in 2006, and it would be worth almost \$900 billion. A premium for today's faster growth could get it to \$1 trillion. Apple can't be so cheap just because Steve Jobs is in precarious health.

True, Apple already sells more per quarter than it did in all of fiscal 2007, and it takes more and more success to move the needle. Growth could easily slow. Yet the smartphone and tablet markets are young, the company's customers show remarkable fidelity, and areas such as television are ripe for new gadgets. Moreover, Apple's return on equity is almost twice what it was in 2006, suggesting it has pricing power.

Maybe investors simply can't fathom so large a company. A \$1 trillion Apple would mean adding all of Microsoft, Google, Intel and Amazon – and more – to the firm's current market capitalization. Perhaps Apple is correctly priced, the market too expensive, and growth stocks grotesquely so. But something doesn't add up. In relative terms, Apple should be worth far more.

*Published Aug. 9, 2011*

## **WELL-SEEDED ORCHARD**

By Robert Cyran

Few companies are as indelibly linked to an individual as Apple is to Steve Jobs. Not only one of the founders, he led the company from near bankruptcy to become one of the most valuable companies in the world. News on Wednesday of his retirement from

running day-to-day operations is a blow – even if it was both inevitable and expected. But investors haven't yet wrapped their minds around the powerhouse Jobs built.

For the time being, Apple will still be able to call on Jobs' uncanny sense of consumer tastes and shrewd marketing skills. He was elected chairman of the board and will presumably guide and advise the company as long as he is physically able. It's nevertheless reasonable to surmise his illnesses, first disclosed seven years ago, are taking a harder toll. Meanwhile, his replacement, Tim Cook, is not just capable but has had several stints in the CEO's seat, during which there were no noticeable hiccups.

Cook may not have Jobs' ability to marry design with technology or to inspire engineers to extraordinary heights. Nobody does. But the fact Jobs anointed him successor should add a bit of luster to his persona. More importantly, Cook has proven he can manage astonishing growth. Despite that Apple now sells more per quarter than it did per annum just a few years ago, it is still increasing revenue at an annual rate of more than 80 percent.

This growth, in a way, shows how hard it has been for investors to separate Jobs from Apple. Despite its extraordinary expansion in sales and profitability, the company is valued at about the same earnings multiple as the S&P 500. That makes little sense, unless it reflects worries about Jobs' health or, worse, a repeat of the troubles Apple experienced after Jobs left back in 1985. What's more, following the news that Jobs resigned as CEO, in after-hours trading Apple shed some \$20 billion of market value.

Once the initial shock wears off, however, investors should be able to focus on just how good Apple is. Each of its stable of iPads, iPhones and Macs feeds the growth of the others. Apple's customer base is growing and loyal. The smartphone and tablet markets have yet to hit their full stride. New ground in TV is bound to be broken.

Having Jobs around to lead the \$350 billion company through this next phase would be preferable. But soon enough, it ought to become apparent that Cook and Jobs' legacy will be a pretty potent combination.

*Published Aug. 25, 2011*



Apple COO Tim Cook (L) and CEO Steve Jobs remove their microphones after a news conference at Apple headquarters in Cupertino, California, July 16, 2010. REUTERS/Kim White.

## ABOUT US

Reuters Breakingviews is the world's leading source of agenda-setting financial insight. Every day, Breakingviews comments on the big financial stories as they happen in the United States, Europe and Asia. Expert analysis is provided by a global team of 30 correspondents based in London, New York, Washington, Hong Kong, Madrid, Moscow, Dubai and Mumbai.

Our columns reach financial professionals, including asset managers, senior corporate executives, investment bankers, lawyers, traders and private equity partners, by way of 500,000 Thomson Reuters desktops and on Breakingviews.com, a subscription website. Selected content is also syndicated to Reuters.com and over a dozen influential publications including The New York Times, The International Herald Tribune, The Globe & Mail and Le Monde. Founded in 1999, Breakingviews.com was acquired by Thomson Reuters in 2009 and is now Reuters' brand for financial commentary.