

**GLOBAL STRATEGY  
APPLE INC.  
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Headquartered in Cupertino, CA, Apple Inc. is an American multinational company that designs, develops, and sells consumer electronics, computer software, and personal computers. As classified by SIC and NAICS, Apple falls into the category of Radio and Television Communications Equipment manufacturing and Wireless Communications Equipment Manufacturing. Apple tops the S&P 500 list with \$415,655.2 million market cap, which is 2.97% of the index weight (**Exhibit 1**). Apple has experienced tremendous growth over the past two decades. Between 2008 and 2013 the cumulative total return on Apple stock increased by 331% (**Exhibit 2**). The reason for this growth is two-fold: the technology sector has transformed and Apple has capitalized on this wave of technological dependence; and Apple has captured the computing market through improving existing technology and creating demand for new products through pervasive transformative innovation. While Apple is enjoying market dominance in the United States, its growth depends on the production of new and improved technology for emerging and developed markets (**Exhibit 3**).

Apple has become increasingly global. Its original market was the high-end US consumer with its products primarily geared towards educational and home use. Its increasing scale and scope has resulted in a transition from being US centric in manufacturing, assembly, and sales to being global. Apple now sources and assembles products abroad and markets these products to 140 nations. International part manufacturing and labor have led to lower production costs, a greater focus on technological innovation, and better ability to penetrate emerging economies (**Exhibit 4**). However, this does not come without risk nor does its prior success guarantee future relevance. In fact, its emerging market penetration is not stellar. Apple has particular exposure to China as the majority of its sourcing and manufacturing takes place there (330 locations), but Apple's penetration to the consumer market there has been very limited.

**Effect of Political, Economic, and Cultural Systems:** The growing environmental problems in China are a big concern for Apple because of its over reliance on Chinese manufacturing. The Chinese government's plan to incentivize local governments based on environmental factors could result in output restrictions and stringent monitoring. Also, the government is planning to increase the proportion of profits that state-owned companies must return to the treasury from 5% -15% to 30% by 2020. This would affect the cost that Apple's outsourcing partners incur. Additionally, the outcry in China over human rights and poor working conditions may benefit local laborers. This would undermine Apple's reason for being there in the first place as such factors could cause an increase in outsourcing costs in coming years.

Recent NSA spying leaks have strained the relations among nations, especially between the U.S, China, and Germany. If Chinese and German governments restrict sales of foreign communication devices, services, and servers, it would have a direct effect on Apple's sales abroad. Cisco Systems and other tech companies cite NSA leaks and mistrust of American companies as one of the main reasons for poor sales in China. The Chinese government is favoring local companies to develop tech gears and communication equipment by subsidizing local companies. Bilateral relations impact trade between nations and as a result communication equipment, services, and data security will become vulnerable. Greater China (China, Hong Kong, and Taiwan) constituted 15% of Apple's revenue in 2013 (Apple 10-K) and any problem with the U.S and China relationship could impede Apple's China operations. In the near future, Apple is relying heavily on a deal with China Mobile, a wireless carrier; any governmental interference could severely limit its growth plans. Risks due to protectionist policies such as import restrictions, increased duty, and local company favoritism are particularly relevant.

**Simultaneous Multiple Strategic Thrusts (SMSTs):** Firms competing in a global landscape must circumvent these challenges. They can achieve worldwide advantage by following three strategic objectives simultaneously. Such objectives are: having global scale efficiency in its existing activities; developing multinational flexibility, thereby allowing the firm to create varied, country-specific risks and opportunities; and constructing the aptitude to learn from international exposure and opportunities, which can then be exploited on a worldwide basis. Collectively, these objectives are referred to as simultaneous multiple strategic thrusts and constitute the three-legged stool all firms need to integrate in their international strategy.

Confirmed by Investor Relations, the iPhone is Apple's primary growth strategy in emerging economies. Apple needs to step up the efficiency of its global scale efforts as Samsung, Apple's primary competition, continues to rise in its dominance in the global cell phone market. It should shift from a global strategic perspective into a transnational perspective. Apple has capitalized on a highly centralized, scale-intensive manufacturing strategy, but has failed to realize that producing standardized products is actually hindering its ability to become more of an international force. Apple has yet to demonstrate true multinational flexibility; however, with the introduction of the iPhone 5C, Apple is finally attempting to penetrate emerging markets with a product that is more aligned with the local customer demand and buying power. Up to this point, the international consumer's willingness to pay, particularly those in emerging markets, has been lacking. Apple's price level is unobtainable to those living in an emerging economy.

Apple needs to look beyond its core markets - the United States, Europe and Greater China - in order to achieve greater international scale. China and India are strong bets to start with, but outside those markets, Apple needs to adapt its product lines to fit the local markets of

the next seven largest emerging market economies, 'E7': China, India, Brazil, Russia, Indonesia, Mexico and Turkey. Perhaps software integration on non-Apple hardware could assist in penetrating emerging economies. However, this is counter to Apple's current strategy, which has garnered incredible success. Until Apple bends, SMST will not be fully achieved.

**Apple Differentiation:** When Apple is scrutinized within the VRIO framework, its strategy is made clear. Apple's aim is to take advantage of the increased technological dependence and convenience of internet connected computing and communication devices. Apple has *value* in many areas, but where it distinguishes itself is primarily in hardware/software innovation and integration, its effective use of outsourcing supply chain management, and its retail distribution channels.

As previously mentioned, Apple's ability to innovate, thereby disrupting the tech market, is what has led Apple to its current success. The mainstreaming of mp3 players, touch screen phones, and the creation of tablets are examples of innovation that most companies have difficulty imitating. While others have closed the product gap and created similar offerings, Apple's integrated experience among all its devices stands above those who create hardware and use third party software or vice versa. The competition has identified this advantage and some are trying to replicate. Examples of this are Microsoft's purchasing Nokia and Google's purchasing Motorola mobility. However, fusing existing companies is different than creating a ground up company that has design integration at its very foundation, which is why this competency remains rare. Apple exploits this differentiation so well that if one product is purchased, it entices the user to buy other products so as to achieve full product functionality. Also, Apple has a unique organizational culture that is open and encourages innovation and creativity to flourish. However, as mentioned in the SMST framework, separating hardware and

software allows companies, like Google, to have easy access to emerging economies as they develop computing capability.

**Alliances and Acquisitions - The Future of Sustained Competence:** Supply Chain management has also created incredible value for Apple thus far. Apple has sourced the best parts from around the world and utilized cheap labor for assembly. This on its face may seem very replicable, but Apple is revolutionizing the manufacturing process in conjunction with its suppliers through vertical and diagonal alliances. Apple anticipates spending approximately \$10.5 billion for capital expenditures in product tooling and manufacturing process equipment. One example is Apple investing a great deal of money through prepayments to a US-based sapphire company for new screen technology. Apple is starting to innovate and invest at the component level and then contract with the companies with whom it outfits new technology. This is another example of Apple's innovation, but through a vertical alliance early in the supply chain.

It makes sense for Apple to focus on its core competency of design and integration, and partner with specialists in their respective fields. When Apple demands a product or specification that does not exist, Apple works alongside its partners to create the component. The result is a very high quality product that combines leading technology from multiple fields.

In addition to partnering, Apple is becoming increasingly vertical when new component technology differentiates its products. **Exhibit 5** lists Apple's recent acquisitions and the value addition to Apple. Acquisitions and alliances not only shield Apple from supplier bargaining power, but also enable it to overcome its weakness.

**Trade and FDI Theories in Action:** Several international trade theories are in play with Apple, most notably the Ricardian theory of comparative advantage, the Heckscher-Ohlin

Theory and, to a certain extent, the Product Life Cycle theory. As is apparent from **Exhibit 6**, Apple relies on several partnerships with many companies around the globe (which are mostly in China) for the final assembly of its products. **Exhibit 6** illustrates the type of products manufactured in each facility. While Apple maintains control over product and software design and development, the company relies on foreign partners, such as Foxconn and Pegatron, for manufacturing of iPhones, iPads, and its accessories.

When Steve Jobs decided to change the original iPhone's screen from plastic to glass a month before the initial product launch in 2007, Apple relied on Foxconn's facilities in Shenzhen, Zhengzhou, and Taiyuan to accommodate the change. According to the Heckscher-Ohlin and Ricardian theories, China has a labor factor endowment advantage over the US. Not only are labor costs in China approximately 16 times cheaper than in the US (**Exhibit 7**), but labor in China can be organized and assembled much more quickly than in the US. Before the launch of the original iPhone, Apple executives estimated that it would take nine months to hire the 8,700 industrial engineers to oversee the iPhone assembly workforce in the US, whereas in China, the engineers were hired in fifteen days (Duhigg and Bradsher). The Foxconn facility in China, where most iPhones are assembled, employs 230,000 employees, roughly 3% of the total population in New York City (Rawson); imagine three out of every one-hundred New Yorkers working on an assembly floor!

Apple has not always relied on foreign partners to assemble its products. During the 1980s and 1990s, Apple prided itself on its products being "Made in the USA." In 2004, Apple followed the example set by other electronics companies and started looking to Asia for manufacturing (Duhigg and Bradsher). This transition echoes Vernon's Product Life Cycle theory (Hill), in which a company initially manufactures its products domestically, only to later

move manufacturing overseas in order to implement cost-reducing strategies as the product(s) become more standardized. However, availability to cheap labor in Asia was not the only factor in Apple's decision to move manufacturing abroad. Apple was also attracted to Asia's superior supply chain. According to one former executive, Apple's "entire supply chain is in China." (Duhigg and Bradsher). As an example, 90% of the rare earth materials found in smartphones are from China's inner Mongolia region.

In describing GE's Global Product Concept, Bartlett and Beamish argue that in the long run US-based MNEs begin to move some manufacturing sites back to the US as cost structures change, the threat of imitation rises, and the firm desires more control over the supply chain. Apple is currently experiencing a similar phenomenon. Apple recently announced plans to construct a manufacturing facility in Mesa, AZ which will assemble components with materials provided by GT Advanced Technologies, Inc., a NH-based producer of sapphire material. This facility in Arizona will accommodate 2,000 employees.

**Strengths, Weaknesses and Recommendations:** Value has been achieved for Apple in various ways. One way has been through Apple's own distribution model. In addition to distributing through outside retail chains, Apple operates its own retail outlet shops in 13 countries, which helps Apple capture full revenue advantage. Because the Apple brand has created incredible demand, these retail stores are sustainable. During 2013, the Company's net sales through its direct and indirect distribution channels accounted for 30% and 70%, respectively, of total net sales.

Apple's brand has led to another strategic advantage in its primary growth product: the iPhone. The iPhone is where Apple forecasts most of its growth internationally (**Exhibit 8**). By primarily selling this product through alliances with cell carriers in whatever market it targets, a



ready-made distribution system is in place, though this is not unique to Apple. Where Apple has seen absolute advantage is in the subsidy it demands from carriers. Due to high smartphone costs, cell phone carriers subsidize part of the purchase price. As shown by ABI Research in **Exhibit 9**, Apple commands a higher subsidy than its competition. For example, it is roughly \$110 higher than Samsung according to (ABI Research). The iPhone popularity and demand creates a higher carrier and end-user willingness to pay. Carriers are eager to offer the iPhone as the pay-off is huge. To this point, AT&T's sales nearly doubled from \$63 billion to \$119 billion the year they introduced the iPhone to their customers. As long as Apple continues innovating, its strong brand will continue for the foreseeable future and reinforce its advantages.

It is important to note that some of Apple's strengths have turned into weaknesses. Because Apple maintains control of both software and hardware, outside hardware manufacturers cannot use its operating system for computers, tablets, and smartphones. Google has capitalized on this weakness and made its Android platform available to all hardware companies. This has resulted in incredible market penetration as demonstrated by the Android OS currently commanding 51.6% of smartphone market share. The iPhone is still the most popular phone model, but because it is the only hardware that supports the Apple iOS, Android has a further reach.

Apple's strict reliance on outsourcing has left it vulnerable to imitation. In fact, Samsung, its primary processor supplier, has been accused of rampant patent infringement. According to Phil Schiller, Apple's marketing head:

“Creating designs and features that differentiate the company is Apple's entire business. Samsung's devices that looked like the iPhone made it "much harder" for Apple to differentiate and sell its devices. Samsung gained huge market share in smartphones because it copied Apple.”

This is a prime example of Apple's outsourcing strategy backfiring. Samsung's in-house processor manufacturing is a point of strength from which Apple is now trying to divorce itself.

As previously mentioned, Apple's strategies are not without flaws. There are several ways Apple can address some of its weaknesses and potential threats. First, Apple should work with suppliers to improve plant working conditions. Of the supplier facilities audited, on average, just 73% complied with Apple's "Supplier Code of Conduct." Therefore, Apple should leverage its bargaining power to create shared value for the betterment of society.

Second, Apple should balance its supplier base to avoid heavy reliance on Chinese companies. More than 330 supplier units are located in China and this makes Apple vulnerable to negative externalities and macroeconomic, political, and resource risks that are out of its control. Apple should develop a network of alliances that provides flexibility to shift production when a particular national market faces an economic crisis or threat.

Third, Apple should come up with innovative products to penetrate emerging markets. Unless Apple addresses the needs of middle and bottom of the pyramid markets, scaling and market penetration will be challenging. Emerging markets undergo a phenomenon called 'leapfrogging' in technological progress, and companies cannot penetrate these markets just by dumping old product models at low price (consumer rejection and anti-dumping laws).

According to PwC's World in 2050 report, seven of the largest emerging market economies, referred to as 'E7' (China, India, Brazil, Russia, Indonesia, Mexico and Turkey), are projected to be more than 50% larger than the G7 countries when measured by GDP at market exchange rates (MER) by 2050 and around 75% larger in PPP terms. Currently, the E7 is just under half the size of the G7 economies based on GDP at MERs and just over 80% of the size of the G7 based on GDP measured in PPP terms (**Exhibit 10**). Apple needs an array of models from

low to high-end to compete in E7 markets. Apple should disrupt the E7 markets by leveraging its core capabilities to come up with “frugal innovations.” Low-end tablets and PCs integrated with iCloud can revolutionize the educational and medical system in countries that face acute shortage of resources (human, infrastructure-transportation, connectivity etc.). These are not just options for Apple, rather oxygen for sustainable growth. Alternatively, Apple could just offer its software to the E7 markets. This allows Apple to penetrate with lower risk, much greater reach, and a much lower cost to the end consumer. This would only be targeted at E7 countries as Apple would not want to cannibalize its own hardware sales in developed markets. As the E7 countries grow their purchasing power, Apple can slowly introduce hardware to complement an “Apple familiar” user-base.

**Why Apple:** Apple shrouds itself of secrecy, only to unveil new products at events that garner as much press as a presidential address. Apple continues to deliver products that change the way people interact with technology and each other. Though Apple’s secrecy creates roadblocks in conducting a full investigation of the company, it adds to the company’s allure.

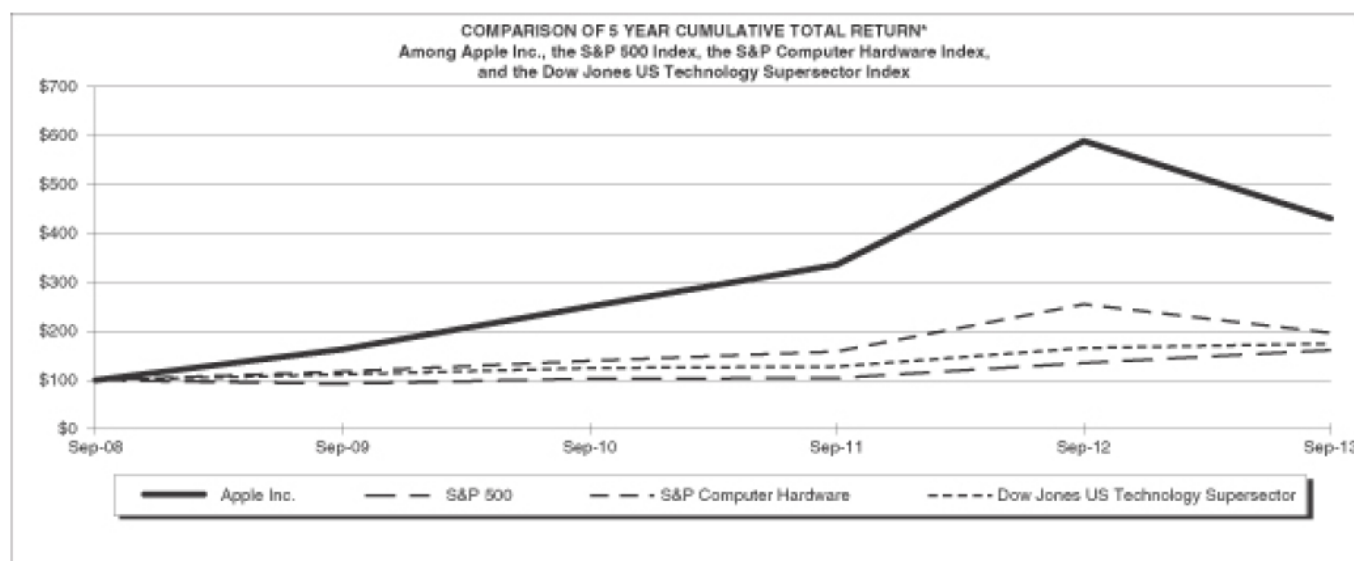
Apple’s stock turbulence over the past year made it a fascinating study, especially as it moves to create world dominance and outpace competitors like Samsung. In recent years, Apple has received a great deal of negative attention in the media for its partnerships with companies such as Foxconn. This team was interested in learning the truth about Apple’s international relationships, especially with news of a Foxconn facility possibly being built near Harrisburg, PA (Wingfield and Varghese). The global strategy theories and topics discussed in class have shed insight on and helped us understand why Apple would make the decision to produce its products internationally. Perhaps this project would be better if complemented by a group presentation.

**Exhibit 1: Apple's market capitalization**

## Top 10 Companies By Weight

Company	Float Adj Market Cap [USD Million]	Index Weight	Sector Weight	IWF	GICS® Sector
Apple Inc.	415,655.2	2.97%	16.50%	1.00	Information Technology
Exxon Mobil Corp	403,733.3	2.89%	26.45%	1.00	Energy
General Electric Co	240,408.0	1.72%	17.01%	1.00	Industrials
Chevron Corp	230,831.4	1.65%	15.12%	1.00	Energy
Johnson & Johnson	227,902.4	1.63%	13.01%	1.00	Health Care
Intl Business Machines Corp	223,461.5	1.60%	8.87%	0.94	Information Technology
Microsoft Corp	215,679.9	1.54%	8.56%	0.90	Information Technology
Google Inc	212,027.5	1.52%	8.42%	0.81	Information Technology
Procter & Gamble	210,501.0	1.51%	13.74%	1.00	Consumer Staples
Pfizer Inc	207,476.3	1.48%	11.84%	1.00	Health Care

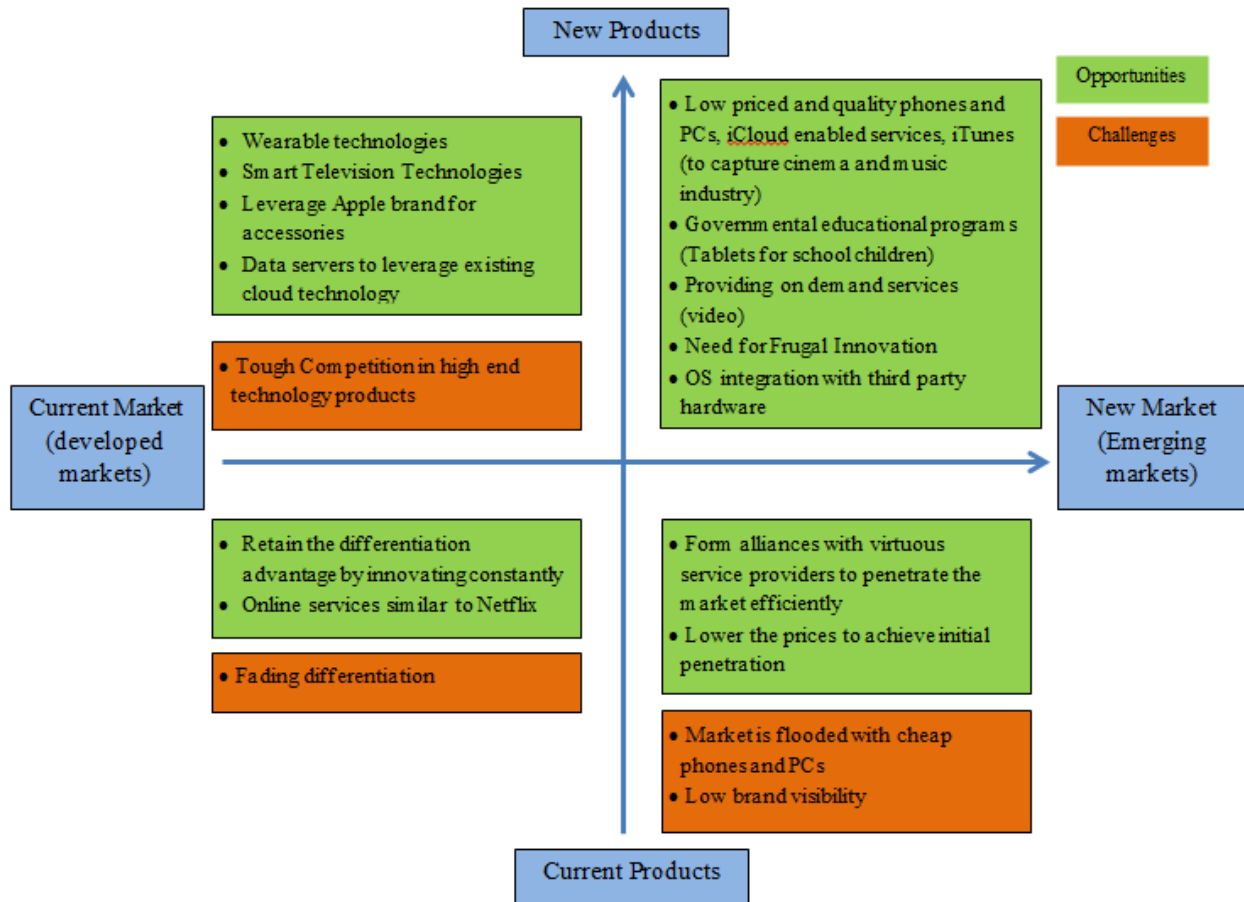
Source: S&amp;P 500

**Exhibit 2: Five Year cumulative returns**

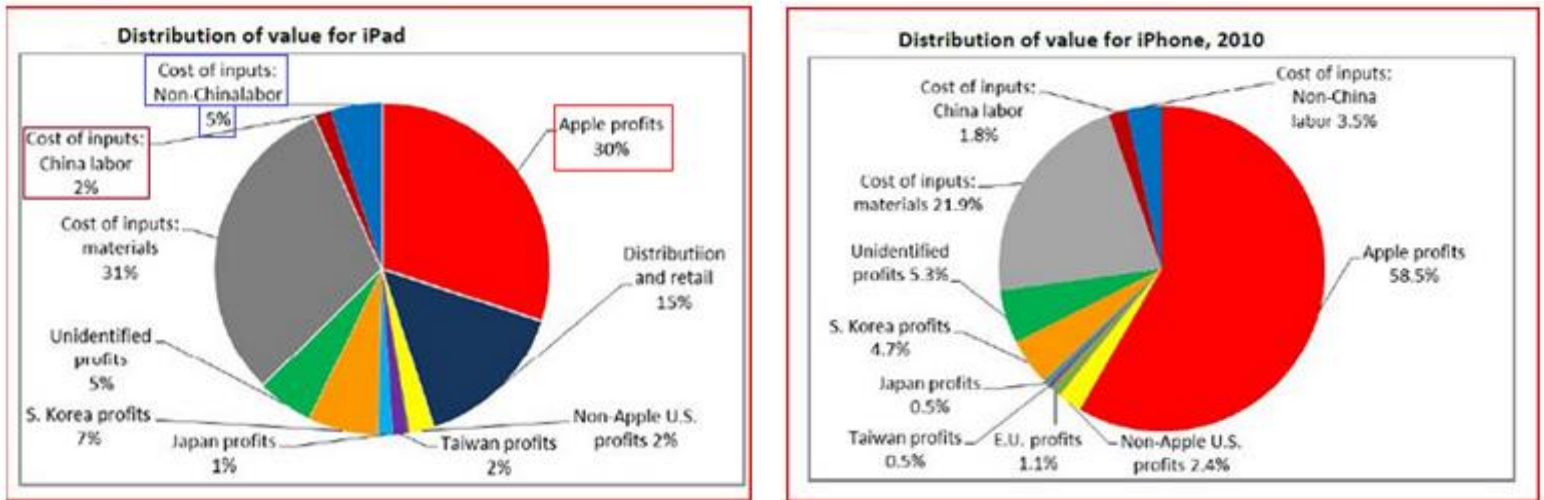
\*\$100 invested on 9/30/08 in stock or index, including reinvestment of dividends.  
Fiscal year ending September 30.

Source: 10-k 2012-2013

**Exhibit 3: Opportunities and Challenges Matrix**



**Exhibit 4: Cost distribution**



Source: Forbes

**Exhibit 5: Acquisitions 2012-2013**

Company	Area of Expertise	Value Addition and Opportunities
PrimeSense	3D Sensor Technology	Motion sensor television, wearable widget
AlgoTrim	Data Compression Technology and Imaging Codecs	Optimized and efficient compression
Passif Semiconductor	Wireless chipset developer	Health-monitoring and fitness devices and custom-designed system-on-a-chip (SoC)
Embark	Transit focused application	Integration with Apple Maps and improving mapping technology
Hopstop	Real-time social transit navigation	
Locationary	Data on local businesses around the world	
WifiSLAM	Indoor location mapping	
Lala	Online music streaming	Cloud-based streaming music service

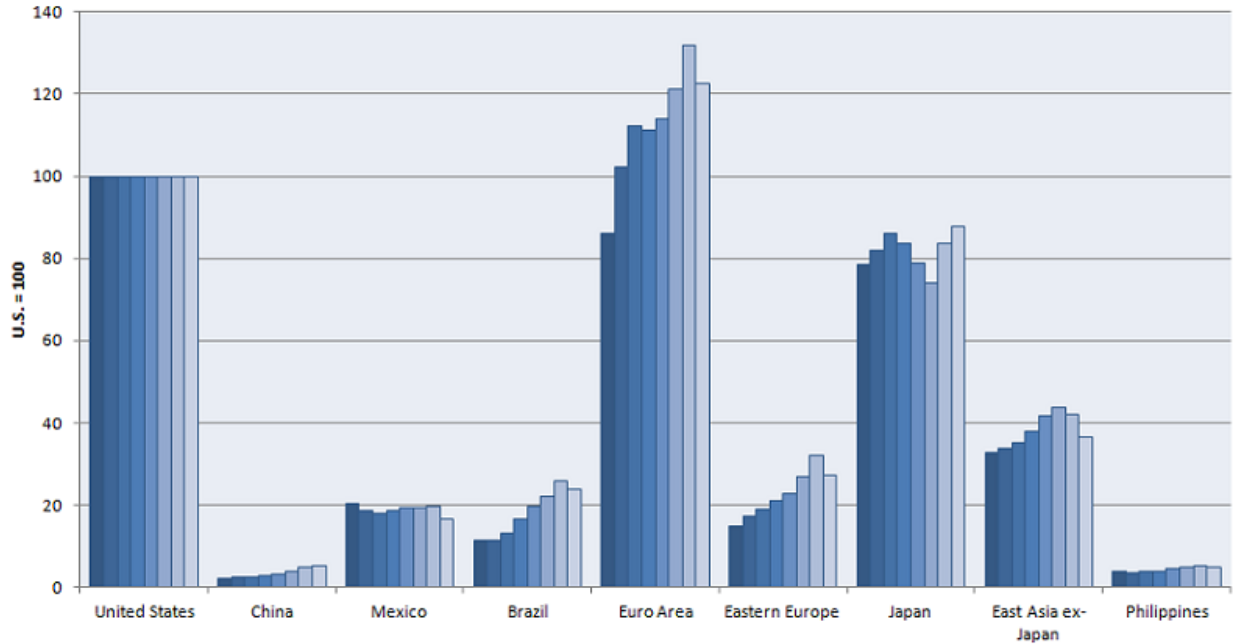
**Exhibit 6: Apple Final Assembly Partners**

Company Name	Parts Manufactured	Location
Apple	Mac	Cork, Republic of Ireland
Cheng Uei Precision Industry Co., Ltd (Foxlink)	Accessories	Dongguan, Guangdong, China
Hon Hai Precision Industry Co., Ltd (Foxconn)	iPad, iPhone	Jundiai, Sao Paulo, Brazil
Hon Hai Precision Industry Co., Ltd (Foxconn)	iPhone, iPod	Shenzhen, Guangdong, China
Hon Hai Precision Industry Co., Ltd (Foxconn)	iPhone	Zhengzhou, Guangdong, China
Hon Hai Precision Industry Co., Ltd (Foxconn)	Mac, iPad	Shenzhen, Guangdong, China
Hon Hai Precision Industry Co., Ltd (Foxconn)	Accessories	Shanghai, China
Hon Hai Precision Industry Co., Ltd (Foxconn)	iPad	Chengdu, Sichuan, China
Hon Hai Precision Industry Co., Ltd (Foxconn)	iPhone	Taiyuan, Shanxi, China
Inventec Appliances Corporation	iPod, accessories	Shanghai, China
PCH International	Accessories	Shenzhen, Guangdong, China
Pegatron Corporation	Accessories	Suzhou, Jiangsu, China
Pegatron Corporation	iPad, iPhone	Shanghai, China
Primax Electronics Ltd.	Accessories	Dongguan, Guangdong, China
Quanta Computer, Inc.	Mac	Fremont, California, USA
Quanta Computer, Inc.	Mac	Shanghai, China
Quanta Computer, Inc.	iPod	Changshu, Jiangsu, China

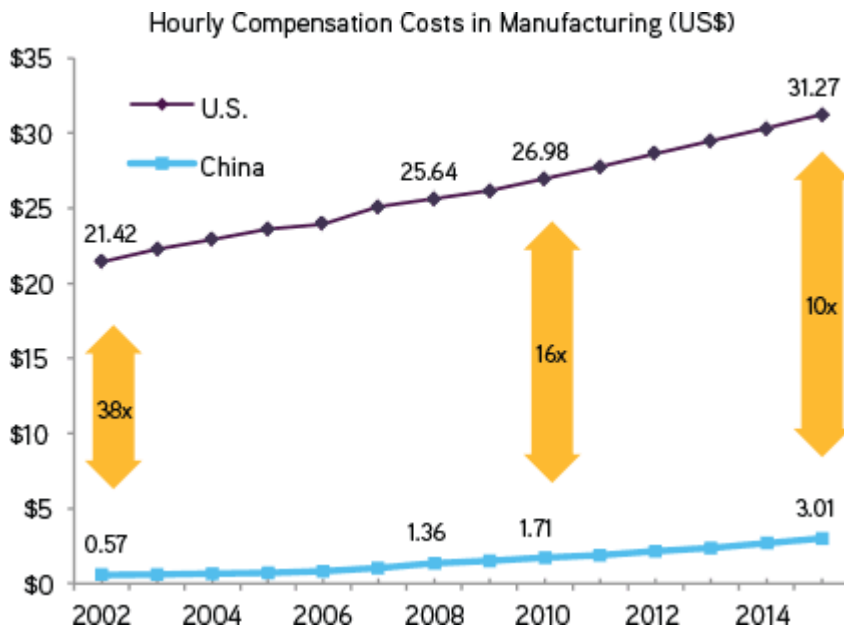
Source: <http://www.apple.com/supplierresponsibility/our-suppliers.html>

**Exhibit 7: Labor Cost Comparison**

**Average hourly compensation costs of manufacturing employees, selected economies and regions, 2002-2009**



Note: For a description of the economic groups, see the technical notes at [www.bls.gov/ilc/ichcctn.pdf](http://www.bls.gov/ilc/ichcctn.pdf), Table 2.  
 Source: U.S. Bureau of Labor Statistics, International Labor Comparisons.

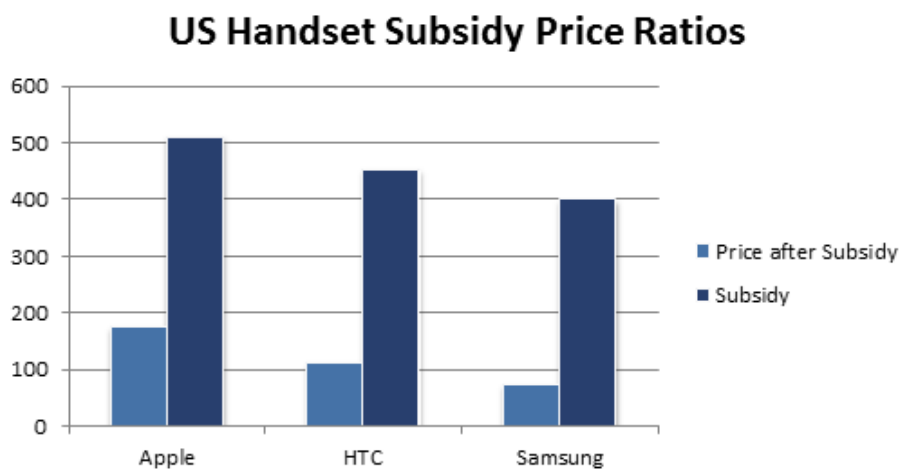




**Exhibit 8: Sales in 2012-2013**

	2013	Change	2012	Change	2011
<b>Net Sales by Operating Segment:</b>					
Americas	\$ 62,739	9%	\$ 57,512	50%	\$ 38,315
Europe	37,883	4%	36,323	31%	27,778
Greater China (a)	25,417	13%	22,533	78%	12,690
Japan	13,462	27%	10,571	94%	5,437
Rest of Asia Pacific	11,181	4%	10,741	8%	9,902
Retail	20,228	7%	18,828	33%	14,127
Total net sales	<u>\$170,910</u>	9%	<u>\$156,508</u>	45%	<u>\$108,249</u>
<b>Net Sales by Product:</b>					
iPhone (b)	\$ 91,279	16%	\$ 78,692	71%	\$ 45,998
iPad (b)	31,980	3%	30,945	61%	19,168
Mac (b)	21,483	(7)%	23,221	7%	21,783
iPod (b)	4,411	(21)%	5,615	(25)%	7,453
iTunes, software and services (c)	16,051	25%	12,890	38%	9,373
Accessories (d)	5,706	11%	5,145	15%	4,474
Total net sales	<u>\$170,910</u>	9%	<u>\$156,508</u>	45%	<u>\$108,249</u>
<b>Unit Sales by Product:</b>					
iPhone	150,257	20%	125,046	73%	72,293
iPad	71,033	22%	58,310	80%	32,394
Mac	16,341	(10)%	18,158	9%	16,735
iPod	26,379	(25)%	35,165	(17)%	42,620

Source: 10-K 2012-2013

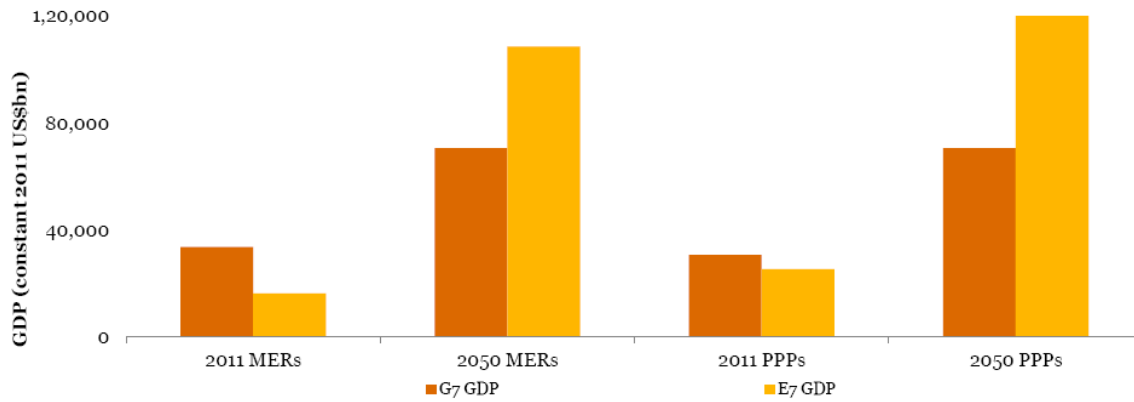
**Exhibit 9: Cell Phone Subsidy**

Source: ABI Research

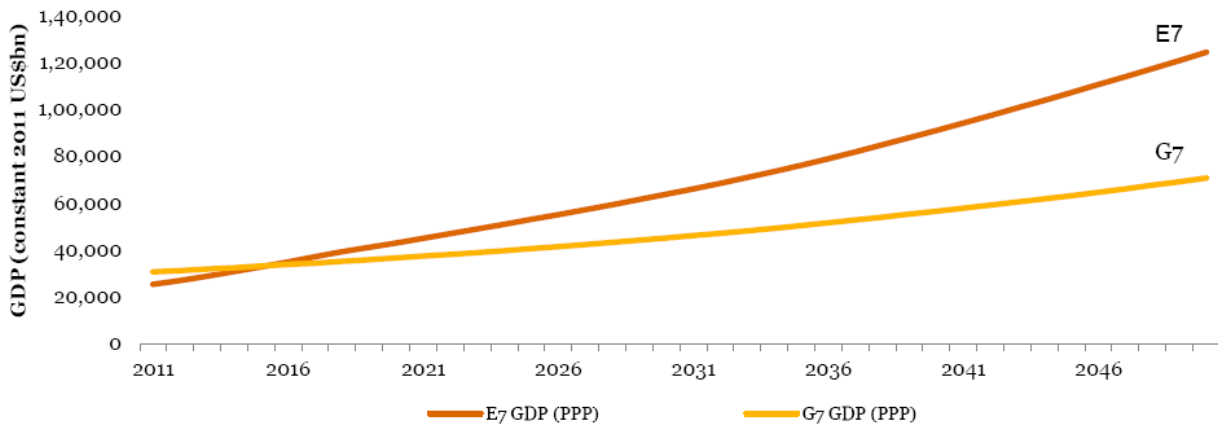
Source: ABI Research

**Exhibit 10 : Growth forecast 2050**

*Relative size of G7 and E7 economies: 2011 and 2050*



*E7 and G7 growth paths in PPP terms*



Source: PwC World in 2050 report

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