Calichina Dreaming

Apple, the iPhone, and the Future of the Chinese Economy

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The iPhone 8, expected to be launched on September 12, is already an online media sensation. And with good reason. The release of each new iPhone is a technological shock that has the capacity to reconfigure a large chunk of the global economy. Other new products offer incremental improvements that over time can have a cumulative effect on economic structure. But a new iPhone isn't so much a new device as a new ecosystem. Each new iPhone opens up technological niches that are then exploited by thousands of other companies, from giants such as Facebook to small developers of all kinds of gadgets and apps.

Its repeat record of industrial renewal has made Apple the most profitable company in the world. It has also created a new economic system that spans the Pacific region, from California in the east to Sichuan in the west and everywhere in between. This system might be called the i-economy, since it depends so heavily on the iPhone and the technological ecosystem it supports.

The Pacific i-economy is centered on smartphones, but its reach is much broader. It takes in a host of related industries that depend on the smartphone ecosystem for their very survival. The i-economy includes apps, but it also directly sustains Hollywood, popular music, electronic gaming, electronic publishing, Internet search, ride-hailing services, food delivery services, photography, and financial technologies. All of these industries are or are in the process of becoming mobile based.

By its very nature the i-economy is not tied to any particular place, but in reality its industries are clustered around the shores of the Pacific. Of course, the i-economy was conceived and born in California, with Silicon Valley at its heart, and California remains its most important creative (and profit) center. But other nodes are spread around the Pacific basin. Microsoft and Amazon are based in Seattle, while Sony and Nintendo are based in Japan. South Korea's Samsung and LG are at the same time Apple rivals and suppliers. Taiwan is home to a vast semiconductor industry, and Taiwanese contract manufacturers such as Foxconn and Pegatron assemble iPhones and other Apple products in China.

In the i-economy supply chain, all roads lead to China. For the last 30 years, Beijing has provided a seemingly endless supply of cheap, productive labor to build the gadgets that power the i-economy. But now China is becoming a major center of the intangible economy as well. Chinese Internet companies such as Alibaba, Baidu, and Tencent are second only to their California rivals in scale and profitability. No other country comes close. The most valuable elements of the Pacific i-economy are increasingly at the intangible ends of software design and applications, not in the manufacturing middle.

ONE PHONE TO RULE THEM ALL

In unit terms, less than 20 percent of the world's smartphones are iPhones. But what makes Apple so central to the Pacific i-economy isn't its manufacturing supply chain but its total value chain. Apple's phones run iOS, which, unlike Google's Android, is a proprietary operating system that runs only on Apple products. Because of Android phones' popularity and the openness of the Android environment, many more apps are available for Android than for Apple. Yet Apple's apps generate twice as much revenue as Android's. Google gets the volume, but Apple gets the sales.

Moreover, successful functionalities pioneered by and for iPhones, such as multitouch display and motion sensors in previous generations, ultimately trickle down to even the most basic smartphones. That includes the top-selling models in China. Leading Chinese smartphone brands such as Huawei, Oppo, and Vivo may run Android, but they emulate Apple. China's BBK Electronics, the company that makes both Oppo and Vivo, has a strategy of always following Apple from a few steps behind. Its chairman, the charismatic entrepreneur Duan Yongping, claims to use an iPhone himself and hold much of his personal wealth in Apple stock.

China's telecom market leader, Huawei, by contrast, makes a point of going head-to-head in competition with Apple, incorporating innovative new hardware features such as dual-lens cameras before they even appear in iPhones. It far outsells Apple in China and just overtook Apple globally. But Huawei has found it difficult to make money while paying over the top for the latest technologies. Apple consistently captures 70 to 90 percent of all profits earned by smartphone manufacturers globally, while Huawei barely breaks even on phones.

Despite their enormous sales volumes, Chinese smartphone makers aren't the country's true technology leaders; its Internet companies are. Shielded behind Beijing's Great Firewall, a set of restrictions that blocks access to U.S. sites such as Facebook, Twitter, and even Google, Chinese Internet companies have expanded to become some of the world's largest, most advanced, and most profitable. And they too depend heavily on the Apple ecosystem.

The three most famous of these companies are Alibaba, Baidu, and Tencent. Alibaba, known as China's version of Amazon, claims to be the world's largest retailer. Its profits lag those of Walmart by a considerable margin but are twice those of Amazon. (Emulating Amazon founder Jeff Bezos, Alibaba founder Jack Ma has even bought himself a prestigious newspaper to complement his Internet holdings, Hong Kong's *South China Morning Post*.) Alibaba's sales are growing by leaps and bounds as Chinese consumers move online, although an ongoing investigation by the U.S. Securities and Exchange Commission suggests that one should treat its figures with caution.

Baidu is known as China's Google: its main products are Internet search and video streaming. Like Google, it is investing heavily in artificial intelligence. Unlike Google, it has yet to translate its search market dominance into massive profitability, though it does make money. Tencent was originally considered China's AOL equivalent, but unlike AOL, it has maintained its independence and continues to flourish. It has branched out from its flagship QQ messenger service to develop WeChat (China's leading social network) and become one of the world's largest video game publishers. Other leading Chinese social networking companies include Renren (the country's equivalent of Facebook) and Weibo (its Twitter).

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All of these services are available for both Android and iPhone in China, but in China as in the rest of the world, the i-economy is led by Apple. It's not that Apple exercises any kind of direct control over these other companies or products. Far from it. The leading technologist Ben Thompson argues that in China most people experience the Internet via Tencent's WeChat platform, which can be used to pay bills, hail taxis, and complete a host of other tasks, and that that reduces Apple's power. In fact, Apple has recently had a run-in with Tencent over commissions on in-app payments. But that doesn't change the fact that Apple sets the standard for what people expect to be able to do with their smartphones, in China as everywhere else.

Consider, for example, that the iPhone 8 is expected to prominently feature facial recognitiontechnology. One of its basic uses will doubtless be as a quick and convenient way to unlock the phone, replacing touch and keypad security. But it doesn't take a technologist to predict that clever developers will find ways to combine front-facing facial recognition technology with an advanced rear-facing dual camera to support whole new kinds of entertainment and productivity apps and experiences. China's Internet giants are sure to jump onto this opportunity just as quickly as their U.S. counterparts. That may not help

Huawei compete with Apple, but it will drive forward the future of China's i-economy.

CHINA'S NEW ECONOMY

The old growth model has reached its limits in China. Large-scale heavy manufacturing development has left much of its economy in shambles and nearly all of its environment in ruin. China's efforts to claw its way up the value chain have reached a dead end in industries such as steel, chemicals, apparel, and even consumer electronics. In the twenty-first century, there's just not much value left in those chains. Chinese companies already produce more than half of the world's steel, leaving little room for growth. Similar ratios apply across the breadth of manufacturing industries.

The key value chains of the twenty-first century are the intangible value chains of the i-economy, and these face no built-in limits to growth. If Chinese companies can come up with new ways to generate value from smartphones, they don't have to compete on price to grab global market share. With a home market of 1.4 billion people, they can go a long way before they bump up against California's globally competitive Internet giants. They can even model themselves on those U.S. companies and still turn a handsome profit. But increasingly, they are technological peers, not just imitators, of their California cousins.

Seen from this perspective, the Great Firewall of China may be the world's single largest nontariff barrier to trade—and the single most important barrier to U.S. exports. That may be a problem for the United States, but it's an opportunity for China. While China's smartphone makers struggle to compete with the iPhone 8, the country's Internet companies will be looking for new ways to profit from it. They will exploit the evolving Apple ecosystem in ways that Apple itself may not have foreseen. And they can be confident that any new capabilities Apple embeds in the iPhone 8 will soon be matched by Huawei, Oppo, and Vivo.

In 2012, Chinese President Xi Jinping launched his "Chinese Dream" platform of national rejuvenation through hard work to ensure economic success. Dream or no dream, Xi's near-term economic goal of making China a "moderately prosperous society" is perhaps not very inspiring. China's Internet companies are instead pursuing the California dream of limitless growth while enjoying life to the fullest. Technology may or may not make that goal possible, but it is certainly more attainable through the intangible i-economy than through manufacturing chemicals and steel. Deeply embedded in the Pacific iPhone ecosystem, Chinese companies are well placed to flourish in this brave new economy and just might succeed. Call it the Calichina Dream: Chinese companies that aren't just big but profitable, too.

According to *Forbes*, in 2016 Apple made more money than the top ten Chinese nonfinancial companies combined. The second and third of those top ten were Tencent and Alibaba, respectively. They may be way behind Apple in terms of profit, but they are ahead of Amazon, closing in on Facebook, and almost in the same league as Google. The Great Firewall partially protects them and their peers from U.S. competition, but it does not drive their innovation. More than any other single factor, the iPhone does.