

Overseas Manufacturing and the Smiley-Faced Curve¹

According to the inscription on its underside, every iPod is "Designed by Apple in California; Assembled in China.".... A 2007 study published by the University of California-Irvine sought to determine "who captures value in a global innovation system" by disaggregating the components contained in an Apple iPod and determining the companies and countries involved in manufacturing a unit in China....The total cost of producing the iPod (components plus labour) was estimated to be about \$144.

Most of the profits on the constituent components accrue to Japanese companies, who produce the most important and most expensive parts. Two U. S. and a few components producers from other countries all capture small shares of the value. But the lion's share of value accrues to Apple since iPods retail for \$299 and the cost of production is \$144 (at the time the study was conducted). Some of the \$155 per-unit mark-up goes toward compensating U. S. distributors, retailers, and marketers, while the rest is distributed to Apple shareholders or devoted to research and development, which supports engineering and design jobs higher up the value chain.

The capture of value in the iPod production chain is fairly typical for Western brands. James Fallows characterises this process of outsourcing as following the shape of a "Smiley Curve" that is plotted on a chart where the production process from start to finish is measured along the horizontal axis and the value of each stage of production is measured on the vertical axis. About this production process, Fallows concludes:

The significance is that China's activity is in the middle stages - manufacturing, plus some component supply and engineering design - but America's is at the two ends, and those are where the money is. The smiley curve, which shows the profitability or value added at each stage, starts high for branding and product concept, swoops down for manufacturing, and rises again in the retail and servicing stages.

Other examples: A carrying case for an audio device from a big-name Western company retails for just under \$30. That company pays the Chinese supplier \$6 per case, of which about half goes for materials. The other \$24 stays with the big-name company. An

¹ Plagiabased from *No Longer Us versus Them: Trade Policy for the 21st Century*, by Daniel Ikenson. Taken from: <http://www.policynetwork.net/sites/default/files/NoLongerUsversusThem.pdf>.

earphone-like accessory for another U. S.-brand audio device also retails for about \$30. Of this, \$3 stays in China²

American Companies Investing Abroad³

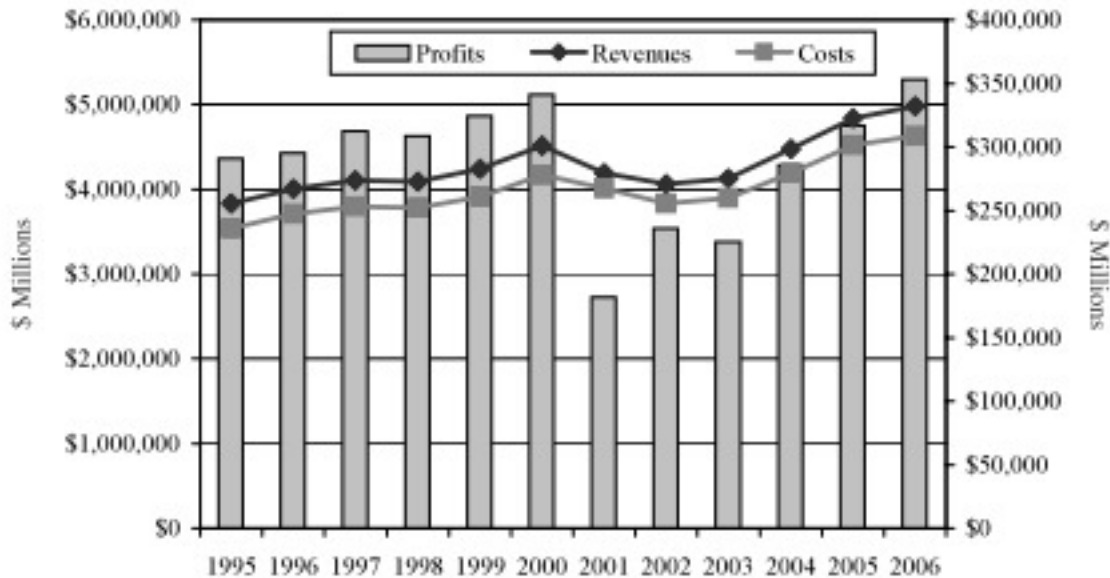
Many on TV will charge US multinational corporations with opening up sweatshop factories overseas, in order to export back to the US, putting Americans out of work. However, the data do not support this claim. In 2004, sales by foreign affiliates of U. S. multinationals totaled \$3.2 trillion. Most of these sales were to customers outside of the United States; 89.6 percent of total sales were to foreign customers and only 10.4 percent were to U. S. customers. In other words, close to 90 percent of the goods and services produced by U.S.-owned affiliates abroad are sold to customers either in the host country or exported to consumers in other foreign countries. Even in Mexico and China, where low-wage workers are often too poor to buy American-made products, more than half of the products of U. S. affiliates are sold in their domestic markets.

² In an independent study (of all US imports from all over the world), the Federal Reserve Bank of San Francisco's *Economic Letter* (published August 8, 2011) stated that "the U.S. content of Made in China" is about 55%." This would include transportation within the US, store rent and expenses, as well as salaries. This same letter indicated that the US-based content of imports overall (all imports, not just China) would be 36%. The higher figure for China is due to the fact that there is a higher markup on consumer electronics and clothing, than on other products that we import from other nations.

³ The following sections have been largely excerpted (with occasional clarifying remarks from yours truly) from three sources: "*Shipping Jobs Overseas*" or *Reaching New Customers? Why Congress Should Not Tax Reinvested Earnings Abroad*, by Daniel Griswold.; *Thriving in a Global Economy: The Truth about U.S. Manufacturing and Trade*, by Daniel Ikenson; and the Economic Report of the President, 2007.

The U. S. manufacturing recorded its strongest financial performance ever in 2006.

Figure 3
All Manufacturing Revenues, Costs, and Profits (in Constant Million \$)



Note: Revenues and costs measured on left Y-axis; Profits measured on right Y-axis.

(source for graph: *Thriving in a Global Economy*, page 9)

When US multinational corporations invest abroad, what do they do at home?

Studies show that when US multinationals invest abroad, they also invest at home as well. One dollar of additional foreign capital spending is associated with \$3.50 of additional domestic (i.e., in America) capital spending. Capital spending is investment in hard goods such as land, factories, and equipment. Firms combine home and foreign production to generate final output at a lower cost than would be possible in just one country, resulting in increased output and profits.

While this relationship between investment abroad, and here in America, isn't always spoken about on TV, the logic of this is easy to see. If a corporation were forced to invest only in America (where costs are higher), the prices of their products would be higher, and that means that sales and profits would be lower. If companies were to invest only in America, this would actually *diminish* their production and sales. But when companies can sell products profitably (some of which are made in America, and others which are made abroad), they can invest in distribution centers in America, and other factories that *use* the foreign products, here in America. And so investment abroad will generate more sales here, which can then contribute to more investment here at home, as well.

When US companies hire abroad, how does that impact US jobs in those same companies?

Further, when multinationals hire abroad, they also expand employment here at home. In recent years, many observers have expressed dismay that U. S. companies have expanded their operations overseas, claiming that when U. S. firms hire workers in foreign countries, they reduce the number of jobs available to U. S. workers.... However, in looking at historical data regarding the activity of U. S. multinationals, we see exactly the opposite: when U. S. companies expand their employment abroad, they also tend to expand domestically.

Over the last two decades (1984-2004), U. S. multinationals expanded employment at their foreign affiliates by 3.8 million; in the same time period, they expanded employment in the US by 3.2 million. In other words, the long-run data show that when U. S. multinationals hire abroad they also expand domestic employment. Rather than being substitutes for one another, the domestic and foreign operations of U. S. multinationals have tended to be complements. Consider the operations of General Electric. According to its latest annual report, since 2001 this multinational has expanded foreign employment by 3,000 while also expanding domestic employment by the same amount.

Employment by U.S. Parent Companies and their Majority-Owned Foreign Affiliates
Employment by U.S. parent companies and their foreign affiliates have both grown since the early 1980s.



Sources: Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics).

(source for graph—Economic Report of the President (2007), page 186)