

# Intellectual Property (IP)

## Nothing Else Matters for Fair Trade Over the Long Term

### CONCLUSION

The US could achieve an acceptable overall balance-of-trade without any US import tariffs or quotas if Intellectual Property (IP) owned by US companies received sufficient protection under US and International IP laws. Over a period of years, the US can achieve a positive balance-of-trade if IP is protected, even if other countries instituted tariffs or quotas, when the US used no quotas and zero tariffs.

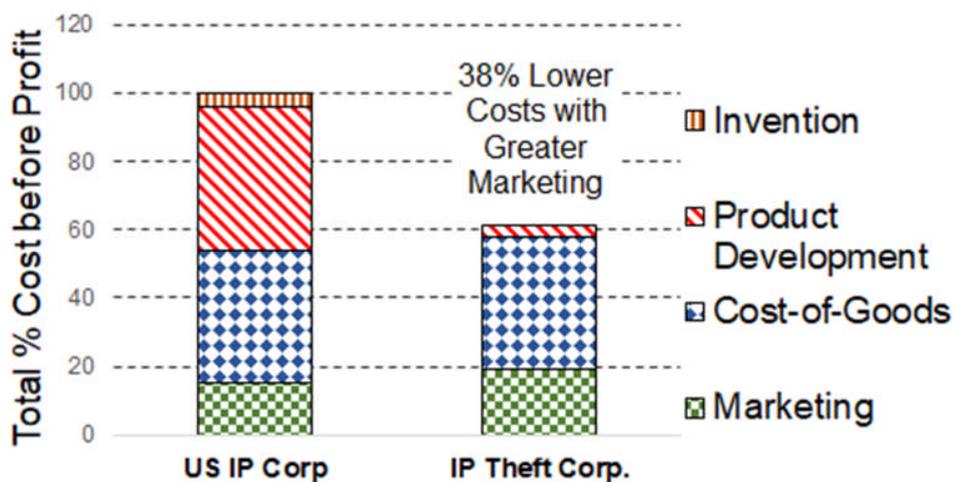
### INTELLECTUAL PROPERTY FACTORS

The US continues to produce a major portion of important inventions in terms of physical devices, materials and product designs that are essential for most types of consumer electronics, biotech drugs, pharmaceuticals, industrial machinery and electronics, vehicles and other physical products. Many of these inventions continue to be created in the US by small and mid-sized companies and by universities that transfer their technology to small and mid-sized US companies. Going forward, we can expect to see many new wireless products such as mobile phones, Internet-of-Things, and gigabit wireless video emerge from US entities using 5G and 6G invention. These technologies require semiconductor materials, semiconductor structures and microscale antennae that have not yet been invented. Will US inventors benefit from those essential pieces of 5G and 6G systems?

Unfortunately, it has become unusual for products to be manufactured by US companies that created the technological products based on these inventions. There are several issues that cause these inventions to achieve commercial production by companies outside the US, especially large or government financed companies. One primary reason is the theft of intellectual property by foreign corporations.

A company that steals IP for tangible products achieves a much lower cost structure for that product in production. It enables the IP Theft Corp. to afford greater marketing while achieving a total cost that can typically be 30% to 40% less than the company owning the IP. A typical cost structure for a mid-sized US manufacturer vs an offshore thief is shown in the chart below.

Cost Benefit of IP Theft for Tangible Products



Richard W. Helfrich Data from Mid-Sized US Companies

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For advanced tangible products, the overall cost-of-goods for raw materials, supplies labor and depreciation in the US is similar to total costs elsewhere. Labor rates are frequently higher in the US. However, US based companies can generally compensate by using increased levels of robotics and automation for inventory control, manufacturing, assembly, testing, and shipping. For example, direct manufacturing labor for US-made semiconductor and related products are usually under 6% of costs.

The advantages of IP theft involving tangible products generates exceptional financial incentives for thieves. If thieves are other US companies that steal IP from a mid-sized US company, there are legal remedies possible through the US legal system. However, if a theft is perpetrated by a company in Asia, there are few remedies that are affordable for all but giant corporations.

In many cases, a US company's invention (such as a semiconductor) is used in a large system that is made in Asia and sold in the US. For a mid-sized US-based company it is difficult to monitor every possible imported system that may, or may not, contain a product containing their stolen IP. In cases where the US company detects their stolen IP in a large imported system, the legal process is expensive and anything but rapid. The costs to prosecute IP theft in civil actions frequently ranges from \$10M to \$100M.

IP theft becomes more complex to defend by a US company for international patents. For example, a US IP owner with patents in multiple countries may find IP being used by an Asian manufacturer in products that the Asian manufacturer sells in Latin America. The legal costs to prosecute IP protection in either or both the Asian country and the Latin American countries is prodigious with an uncertain outcome. Experienced business people find it best for companies to ignore that IP theft.

### IDEAL GLOBAL SOLUTION

The ultimate solution for IP protection is a global agreement with built-in remedies that are affordable by small and mid-sized companies in the US along with companies in all other countries participating in the General Agreement on Tariffs and Trade (GATT) through the WTO <https://www.wto.org/>.

This solution should also include an international patent system that is also affordable. The current approach for global patents has been simplified at the early stage via the Patent Cooperation Treaty (PCT) process through the World Intellectual Property Organization (WIPO) <https://www.wipo.int/portal/en/index.html>. After that early stage, the cost of having a single patent issued and maintained in numerous countries in each local language as required results in legal and filing fees of hundreds of thousands of US dollars. Reducing that cost to less than \$50,000 along with affordable remedies for theft would enable small companies everywhere to be on an equal footing with giant companies. Such a system would promote far greater IP commercialization to benefit mankind.