

Opinion **Intellectual property**

## The fight to halt the theft of ideas is hopeless

China will not accept inferiority — and the west should not want it to

**MARTIN WOLF**



Martin Wolf YESTERDAY

What do paper, printing with moveable type, gunpowder and the compass have in common? The answer is that they were Chinese inventions. Without them, the European advances from the 15th century onwards would have been far harder, if not impossible.

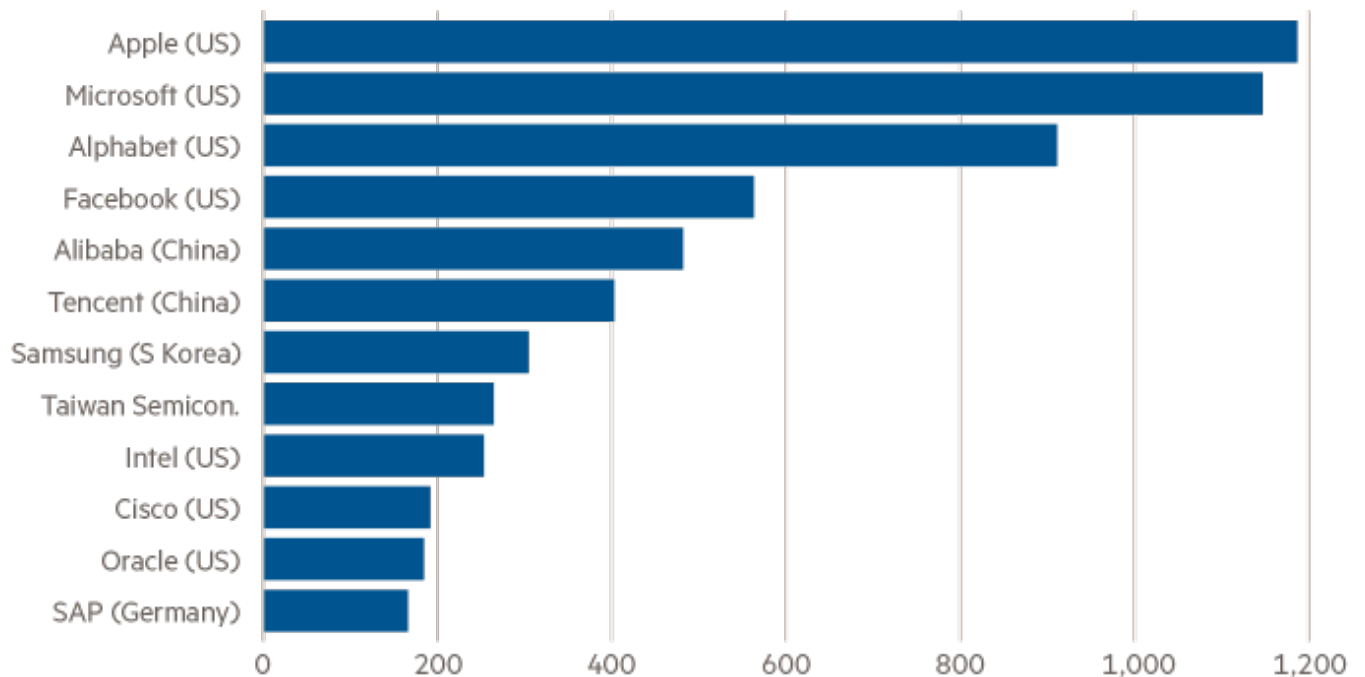
This story illustrates why we should want productive knowledge to flow across the world. Knowledge also “wants to be free” because unlike a commodity, my use of your idea does not prevent you, or anybody else, from using it. In the jargon, knowledge is “non-rival” in consumption, which gives it the character of a “public good”.

But creating that new idea may well have been costly. If you knew that I (and everybody else) could use it without compensation, you could be less inclined to develop the idea at all. This is a “free-rider problem”. [Intellectual property rights](#) exist to solve it, by creating a temporary monopoly in the idea.

Yet, as the Australian economist Nicholas Gruen notes, by solving the free rider problem, we lose the “[free-rider opportunity](#)”: the ability to build freely upon other peoples’ ideas. In the long run, the latter dominates. We are the beneficiaries of a vast stock of ideas, from the wheel onwards. Arguably, this is the defining characteristic of humans.

## US still dominates information technology

World’s leading technology companies by market value (\$bn)



Source: Refinitiv

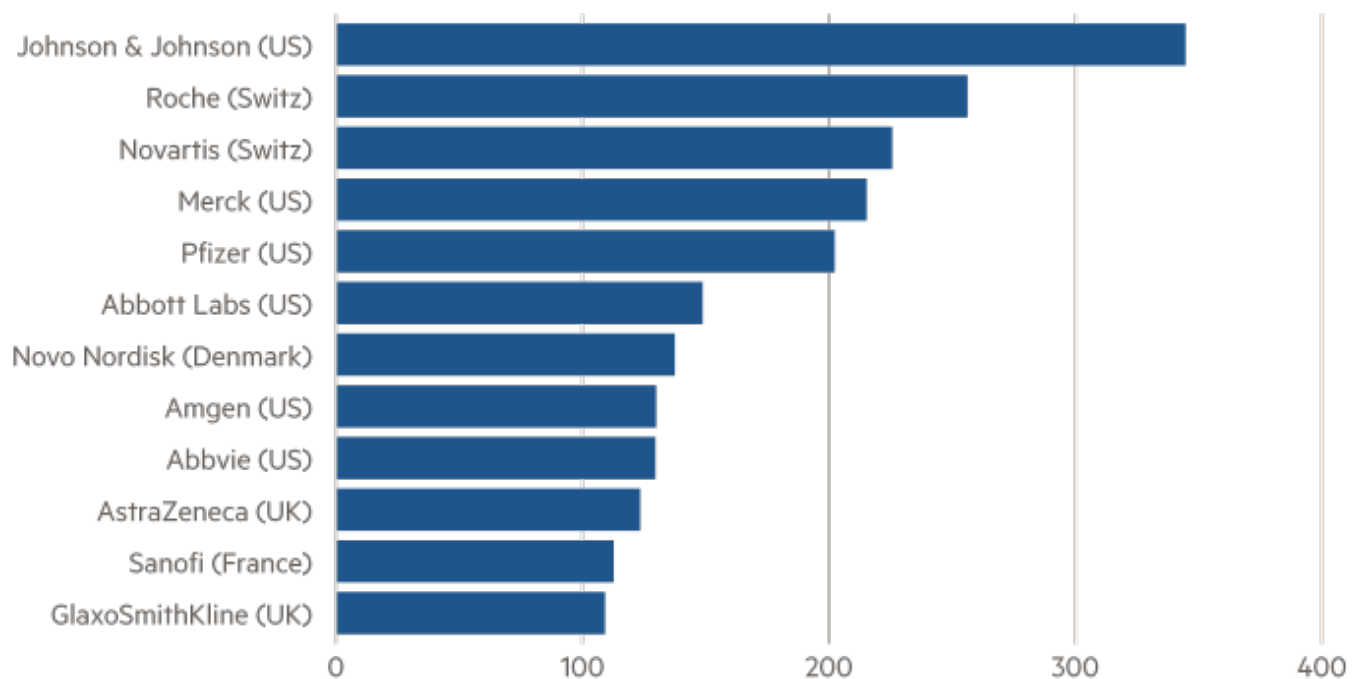
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A trade-off exists, then, between solving the free-rider problem, by granting temporary monopolies, and exploiting the free-rider opportunity, by making ideas freely available at once. For this reason, temporary monopolies are not the only way to motivate innovation. Alternatives include subsidised research and targeted prizes. The intellectual property rights regime we have has [merits](#). But it is an imperfect compromise among conflicting interests, one of which — that of incumbent firms — is likely to be most powerful.

The Nobel laureate [Joseph Stiglitz](#) goes further, arguing that, by reducing the newly available set of ideas from which others can draw and by increasing the extent of the enclosure of the “knowledge commons”, tighter intellectual property regimes may lead to lower innovation, and even lower levels of investment in innovation. Free-rider opportunities really do matter.

## China is still nowhere in pharmaceuticals

World's leading pharmaceutical companies by market value (\$bn)



Source: Refinitiv

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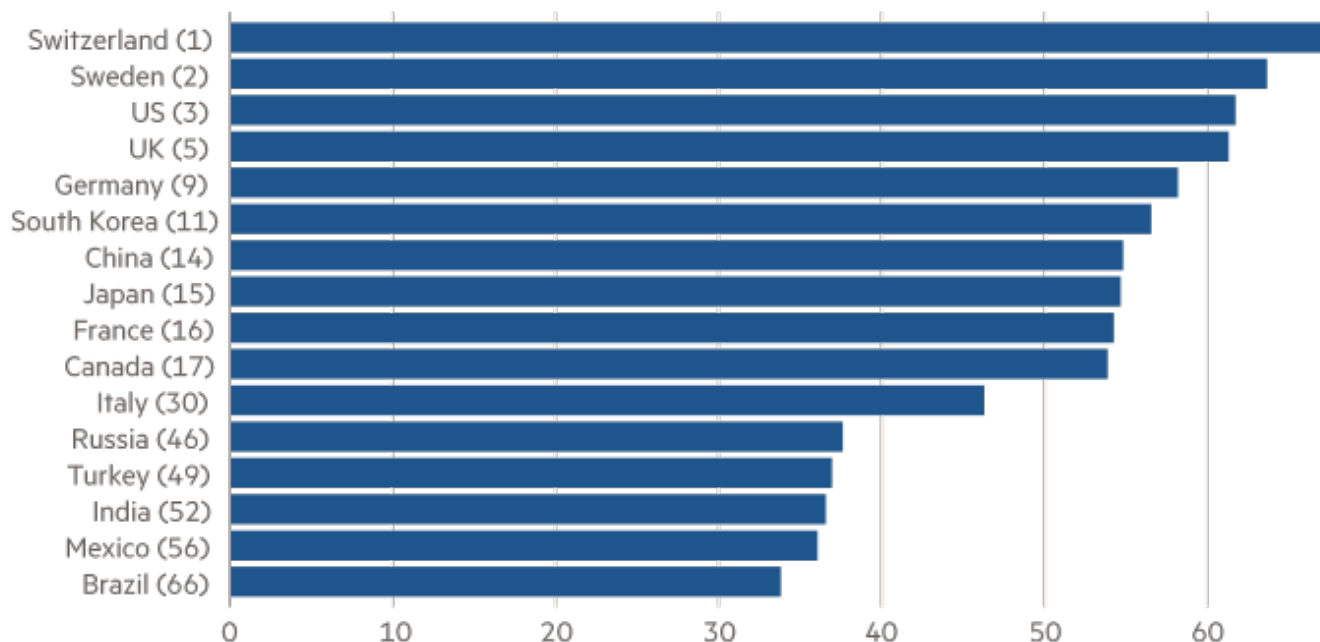
Chart showing that China is still nowhere in terms of pharmaceuticals. World's leading pharmaceutical companies ranked by market value (\$bn)

Property rights in ideas are so valuable that they have become a significant source of international conflict. In *The Hundred-Year Marathon* [Michael Pillsbury](#) states that “China . . . regularly hacks into foreign commercial entities . . . making [it] the world’s largest perpetrator of IP theft. This allows the Chinese to cheat their way up the technology ladder.”

This worry is not new. In the 18th and early 19th centuries, the UK was the leading country and the US striving to catch up. In the late 18th century, England duly [criminalised](#) the export of textile machinery and the emigration of textile mechanics. But one Samuel Slater emigrated covertly in 1789, to start a modern textile industry in the US (the “technology” industry of the era). Other British ideas crossed the Atlantic, notably railways, just as Chinese ideas had come to Europe centuries earlier. Yet, in the late 18th and 19th centuries, protection against imports was the chief tool of US industrial policy (under Alexander Hamilton’s influence).

## China has made huge advances in innovation

Global Innovation Index\*, 2019. Selected economies, rank (out of 129) in brackets



\* Includes measures of the elements of the economy that enable innovation and the results of innovation. Full methodology at [www.globalinnovationindex.org/gii-2019-report](http://www.globalinnovationindex.org/gii-2019-report)

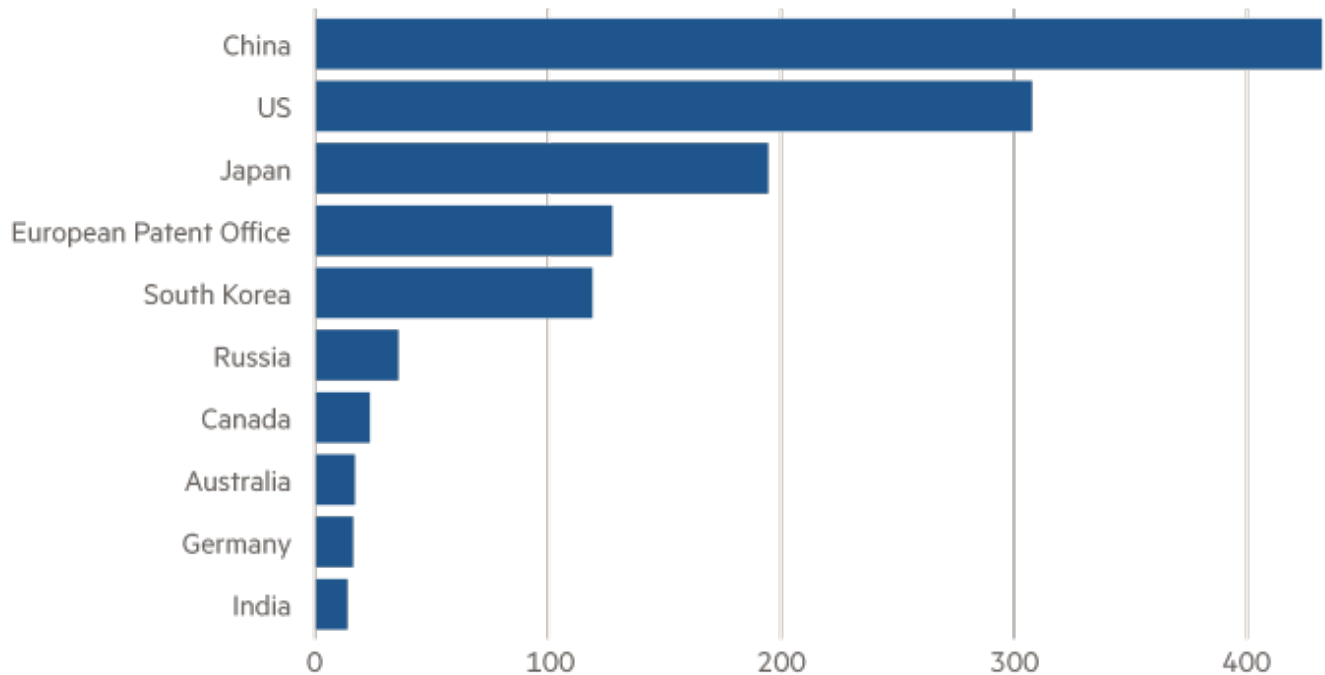
Source: Cornell University; INSEAD; WIPO  
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How does this compare with China today? Since accession to the World Trade Organization in 2001, China’s trade policies are less protectionist than those of the US in the 19th century. It has also made an effort to implement its WTO obligations on intellectual property. But, in the eyes of its partners, this has been grossly inadequate. That is partly because Chinese legal regimes are defective and partly because China is determined to catch up on today’s more advanced countries, just as the latter sought to catch up in the past.

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## China now gains a huge number of patents

Total patent grants (000s), 2018. Top 10 offices



Source: WIPO  
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China will not accept permanent inferiority. We should not want it to be permanently inferior either. We should instead want the energies of the Chinese people to build on our ideas. That is how progress occurs. It should happen. Indeed, it is already happening.

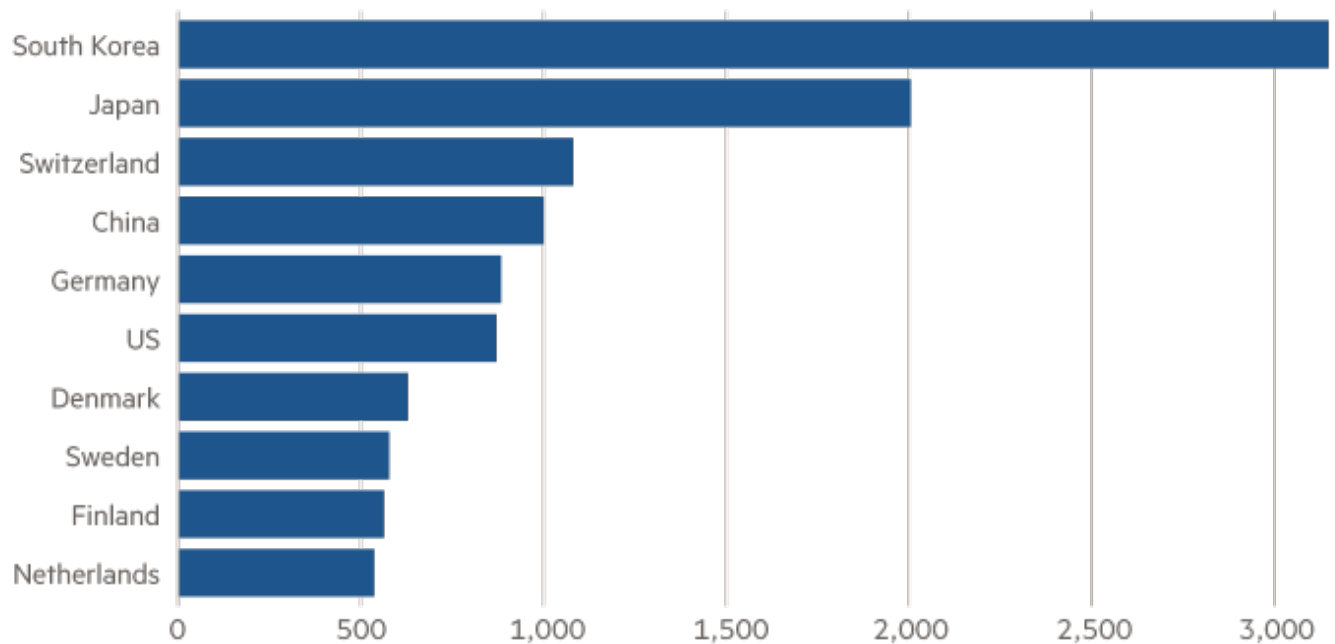
Here are four conclusions.

First, current intellectual property rights are *not* a moral or economic absolute. They are a compromise. It is arguable that protection is now excessive: copyright is too long and patents are granted too easily. This reinforces monopoly.

Second, China's desire to gain access to the best technology is inevitable and, in the long run, likely to be beneficial. In any case, the leakage of knowhow is inevitable. The flow will not stop.

## This is even true of patents per head

Patent applications per million population, 2018. Top 10 offices\*



\* excludes Liechtenstein, Luxembourg, San Marino and Monaco

Source: WIPO

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Third, China is already a source of new knowhow. For this reason, its own interest in protecting intellectual property is growing. This ought to be the foundation of a new settlement between China and its partners. In the long run, we should expect the idea flow to become ever more two-way.

Finally, people in advanced countries should fixate less on protecting the knowhow they have and more on the resources and institutions that will sustain innovation. The value of existing knowledge erodes as it flows. Further advances are essential. Intellectual property rights are only a partial solution. An assault on free scientific inquiry will do damage that no such property rights can offset.

As I [argued last week](#), the high-income countries need to combine, in order to reach a new settlement with an advancing China, on the basis of mutual advantage, within the WTO. Protection of intellectual property must be part of that discussion. But demands have to be reasonable. China is rightly determined to become an engine of [innovation](#). In some areas, it has succeeded. We can seek to make this harder. We must not try to stop it.

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