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Analysis of today
Assessment of tomorrow

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A weaker intellectual property rights regime can stimulate innovation

Advanced technology has become a key theater of global competition, and homegrown innovations are increasingly viewed as critical to national sovereignty and security.

But what about latecomers? How can they reach the technological frontier?

The conventional economic wisdom is that intellectual-property (IP) rights play a critical role in stimulating innovation, and that policymakers would be wise to focus on vigorous enforcement. But East Asia's experience shows that this prescription is incomplete.

We know that East Asian firms successfully caught up with Western trailblazers partly thanks to industrial policy, with massive government intervention underpinning the region's "economic miracle" between the 1960s and 1990s.

But, during this period, IP rights were not particularly robust, let alone strongly enforced; in fact, East Asia gained a reputation for producing copycats.

This was a feature, not a bug. At the time, the main barrier to innovation in East Asia was not a lack of incentive, but insufficient innovative capabilities.

But while countries like Japan and South Korea were not prepared to deliver groundbreaking new technologies, they did have sufficient capacity to imitate existing products – a process that supported the gradual accumulation of talent, knowhow, connections, and resources.

In other words, imitation, made possible by weak IP protections, served as a gateway to innovation.

Once that innovative capacity was built up, however, domestic firms began to demand stronger IP protections.

In South Korea, the Ginarte and Park index, which measures the strength of patent laws on a scale of 0 to 5, surged from 2.6 in 1960-90 to 4.3 by the mid-2000s. China's score increased from 1.4 to 4.1 over the same period.

More flexible approach to IP rights

These experiences have contributed to a shift in the conventional economic-policy prescription, with even international organizations recommending a more flexible approach to IP rights for developing economies.

As far back as 2005, a World Bank report acknowledged that IP norms must be adjusted according to domestic technological needs.

More recently, the World Intellectual Property Organization emphasized the need for IP regimes to account for the development of local innovation capabilities.

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But tailoring an IP-rights regime to a particular country is not just about deciding how strong or weak it should be. Deciding the types of protections to include is no less important.

Patents are the most common form of IP protection in industrial innovation, but there are also utility models, which provide second-tier protection for minor inventions (but do not cover innovative processes or methods of production).

Utility models

Utility models, which typically provide 6-10 years of protection, do not require the kinds of inventive leaps needed to secure a 20-year patent.

Utility models were first recognized in Germany in 1891, as a way to accelerate technological catch-up with the United Kingdom.

Today, countries with Anglo-American legal traditions (India, the UK, and the United States) do not recognize this IP claim, but those following the European legal tradition (Germany, as well as China, Japan, Malaysia, and South Korea) do.

When China and South Korea's technological capabilities were still relatively undeveloped, firms in these countries filed more utility models than invention patents.

After Thailand introduced utility models to its IP system in 1999, filings surged.

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My own econometric analyses confirmed that utility models are useful and effective tools for promoting innovation by firms with lower technological capabilities.

Trademarks also have a role to play. Firms that have yet to build the capacity for the kind of formal research and development that produces patentable inventions may still be able to advance innovative ideas, based on tacit knowledge, that qualify for trademarks.

By enabling these firms to protect and appropriate the value of these innovations, trademarks can support latecomer development.

Alternative forms of IP protections

As latecomers build their technological capabilities – moving past the phase where growth depends on low-wage workers producing low-cost goods – design patents become increasingly important.

Design not only enhances value (particularly for export markets); it can also compensate for some amount of technological inferiority.

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When Apple sued Samsung in 2011 for patent infringement – kicking off a legal battle that would drag on for years – the IP at issue largely comprised design patents.

Like so many elements of catch-up development, IP regimes must take a "detour" on their way to becoming the innovation-enhancing systems that are typical of the countries at the technological frontier.

Alternative forms of IP protections, and a weaker overall regime, can enable latecomers to build their capabilities through imitation and minor innovation, before reaching the point where they can produce high-level patentable inventions.

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