Implications of International Experience for Evaluating Unfair Pricing under China’s Anti-Monopoly Law

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Abstract

This article develops an economic framework for applying the unfair pricing provisions of China's Anti-Monopoly Law. It shows that virtually all jurisdictions around the world with such provisions have decided to consider unfair pricing claims only in exceptional circumstances, and rarely, if ever, in innovation-intensive industries. For those cases that pass this screen and receive consideration, the courts and competition authorities then, under the leading test, insist on substantial evidence that the price is significantly higher than cost and is unfair given the value provided to the buyer. The exceptional circumstances screen and the rigorous unfair pricing test are motivated by the recognition, supported by substantial empirical evidence, that successful firms must have the assurance of receiving significant rewards to induce them to invest time and capital in highly risky innovation that is the source of economic growth and welfare. The approach followed on unfair pricing by jurisdictions around the world is consistent with modern Chinese economic policy.


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China’s Anti-Monopoly Law contains an unfair pricing provision, Article 17(1), which has so far not been the subject of many enforcement actions or judicial decisions.\(^1\) In the first decision to consider this part of the AML, the Shenzhen Intermediate Court in \textit{Huawei vs. InterDigital} found that InterDigital charged Huawei unfair and discriminatory prices.\(^2\) The NDRC—the competition authority responsible for enforcing this part of the AML—has adopted regulations on applying the unfair pricing law but has not issued any decisions.\(^3\)

The experience of other countries and jurisdictions with unfair pricing laws provides a useful reference for Chinese courts and the NDRC in refining their analytical framework for implementing the unfair pricing law. This article summarizes how the courts and competition authorities in other countries have approached unfair pricing, explains the economic rationales behind their approach, and describes the economic issues that arise in assessing unfair pricing. It then discusses aspects of China’s policies toward price regulation and the implications of these policies for how China may wish to adapt the experience of other jurisdictions.

We pay particular attention to the relationship between unfair pricing and innovation. Competition authorities and courts have taken an extremely cautious approach in their application of unfair pricing provisions precisely because of their concerns that imposing price caps would chill innovation and slow economic progress. They almost never use unfair pricing to restrict the returns on intellectual property rights.

**International Consensus on Unfair Pricing**

There are two schools of thought on unfair pricing.

One school says that antitrust should never limit how much any firm, including a monopolist, charges. The United States, Canada, and Australia belong to this school. The US Department of Justice summarized the view: “This central tenet of US antitrust law is well

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\(^1\) See Article 17 (1) of the Anti-Monopoly Law of the People’s Republic of China, [2008] Presidential Order No. 68, August 30, 2007. The Chinese version is available at [http://www.gov.cn/flfg/2007-08/30/content_732591.htm](http://www.gov.cn/flfg/2007-08/30/content_732591.htm); an unofficial translation of the AML is available at [http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/Oct07_Bus08/30/content_732591.htm](http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/Oct07_Bus08/30/content_732591.htm).\(^1\)


supported by court decisions that have held, for example, that ‘[a] pristine monopolist...may charge as high a rate as the market will bear’ and that ‘[a] natural monopolist that acquired and maintained its monopoly without excluding competitors by improper means is not guilty of ‘monopolizing’ in violation of the Sherman Act...and can therefore charge any price that it wants....’”

The other school says that there are exceptional circumstances in which antitrust should limit how much a dominant firm can charge. According to a recent survey conducted by the OECD, while a number of countries have excessive pricing laws, “In general, excessive price cases are conducted infrequently even within those jurisdictions that prohibit and enforce excessive price provisions.”

For example, in 1994 the European Commission stated that, “in its decision-making practice [the Commission] does not normally control or condemn the high level of prices as such.” European Union cases typically are limited to situations in which (a) a firm controls a whole industry, such as the post office or the fixed-line telecommunications network, as a result of a government grant or regulation, or (b) in which excessive pricing is related to exclusionary strategies by the firm designed to limit the ability of other firms to compete. Excessive pricing cases are rare animals as a result. The European Commission has reached only six formal decisions concerning excessive pricing between 1957 and 2013—barely one a decade.

Both schools of thought rarely or never use antitrust laws to regulate prices because of a shared concern: limiting the rewards that successful firms earn will dampen the very risk-taking and innovation that drives economic progress. The European Commission recently said: “It is nonetheless important to recognize that high profits may often be the result of superior innovation and risk taking, which should not be penalized as this would work as a disincentive to innovate and invest...” The US Supreme Court concluded that, “The opportunity to charge monopoly prices—at least for a short period—is what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth.” Both jurisdictions view innovation broadly as the dynamic competitive process that is constantly refreshing industries with new challengers.

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10 In addition, competition authorities and courts around the world recognize that the process of identifying whether a price is excessive or unfair is fraught with practical and theoretical challenges that heighten the risk of error. These difficulties increase the possibility of inefficient intervention, which would reduce consumer welfare.
The international consensus is therefore simple: *bring excessive pricing cases rarely if ever.* That high bar is higher still in innovation-intensive industries, where the risk of chilling economic progress is the greatest. As a result, excessive pricing cases in innovation-intensive industries cases are usually brought, if at all, only when the excessive pricing is alleged to be part of an exclusionary strategy.

**The Unfair Pricing Test**

Occasionally, courts are asked to consider excessive pricing cases and have had to sort out what constitutes an abuse. The European Court of Justice is the source of the most influential test of excessive pricing. In *United Brands*—the famous case involving bananas—the Court concluded:  

> The questions therefore to be determined are whether the difference between the costs actually incurred and the price actually charged is excessive, and, if the answer to this question is in the affirmative, whether a price has been imposed which is either unfair in itself or when compared to competing products.

This test sets two successive hurdles for a competition authority or complainant claiming that a dominant firm engages in excessive pricing. The first hurdle is whether the price charged by the dominant firm is much higher than its cost. If it is, then a second hurdle presents itself before the court will find an unfair pricing abuse. The competition authority or complainant must show that the price is “unfair.” The European Commission and other courts have concluded that this second hurdle requires, among other things, showing that the price is high relative to the value of the product to the buyer. Neither of these hurdles is easy to surmount, in part because, as courts have pointed out, it is difficult to develop sound evidence on these points.

These tests are rarely if ever applicable to innovation-intensive and intellectual-property rich industries, as we show in the next section. The price-cost test is not useful in these situations because it makes no economic sense for innovation-intensive industries generally and for intellectual property rights in particular. In those industries, marginal costs are typically very low compared to the value of the product, and profits are the reward earned by the successful few to induce the innovative efforts of the many. In assessing the second prong of the *United Brands* test—the value to the buyer—antitrust enforcers need to recognize that the prospect of earning the profits that accrue to those who succeed is what generates the efforts to innovate, and that without those incentives the buyer would not receive *any* of the benefits of the innovation.

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Innovation and Rewards

As discussed, competition authorities and courts rarely if ever consider unfair pricing claims and when they do they set a high bar for finding a dominant firm guilty of an abuse. They do so largely out of a concern for chilling innovation. There is considerable empirical economic support for this policy.

There is substantial empirical evidence that economic progress and long-term social welfare is driven by innovation that leads to the creation of new products and services, new technologies that facilitate the introduction of new products and services, and the creation of more efficient ways to produce goods and services.13 The point is most clearly seen and best documented with new products. A pioneering study found that a seemingly trivial "new" product—the Apple Cinnamon version of the traditional Cheerios cereal—generated almost $67 million of additional value to consumers a year.14 It is obvious that important innovations such as e-commerce sites generate value for consumers. New technologies such as mobile communication methods and platforms such as tablet computer operating systems create very large increases in social wealth because they support and spawn many new products, each of which may generate considerable value.

This value creation results from dynamic competition in which most entrepreneurs, inventors and firms that try their hands at innovation fail. In fact, most new firms fail. Half of all new US firms, weighted by number of employees, fail in less than five years.15 The same is true for other countries.16 A study found that of the startups that secure venture capital funding in the United States (which is small fraction of the number of all startups), a third of those ventures exited with a value of zero within five years. Only 2 percent of the entrepreneurs made more than $100 million.17 Similarly, few firms that are able to obtain patents realize any significant value from them. Most patents are worth little according to economic studies. A study for the United Kingdom found that the median patent was valued at just over US $1500.18 Only a small percent end up being worth a lot.

Individuals and firms would be reluctant to assume these risks if they thought that the prices they could charge would be subject to uncertain and artificial caps. The process of

13 For a general discussion of the evidence on innovation and economic growth see Robert J. Barro and Xavier Sala-i-Martin (2004), Economic Growth (2nd ed.) at chapters 6-7.
innovation and dynamic competition that results in new products and technologies is driven by a highly skewed reward structure. A few that succeed get highly compensated, while the large majority of those who try wind up failing and getting little if anything for their efforts. That point is illustrated by the venture capital study mentioned above. A tiny fraction of the funded entrepreneurs got most of the returns.

This relationship between innovation, risk and reward is fundamental for understanding why competition authorities and courts have been reluctant to embrace unfair pricing restrictions.

Consider a competition to develop a new technology for gene splicing. There are 100 firms. Each invests 1 million Yuan a year over 10 years to develop the technology. Each firm therefore invests 10 million Yuan. Together, over 10 years, they have invested 1 billion Yuan. Only 1 firm succeeds. Thus, there is a 99 percent chance of failure and a 1 percent chance of success.

Let us suppose that to bear the risk—that there is a 99 percent chance of losing 10 million Yuan and a 1 percent chance of winning—each firm would need to expect at the beginning that they would earn 15 million Yuan or a 50 percent rate of return. In other words they would need to believe that they have a 1 percent chance of winning 15 million Yuan. The cost of capital is 50 percent since that is the minimum return that covers the risk. To participate in this technology contest each firm must believe that the winner will earn 1.5 billion Yuan. That is, in order to have a 1 percent chance of winning 15 million Yuan, the prize must be 100 times 15 million or 1.5 billion Yuan. That 1.5 billion Yuan is therefore the minimum prize necessary for inducing these 100 firms to try.

Now consider the winner. Suppose the winner has earnings of exactly 1.5 billion Yuan. It incurred investment costs of 10 million Yuan. Its return is 150 times its investment and its rate of return is 15,000 percent. That is much higher than its cost of capital of 50 percent. Yet this is the competitive outcome. There is no excessive profit since if the winner earned less than 1.5 billion Yuan none of the firms, if acting rationally, would have entered the race in this example. Accordingly, if firms knew in advance that authorities would apply excessive pricing laws to cap their profits below that level, no technology would have been created. Moreover, even if firms believed there was a possibility of such a ruling, that risk and uncertainty would discourage investment.

This example encapsulates many of the issues that competition authorities and courts have had to confront in deciding whether to pursue unfair pricing cases. Limiting the rewards of successful firms squelches the effort that goes into the races to develop the very innovations that drive economic progress. The example above makes clear that comparisons of price and cost or even comparisons or the actual return to the risk adjusted cost of capital provide no evidence of excessive rewards. The rewards to the winners in these dynamic competitive races must be many times normal competitive profit, and greater than the risk-adjusted cost of capital for the individual firm, to induce the effort that goes into creating the occasional success.
IPR-Based Industries

It has been argued that the importance of the innovation-effort-reward nexus may vary based on the industry at issue. Our own view is that it is a critical component of progress in almost all industries. In fact, human ingenuity can significantly transform even traditional industries such as farming and taxis. The considerations we have described, however, are indisputably important for industries based on intellectual property rights. Creating intellectual property to make money is a gamble. Out of all that are created, only a few books, songs, movies, video games, and patents are successful. Since most entries into this competition lose, the few that win must receive ample rewards.

Not surprisingly, competition authorities and courts have found excessive pricing involving individual holders of intellectual property rights rarely and under quite special circumstances. Indeed, leading experts have argued for putting intellectual property rights completely off limits for unfair pricing. Professor Massimo Motta, the current chief economist at the European Commission concluded that, “any good or service protected by Intellectual Property Rights should in principle not be subject to an excessive prices action.”19 Professor Amelia Fletcher, the former chief economist at the UK’s Office of Fair Trading found that, “[t]here should be no intervention under Article 82 against the high prices of an innovative product within its patent period.”20 Professor Fletcher echoes the view of many observers in concluding that “[i]ntellectual property rights are specifically designed to provide innovating firms with a degree of market power, and to stimulate upfront R&D investment through the ‘prize’ of higher than normal future profits. Any reduction in future profits—or a greater risk of these profits being regulated—could clearly jeopardize such incentives.”21

While patents and copyrights by definition give their owners the right to exclude, they are very different from legal monopolies over an entire industry.22 There is significant competition for creating patents and copyrights. Nothing prevents firms from entering that race. That is unlike state-owned enterprises, against which competition is barred, and previously state-owned companies, which commonly benefit from prior entry barriers and significant network effects. Moreover, there is often competition among patents and

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21 Id.
22 The main exception to this statement concerns music collecting societies. In some cases domestic legislation authorizes a single society to administer copyright licenses on behalf of music writers and publishers while in other cases a natural monopoly emerges. Music collecting societies are horizontal combinations of music writers and publishers. In most countries there is a single music collecting society that represents all of the music writers and publishers. Unless authorized by law these combinations can function only with an exemption under Article 101(3) TFEU. See, for example, Ernst-Joachim Mestmäcker (2006) “Collecting Societies,” in Claus-Dieter Ehlermann and Isabela Atanasiu (eds.), The Interaction between Competition Law and Intellectual Property Law, Hart Publishing. The competition authorities and courts have heard a number of claims that these national music-collecting societies have charged excessive prices.
copyrights. There are typically numerous ways of creating products using alternative patents. And consumers can substitute between different music, books, videogames, and movies even though each is subject to a copyright.

That point is also true for Standards Essential Patents (SEPs). An SEP covers a technology that a Standard Setting Organization (SSO) has incorporated in a standard. There is debate about whether competition authorities or courts should define an antitrust market that consists of a single SEP given the static and dynamic competition among standards. But regardless of market definition, SEPs do not establish permanent barriers to entry into an industry like a postal monopoly would. At any point in time different standards compete with each other, and over time there is intense competition to develop technology for standards as they evolve and for new standards.

**Unfair Pricing and Price Regulation in China**

Just because other countries and jurisdictions have developed a particular antitrust policy does not mean that China must do so. Quite properly Chinese courts, competition authorities, and the State Council should consider the particular situation and economic characteristics of China and the role of antitrust policy in promoting the economic transition. In the case of unfair pricing, however, the specific circumstances of China strongly argue for embracing the international consensus to bring unfair pricing cases rarely, if ever, and for intellectual property only in connection with an exclusionary strategy.

China made a policy decision to deregulate prices and let most prices be determined by the market around three decades ago. In 1992, at the 14th National Congress of the Communist Party of China, China officially set a market-oriented economy as the target of its economic reform. The Plenary Session of the Communist Party recently affirmed this policy. As part of this process the Chinese government gradually removed government control over most prices in favor of letting market forces determine prices. Under the 1997 Price Law, the NDRC has wisely used its discretion to refrain from regulating prices, except in connection with certain commodities and services that are deemed essential to consumers. Notably, the NDRC has generally not regulated the prices of any product or service provided by what we would characterize as an innovation-intensive industry.

Reforms and indigenous innovation policy in the last three decades have created a surge of entrepreneurship and innovation in various sectors in China. This surge included entrepreneurs starting businesses, state-owned and private enterprises initiating innovation encouraged and sponsored by the government, and foreign companies entering

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26 NDRC price regulation is, however, part of a complex government policy towards pharmaceuticals.
China to bring in additional technology and know-how. Rapidly moving and substantial dynamic competition has resulted in part from policies that enable entrepreneurs to secure rewards for the risks they took by allowing them to charge what the market will bear for their product. As a result, China has been one of the most dynamic market economies in the world, and the Chinese economy is increasingly innovation-driven.27

Having come to the policy conclusion that China should primarily rely on the market to determine prices it would be contradictory, and inconsistent with China’s overall path towards economic growth, to use the AML to regulate prices except in unusual cases. Therefore, as a general matter, China’s economic history and policies reinforce the case for applying the unfair pricing law only in exceptional circumstances. Furthermore, the decision by Chinese policymakers to encourage innovation and permit entrepreneurs to earn significant rewards for their creations is consistent with not applying the unfair pricing law to innovation-intensive industries. There are no sound policy reasons for using antitrust to pursue an intrusive approach to markets that China has otherwise abandoned with great success.

The State Council and the National People’s Congress recognized the importance of intellectual property rights in the competitive process. Consistent with the advice of leading authorities and the experience of competition authorities and courts in other jurisdictions these policymakers decided that that the AML—including Article 17(1) on unfair pricing—would not apply to intellectual property rights unless it involved restricting competition.28

This Law does not govern the conduct of business operators to exercise their intellectual property rights under laws and relevant administrative regulations on intellectual property rights; however, business operators’ conduct to eliminate or restrict market competition by abusing their intellectual property rights shall be governed by this Law. (Emphasis added.)

That is a sound approach. It restricts unfair pricing claims involving intellectual property to those cases in which unfair prices are used to exclude competitors. It is a policy that leading experts have argued for and the one that many jurisdictions around the world follow in practice.

As we mentioned at the outset, the NDRC and the courts are at a very early stage of applying the unfair pricing law. Based on our analysis some change in direction is desirable to make their approach towards excessive pricing consistent with China’s overall policies on the role of markets in setting prices and the international experience with unfair pricing laws.29

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28 See Article 55 of the AML, supra note 1.
29 Our longer paper discusses these issues in more detail. See Evans, Zhang and Zhang (2014).
The NDRC has adopted price regulations that consider evidence on price differences for the same product across other buyers and sellers and whether price changes are consistent with cost changes. These tests may help the NDRC identify cases in which there is no reason to believe that prices are excessive or unfair, but they are insufficient for isolating exceptional cases of excessive pricing that causes concern. It is common for prices to differ across buyers and sellers for similar products in competitive markets. It is also desirable for prices to increase in response to demand even if costs have not changed. In fact it is precisely that sort of signaling that makes decentralized market economies work more efficiently than centralized price setting. By incorporating into its regulations and analysis the more stringent tests discussed above, the NDRC would have a more robust framework for identifying those rare cases of unfair pricing that warrant intervention.

In *Huawei vs. InterDigital* the Shenzen Intermediate Court found that InterDigital had offered its patents at excessive prices to Huawei in violation of Article 17(1) and at discriminatory prices in violation of Article 17(6) of the AML. InterDigital develops wireless technologies and licenses its patents on these technologies. The Guangdong High People’s Court upheld this decision. The parties settled the matter and there were no further appeals.

The InterDigital matter is the only Chinese court case to our knowledge that has involved an application of the unfair pricing law to an innovation-intensive industry. It is difficult to conclude much about the direction that the Chinese courts will take on the application Article 17(1) to IPR given that the unfair pricing claim was just one of several antitrust claims; much of the analysis of prices themselves occurred in the FRAND contract case; the decisions themselves have not been published; and the decisions have not been heard by the Supreme People’s Court. Moreover, InterDigital does not seem to have submitted sufficient evidence about its licensing agreements to permit the court to make a fully informed analysis.

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30 In Article 11 of the NDRC Anti-Price Monopoly Regulations, “in determining if prices are unfairly high or low, the enforcement agency should consider: (i) whether the sales price or purchase price is markedly higher or lower than the price at which other business operators sell or purchase the same type of commodities; (ii) where costs are essentially stable, whether the sales price was raised or the purchase price lowered beyond the normal range; (iii) whether the level of the price increase for the sale of commodities is markedly higher than the cost increase range, or whether the range of the price reduction for the purchase of commodities is markedly greater than the transaction counterparty’s cost reduction range; and (iv) other related factors.” See the NDRC Anti-Price Monopoly Regulations, *supra* note 3.

31 There were two decisions regarding the abuse of dominance claim and the FRAND claim respectively. The case involving the abuse of dominance claim is Shenzhongfazhiminchuzi No. 857 (2011), and the case involving the FRAND claim is Shenzhongfazhiminchuzi No. 858 (2011). Neither decision is public. Our discussion is based on two articles published by the judges in the case as well as InterDigital’s Annual report. See note 2, *supra*, for sources.


Subject to these caveats, one interesting aspect of the decision is that it does not appear to have expressly addressed Article 55 of the AML, which exempts the exercise of IPRs from antitrust scrutiny unless those rights are used to eliminate or restrict market competition.\textsuperscript{34} It may be that the court concluded that the extreme disparities it found in rates charged to different licensees had such an anticompetitive effect, but that is not clear from the information about the case that is publicly available.\textsuperscript{35} If the court did not make such a finding, it would be hard to reconcile the decision with Article 55. In that case, the court’s approach would also be inconsistent with the approach in most other jurisdictions of limiting excessive pricing cases regarding IPRs to situations in which a firm pursued an exclusionary strategy.\textsuperscript{36}

Nevertheless, the judges for the Shenzhen Intermediate Court made a conscientious effort to address a set of difficult issues concerning negotiating FRAND royalty rates for SEPs. They were not the first to find this topic challenging. We are therefore optimistic that the Chinese courts will find the approach towards unfair pricing followed in other jurisdictions, and in particular towards innovation-intensive industries, helpful in shaping the case law on the application of Article 17(1).

**Conclusions**

China is at the very beginning of developing the best way to apply its new antitrust laws to its economy. Chinese courts and regulators should certainly not simply parrot the practice of other countries, but China can learn from the many decades of experience and numerous cases considered by courts and competition authorities, particularly the large ones in the European Union and the United States. China carefully modeled its laws from elements of these jurisdictions, and the courts and competition authorities are looking at international practice. It therefore makes sense, in the case of unfair pricing, to consider how competition case law and policy has evolved in other jurisdictions.

Both the practice of other jurisdictions and sound economic analysis recommends that China should rarely if ever apply the unfair pricing law to innovation-intensive industries unless the unfair pricing is related to an exclusionary practice that has an anticompetitive effect. For the same reasons, and as apparently required under Article 55 of the AML, the experience of other jurisdictions and sound economic analysis strongly suggests that the unfair pricing law should not apply to intellectual property except when the unfair price is part of an exclusionary abuse.

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\textsuperscript{35}The existence of such disparities would not by itself, however, demonstrate that competition was eliminated or excluded in handset manufacturing.

\textsuperscript{36}InterDigital also did not have a monopoly over an entire industry like the post office. It was one of a number of entities that had SEPs over mobile wireless technologies.