

# Playing Catch-up: How Authoritarian Courts Handle Transnational IP Litigation

Lizhi Liu\*    Jian Xu<sup>+</sup>

\*Georgetown

<sup>+</sup>*National University of Singapore*

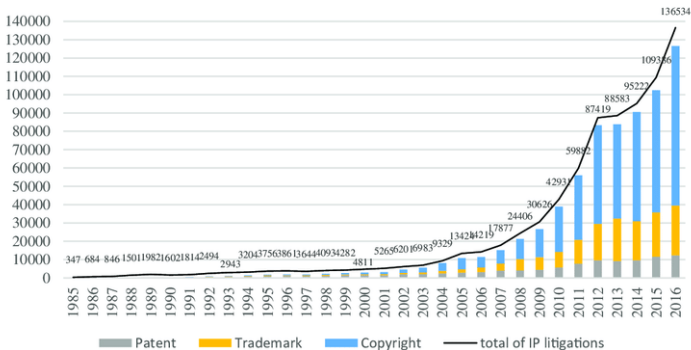
IPES, 2023

# Motivation

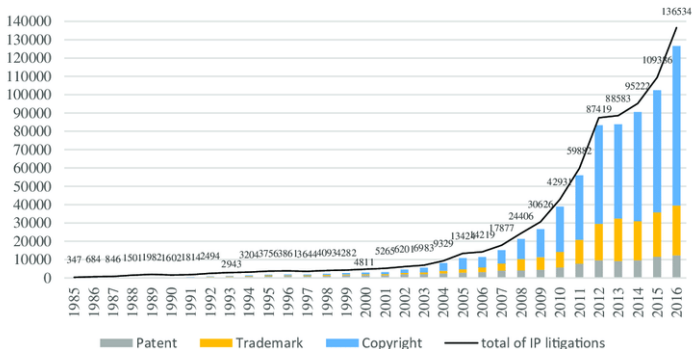


Rampant Intellectual Property Rights (IPR) Violations in China

- However, China now hears the world's largest number of IP lawsuits, with 5,660% increase in number of cases between 2000-2020



- However, China now hears the world's largest number of IP lawsuits, with 5,660% increase in number of cases between 2000-2020



- Increasingly one of the “preferred venues” for resolving intl IP disputes (World IP Organization)
- “Foreign companies can and do regularly win cases against Chinese companies in Chinese courts.” (Quote from an Intl Law Firm)

# Research Question

Can authoritarian courts protect the intellectual property rights (IPRs) of foreign investors?

# Research Question

Can authoritarian courts protect the intellectual property rights (IPRs) of foreign investors?

Theoretical importance of studying the protection of **intangible** assets

- Tangibles (e.g. plants, machines, cash) vs intangibles (mostly IP)
  - Different in economic characteristics!
- Share of intangible assets have substantially risen
  - Intangibles > 50% of all biz value in US;  
90% for S&P500 firms in 2020 (17% in 1975)

# Research Question

Can authoritarian courts protect the intellectual property rights (IPRs) of foreign investors?

Theoretical importance of studying the protection of **intangible** assets

- Tangibles (e.g. plants, machines, cash) vs intangibles (mostly IP)
  - Different in economic characteristics!
- Share of intangible assets have substantially risen
  - Intangibles > 50% of all biz value in US;  
90% for S&P500 firms in 2020 (17% in 1975)

**Contradictory expectations** of whether autocracies protect foreign IPR

- Non-rivalry & non-excludability → more expropriation and infringement
- High mobility → less expropriation and infringement

# Argument

A limited form of foreign IPR protection can emerge under authoritarian regimes, driven by incentives to catch up in innovation



# Argument

A limited form of foreign IPR protection can emerge under authoritarian regimes, driven by incentives to catch up in innovation

Competing incentives in protecting foreign IPR

A limited form of foreign IPR protection can emerge under authoritarian regimes, driven by incentives to catch up in innovation

Competing incentives in protecting foreign IPR

- Strengthening protection (+)
  - Attract FDI & intl tech transfer; facilitate knowledge spillovers to local firms

A limited form of foreign IPR protection can emerge under authoritarian regimes, driven by incentives to catch up in innovation

Competing incentives in protecting foreign IPR

- Strengthening protection (+)
  - Attract FDI & intl tech transfer; facilitate knowledge spillovers to local firms
- Limiting protection (–)
  - Prevent the use of foreign IP as entry barriers for local firms; protect indigenous firms and innovators that lag behind

# Preview of Findings

In aggregate, court rulings do not show strong anti-foreign bias due to competing incentives

- Two explanatory factors:
  - (1) The extent of domestic industrial interests
  - (2) MNCs' economic influence in and importance to the local economy

# Preview of Findings

In aggregate, court rulings do not show strong anti-foreign bias due to competing incentives

- Two explanatory factors:
  - (1) The extent of domestic industrial interests
  - (2) MNCs' economic influence in and importance to the local economy

A limited form of foreign IPR protection:

- Courts **less likely to fully satisfy** the core demands of foreign plaintiffs (to protect local firms)
- Courts **less likely to fully reject** the requests of foreign plaintiffs (to make foreign investors stay)
- Competing incentives of innovation → more likely to move away from corner solutions

# Empirical Context and Data

China: A rising venue for adjudicating transnational IP disputes

Data: (1) Interviews on judges and lawyers; (2) manually collected firm-level info; (3) [the universe of published IP lawsuits in China Judgments Online](https://wenshu.court.gov.cn/) (<https://wenshu.court.gov.cn/>)

- 825,397 IP-related legal documents for all years
- Focus on 2016-2019 (704,451 cases), years with high case uploading rates (59%)
- Identify transnational IP litigation: Either the plaintiff or the defendant has the legal domicile outside mainland China
  - 17,535 cases between 2016-2019 (2.5% of all IP cases)

## Coding the Ruling Outcomes – Plaintiff Win Rate

For all 1st, 2nd-instance- and procedural judgements, we code two types of “plaintiff win”

- Achieving the best outcome (A complete victory!)
- Avoiding the worst outcome (Winning by not losing...)

# Coding the Ruling Outcomes – Plaintiff Win Rate

For all 1st, 2nd-instance- and procedural judgements, we code two types of “plaintiff win”

- Achieving the best outcome (A complete victory!)
- Avoiding the worst outcome (Winning by not losing...)

E.g., 1st-instance: The judge decides whether to support or to dismiss each of the claims made by the plaintiff.

- Core requests (injunction/restriction, compensation) and miscellaneous ones
  - **Best outcome:** Approval of all requests
  - **No worst outcome:** No full dismissal of all requests



# No Obvious Anti-foreign Bias in Aggregate Win Rates

In lawsuits involving foreign firms, foreign plaintiffs' average win rates are no lower than domestic firms.

- Over 70% win rates because of “the lack of discovery procedure” (Interviews SZ001; VA001)
- Comparable win rates in Chinese official reports and prior legal studies with smaller samples and for earlier years

E.g., First-instance Plaintiff Win Rates (> 200 cases)

MNC origins	Best outcome	No worst outcome	No. of cases
Hong Kong	0.751	0.944	1493
USA	0.780	0.953	829
France	0.772	0.939	312
Germany	0.748	0.940	266
Japan	0.774	0.928	208
<b>Foreign average</b>	<b>0.770</b>	<b>0.944</b>	3941
<b>Chinese plaintiff ave.</b>	<b>0.752</b>	<b>0.922</b>	141

# No Obvious Anti-foreign Bias in Aggregate Win Rates

In lawsuits involving foreign firms, foreign plaintiffs' average win rates are no lower than domestic firms.

- Over 70% win rates because of “the lack of discovery procedure” (Interviews SZ001; VA001)
- Comparable win rates in Chinese official reports and prior legal studies with smaller samples and for earlier years

E.g., First-instance Plaintiff Win Rates (> 200 cases)

MNC origins	Best outcome	No worst outcome	No. of cases
Hong Kong	0.751	0.944	1493
USA	0.780	0.953	829
France	0.772	0.939	312
Germany	0.748	0.940	266
Japan	0.774	0.928	208
<b>Foreign average</b>	<b>0.770</b>	<b>0.944</b>	3941
<b>Chinese plaintiff ave.</b>	<b>0.752</b>	<b>0.922</b>	141

[Selection driving foreign win?](#) No statistical evidence, but even if so, win rates are still meaningful as a signal to foreign investors

## Balancing between Two Incentives: City-level Evidence

- DVs: "obtaining the best ruling" and "avoiding the worst ruling" for foreign plaintiffs
- City-year variables
  - Entrenched domestic interests (*# of granted utility model patents*)
  - Foreign economic influences (*# of large FIEs*)
  - Importance of tech market (*govt expenditure on S&T*)
- Fixed effects: court locations (province), ruling procedures, types of documents, types of disputes, and the years of adjudication

# City-level Variations (pooled)

<i>Dependent Variables:</i>	Receiving the best ruling			Avoiding the worst ruling		
	(1)	(2)	(3)	(4)	(5)	(6)
Granted utility models	-6.658*** (0.620)	-6.574*** (0.627)	-11.395*** (1.823)	1.785*** (0.256)	1.654*** (0.245)	1.475*** (0.335)
Number of large FIEs	1.206** (0.307)			-1.665+ (0.969)		
Granted utility models × Number of large FIEs	-1.868*** (0.192)			0.209 (0.137)		
Number of large FIEs (including HK, MK, and TW)		1.921*** (0.328)			-1.598* (0.757)	
Granted utility models × Number of large FIEs (including HK, MK, and TW)		-1.990*** (0.238)			0.248+ (0.128)	
Govt expenditure on S&T			6.153*** (0.544)			-2.335* (0.921)
Granted utility models × Govt expenditure on S&T			-3.981*** (0.460)			0.710* (0.290)
Total enterprise R&D expenditure	-5.025*** (0.947)	-3.740*** (0.611)	-2.427** (0.786)	-1.025 (0.992)	-1.342 (0.895)	0.472 (0.697)
Patent applications	5.012*** (0.630)	4.680*** (0.649)	7.809*** (1.520)	-0.396 (0.701)	0.133 (0.384)	0.555+ (0.283)
Municipal general fiscal revenues	6.230*** (1.007)	4.949*** (0.637)	3.469*** (1.013)	1.239 (1.919)	1.057 (1.416)	-0.239 (0.623)
Controls & FEs:	✓	✓	✓	✓	✓	✓
Num. obs.	10830	10803	10833	10830	10803	10833

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$

# Balancing btw Two Incentives: Firm/Industry-level Results

## DV:

- "Obtaining the best ruling" for foreign plaintiffs
  - **Injunction ratio:**  $\frac{\text{No. of injunction orders}}{\text{No. of injunction requests}}$
- "Avoiding the worst"
  - Fees ratio (conventional):  $\frac{\text{Court fees borne by the defendant}}{\text{Total court fees}}$
  - Claims ratio:  $\frac{\text{No. of satisfied claims}}{\text{Total no. of claims}}$
  - Compensation ratio:  $\frac{\text{Awarded compensations}}{\text{Total amount of compensation demands}}$

## Firm/industry-level variables of interest

- Entrenched local interests (% of large local firms:  $\frac{\text{No. of large firms}}{\text{total number of firms}}$ )
- MNCs' economic influence (plaintiff total asset)

## Provincial-level controls and FEs

# Firm- and Industry-level Variations (preliminary)

	<i>Dependent variables:</i>			
	Injunction ratio	Fees ratio	Claims ratio	Compensation ratio
	(1)	(2)	(3)	(4)
% of large local firms (province-industry)	-0.240* (0.114)	-0.135 (0.128)	-0.343*** (0.051)	-0.062 (0.069)
Foreign plaintiff assets	-0.075+ (0.040)	0.028 (0.080)	-0.012 (0.020)	0.060 (0.071)
% of large local firms × (province-industry) Foreign plaintiff assets	-1.125*** (0.173)	0.025 (0.081)	0.018 (0.022)	-0.033 (0.074)
Province-level controls and FEs	✓	✓	✓	✓
Adj. R <sup>2</sup>	0.165	0.114	0.140	0.025
Num. obs.	441	1663	2058	1047

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$  Standard errors are clustered by province.

# Conclusion

- Authoritarian judiciary as an industrial policy tool for innovation catch-up
- The value of studying MNCs' intangible asset protection
- Contribution: investment protection in autocracies

# Conclusion

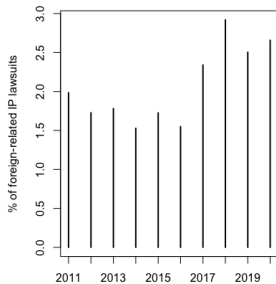
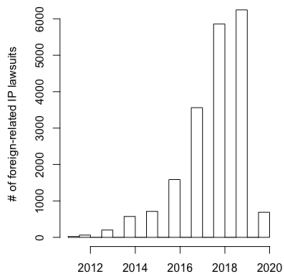
- Authoritarian judiciary as an industrial policy tool for innovation catch-up
- The value of studying MNCs' intangible asset protection
- Contribution: investment protection in autocracies
  - “Contingent” political risks (Beazer and Blake 2018; Wright and Zhu 2018; Li 2006); the value of authoritarian institutions (Gelbach and Keefer 2011)
  - Leveraging MNCs' unique political and economic resources to seek protection and even preferential treatments (Wang 2015; Chen and Xu 2023)
  - MNCs' bargaining power: capital commitments, fixed asset investments, (ir)replaceability, economic contributions (Chen and Hollenbach 2022; Johns and Wellhausen 2021; Wright and Zhu 2018)
  - Firms' leverages as both curses and blessings (initial sunk costs and capital mobility): the alignment/convergence of interests between MNCs and host governments shapes MNCs' de facto political risks (Zhu and Deng 2021; Ma 2020)



Thank you!

# Appendix

# Total Number and % of Foreign-related IP Lawsuits in Chinese Courts



## Primary countries/regions of origin for plaintiffs (> 300 lawsuits)

	As Plaintiffs	As Defendants
Hong Kong	7442	644
USA	3977	675
Mainland China	2739	16664
South Korea	985	93
UK	870	291
France	865	269
Germany	583	177
Japan	537	284
Taiwan	519	191
Switzerland	323	102

# Coding Win for 1st instance civil verdicts

- First instance civil verdicts ( $n = 4082$ )
  - The plaintiff's best possible outcome:
    - injunction/restriction (停止) + compensation/payment (赔偿或支付), with or without rejections (驳回) of some claims
  - The plaintiff's worst possible outcome:
    - no injunction/restriction + no compensation/payment + full rejection of all claims

# Coding Win for 2nd instance civil verdicts

- Second instance civil verdicts ( $n = 1395$ )
  - The plaintiff's best possible outcomes:
    - complete annulment or reversal (撤销) or any revisions (变更) of first-instance judgments without maintaining (维持) any of the previous decisions + no rejection of (驳回) any of the appellant's claims
  - The plaintiff's worst possible outcome:
    - no repealing or revising any of the previous ruling + full rejection of appellant claims

# Coding Win for Procedural Rulings

- Procedural rulings ( $n = 13,298$ )

(requests for withdrawing lawsuits, enforcement of judgments, and termination of enforcement; jurisdictional challenges)

- The plaintiff's best outcomes:
  - all requests are accepted and satisfied
- The plaintiff's worst outcome:
  - all requests are rejected

## Selection Driving Foreign Win? (Skip)

*Both* domestic & foreign firms self-select what cases to bring to court or push through. But is there *stronger* selection for foreign firms?

- Foreign firms are more likely to withdraw from litigation?
- Foreign firms are less likely to go to court?



## Selection Driving Foreign Win? (Skip)

*Both* domestic & foreign firms self-select what cases to bring to court or push through. But is there *stronger* selection for foreign firms?

- Foreign firms are more likely to withdraw from litigation? **No!**
  - $\text{Prob}(\text{withdraw}|\text{Chinese firm}) = 41.8\%$
  - $\text{Prob}(\text{withdraw}|\text{foreign firm}) = 38.0\%$
- Foreign firms are less likely to go to court? **Not necessarily!**
  - Official stats: 5.4% of patents granted to foreign entities
  - Our sample: 2.23% of all 1st-instance patent lawsuits involve foreign entities (*an underestimate*; not including MNC lawsuits filed through a mainland Chinese subsidiary)

## Selection Driving Foreign Win? (Skip)

*Both* domestic & foreign firms self-select what cases to bring to court or push through. But is there *stronger* selection for foreign firms?

- Foreign firms are more likely to withdraw from litigation? **No!**
- Foreign firms are less likely to go to court? **Not necessarily!**
- Foreign firms face more serious infringement at the baseline – a stronger pool of potential cases? **Unknown; can go both ways**

Bottom line: Even if win rates somewhat influenced by selection

- Win rates are still meaningful as a signal to foreign investors
- Anti-foreign bias is less than expected

# Balancing between Two Incentives: City-level Evidence

- DVs: "obtaining the best ruling" and "avoiding the worst ruling" for foreign plaintiffs
- City-year variables
  - Entrenched domestic interests (*# of granted utility model patents*)
  - Foreign economic influences (*# of large FIEs*)
  - Importance of tech market (*govt expenditure on S&T*)
- Fixed effects: court locations (province), ruling procedures, types of documents, types of disputes, and the years of adjudication

# Regression Results (by ruling procedure)

<i>Dependent Variables:</i>	First instance civil verdicts				Second instance civil verdicts			
	<i>Best outcome</i>		<i>No worst outcome</i>		<i>Best outcome</i>		<i>No worst outcome</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Granted patents	0.475 (1.201)	0.173 (1.228)	1.613 (1.173)	1.795 (1.195)	0.051 (2.856)	2.654 (3.891)	-2.778 (2.253)	0.959 (2.591)
MNC capital	-0.152 (0.705)		1.005 (0.929)		3.206 (2.072)		-0.341 (1.591)	
Granted patents × MNC capital	-0.381 <sup>+</sup> (0.222)		-0.317 (0.210)		2.412* (1.206)		3.235** (1.213)	
Tech market		-0.642 (0.608)		-0.652 (0.716)		-1.210 (4.152)		-2.884 (3.130)
Granted patents × Tech market		-0.125 (0.247)		-0.164 (0.170)		1.408 (1.321)		2.589** (0.985)
Controls & FEs:	✓	✓	✓	✓	✓	✓	✓	✓
Num. obs.	3938	3938	3938	3938	587	587	587	587

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$

# Descriptive Results

## Procedural Rulings Plaintiff Win Rates (> 20 cases)

Nationality	Best outcome	No worst outcome	No. of cases
Hong Kong	0.036	0.962	5729
USA	0.045	0.906	2874
China	0.060	0.342	1214
South Korea	0.025	0.928	846
UK	0.066	0.917	686
France	0.098	0.905	441
Taiwan	0.060	0.908	282
Japan	0.083	0.858	254
Germany	0.095	0.830	253
Switzerland	0.024	0.939	165
Italy	0.124	0.928	97
Holland	0.085	0.968	94
Luxembourg	0.054	0.946	74
Finland	0.000	0.882	51
Sweden	0.159	0.909	44
Singapore	0.025	0.975	40
Canada	0.037	0.852	27
BVI	0.250	0.333	24

## Win rates by courts

<b>Best outcome</b>	Intermediate	Supreme	Basic	IP	High
<b>lose</b>	7101	174	6640	1237	1313
<b>win</b>	1325	102	972	472	513
<b>win rate</b>	0.157	0.370	0.128	0.276	0.281

<b>No worst outcome</b>	Intermediate	Supreme	Basic	IP	High
<b>lose</b>	716	78	443	146	287
<b>win</b>	7710	198	7169	1563	1539
<b>win rate</b>	0.915	0.717	0.942	0.915	0.843

## Case types

<b>Case types</b>	copyright	patent	trademark	competition	others
<b># of cases</b>	3182	2708	12493	323	1143

# Provincial-level Variations (pooled)

<i>Dependent Variables:</i>	Receiving the best ruling			Avoiding the worst ruling		
	(1)	(2)	(3)	(4)	(5)	(6)
Granted patents	0.075 (0.916)	-0.220 (0.856)	-0.363 (0.876)	-1.708* (0.718)	-1.387* (0.652)	-1.405 (0.877)
MNC capital	0.210 (0.728)			-0.545 (0.347)		
Granted patents × MNC capital	-1.094* (0.529)			0.348*** (0.062)		
MNC FDI		1.002** (0.373)			-0.731*** (0.191)	
Granted patents × MNC FDI		-0.769+ (0.415)			0.208* (0.095)	
Tech market			0.351 (0.578)			-0.307 (0.282)
Granted patents × Tech market			-1.055* (0.489)			0.257** (0.078)
Controls & FEs:	✓	✓	✓	✓	✓	✓
Num. obs.	16995	16995	16995	16995	16995	16995

\*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$

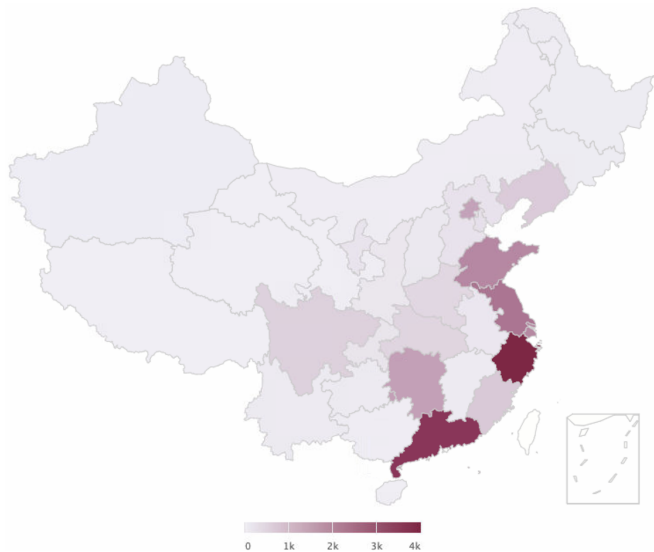


# MNC IP Litigation Dataset

- Foreign entities identified by their countries of domicile (headquarter)
- 19,849 judgements from 2011-2020; 17,535 covering 2016-2019
- An estimated 59.1% disclosure rate (59.5%, 67.4%, 62.8%, and 52.4 % for 2016-2019)
- Provincial distribution:

Province	Total number of lawsuits (> 100)
Guangdong	1061
Zhejiang	817
Hunan	360
Shandong	324
Beijing	269
Shanghai	236
Jiangsu	225
Liaoning	159
Fujian	135

# MNC IP Litigation Dataset



# MNC IP Litigation Dataset

Distribution of Plaintiff Firm Locations (> 40 lawsuits as plaintiffs)

	As Plaintiffs	As Defendants
Hong Kong	7442	644
USA	3977	675
Mainland China	2739	16664
South Korea	985	93
UK	870	291
France	865	269
Germany	583	177
Japan	537	284
Taiwan	519	191
Switzerland	323	102
Switzerland	323	102
Italy	185	61
Netherlands	170	71
Luxembourg	161	71
Singapore	76	19
Sweden	76	48
Finland	69	5
Canada	43	11

# Representativeness

- Our sample (2016-19): 2.23% of first-instance patent lawsuits involve foreign entities
- Annual Reports on Intellectual Property by the Chinese government: 5.4% of patents granted to foreign entities
- OECD statistics:
  - 9.3% of domestic patents in China are owned by foreign residents
  - 4.4% of patents in China are invented abroad
  - 5.4% of patents in China have foreign co-inventor