

2023春季学期金融学本科选修课程

国际投资

第10讲 全球地缘政治风险分析

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回顾与展望

- ◆ 上一讲：国家有激励去扶持本国产业占据较高的附加值位置
 - 同时也有激励去削弱自身竞争对手的竞争力
- ◆ 这一讲：国家间的竞争会引发地缘政治（geopolitical）关系上的竞争
 - 进而影响国家间的贸易、投资政策，促进或阻碍国际投资的进行
- ◆ 如何评估、预测特定市场的地缘政治风险水平，做出合理的投资决策？



议程

◆ 全球地缘政治风险的现状

“慢球化” 与 “友岸化”

- ◆ “今后，我们越来越难以将经济与包括国家安全在内的国家利益区分开来……我们应该将供应链生产‘友岸外包’给可以信赖的国家，这可以降低我们经济的风险以及我们的贸易伙伴所面临的不确定性。”

——美国财政部长珍妮特·耶伦

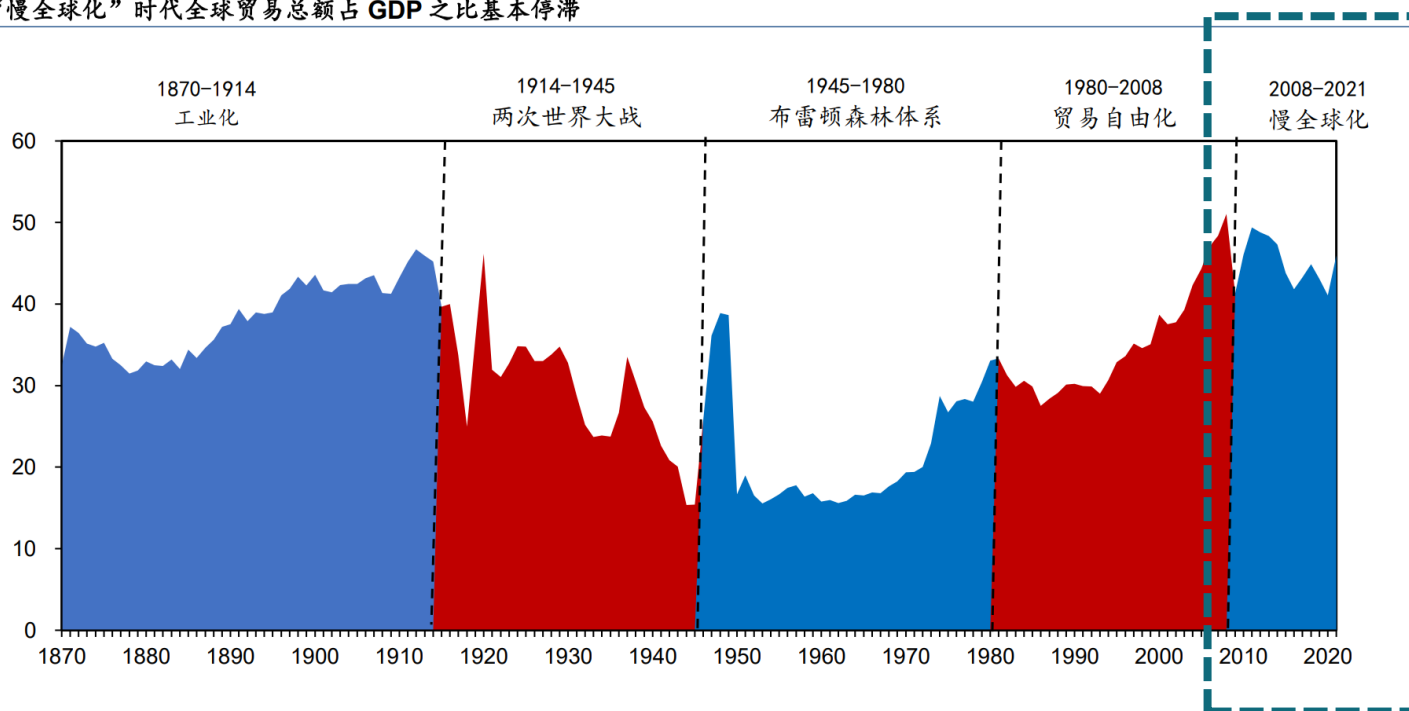
@大西洋理事会

2022. 4. 13



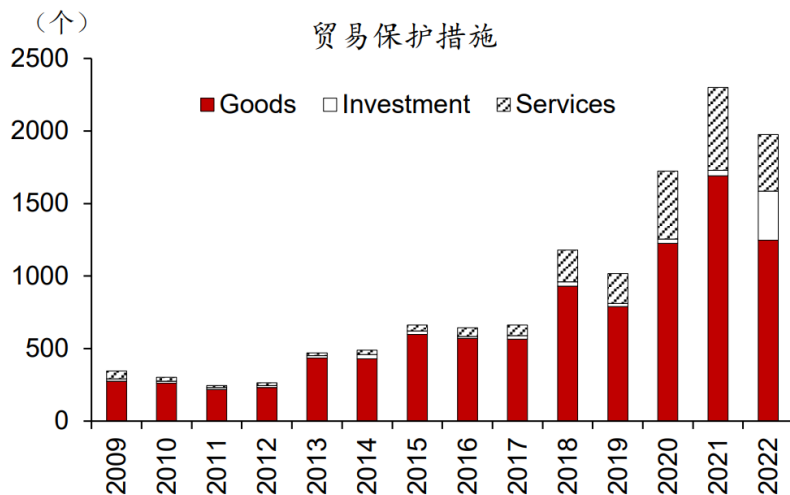
“慢球化” 与 “友岸化”

图表1：“慢全球化”时代全球贸易总额占 GDP 之比基本停滞



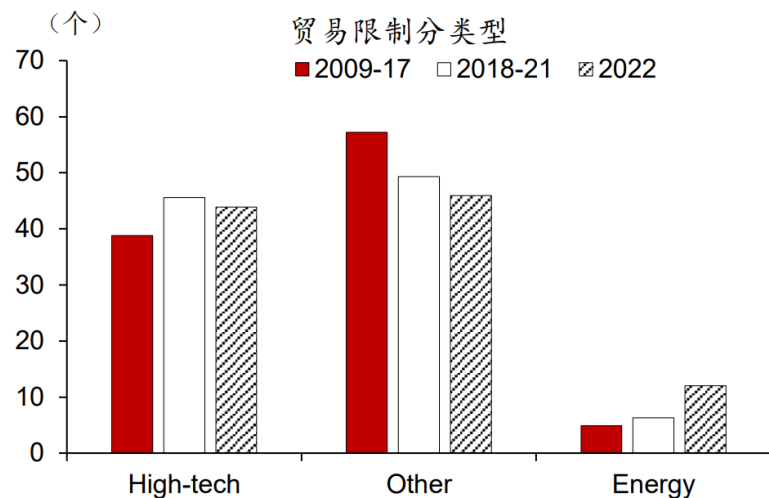
全球贸易保护主义盛行

图表2：各国贸易保护主义措施大幅攀升



资料来源：IMF, 2023, Geoeconomic Fragmentation and the Future of Multilateralism, 华泰研究

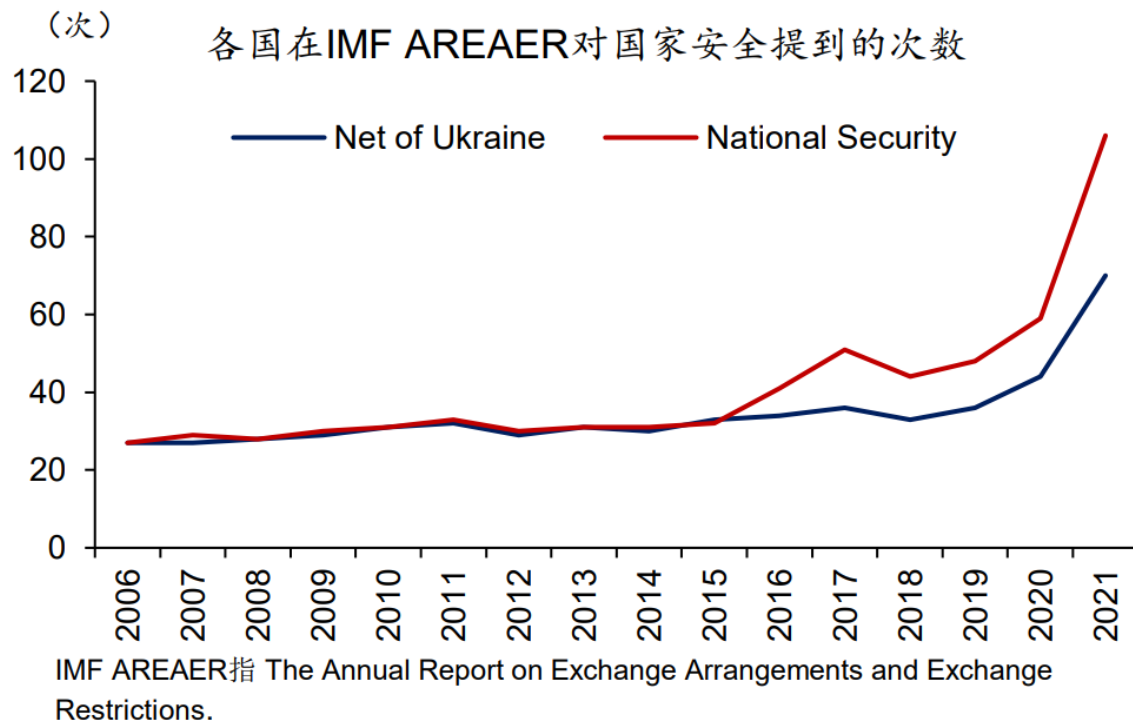
图表3：贸易保护主义措施集中在高科技和能源领域



资料来源：IMF, 2023, Geoeconomic Fragmentation and the Future of Multilateralism, 华泰研究

对国家安全的顾虑攀升

图表4：各国对国家安全的担忧大幅上升

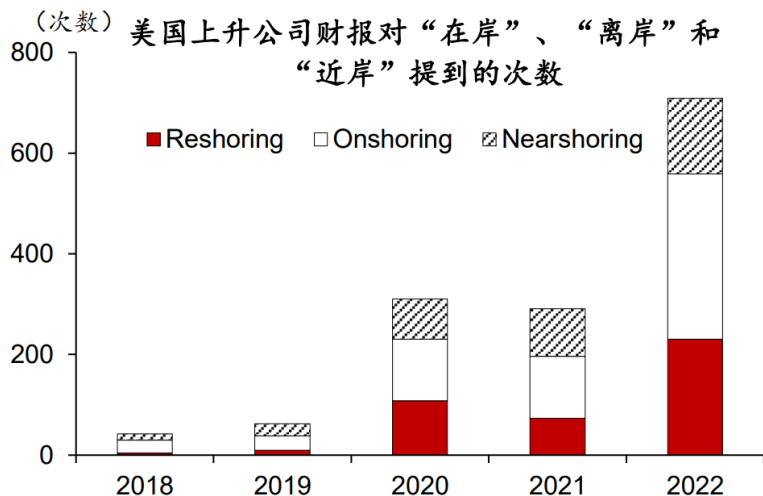


资料来源：IMF, 2023, Geoeconomic Fragmentation and the Future of Multilateralism, 华泰研究



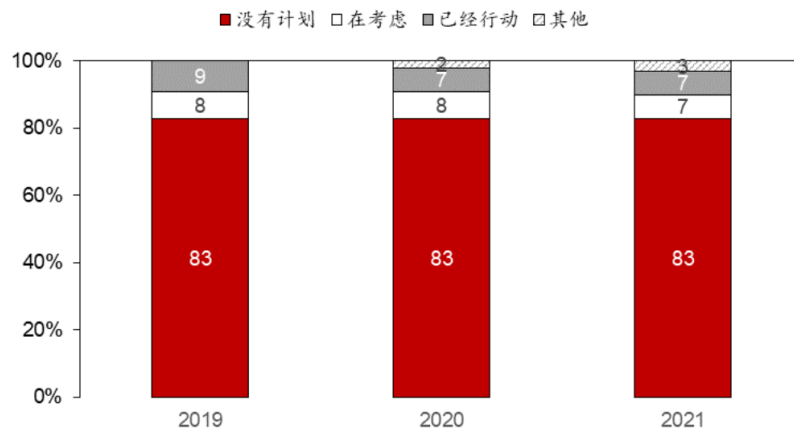
中美关系首当其冲

图表5：公司财报中提及回岸、在岸和近岸外包的次数上升 10 倍



资料来源：IMF, 2023, Geoeconomic Fragmentation and the Future of Multilateralism, 华泰研究

图表6：中国美国商会调查显示 14-17%的企业正考虑或已经将产业链转移至中国以外

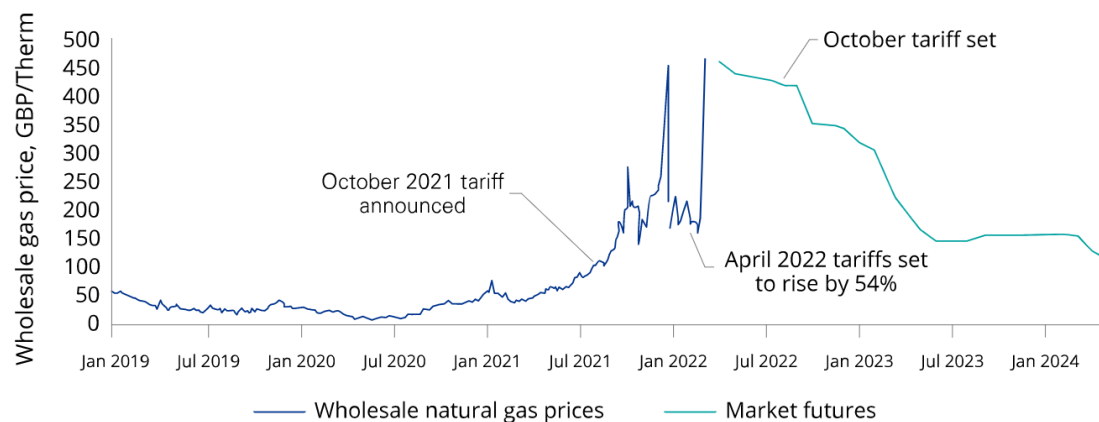


资料来源：中国美国商会，2022，《中国商业环境调查报告》，华泰研究



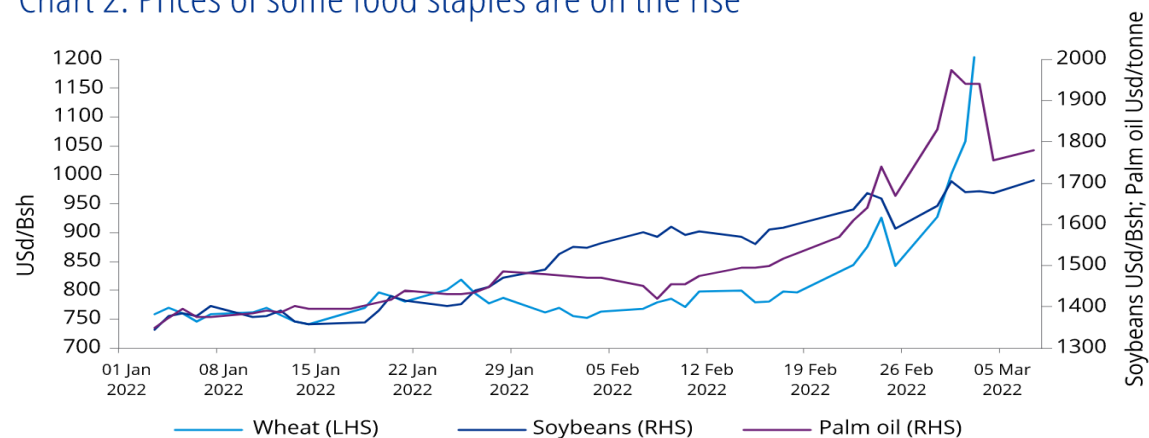
极端情况：俄乌战争

Chart 1: UK regulated gas prices could rise again in October



Source: Refinitiv Eikon, KPMG analysis, 7 March 2022.

Chart 2: Prices of some food staples are on the rise



Source: Refinitiv Eikon, 7 March 2022.

极端情况：俄乌战争

Chart 3: The impact of a 10% rise in oil prices and a 50% rise in gas prices on selected European countries (percentage points change in GDP growth)



Source: National Institute Global Econometric Model, KPMG analysis, 3 March 2022.

2008年之后的世界政经格局

- ◆ 中美大博弈是其中的主旋律
- ◆ 运行了数十年的、不健康的中美共生体系遭遇反噬
 - 中国的储蓄过剩催生了美国资产价格泡沫，引发了次贷危机
 - 中国产能的快速扩张挤压了美国产能的空间（表现为美国企业因来自中国企业的竞争而倒闭）
- ◆ “中国综合征” + “修昔底德陷阱”：美国的底层与精英达成一致
- ◆ 减轻外部压力（贸易保护主义、逆全球化、中美脱钩）是唯一选择
- ◆ 2018年的中美贸易战是上述矛盾的一次集中爆发

议程

◆ 全球地缘政治风险的现状

◆ 中美博弈

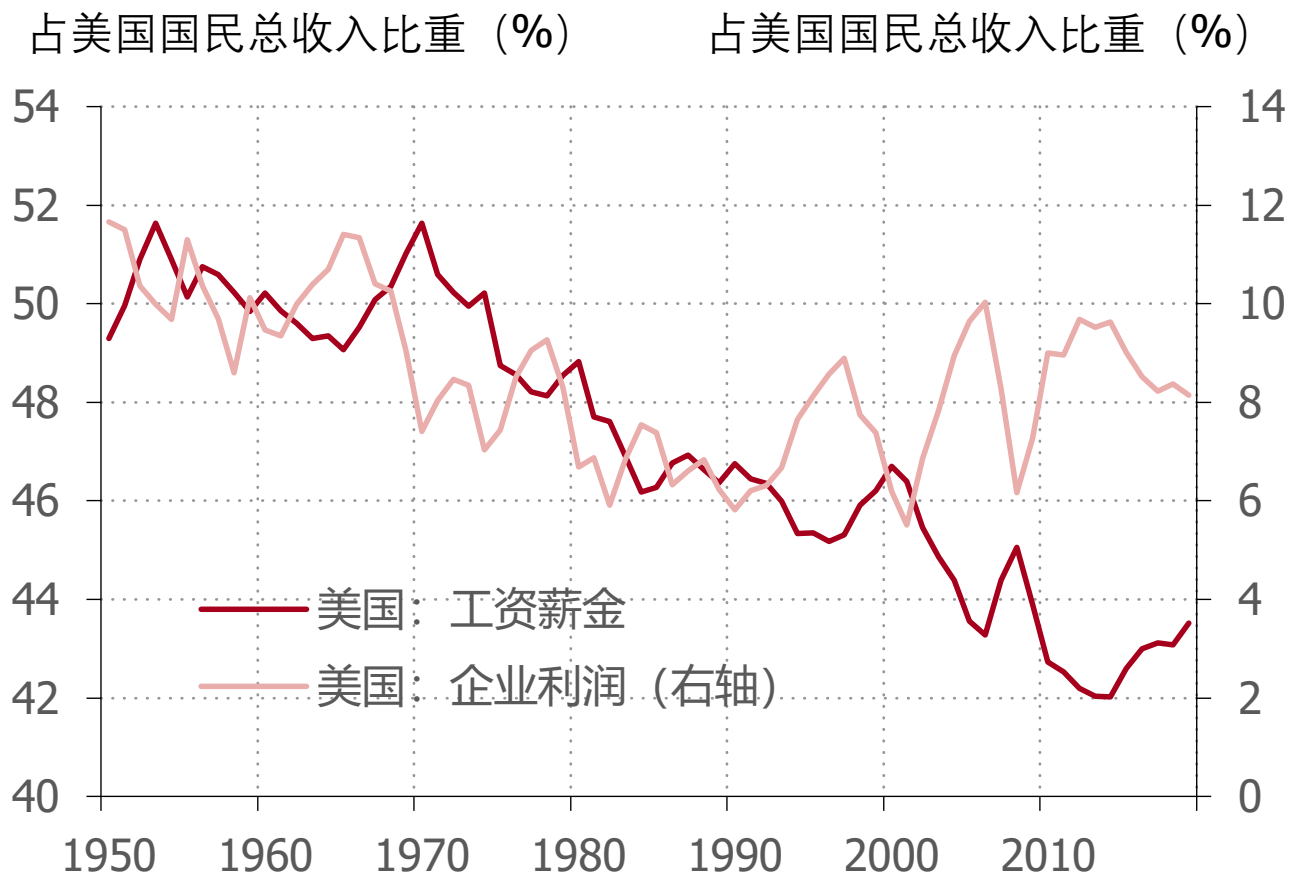


议程

- ◆ 全球地缘政治风险的现状
- ◆ 中美博弈

- 中美贸易战的起因

在最近30年的全球化中，美国工资与企业利润的走势背离，反映了美国居民与企业家之间收入差距的拉大



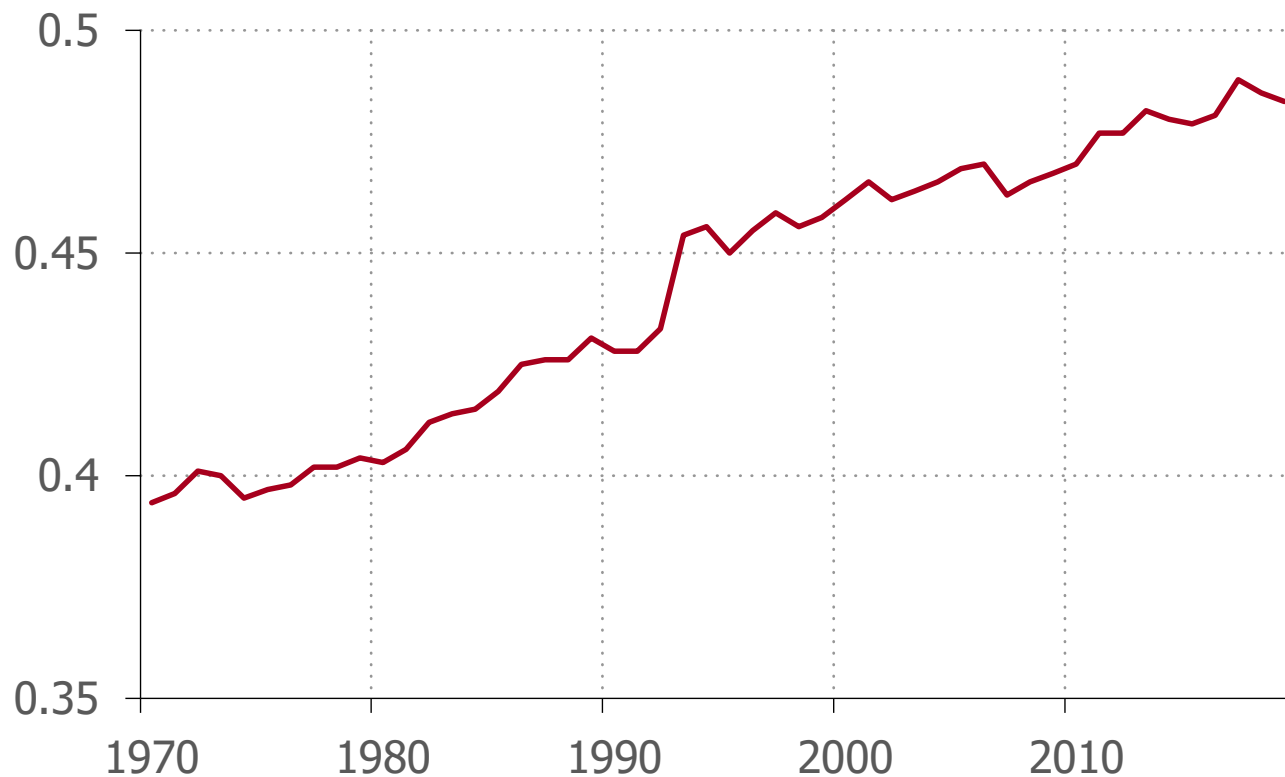
资料来源：Wind



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美国居民的收入不平等情况（基尼系数）持续攀升

美国居民收入基尼系数



资料来源：Wind



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“中国综合征”（China Syndrome）成为甩锅对象

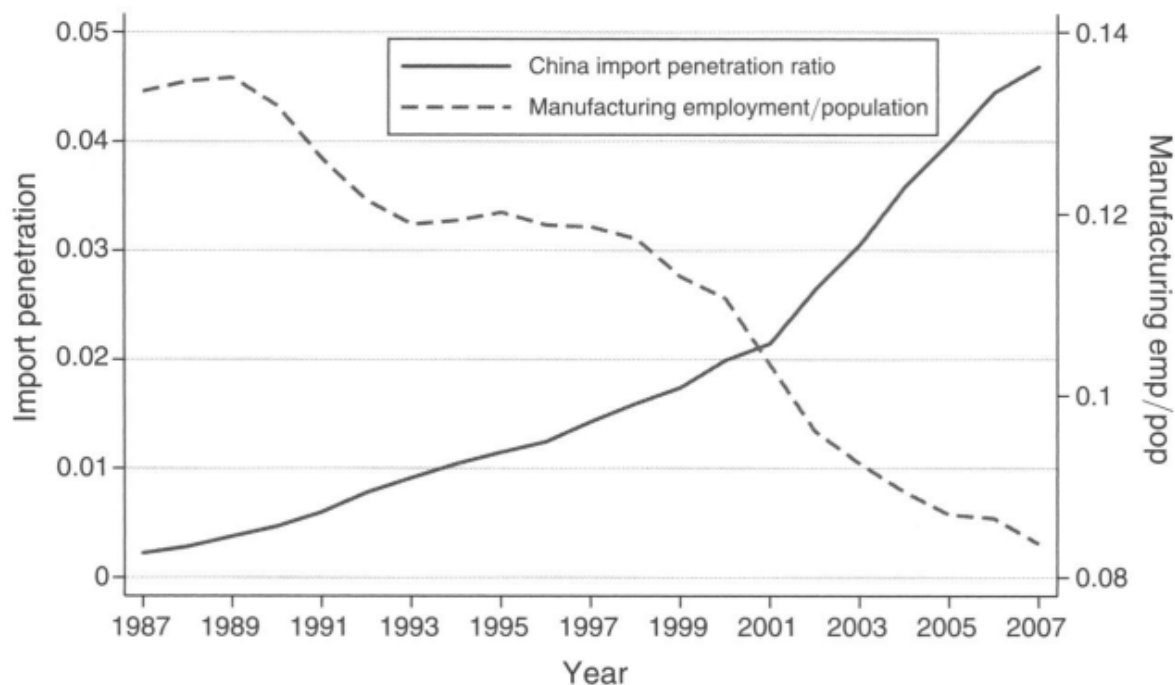


FIGURE 1. IMPORT PENETRATION RATIO FOR US IMPORTS FROM CHINA (*left scale*), AND SHARE OF US WORKING-AGE POPULATION EMPLOYED IN MANUFACTURING (*right scale*)

来源：Autor, David, David Dorn, and Gordon Hanson (2013). "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103.6: 2121-68.

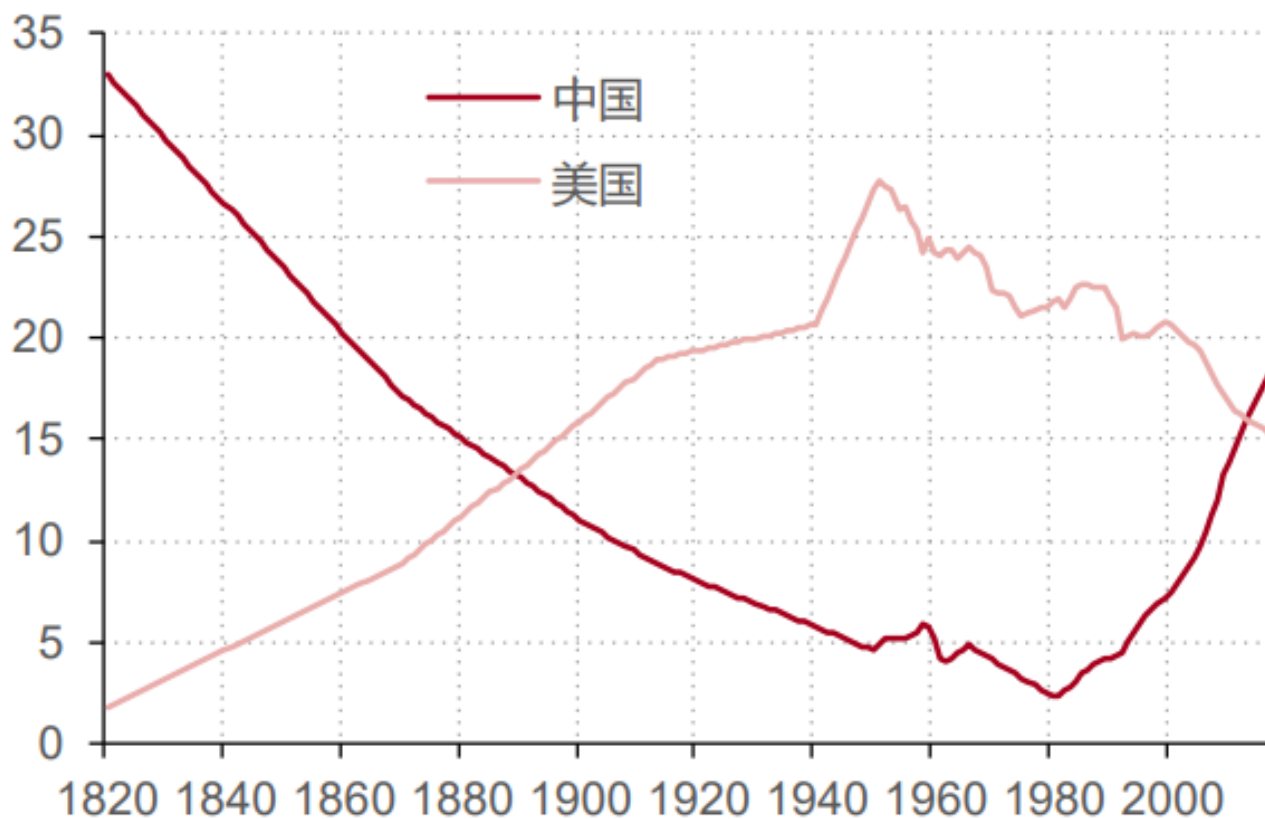


修昔底德陷阱

No	Period	Ruling Power	Rising Power	Domain	Result
1	Late 15 th century	 Portugal	 Spain	Colonial empire and trade	No war
2	First half of 16 th century	 France	 Habsburgs <small>in Holy Roman Empire, Netherlands, Spain</small>	Land power in Western Europe	War
3	16 th and 17 th centuries	 Habsburgs	 Ottoman Empire	Land power in Central and Eastern Europe, Sea power in Mediterranean	War
4	First half of 17 th century	 Habsburgs	 Sweden	Land and sea power in Northern Europe	War
5	17 th century	 Dutch Republic	 England	Global sea power, international empire and trade	War
6	Late 17 th to mid-18 th centuries	 France	 Great Britain	European land power and global empire	War
7	Late 18 th and early 19 th centuries	 United Kingdom	 France	Land and sea power in Europe	War
8	Mid-19 th century	 France and United Kingdom	 Russia	Influence in Central Asia, Eastern Mediterranean, international empire and trade	War
9	19 th century	 France	 Germany	Land power in Europe	War
10	Late 19 th and early 20 th centuries	 China and Russia	 Japan	Land and sea power in East Asia	War
11	Early-20 th century	 United Kingdom	 United States	Global economic dominance and naval supremacy in the Western Hemisphere	No war
12	Early-20 th century	 United Kingdom <small>supported by France, Russia</small>	 Germany	European land power and global sea power	War
13	Mid-20 th century	 Soviet Union, France, and U.K.	 Germany	European land and sea power	War
14	Mid-20 th century	 United States	 Japan	Sea power and influence in the Asia-Pacific	War
15	1940s-1980s	 United States	 Soviet Union	Global power	No war
16	1990s-present	 United Kingdom and France	 Germany	Political influence in Europe	No war

中美综合国力对比此消彼长

占世界GDP比重（%，购买力平价计算）



来源：Angus Maddison, IMF



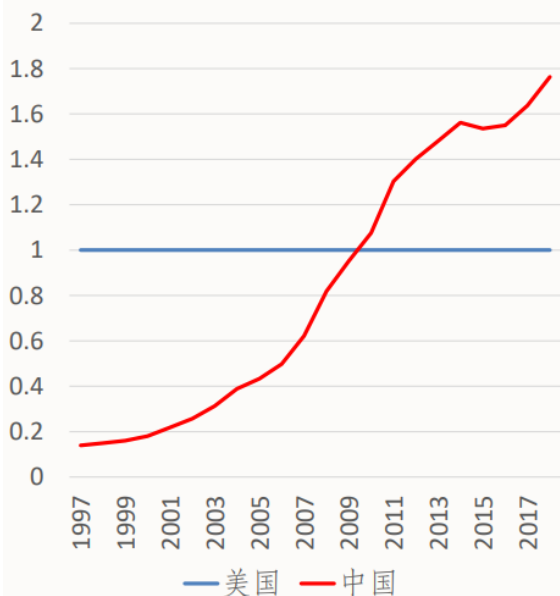
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中美综合国力对比此消彼长

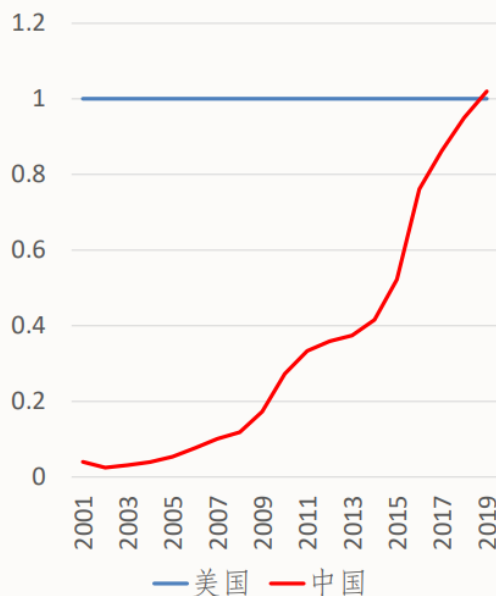
中美对比（美国固定为1）：制造、技术、科研

数据来源：UN; WIPO; Nature Index

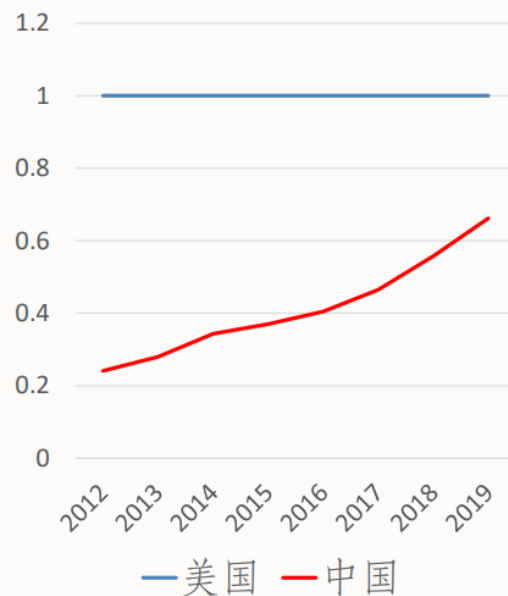
制造业增加值



国际专利申请数量



国际一流科研论文发表



40



议程

- ◆ 全球地缘政治风险的现状

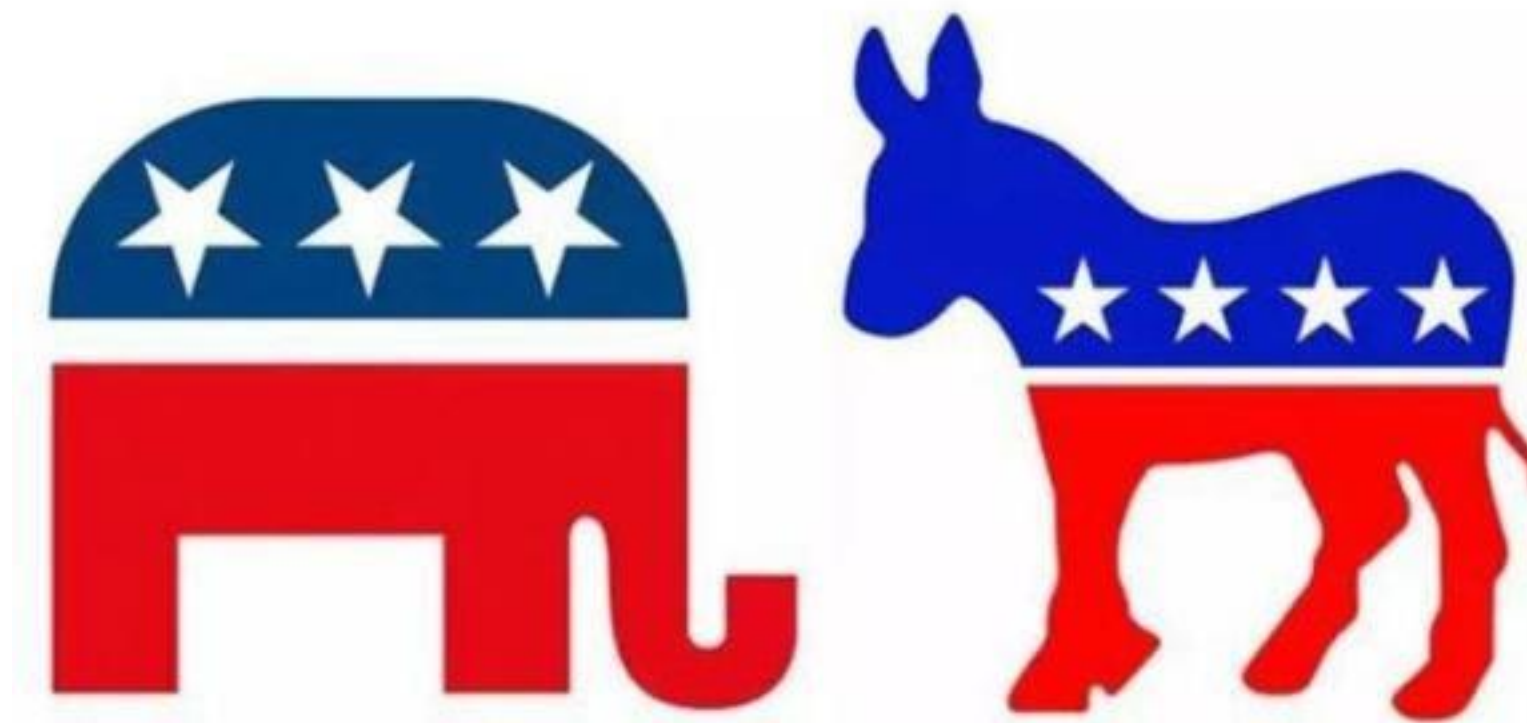
- ◆ 中美博弈

- 中美贸易战的起因

- 美国政治体制的运行



驴象之争



近年来，民粹主义倾向明显

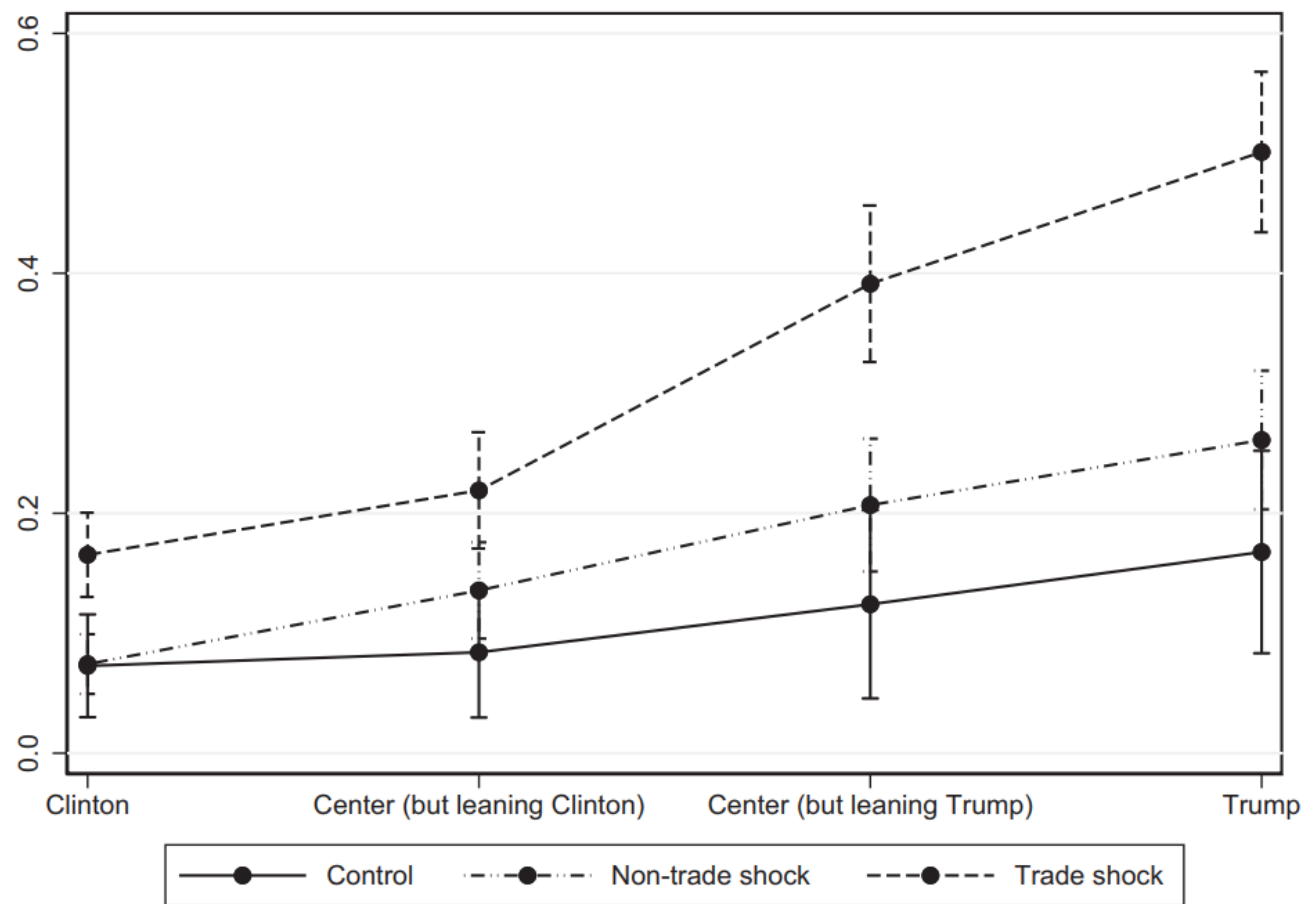


Fig. 2. Predicted Probabilities for Protectionism Over Presidential Support.

来源：Di Tella, Rafael, and Dani Rodrik (2020). "Labour Market Shocks and the Demand for Trade Protection: Evidence from Online Surveys." *Economic Journal* 130.628: 1008-1030.



总统：兜售政策观点

- ◆ 以民粹观点作为卖点，吸引最大支持群体（选票）



官僚精英：美国利益的真正捍卫者

◆ 高效、专业的技术官僚保障国家的长期利益

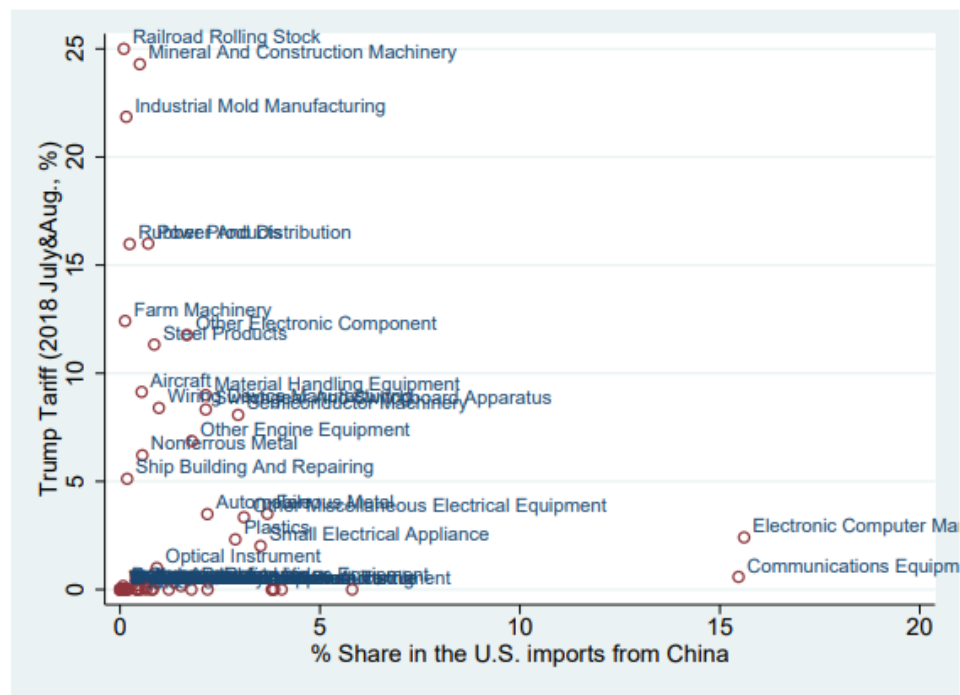


Figure 2: The First Wave of Trumpian Tariffs and US Imports from China before Trade Wars

(Note: the US Imports from China is from UN-Comtrade 2016.)

官僚精英：美国利益的真正捍卫者

- ◆ 高效、专业的技术官僚保障国家的长期利益

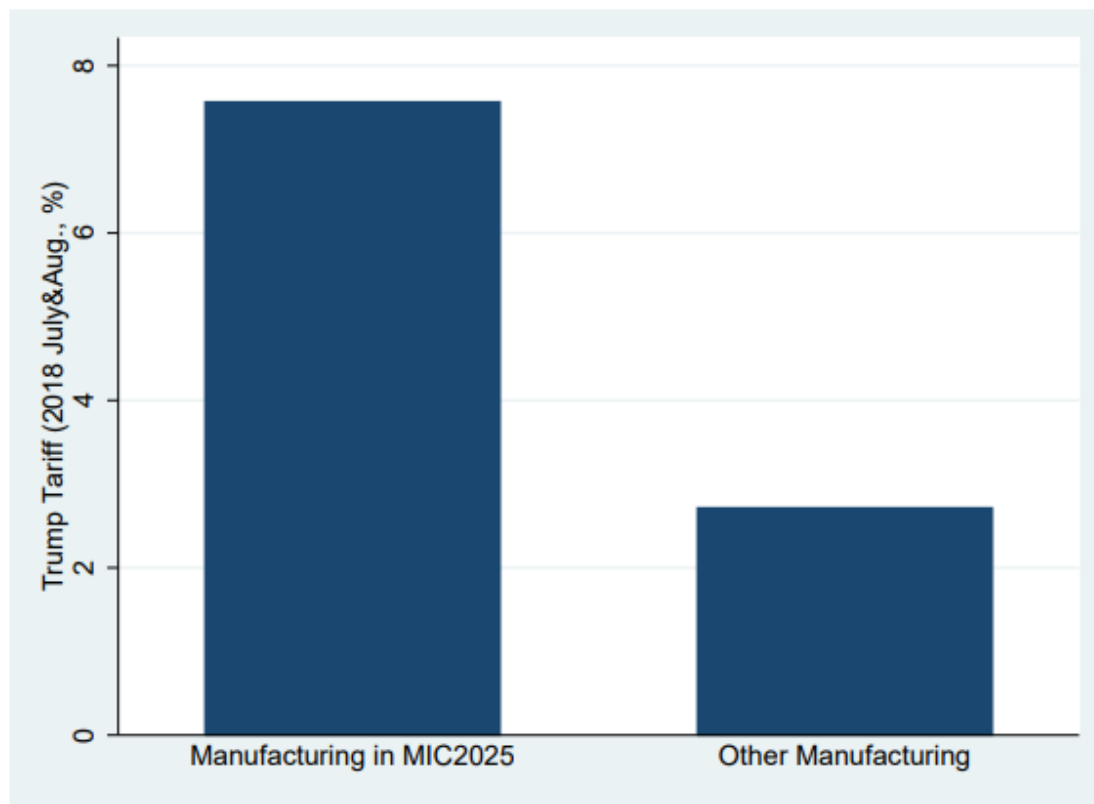


Figure 3: The First Wave of Trumpian Tariffs and “MIC 2025” Industries

来源：Jiandong Ju, Hong Ma, Zi Wang, and Xiaodong Zhu, Trade Wars and Industrial Policy along the Global Value Chains



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技术禁令：阻断中国接触美式先进技术

- ◆ 禁止向特定公司供应关键技术（e.g 中兴、华为）
- ◆ 禁止特定的技术人员流动与交流（e.g 千人计划；“国防七子”）
- ◆ 审查持有敏感技术的在美人员（e.g 针对华人华裔科学家的调查）

议程

◆ 全球地缘政治风险的现状

◆ 中美博弈

- 中美贸易战的起因
- 美国政治体制的运行
- 中美贸易战的影响



对美国：价格1：1传导，减少对中国的进口

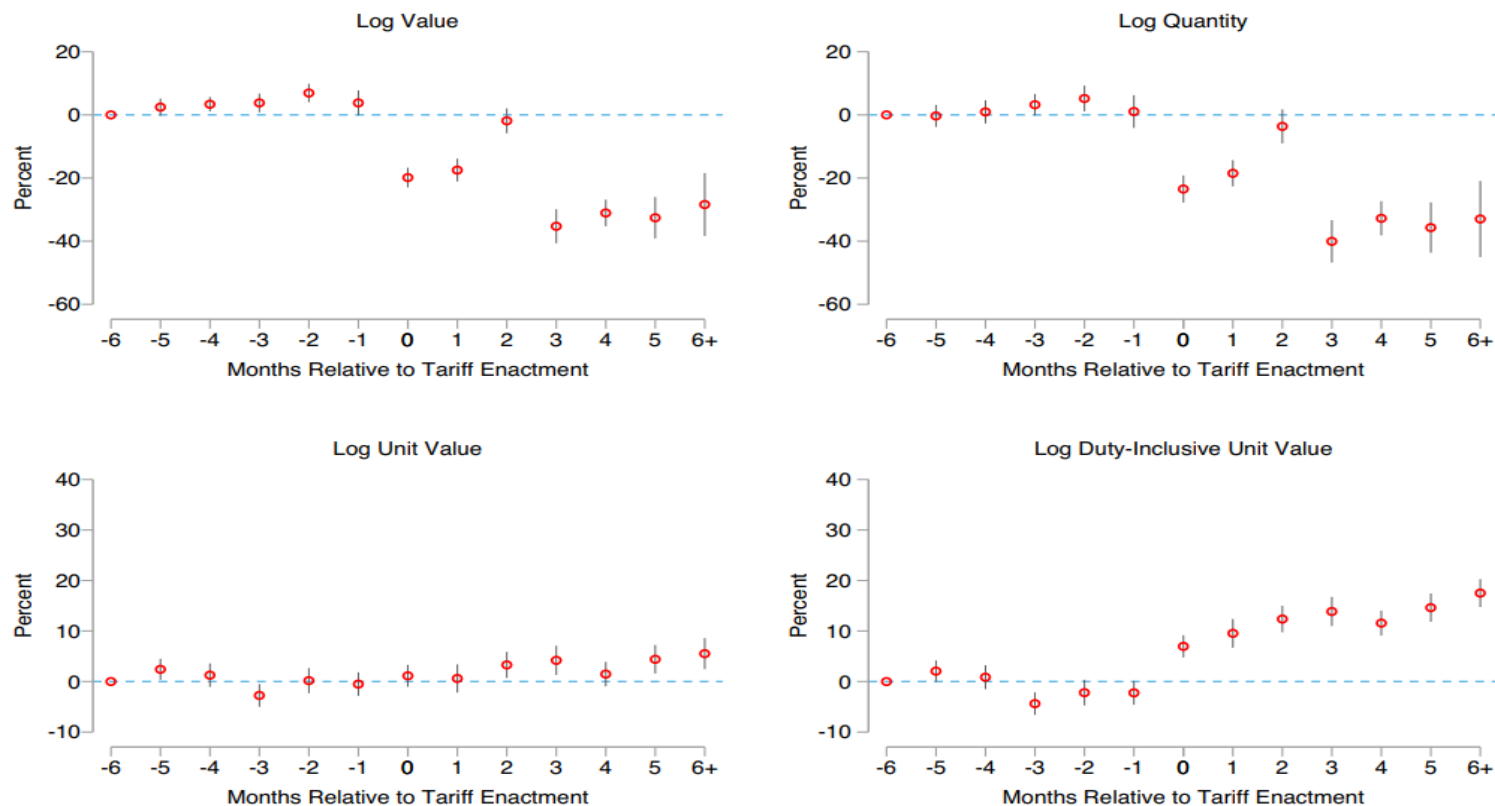


FIGURE II

Variety Event Study: Imports

来源：Pablo Fajgelbaum, Pinelopi K. Goldberg, Patrick J. Kennedy, Amit Khandelwal, The Return to Protectionism, *The Quarterly Journal of Economics*, 135(1):1-5, 2020



对中国：对美出口下降，价格不受影响

Table 2
Exporting behavior to the US.

	(1) <i>lnexport</i>	(2) <i>lnquantity</i>	(3) <i>lnprice</i>
<i>Treatment_i × Post_{it}</i>	−0.1647*** (0.0338)	−0.1599*** (0.0354)	−0.0047 (0.0247)
<i>Chinese retaliatory tariffs</i>	Y	Y	Y
HS-8-digit-product FE	Y	Y	Y
Time FE	Y	Y	Y
HS-6-digit-product×month FE	Y	Y	Y
HS-6-digit-product×SF FE	Y	Y	Y
HS-6-digit-product time trend	Y	Y	Y
Observations	105,335	105,335	105,335
adj. <i>R</i> ²	0.8893	0.9203	0.9255

Notes: (1) In columns (1) to (3), dependent variables are the logarithm of export volume (*lnexport*), the logarithm of export quantity (*lnquantity*), and the logarithm of the average export price (*lnprice*), respectively. The independent variable, *Treatment_i × Post_{it}*, which represents the effect of trade protectionism is an interaction between the treatment group (subject to the additional tariffs imposed by the US) dummy and a post-war indicator. (2) Regressions include *Chinese retaliatory tariffs*, a vector of product-specific seasonalities (HS-6-digit-product month fixed effect), Chinese Spring Festival (HS-6-digit-product SF fixed effect), time trend of the HS-6-digit-product factors (HS-6-digit-product time trend), HS-8-digit-product fixed effect, and time fixed effect. (3) Standard errors, clustered at product level, are reported in parentheses. (4) ***, **, and * represent significance at the 1%, 5%, and 10% level, respectively.

来源：Lingduo Jiang, Yi Lu, Hong Song, Guofeng Zhang, Responses of Exporters to Trade Protectionism: Inferences from the US-China Trade War, Journal of International Economics, 2023



对中国：对其他国家出口不受影响

Table 3

Exporting behavior to the whole world.

	(1) lnexport	(2) lnquantity	(3) lnprice
$Treatment_i \times Post_{it}$	-0.0195 (0.0189)	-0.0084 (0.0205)	-0.0111 (0.0141)
Chinese retaliatory tariffs	Y	Y	Y
HS-8-digit-product FE	Y	Y	Y
Time FE	Y	Y	Y
HS-6-digit-product×month FE	Y	Y	Y
HS-6-digit-product×SF FE	Y	Y	Y
HS-6-digit-product time trend	Y	Y	Y
Observations	161,255	161,255	161,255
adj. R^2	0.9312	0.9610	0.9695

Notes: (1) In columns (1) to (3), dependent variables are the logarithm of export volume (lnexport), the logarithm of export quantity (lnquantity), and the logarithm of the average export price (lnprice), respectively. The independent variable, $Treatment_i \times Post_{it}$, which represents the effect of trade protectionism, is an interaction of the treatment group (subject to the additional tariffs imposed by the US) dummy and a post-war indicator. (2) Regressions include Chinese retaliatory tariffs, a vector of product-specific seasonalities (HS 6-digit-product month fixed effect), Chinese Spring Festival (HS-6-digit-product SF fixed effect), time trend of the HS-6-digit-product factors (HS-6-digit-product time trend), HS-8-digit-product fixed effect, and time fixed effect. (3) Standard errors, clustered at product level, are reported in parentheses. (4) ***, **, and * represent significance at the 1%, 5%, and 10% level, respectively.

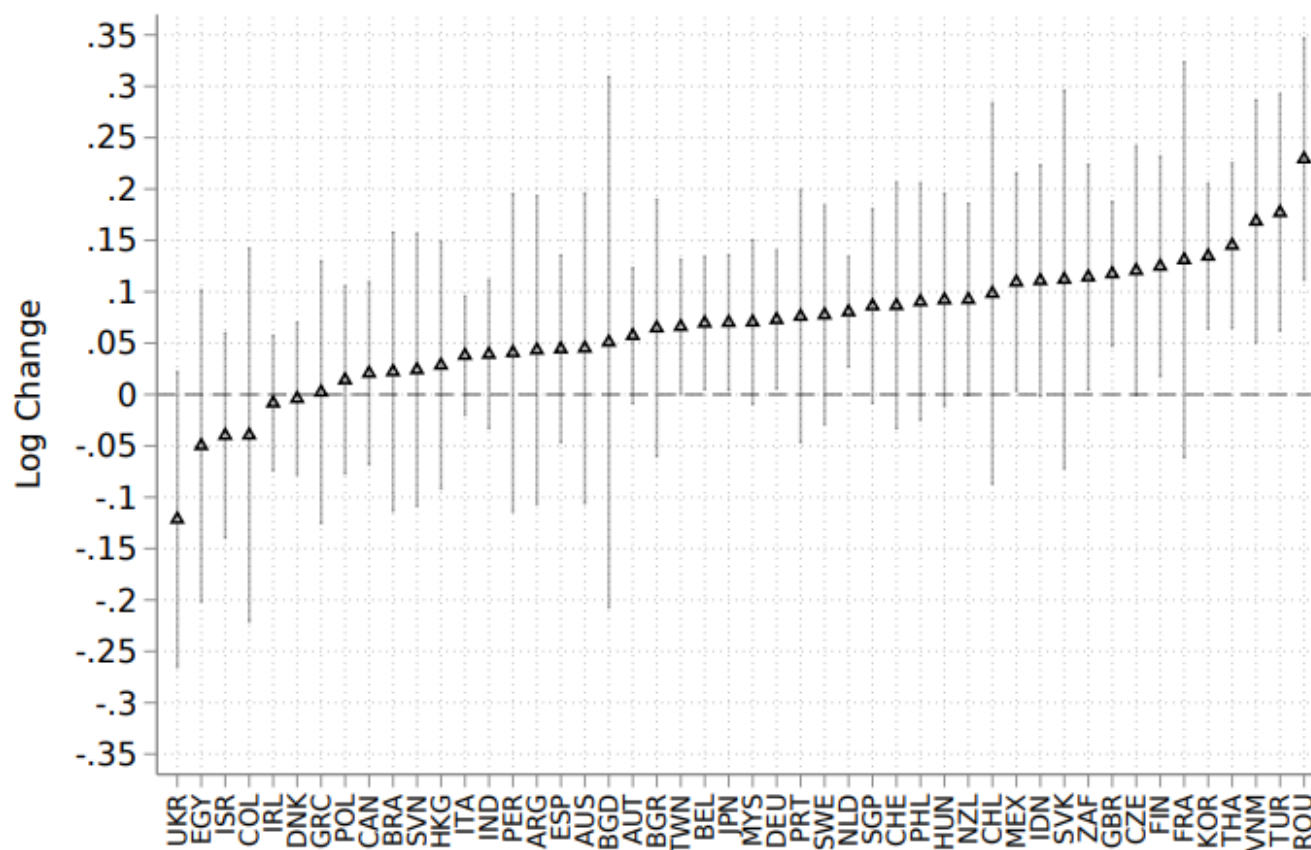
来源：Lingduo Jiang, Yi Lu, Hong Song, Guofeng Zhang, Responses of Exporters to Trade Protectionism: Inferences from the US-China Trade War, Journal of International Economics, 2023



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对其他国：产业转移，渔翁得利

FIGURE 2: RELATIVE EXPORT GROWTH IN TARGETED PRODUCTS ACROSS COUNTRIES



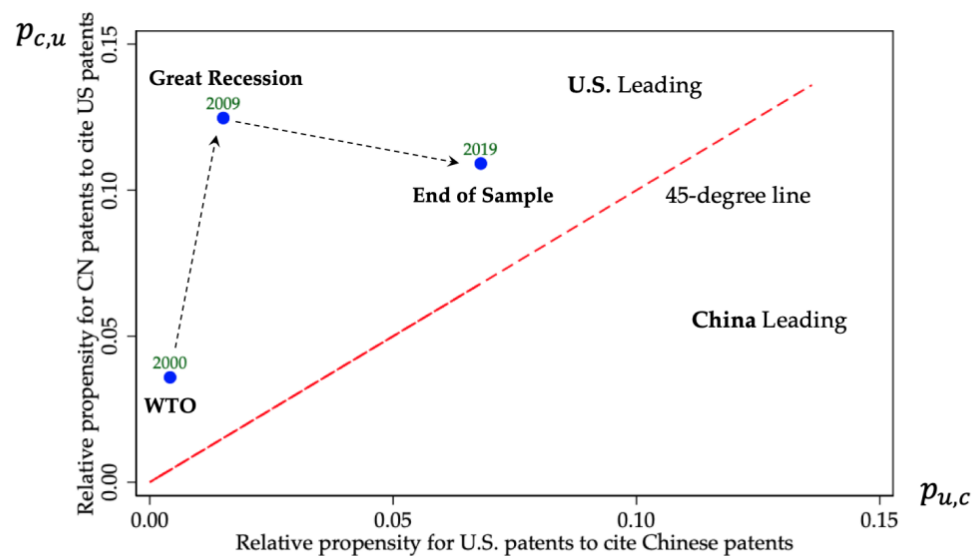
来源：Pablo Fajgelbaum, Pinelopi K. Goldberg, Patrick J. Kennedy, Amit Khandelwal, Daria Taglioni, The US-China Trade War and Global Reallocations



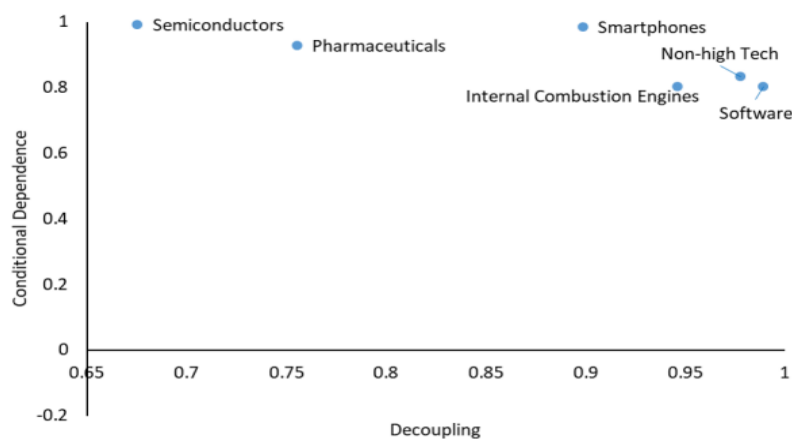
中美技术脱钩

FIGURE 3: U.S.-China technology decoupling and dependence, 2000, 2009, and 2019

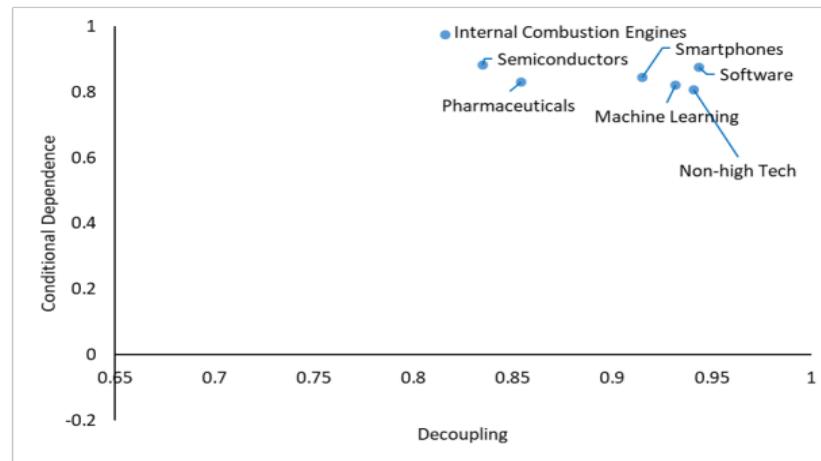
This figure is the empirical analog of Figure 2. The vertical axis ($p_{c,u}$) is a proxy of the propensity for Chinese patents to cite a U.S. patent relative to citing a Chinese one. The horizontal axis ($p_{u,c}$) is a proxy of the propensity for U.S. patents to cite a Chinese patent relative to citing a U.S. one. To highlight critical turning points of the transition, we zoom in on three crucial years: 2000 (the year before China joined the World Trade Organization), 2009 (the end of the Great Recession), and 2019 (the end of our sample period).



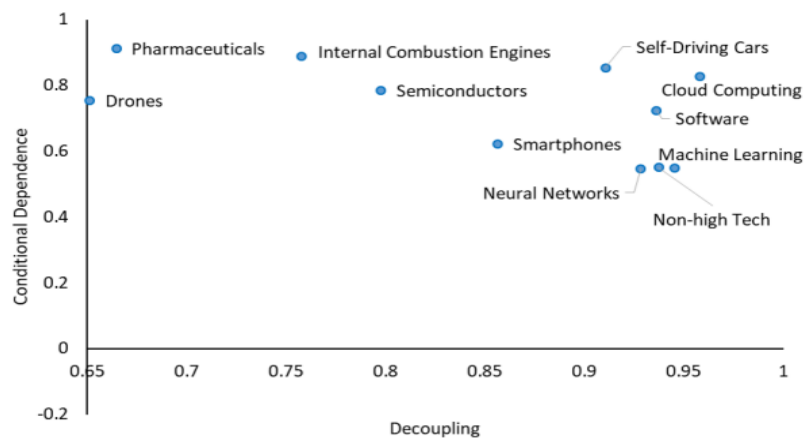
中美技术脱钩



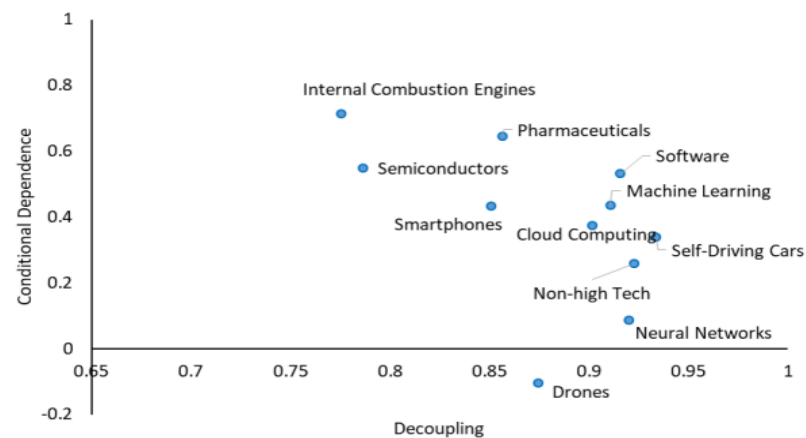
(A) YEAR: 2000



(B) YEAR: 2009



(C) YEAR: 2015



(D) YEAR: 2019

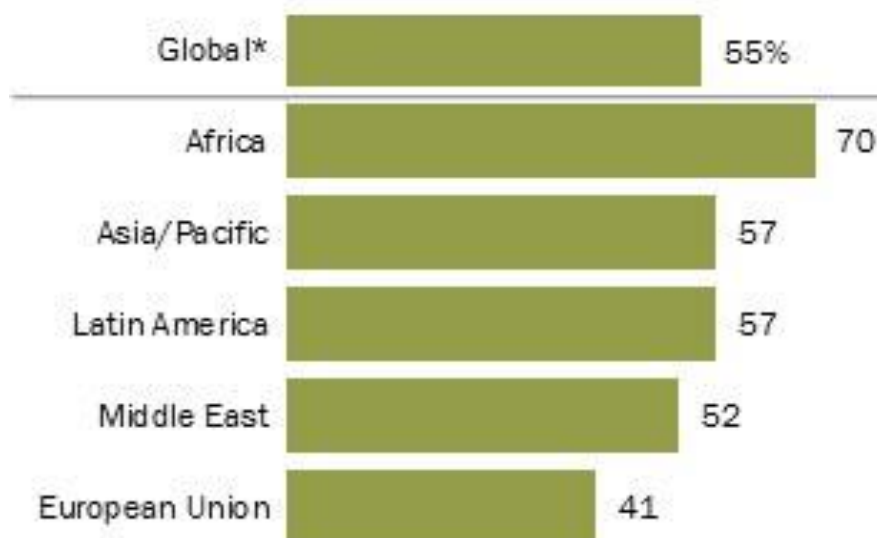
议程

- ◆ 全球地缘政治风险的现状
- ◆ 中美博弈
- ◆ 地缘政治风险分析工具

皮尤（Pew）调查数据库： 全球态度调查（Global Attitude Survey）

China Seen Positively in Africa, Asia and Latin America, but Less So in EU

Medians with a favorable view of China



* Global median of 39 countries not including China.

Source: Spring 2015 Global Attitudes survey. Q12b.

PEW RESEARCH CENTER



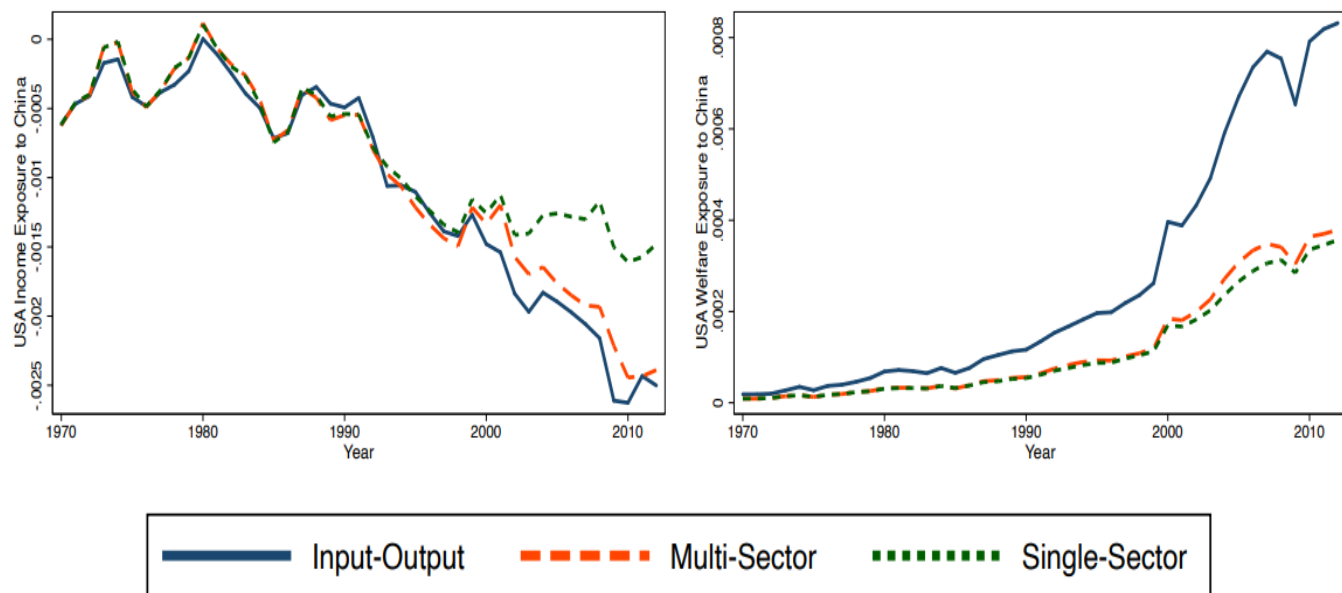
敌友矩阵 (Kleinman, Liu, Redding, 2021)

- ◆ 由country-pair的进出口贸易数据即可构造
- ◆ $d\text{福利效应} = d\text{收入效应} + d\text{生活成本效应}$
 - 如果两国商品的出口方重叠很大，说明两国属于竞争关系， $d\text{收入效应} < 0$
 - 如果两国商品出口量的相关性很大，说明两国属于互补关系， $d\text{收入效应} > 0$
 - 如果一国从另一国进口商品很大，说明前者依赖后者降低生活成本， $d\text{生活成本效应} > 0$
 - $d\text{福利效应}$ 决定了是“敌”（小）还是“友”（大）



美国一方面承受中国的竞争带来的负向收入效应，另一方面享受从中国低廉的商品中获得的正向生活成本效应

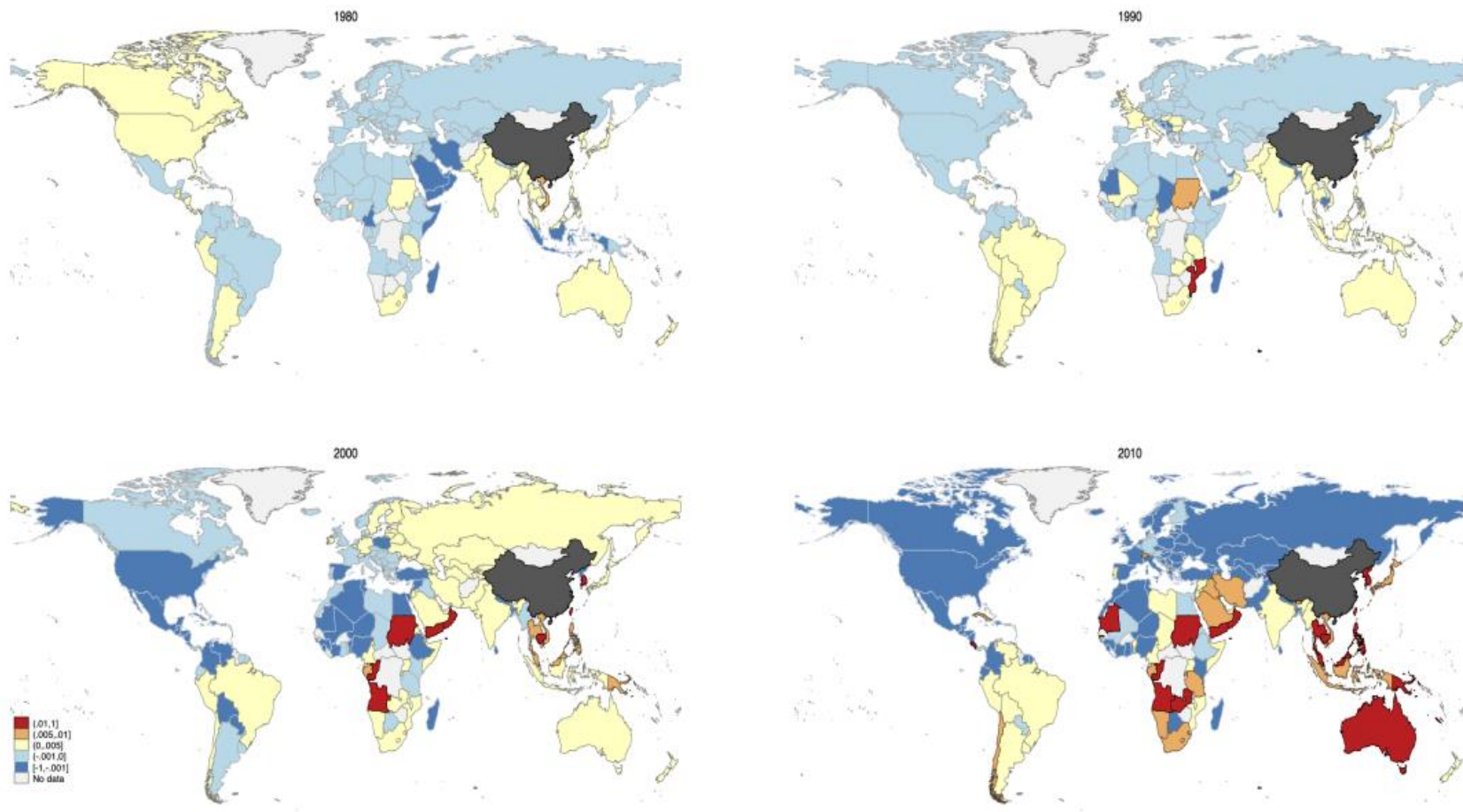
Figure 8: U.S. Relative Income and Welfare Exposure to Chinese Productivity Growth



Note: Left panel shows U.S. income exposure to Chinese productivity growth expressed relative to the income-weighted average for OECD countries to ensure that results are not sensitive to our choice of numeraire; Right panel shows U.S. welfare exposure to Chinese productivity growth; Welfare exposure is invariant to our choice of numeraire; NBER World Trade Database and authors' calculations using the single-sector model from Section 3, the multi-sector model from Section 5.4, and the input-output model from Section 5.5.

1980-2010, 中国的“敌”“友”变迁

Figure 9: Country Income Exposure to Chinese Productivity Growth over Time

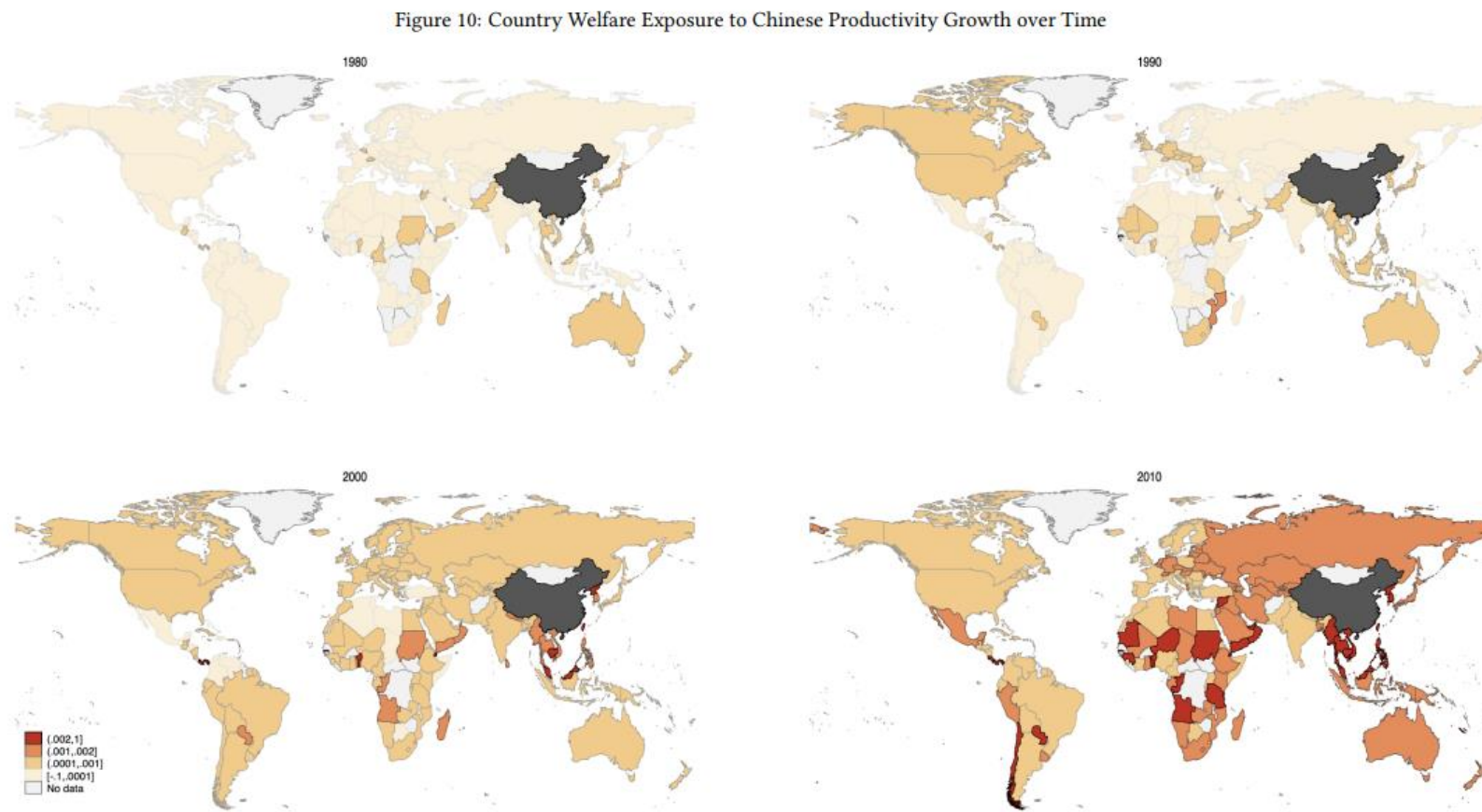


来源: Benny Kleinman, Ernest Liu, Stephen J. Redding, International Friends and Enemies



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1980-2010, 中国的“敌”“友”变迁



来源: Benny Kleinman, Ernest Liu, Stephen J. Redding, International Friends and Enemies



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敌友矩阵可以很好地预测两个国家是否签订双边贸易协定、以及联合国的投票一致性

Table 3: Selection into Future Preferential Trade Agreements (PTAs) and Past Welfare Exposure to Bilateral Trade Cost Reductions (U_{τ}^{IO})

	(1)	(2)	(3)	(4)	(5)
	PTA_{1971}^{2012}	PTA_{1971}^{2012}	PTA_{1971}^{2012}	PTA_{1981}^{2012}	PTA_{1991}^{2012}
U_{τ}^{IO} 1970	4.874*** (0.995)	3.021** (0.879)	8.150*** (1.709)	2.754** (0.837)	2.716** (0.833)
PTA 1970	0.555*** (0.0112)	0.534*** (0.0108)	0.554*** (0.0112)	-0.103*** (0.0115)	-0.136*** (0.0126)
Log value 1970		0.0203*** (0.00127)		0.0187*** (0.00126)	0.0179*** (0.00125)
S^{SSM} 1970			-3.055* (1.452)		
PTA_{1971}^{1980}				0.682*** (0.0120)	
PTA_{1971}^{1990}					0.717*** (0.0125)
Exporter fixed effects	Yes	Yes	Yes	Yes	Yes
Importer fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	17,292	17,292	17,292	17,292	17,292
R-squared	0.319	0.333	0.319	0.363	0.371

Note: Observations are a cross-section of exporter-importer pairs; each column corresponds to a separate regression, with the left-hand side variable reported at the top of the column and the right-hand side variables listed in the rows; PTA_{1971}^{2012} is a dummy variable that is equal to one if an exporter-importer pair is a member of a preferential trade agreement (PTA) from 1971-2012; PTA_{1981}^{2012} , PTA_{1991}^{2012} , PTA_{1971}^{1980} and PTA_{1971}^{1990} are defined analogously; U_{τ}^{IO} 1970 is welfare exposure to bilateral trade cost reductions in 1970 in the input-output model from equation (50); PTA 1970 is a dummy variable that is equal to one if an exporter-importer pair is a member of a PTA in 1970 or earlier; log value 1970 is the log of one plus the value of bilateral trade flows in 1970; S^{SSM} 1970 is the share of each exporter in aggregate importer expenditure in 1970 (the expenditure share matrix in the single-sector model); standard errors in parentheses are heteroskedasticity robust; *** denotes significance at the 1 percent level; ** denotes significance at the 5 percent level; * denotes significance at the 10 percent level.

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Table 4: Changes in Political and Economic Friends (Five-Year Long Differences)

	(1)	(2)	(3)	(4)	(5)
	ΔA_{nit}^S	ΔA_{nit}^π	ΔA_{nit}^κ	ΔA_{nit}^κ	ΔA_{nit}^κ
ΔU_{nit}^{IO}	36.82*** (11.56)	151.1*** (34.27)	202.5*** (38.90)	215.0*** (42.24)	408.2*** (124.9)
$\Delta \log \text{value}_{nit}$				-0.00276*** (0.000520)	
ΔS_{nit}^{SSM}					-16.92** (6.954)
Estimation	IV	IV	IV	IV	IV
Exporter-year fixed effects	Yes	Yes	Yes	Yes	Yes
Importer-year fixed effects	Yes	Yes	Yes	Yes	Yes
First-stage F-statistic	51.36	51.36	51.36	48.43	26.61
Observations	114,426	114,426	114,426	114,426	114,426

Note: Observations are pooled five-year long differences from 1970 through 2010 for exporter-importer pairs; the first subscript n denotes the importer, the second subscript i corresponds to the exporter, and the third subscript t indexes the five-year difference; each column corresponds to a separate regression, with the left-hand side variable reported at the top of the column and the right-hand side variables listed in the rows; ΔA_{nit}^S is the five-year change in the S-score measure of the political similarity in voting patterns in the United Nations General Assembly (UNGA); ΔA_{nit}^π is the five-year change for the π measure of political similarity; ΔA_{nit}^κ is the five-year change for the κ measure of political similarity; ΔU_{nit}^{IO} is the five-year change in welfare exposure in the input-output model from equation (50); $\Delta \log \text{value}_{nit}$ is the five-year change in the log of one plus the value of bilateral trade; ΔS_{nit}^{SSM} is the five-year change in the aggregate share of each importer's expenditure on each exporter (the expenditure share matrix in the single-sector model); the five-year change in welfare exposure (ΔU_{nit}^{IO}) is instrumented using the five-year change in the expenditure share matrix in the input-output model predicted by geographic variables (ΔS_{nit}^{IOG}) from a gravity equation (exporter and importer population and bilateral distance with time-varying coefficients); first-stage F-statistic is a test of the statistical significance of the instrument in the first-stage regression; the second-stage R-squared is not reported, because it does not have a meaningful interpretation; standard errors in parentheses are clustered by exporter-importer pair; *** denotes significance at the 1 percent level; ** denotes significance at the 5 percent level; * denotes significance at the 10 percent level.

《Geopolitical Alpha》中的分析框架

◆ 政治家面临五大约束

➤ 政治

- popularity: in the long-term, politicians are mere price takers.
- Time in power: 刚上台享有“蜜月期”，有足够的政治资本实践新政策
- legislative math: 党派支持
- economic context: 经济基础好
- special interest group support: 特殊利益集团的支持
- global momentum: 世界潮流

➤ 宏观经济

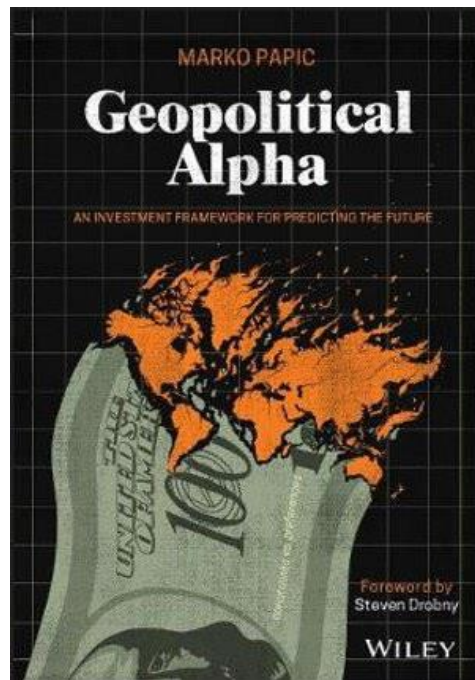
- 对他国的经济依赖性

➤ 金融

- 债务水平

◆ 梳理出影响上述约束的事件时间表

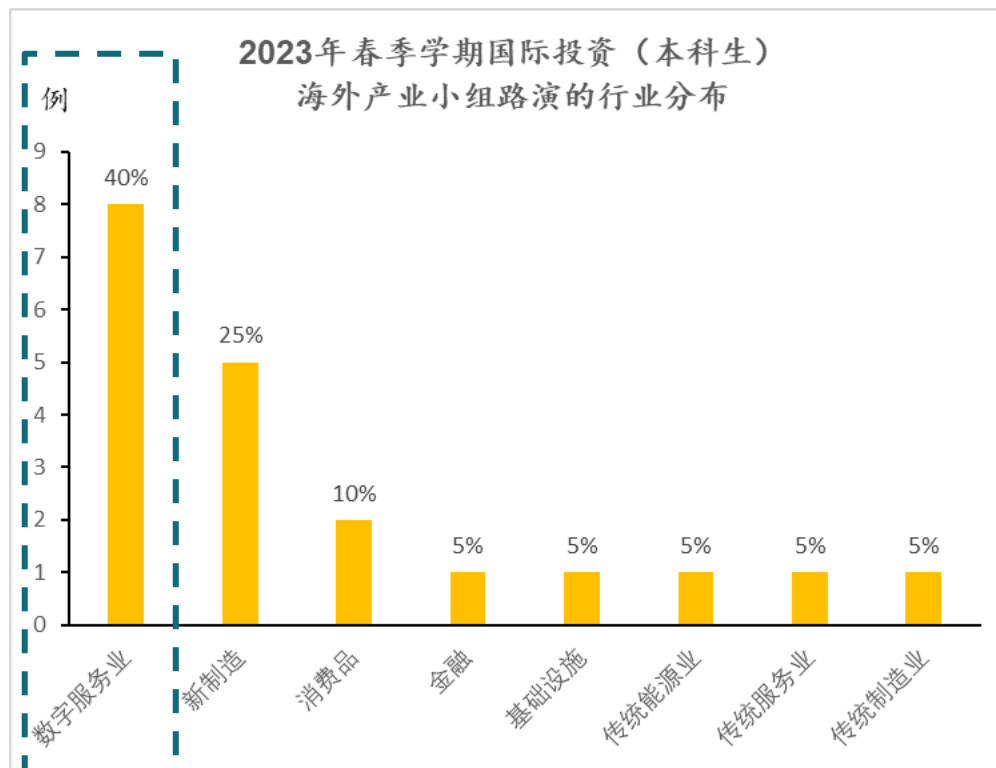
◆ 判断-追踪-更新



议程

- ◆ 全球地缘政治风险的现状
- ◆ 中美博弈
- ◆ 地缘政治风险分析工具
- ◆ 数字经济时代的新挑战*

从路演选题看产业热点



数字经济时代的贸易保护主义

2019年3月 | 法国经济与财政部长鲁尧·勒梅尔提交了一份征收数字服务税的法律草案

2019年7月 | 法国议会通过了向大型互联网企业征收数字服务税的法律草案。不久，USTR宣布，美国决定对法国政府通过的数字服务税法案发起调查

2019年8月 | 马克龙宣布，各国将对数字服务税进行谈判，但90天的谈判期后，依旧没有解决办法



USTR称，美国日前决定对欧盟大型民用飞机加征10%的关税，对欧盟农产品和其他产品加征25%的关税

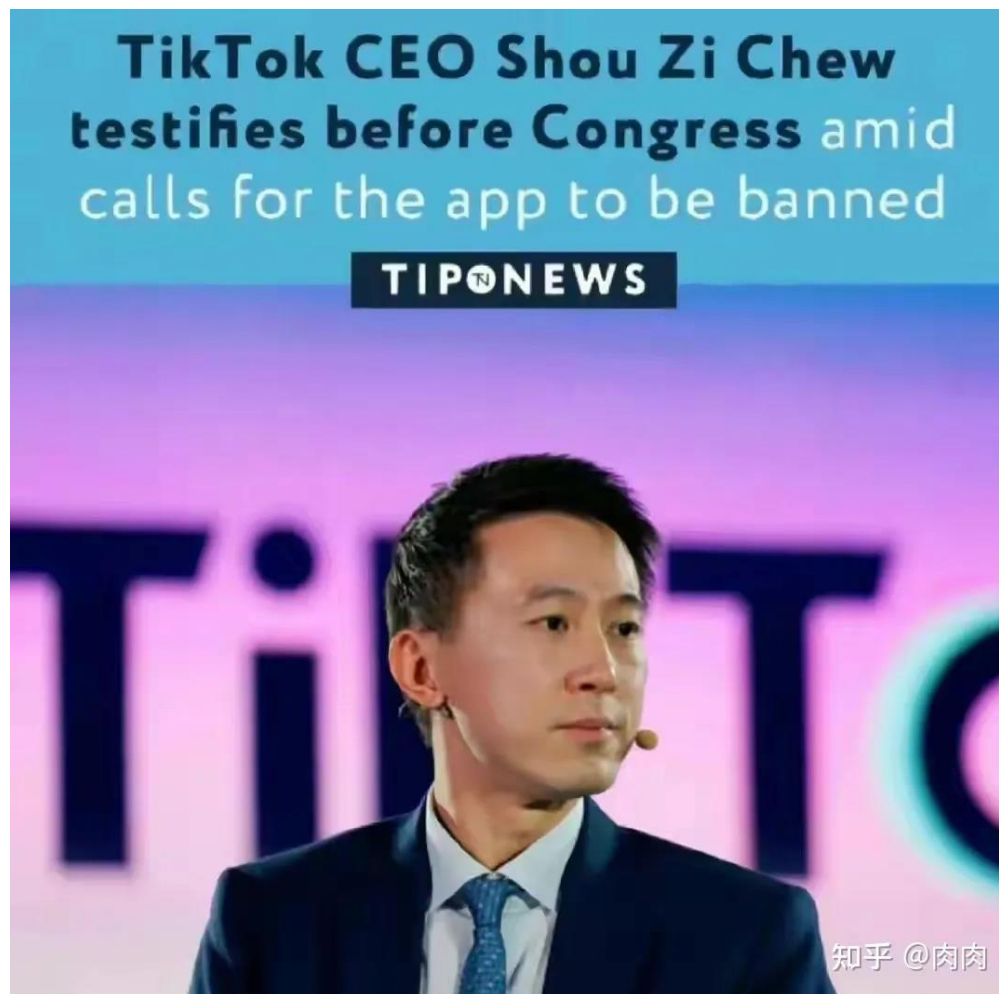
2019年10月

USTR称，正在完成对法国数字税的调查，将于12月2日宣布以何种报复性措施回应法国的“数字税”

2019年11月



数字经济时代的贸易保护主义



议程

- ◆ 全球地缘政治风险的现状
- ◆ 中美博弈
- ◆ 地缘政治风险分析工具
- ◆ 数字经济时代的新挑战*

- 数字经济的特点



数字经济的特点

- ◆ 零边际成本
- ◆ 网络效应
- ◆ 长尾效应

议程

◆ 全球地缘政治风险的现状

◆ 中美博弈

◆ 地缘政治风险分析工具

◆ 数字经济时代的新挑战*

- 数字经济的特点

- 国家重视数字经济的原因



数字经济极大地提高（并稳固）国家竞争力

- ◆ 服务贸易品（**trade service**），可以触达全球的消费者，而不需交关税
 - 目前全世界市值最高的企业很多都归类于数字企业
 - 数字税的出台即为了应对这一点
- ◆ 数据既是投入品，也是产品本身；使用产品本身也创造数据，具有自我强化的马太效应
 - 大国具有天然优势
 - 更多的使用者→更多的数据→更好的模型→更多的试用者→.....
- ◆ 作为一种资产，数据不像其他技术，不容易被模仿复制，从而形成壁垒
- ◆ 看似免费的服务，实则是交换隐私
 - 机器学习：借由已知的信息倒推未知的信息
 - 国家安全的隐患



谢 谢

- ◆ 陈方豪 助理教授
- ◆ 经济学院 特区港澳经济研究所
- ◆ 北京大学国家发展研究院经济学博士，多伦多大学访问学者；主要研究领域为发展经济学、城市经济学与国际经济学；研究主线是中国的区域产业发展与全球市场的关系，中国在全球价值链中的位置，以及中国企业的国际化进程。当前的研究重心为海外华人华商与中国产业发展之间的联系。
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