The Criminogenic Consequence of Export Slowdown: Evidence from Millions of Court Judgment Documents in China

Hong Ma
Tsinghua University

Yu Pan
Tsinghua University

Mingzhi (Jimmy) Xu
Peking University

汇报人：章轩
西南财经大学经济学院

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Outline

1. Introduction

2. Data source and Mesures

3. Empirical Strategy

4. Empirical Results

5. Machanism Analysis

6. Theoretical Analysis

7. Conclusions

背景以及特征事实 Model

- 2008 年金融危机以后，全球贸易增长乏力，引发了人们对就业岗位创造不足的担忧，尤其是在制造业领域。
  $\rightarrow \alpha \longrightarrow \beta$
  $\rightarrow \alpha \longrightarrow \beta$

- 这项研究借鉴了中国的证据，强调出口放缓的一个鲜为人知的社会经济后果是：犯罪率上升。中国拥有世界上最多的劳动年龄人口，严重依赖全球需求来维持增长和创造就业机会。

- 在过去十年中，中国出口的年增长率下降了一半以上，从 2001-2008 年间的平均 25% 降至 2011-2018 年间的不到 5%。

Contributions

- 将估计贸易冲击效应的文献与当地劳动力市场的文献相联系。是首批研究负面出口冲击后社会紧张局势加剧的论文之一。
- 将贸易与犯罪联系起来。我们发现出口放缓主要通过削弱当地劳动力市场条件诱发更多犯罪。这是第一篇利用详细的法院判决文件并确定中国出口冲击与犯罪之间因果关系的论文。
- 扩展 Becker-Ehrlich models，有助于理解从事犯罪活动的经济动机。
- 构建了一个城市级别的各种犯罪活动的犯罪率衡量标准。具体而言，我们采用了一种新的文本分析方法，对中国各级法院的生效判决书、裁决书和调解协议书进行分析，从而有助于衡量中国各城市的犯罪率，并按十四种犯罪活动类型进行分类。

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Measuring Crime Rates

- 自中国最高人民法院官方网站中国裁判文书网（CJO）
- 利用文本分析构建犯罪率的指标
- 具体而言，采用在每份判决书中搜索与某类犯罪相关的关键词。例如，如果一个案件包含”抢劫”、”抢夺”或”哄抢”等中文关键词，则该案件被归类为”抢劫”。如附录表 1 所示，比较细致的分了 14 个类型的犯罪。
- 因为各城市的规模相差很大，所以采取 2010 年人口普查数据进行标准化。
- 标准化后的因变量衡量的是每千名工作年龄居民的刑事案件数量。

文本分析指标来源

Table A.1: Keywords in Criminal Case Classification

Types	Chinese	English
1 Public security	失火	negligent arson
	决水	breaching a dike
	投放危险物质	spreading dangerous materials
	破坏交通工具	sabotaging transportation vehicle
	破坏交通设施	sabotaging transportation facility
	破坏电力设备	sabotaging any electric power or gas facility
	破坏易燃易爆设备	sabotaging any inflammable or explosive equipment
	破坏广播电视设施, 公用电信设施	sabotaging any broadcasting, television or public telecommunications facility
	重大飞行事故	causing a grave air accident
	铁路运营安全事故	causing a railway operational accident
	危险物品肇事	violating the regulations on the control of dangerous materials and thereby causing a serious accident
	工程重大安全事故	lowering the quality standard of a construction project and thereby causing a serious accident
	教育设施重大安全事故	failing to adopt measures against dangers in educational facilities and thereby causing a serious accident
	消防责任事故	violating the regulations on fire prevention and causing a serious accident
	不报, 谎报安全事故	not reporting or not truly reporting when accident happens
	非法制造, 买卖, 运输, 邮寄, 储存枪支, 弹药, 爆炸物	illegally manufacturing, trading in, transporting, mailing or storing any guns, ammunition or explosives
	非法制造, 买卖, 运输, 储存危险物质	illegally manufacturing, trading in, transporting, mailing or storing any dangerous materials
	违规制造, 销售枪支	violating the regulations on manufacturing or selling guns
	非法持有, 私藏枪支, 弹药	illegally possessing or concealing any guns or ammunition
	非法出租, 出借枪支	illegally leasing or loaning guns
	丢失枪支不报	failing to report about the lost guns
	非法携带枪支, 弹药, 管制刀具, 危险物品危及公共安全	illegally entering a public place with any gun, ammunition, controlled cutting tool or any other dangerous tools and thereby endangering public security

Summary Statistics for Crime Measures

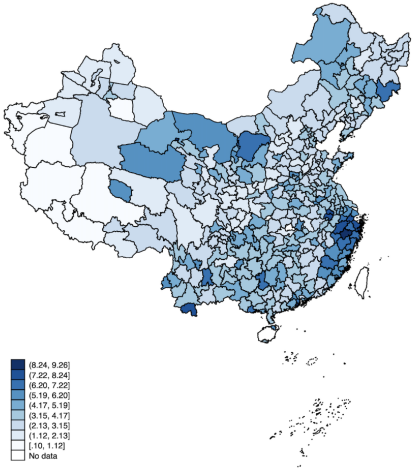
Table 1: Summary Statistics for Crime Measures

Variables: Crime Rates	Region	2011-2013	2014-2016	2017-2018	All Year
Number of total criminal cases per thou. workers	East	0.081	0.713	0.774	0.492
		(0.183)	(0.338)	(0.282)	(0.420)
	Middle	0.039	0.586	0.773	0.428
		(0.093)	(0.221)	(0.255)	(0.366)
	West	0.046	0.598	0.304	0.418
		(0.111)	(0.304)	(0.343)	(0.391)
Number of criminal cases related to public security and the safety of individuals and property per thou. workers	East	0.064	0.532	0.572	0.366
		(0.148)	(0.260)	(0.210)	(0.316)
	Middle	0.030	0.442	0.583	0.323
		(0.073)	(0.170)	(0.198)	(0.278)
	West	0.032	0.436	0.516	0.304
		(0.073)	(0.226)	(0.261)	(0.289)
Number of criminal cases related to drugs, prostitution and gambling per thou. workers	East	0.009	0.111	0.094	0.069
		(0.026)	(0.112)	(0.074)	(0.092)
	Middle	0.004	0.069	0.080	0.047
		(0.013)	(0.058)	(0.061)	(0.058)
	West	0.007	0.097	0.100	0.064
		(0.023)	(0.095)	(0.094)	(0.088)
Number of criminal cases related to disrupting the order of the socialist market economy per thous. workers	East	0.004	0.029	0.027	0.019
		(0.008)	(0.015)	(0.015)	(0.017)
	Middle	0.002	0.027	0.027	0.018
		(0.006)	(0.016)	(0.012)	(0.017)
	West	0.002	0.019	0.019	0.012
		(0.004)	(0.010)	(0.011)	(0.012)

- 犯罪率在逐年增高。不论是分地区还是分类型。
- 绝对量上来看，东部犯罪率最高，其次是中部，最后为西部。
- 相对量上来看，中部犯罪率的增长速度最快。
- 从地图上可以直观的看出空间差异，长江三角洲、东南沿海地区以及内蒙古和青海的少数西部城市犯罪率较高

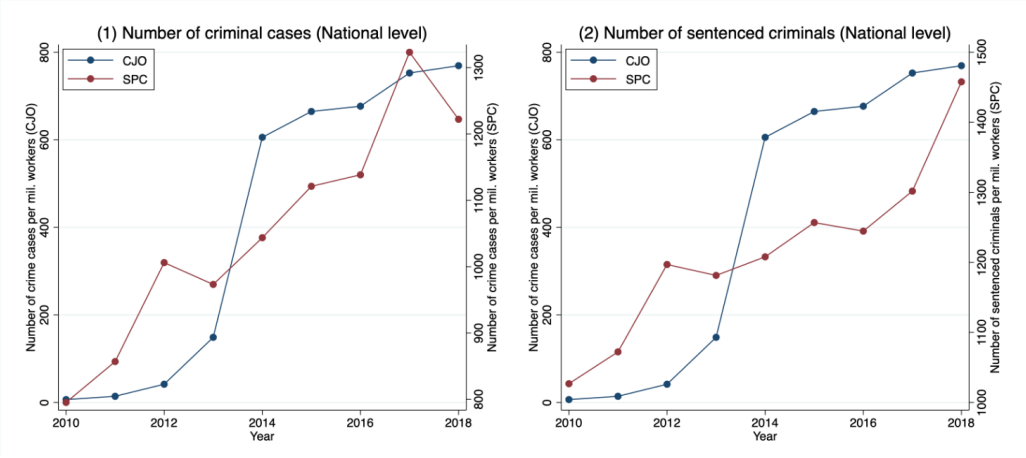
Spatial Variations

Figure 1: Geographic Distribution of Court Recorded Crime



Data Representativeness

Figure 2: Compare crime recorded on CJO versus SPC



Measuring Export Slowdown

$$ExpShock_{ct} = \frac{Export_{ct} - Export_{ct-1}}{L_{c,2010}}$$

- 其中 $ExpShock_{ct}$ 为公司 f 在城市 c 和年份 t 生产的产品 k 的总出口值（以 1000 美元为单位）；L_{c2010} 为表示 c 市 2010 年的劳动年龄人口，根据 2010 年中国人口普查数据。
- 为避免中美贸易战和疫情等因素的混杂因素，我们的实证分析分析重点是截至 2018 年的时期。

Summary Statistics for All Variables Used in Regressions

Table A.2: Summary Statistics for All Variables Used in Regressions

	Obs	Mean	Std	Min	Max
Panel A: Baseline Variables					
Number of total criminal cases per thou. workers	2608	0.444	0.393	0.000	2.330
Number of public-security cases per thou. workers	2608	0.010	0.018	0.000	0.372
Number of traffic cases per thou. workers	2608	0.114	0.130	0.000	1.027
Number of violence cases per thou. workers	2608	0.079	0.068	0.000	0.430
Number of robbery cases per thou. workers	2608	0.010	0.011	0.000	0.088
Number of stealing cases per thou. workers	2608	0.091	0.091	0.000	0.608
Number of defraudation cases per thou. workers	2608	0.023	0.026	0.000	0.236
Number of extortion cases per thou. workers	2608	0.002	0.002	0.000	0.016
Number of drug cases per thou. workers	2608	0.048	0.071	0.000	0.733
Number of yellow cases per thou. workers	2608	0.003	0.005	0.000	0.052
Number of gambling cases per thou. workers	2608	0.010	0.016	0.000	0.162
Number of fake-product cases per thou. workers	2608	0.003	0.006	0.000	0.081
Number of IP cases per thou. workers	2608	0.001	0.002	0.000	0.033
Number of finance cases per thou. workers	2608	0.003	0.005	0.000	0.089
Number of bribery cases per thou. workers	2608	0.009	0.009	0.000	0.078
Export Shock (1000 USD per worker)	2608	0.054	0.459	-6.117	3.374
Export Shock, Bartik IV (1000 USD per worker)	2608	0.192	1.134	-7.009	11.192
Log GDP per capita	2232	0.082	0.081	-0.527	0.593
Log Population	2232	0.004	0.037	-0.433	0.840
Log FDI	2232	0.010	0.859	-7.093	8.419
College-enrolled share of population	2232	0.0004	0.003	-0.031	0.035

Summary Statistics for All Variables Used in Regressions

Panel B: Economic Outcomes					
Log employment	2320	12.838	0.852	10.487	16.105
Log Manufacturing employment	2320	11.221	1.283	4.220	14.766
Log Service employment	2320	12.151	0.810	8.363	15.734
Log migrant-in	1577	9.295	1.358	6.908	14.327
migrant-in / 100×workers	1630	1.022	1.666	0.000	17.236
Log migrant-out	1616	10.046	1.053	6.908	12.618
migrant-out / 100×workers	1616	1.343	0.974	0.083	6.466
Job creation	1196	0.047	0.036	0.001	0.231
Job destruction	1224	0.074	0.048	0.004	0.331
Log Average wage	2320	10.828	0.299	9.753	12.678
Log Urban disposable income per capita	2264	10.174	0.282	9.366	11.128
Log Manufacturing wage	1600	3.787	0.407	2.391	7.172
Log Service wage	1600	4.114	0.531	2.030	7.217
Number of total labor disputes per thou. workers	2608	0.102	0.143	0.000	1.565
Number of wage-arrears-related disputes per thou. workers	2608	0.039	0.067	0.000	0.900
Number of layoffs-related disputes per thou. workers	2608	0.011	0.019	0.000	0.304
Number of labor service disputes per thou. workers	2608	0.023	0.044	0.000	0.787
Manufacturing employment / Worker	2320	0.240	0.137	0.002	0.813
Service employment / Worker	2320	0.523	0.137	0.078	0.969
Log Industrial output / Worker	1723	13.118	0.726	9.229	15.138
Log Secondary GDP	2304	24.965	0.989	20.713	27.627
Log Tertiary GDP	2304	24.793	1.038	22.068	28.529
Log Number of new firms (measure 1)	2261	9.307	1.036	4.977	12.783
Log Number of new manufacturing firms (measure 1)	2261	6.521	1.260	2.565	10.220
Log Number of new service firms (measure 1)	2261	9.073	1.072	4.564	12.696
Log Number of new firms (measure 2)	2261	9.374	1.032	5.004	12.875
Log Number of new manufacturing firms (measure 2)	2261	6.608	1.255	2.708	10.273
Log Number of new service firms (measure 2)	2261	9.143	1.064	4.605	12.786
Log Fiscal revenue	2030	23.183	1.048	20.223	27.290
Log Fiscal expenditure	2030	24.077	0.730	21.397	27.451
Fiscal expenditure on stability measures (in 10000RMB) / Worker	1268	0.860	0.551	0.278	7.838
Fiscal expenditure on public security (in 10000RMB) / Worker	1743	0.067	0.047	0.016	0.697
Fiscal expenditure on social spending (in 10000RMB) / Worker	1296	0.797	0.503	0.255	7.141

Manufacturing Export Growth of China

Figure 3: Manufacturing Export Growth of China

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Baseline Specifications

$$\left(\frac{Crime}{L}\right)_{ct} = \beta_1 ExpShock_{ct} + \beta_2 X_{ct} + \gamma_t + \gamma_c + \epsilon_{ct}$$

- 被解释变量是每千名劳动适龄人口的犯罪案件数量
- 解释变量是 t 年 c 市工人人均出口额的变化
- 控制变量包括人均 GDP、外国直接投资（以下称为 FDI）、人口以及最终受过大学教育的人口比例的变化

Instrument Variable

$$ExpShock_{ct}^{ROW} = \Sigma_k \frac{X_{ck,2010}}{\Sigma_c X_{ck,2010}} \frac{\Delta X_{kt}^{ROW}}{L_{c,2010}}$$

- 利用移动份额法构造出工具变量，来解决其中的反向因果以及遗漏变量偏差可能造成的内生性问题。
- 使用世界其他地区（不包括中国）的出口产品水平变化作为 IV，并按每个城市的初始出口份额进行加权。
- 相关性：外国出口产品的变化也会影响本国的出口变化，满足相关性要求。
- 排他性：以年份和城市固定效应为条件，误差项中结果变量的其他未观察到的时变城市特定决定因素与以下因素不相关：(1) 产品特定在国家层面观察到的外国需求冲击以及（2）最初的城市产品特定出口结构。

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Baseline Results

Table 2: Baseline Results

Dep. Var.:	Criminal cases per thousand$_{ct}$						
	(1) OLS	(2) IV	(3) IV	(4) IV	(5) OLS-RF	(6) OLS-RF	(7) OLS-RF
ExpShock$_{ct}$	-0.022**	-0.110***	-0.106***	-0.052**			
	(0.011)	(0.027)	(0.027)	(0.022)			
ExpShock$_{ct}^{ROW}$					-0.019***	-0.018***	-0.010**
					(0.004)	(0.004)	(0.004)
$\triangle$Log GDPpc$_{ct}$			0.147**	0.163*		0.137*	0.149*
			(0.074)	(0.086)		(0.072)	(0.084)
$\triangle$Log Population$_{ct}$			0.016	-0.060		-0.000	-0.064
			(0.155)	(0.126)		(0.140)	(0.126)
$\triangle$Log FDI$_{ct}$			0.001	0.004		0.001	0.004
			(0.003)	(0.003)		(0.003)	(0.003)
$\triangle$College share$_{ct}$			-0.734	-0.784		-0.373	-0.777
			(1.103)	(1.295)		(1.138)	(1.280)
City FE	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	N	Y	Y	N
Prov-year FE	N	N	N	Y	N	N	Y
First-stage F-stat	-	34.13	30.80	27.99	-	-	-
Observations	2,608	2,608	2,232	2,184	2,608	2,232	2,184
R-squared	0.841	-	-	-	0.843	0.854	0.921

Heterogeneity Analysis 关于城市特征的异质性分析

Table 3: Heterogeneous Effects of Export Slowdown: Initial City Characteristics

Dep. Var.:	Criminal cases per thousand$_{ct}$										
	Young share		Migration share		Mfg. employment share		By regions			Initial crime level	
	High	Low	High	Low	High	Low	East	Middle	West	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
ExpShock$_{ct}$	-0.123***	-0.083	-0.070***	-0.045	-0.101***	-0.055	-0.067***	-0.500***	-0.053	-0.090***	-0.048***
	(0.027)	(0.056)	(0.025)	(0.074)	(0.029)	(0.067)	(0.025)	(0.187)	(0.057)	(0.025)	(0.018)
City FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
First-stage F-stat	22.60	10.62	22.45	15.04	25	15.72	30.27	19.63	3.49	21.35	14.57
Observations	1,304	1,304	1,304	1,304	1,160	1,160	816	832	960	1,304	1,304

Heterogeneity Analysis 关于犯罪类型的异质性分析

Table 4: Heterogeneous Effects of Export Slowdown by Type of Crime

Dep. Var.:	Criminal cases per thousand$_{ct}$						
	(1) IV	(2) IV	(3) IV	(4) IV	(5) IV	(6) IV	(7) IV
Type of crime	Public security	Felony traffic offense	Violence	Robbery	Stealing	Defraudation	Extortion
ExpShock$_{ct}$	0.001	-0.026**	-0.008*	-0.002**	-0.021***	-0.004**	-0.000
	(0.001)	(0.011)	(0.004)	(0.001)	(0.008)	(0.002)	(0.000)
City FE	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y
First-stage F-stat	34.13	34.13	34.13	34.13	34.13	34.13	34.13
Observations	2,608	2,608	2,608	2,608	2,608	2,608	2,608
	(8) IV	(9) IV	(10) IV	(11) IV	(12) IV	(13) IV	(14) IV
Type of crime	Drugs	Prostitution	Gambling	Counterfeiting	IP	Finance	Bribery
ExpShock$_{ct}$	-0.037***	-0.002***	-0.006***	-0.002***	-0.001**	-0.000	0.001
	(0.011)	(0.001)	(0.002)	(0.001)	(0.001)	(0.000)	(0.001)
City FE	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y
First-stage F-stat	34.13	34.13	34.13	34.13	34.13	34.13	34.13
Observations	2,608	2,608	2,608	2,608	2,608	2,608	2,608

Heterogeneity Analysis

- 总体而言，出口放缓对专门从事制造业生产、年轻人或流动人口比例较大或初始犯罪率较高的城市的犯罪产生了更不利的影响。
- 出口下降后劳动力市场条件减弱，会降低这些经济弱势人群犯罪的机会成本。
- 会更多地从事与暴力、交通重罪、毒品、卖淫、赌博有关的犯罪活动，或涉及抢劫、偷窃、诈骗、伪造和侵犯知识产权等侵占资源的活动。

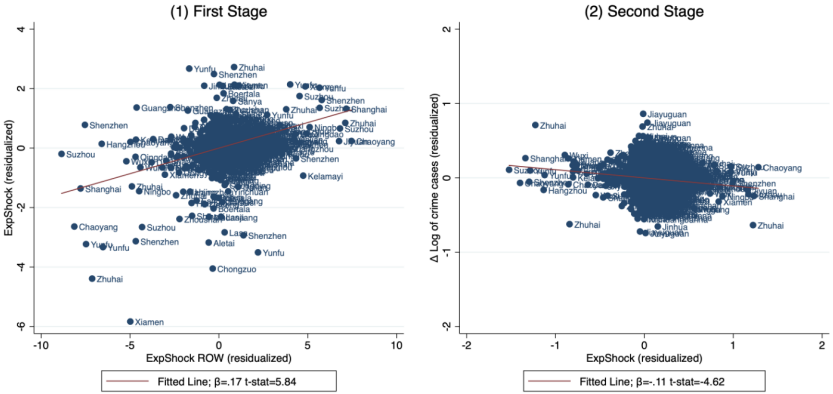
样本区间调整和异常值剔除

Table A.5: Robustness: Basic Checks

Dep. Var.:	Criminal cases per thousand$_{ct}$		
	(1) 2014-2018 sample	(2) Region-year FE	(3) Drop one prov. at a time
ExpShock$_{ct}$	-0.082***	-0.080***	
	(0.026)	(0.024)	
Min ExpShock$_{ct}$ coef.			-0.094***
			(0.025)
Max ExpShock$_{ct}$ coef.			-0.125***
			(0.029)
City FE	Y	Y	Y
Year FE	Y	N	Y
Region-year FE	N	Y	N
First-stage F-stat	23.75	33.82	-
Observations	1,630	2,608	-

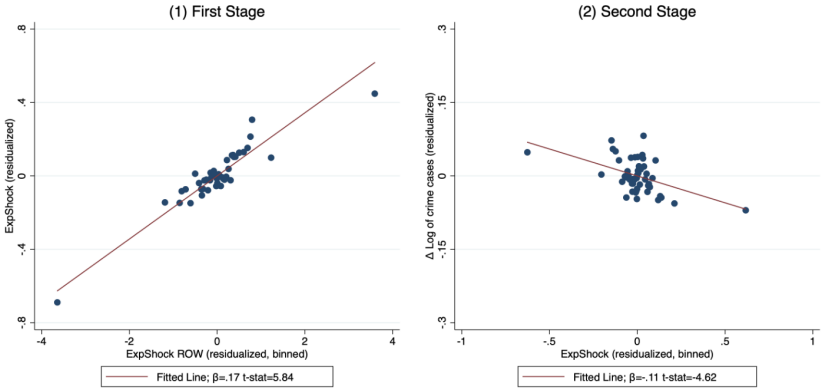
Residual Scatterplot: City Export Shocks and Crime

Figure A.2: Residual Scatterplot: City Export Shocks and Crime



Binned Residual Scatterplots: City Export Shocks and Crime

Figure A.3: Binned Residual Scatterplots: City Export Shocks and Crime



Other City-level Shocks

- 源自世界其他地区的需求冲击可能与中国城市的内部冲击相关。
- 我们考虑三种可能的内部冲击，分别与国内需求、国内供给和进口需求有关。

$$AbsorptionShock_{ct} = \Sigma_j \frac{L_{cj,2010}}{\sum_c L_{cj,2010}} \frac{\Delta Absorption_{jt}}{L_{c,2010}}$$

$$OutputShock_{ct} = \Sigma_j \frac{L_{cj,2010}}{\sum_c L_{cj,2010}} \frac{\Delta OutputShock_{jt}}{L_{c,2010}}$$

$$ImpShock_{ct} = \Sigma_j \frac{L_{cj,2010}}{\sum_c L_{cj,2010}} \frac{\Delta ImpShock_{jt}}{L_{c,2010}}$$

Robustness: Control for Other City-Level Shocks 以及 Spatial correlation

Table A.6: Robustness: Control for Other City-Level Shocks

Dep. Var.:	Criminal cases per thousand$_{ct}$				
	(1) Domestic absorption shocks	(2) Domestic output shocks	(3) Domestic absorption & output shocks	(4) Domestic import shocks	(5) Spatial correlation
ExpShock$_{ct}$	-0.125***	-0.124***	-0.118***	-0.131***	-0.070***
	(0.035)	(0.035)	(0.034)	(0.036)	(0.024)
AbsorptionShock$_{ct}$	-0.002**		0.033***		
	(0.001)		(0.011)		
OutputShock$_{ct}$		-0.002**	-0.036***		
		(0.001)	(0.012)		
ImportShock$_{ct}$				-0.011	
				(0.017)	
Neighboring ExpShock$_{ct}$					-0.165***
					(0.046)
City FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
First-stage F-stat	27.96	27.89	27.01	27.41	29.20
Observations	1,950	1,950	1,950	1,950	2,264

The Exogeneity of the shifts:

Table A.7: Robustness: Balance Test of Product-level Shocks

	(1) Coef.	(2) SE
Predetermined City Characteristics:		
Share of college educated (%)	0.364	(0.348)
Manufacturing employment share (%)	-0.039	(0.038)
Export to GDP ratio (%)	-0.078	(0.099)
Share of population without Hukou (%)	-0.047	(0.036)
Log GDP per capita	-0.016	(0.011)
Log fiscal expenditure per capita	-0.004	(0.003)
Criminal cases per thousand in 2010	-0.001	(0.001)
Joint significance test: χ^2=0.70, p-value=0.6732		

The Exogeneity of the shares:

Table A.8: Robustness: Rotemberg Weights

HS 6-digit	Product description	Weight
847130	Panel computer, other portable automatic data processing machines	0.043
851712	Walkie-talkie, cordless phone (including car cordless phones), and other telephones for cellular networks or for other wireless networks	0.026
851770	Parts of digital program-controlled telephonic or telegraphic switching apparatus, parts of optical line terminal equipments and pulse code modulation equipments, parts of wireless telephones hand-sets, parts of walkie-talkie and Laser transmitting and receiving unit of optical communication equipment	0.026
901380	Hand magnifying glasses, “Door eyes” and other liquid crystal display panel	0.020
852872	Color digital (analogue) television receivers, (of plasma)	0.013
	Top five Rotemberg weights as a share of positive weight:	12.2%

The Exogeneity of the shares:

Table A.8: Robustness: Rotemberg Weights

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852872	Color digital (analogue) television receivers, (of plasma)	0.013
	Top five Rotemberg weights as a share of positive weight:	12.2%

The Exogeneity of the shares:

Table A.9: Classification for HS Sections

HS section	Range of HS 2-digit
Animal & Animal Products	01 - 05
Vegetable Products	06 - 14
Foodstuffs	15 - 24
Mineral Products	25 - 27
Chemicals & Allied Industries	28 - 38
Plastics & Rubbers	39 - 40
Raw Hides, Skins, Leather & Furs	41 - 43
Wood & Wood Products	44 - 49
Textile	50 - 63
Footwear & Headgear	64 - 67
Stone & Glass	68 - 71
Metals	72 - 83
Machinery & Electrical	84 - 85 and 90 - 92
Transportation	86 - 89
Miscellaneous	93 - 99

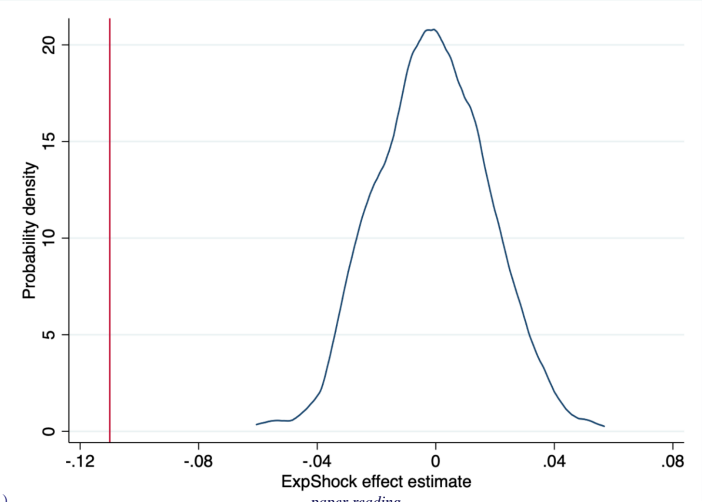
Incomplete shares:

Table A.11: Robustness: Controlling for Time Varying Effects of the "Incomplete Share"

Dep. Var.:	Criminal cases per thousand$_{ct}$	
	(1)	(2)
	Controlling for initial export exposure × year FEs	Controlling for terciles of initial export exposure × year FEs
	Panel A: IV Specification	
ExpShock$_{ct}$	-0.093**	-0.103***
	(0.038)	(0.033)
First-stage F-stat	26.52	25.95
Observations	2,608	2,608
	Panel B: Reduced-form Specification	
ExpShock$_{ct}$	-0.016***	-0.017***
	(0.006)	(0.005)
R-squared	0.847	0.848
Observations	2,608	2,608
City FE	Y	Y
Year FE	Y	Y

Falsification Test

Figure A.4: Distribution of Estimated Coefficients in the Falsification Test



Pre-trend test:

Table A.10: Robustness: The exogeneity of the shares

Dep. Var.:	Criminal cases per thousand$_{ct}$		
	(1)	(2)	(3)
	Drop one HS at a time	Pre-trend test	Destination-specific demand shocks
Min ExpShock$_{ct}$ coef.	-0.081**		
	(0.034)		
Max ExpShock$_{ct}$ coef.	-0.118***		
	(0.030)		
ExpShock$_{ct+2}$		0.021	
		(0.019)	
ExpShock$_{ct}$			-0.115***
			(0.035)
City FE	Y	Y	Y
Year FE	Y	Y	Y
First-stage F-stat	-	19.20	43.17
Observations	-	2,282	2,608

Robustness: Alternative Statistical Inference

Table A.12: Robustness: Alternative Statistical Inference

Dep. Var.:	Criminal cases per thousand$_{ct}$				
	(1) Province level	(2) Export similarity	(3) Export similarity: outside prov.	(4) Two-way: Prov. + Export similarity	(5) Two-way: Prov. + Export similarity outside prov.
ExpShock$_{ct}$	-0.110***	-0.110***	-0.110***	-0.110***	-0.110***
	(0.029)	(0.030)	(0.024)	(0.029)	(0.025)
City FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
First-stage F-stat	61.01	34.43	21.52	43.40	39.47
Observations	2,608	2,608	2,608	2,608	2,608

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Mechanism: Export Shocks and Employment

Table 5: Mechanism: Export Shocks and Employment

Dep. Var.:	Labor market condition measures$_{ct}$							
	(1) Log Mfg. empl.	(2) Log Svc. empl.	(3) Log Migrant-in	(4) Migrant-in / 1k-workers	(5) Log Migrant-out	(6) Migrant-out / 1k workers	(7) Job creation	(8) Job destruction
ExpShock$_{ct}$	0.100***	-0.018	0.289***	0.369*	-0.238**	-0.238***	0.008	-0.010*
	(0.038)	(0.012)	(0.107)	(0.212)	(0.095)	(0.086)	(0.006)	(0.006)
City FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
First-stage F-stat	31.43	31.43	23.09	23.45	23.55	23.55	9.16	10.29
Observations	2,320	2,320	1,577	1,630	1,616	1,616	1,191	1,220

Mechanism: Export Shocks and Labor Income

Table 6: Mechanism: Export Shocks and Labor Income

Dep. Var.:	Labor market condition measures$_{ct}$			
	(1) Log Urban disposable income per capita	(2) Log Average wage	(3) Log Manufacturing wage	(4) Log Service wage
ExpShock$_{ct}$	0.017***	0.0004	0.103**	0.081
	(0.005)	(0.010)	(0.046)	(0.062)
City FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
First-stage F-stat	31.30	31.43	23.37	23.37
Observations	2,264	2,320	1,600	1,600

Mechanism: Export Shocks and Labor Disputes

Table 7: Mechanism: Export Shocks and Labor Disputes

Dep. Var.:	Labor disputes per thousand$_{ct}$			
	(1) Total labor disputes	(2) Wage-arrears related disputes	(3) Layoffs-related disputes	(4) Labor service disputes
ExpShock$_{ct}$	-0.056***	-0.030***	-0.007**	-0.008**
	(0.018)	(0.010)	(0.003)	(0.004)
City FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
First-stage F-stat	34.13	34.13	34.13	34.13
Observations	2,608	2,608	2,608	2,608

Mechanism: Export Shocks and Other Economic Outcomes

Table 8: Mechanism: Export Shocks and Other Economic Outcomes

Dep. Var.:	Economic outcome$_{ct}$				
	(1) Mfg. empl. / worker	(2) Svc. empl. / worker	(3) Log Ind. output per worker	(4) Log Sec. GDP	(5) Log Ter. GDP
ExpShock$_{ct}$	0.013**	-0.015***	0.119*	0.052**	-0.002
	(0.006)	(0.006)	(0.062)	(0.026)	(0.008)
First-stage F-stat	31.43	31.43	24.96	31.44	31.44
Observations	2,320	2,320	1,722	2,304	2,304

	(6) Log # of new firms1	(7) Log # of new Mfg. firms1	(8) Log # of new Svc. firms1	(9) Log # of new firms2	(10) Log # of new Mfg. firms2	(11) Log # of new Svc. firms2
ExpShock$_{ct}$	0.122***	0.232***	0.112***	0.121***	0.222***	0.111***
	(0.037)	(0.061)	(0.038)	(0.038)	(0.062)	(0.039)
First-stage F-stat	32.18	32.18	32.18	32.18	32.18	32.18
Observations	2,261	2,261	2,261	2,261	2,261	2,261
City FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y

排除竞争性的机制

Table 9: Stability Maintenance Expenditure

Dep. Var.:	Log fiscal measures$_{ct+1}$				
	(1) Total Fiscal Revenue	(2) Total Fiscal Expenditure	(3) Public Security	(4) Social Spending	(5) Stability Spending
ExpShock$_{ct}$	0.001	-0.019	-0.014	-0.037**	-0.036**
	(0.035)	(0.019)	(0.021)	(0.017)	(0.016)
City FE	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y
First-stage F-stat	30.36	30.36	27.49	10.93	10.32
Observations	2,030	2,030	1,743	1,295	1,267

- 出口放缓往往会减少一个城市的财政收入，但会增加其支出，尽管两者在统计上都不显著。
- 稳定方面的总支出因出口放缓而增加。
- 考虑到劳动力市场恶化与犯罪率上升之间的联系，这些结果表明，维稳支出的增加是对犯罪率上升的回应，而不是犯罪的原因。

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Conclusion

- 出口放缓对犯罪率产生了巨大影响：一个城市每名工人的出口额每减少 1000 美元，预计每百万劳动适龄人口就会多发 110 起刑事案件。
- 各城市犯罪率四分位间差异的大约 11.6% 可以用其受出口放缓影响的差异来解释。
- 从城市特征上看，更加依赖制造业生产以及年轻人口或流动人口比例较高的城市将更容易受到出口放缓的不利影响。
- 从犯罪类型上看，出口放缓对与资源侵占相关的犯罪行为影响更为明显，例如抢劫、盗窃、诈骗、假冒、侵犯商标或知识产权（以下简称 IP）以及涉及暴力的犯罪活动，毒品、卖淫和赌博。

Conclusion

- 机制分析方面，每个工人的出口减少 1,000 美元将导致制造业就业人数下降 10.5%，平均工资下降 10.8%。随着出口放缓导致劳动力市场状况恶化，雇员和雇主之间的冲突可能会加剧，实证研究提供了在更多遭受冲击的城市中存在大量劳资纠纷的证据。
- 作为替代渠道，出口疲软导致政府在公共安全或监控设备上的支出减少，进而诱发犯罪活动。然而，我们的估计不存在支持证据表明这种机制成立。我们认为维稳支出的增加是对犯罪率上升的反应，而不是犯罪率上升的原因。
- 模型提供了一个视角，可以用来检验贸易冲击对工人职业选择的影响以及随后的社会经济后果。
- 在许多人倡导去全球化的今天，我们应该积极拥抱全球化，政策制定者应该把减轻出口停滞带来的破坏性影响作为政策的核心。

Thanks for listening

感谢批评指正