

Globalization and Factor Income Taxation

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Introduction: Globalization and tax systems

- ▶ Long-standing recognition that globalization can fundamentally impact and alter tax systems
 - ▶ Smith (1776), Bates and Lien (1985), Rodrik (1997, 1998)
- ▶ Current policy focus on cross-border mobility
 - ▶ Culminated in recently enacted 'global minimum corporate tax'
- ▶ But consequences of globalization for taxation are admittedly multi-faceted and complex
 - ▶ Economic changes
 - ▶ Budget pressures
 - ▶ Inequality and social insurance

This paper: How has globalization affected the relative taxation of labor and capital?

- ▶ Has cross-border integration eroded the ability to tax capital and shifted the tax burden onto workers?
 - ▶ Has globalization affected factor taxation in other ways?
- ▶ Division of income between capital and labor is intimately related to income inequality
 - ▶ Has taxation curbed or exacerbated the inequality impacts of globalization?
- ▶ Lack of global and homogeneous series of effective factor taxation
 - ▶ Limited credible evidence on mechanisms

Main contributions

- ▶ Construct new global database of effective tax rates on capital (ETR_K) and labor (ETR_L)
 - ▶ Covering > 150 countries and > 50 years (1965-2018)
- ▶ Establish new set of stylized facts
 - ▶ Global trends: ETR_K and ETR_L have converged
 - ▶ Development trends: ETR_K has decreased in high-income countries but has grown in developing countries
- ▶ Through a variety of research designs, we establish a plausibly causal impact of trade in determining these trends
 - ▶ Globalization has nuanced effects on factor taxation

Outline of talk

1. **Data-Sources and Methodology**
2. Trends in Factor Shares and Factor Taxation
3. Trade Impacts on Factor Taxation
4. Conclusion

Methodology: Estimating factor taxation

The effective tax rate on production factor $f = \{L, K\}$, denoted ETR_f , directly relates total tax revenues (T) collected from each factor to the national income of that factor (Y_f):

$$ETR_f = \frac{T_f}{Y_f} = \frac{T_f}{\theta_f Y}$$

- ▶ Y_L = employee compensation and mixed income from labor
- ▶ Y_K = corporate profits, rents, mixed income from capital
- ▶ T_L = $(1 - \alpha)$ *PIT, social security
- ▶ T_K = CIT, α *PIT, wealth and property taxes

ETR_f capture the macro-economic effective taxation of factors, based on realized tax revenues ('backward-looking').

Database construction

We build two new databases, which allow us to measure ETRs for >150 countries since 1965 (or independence / post-conflict)

- ▶ Harmonized national accounts database
 - ▶ compiled from WID and UN SNA (incl. archive)
- ▶ Harmonized tax revenue database
 - ▶ Compiled from OECD, ICTD and archival records

▶ data sources

▶ coverage

Factor shares data: Sources

- ▶ Gollin 2002; Piketty-Zucman 2014; Karabarbounis-Neiman 2015; PWT 2018; Guerriero 2019; Waldenstrom et al 2020
- ▶ Digitization of UN SNA archival records allows us to increase coverage (over time and across space)
- ▶ We note the difficulties in measurement of mixed income and the labor share thereof
- ▶ Complete and balance panel (Blanchet-Chancel, 2016; Blanchet, 2020)

▶ data sources

▶ coverage

Tax revenue data: Importance of historical archives

Table 6.4.—CONSOLIDATED RECEIPTS OF THE BUREAU OF INTERNAL REVENUE AND THE BUREAU OF CUSTOMS: 1950 TO 1968

(In thousand pesos)

Period	Total ^{1/}	Import duties ^{2/}	Excise tax	Business taxes	Income tax and profits tax	Other taxes ^{3/}	Amount appropriated to local government	Other receipts ^{4/}
1950	738,365	354,208	257,805	150,652	163,129	33,716	(66,206)	28,111
1951	827,429	304,468	260,823	170,713	194,309	42,421	(67,382)	31,937
1961	964,268	237,506	275,075	215,925	215,697	39,149	(59,806)	46,111
1962	1,066,370	269,364	286,876	270,707	277,002	39,555	(119,687)	45,015
1963	1,133,426	329,558	312,810	319,719	314,469	53,002	(138,733)	31,611
1963	1,461,313	396,621	354,877	391,811	397,919	61,880	(279,927)	36,437
1964	1,603,106	408,394	362,880	459,813	448,701	60,883	(215,128)	77,043
1965	1,598,175	357,058	334,739	436,263	495,590	70,573	(221,611)	121,966
1966	1,796,688	410,374	384,318	518,915	487,829	79,360	(200,714)	141,096
1967	2,092,313	509,799	401,663	625,862	611,916	87,637	(301,439)	158,016
1968	2,396,899	601,507	463,198	688,753	782,981	96,525	(376,712)	154,117

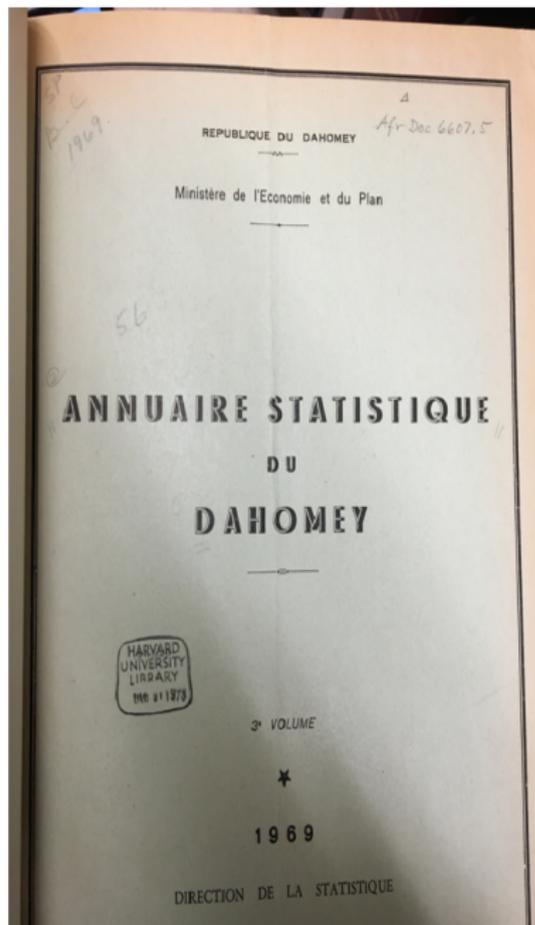
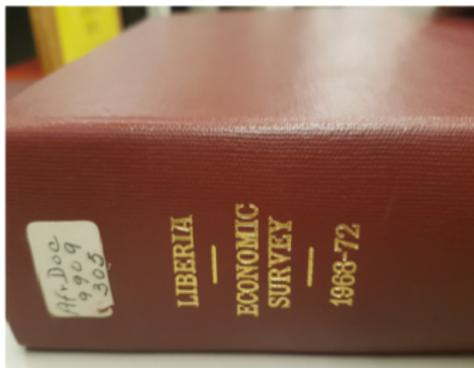
^{1/} Includes refund of prior year's income.

^{2/} Includes fines and forfeitures.

^{3/} Consist of franchise tax; documentary stamp tax; tonnage dues; residence tax; estate, inheritance and gift taxes; revenue from public forest; up to December 31, 1963, of tonnage dues.

^{4/} Consist of incidental revenue and other credits, receipts automatically appropriated and receipts of the special fund, other than excise taxes; and starting from January 1, 1964, of tonnage dues.

Sources: Central Bank of the Philippines; Statistical Bulletin, December 1968, Vol. II, No. 4.



Tax revenue data: Sources

Beyond OECD and ICTD coverage, sources include *inter alia*:

- ▶ Government documents (Harvard libraries)
- ▶ IMF historical data
- ▶ UN SNA
- ▶ RPC

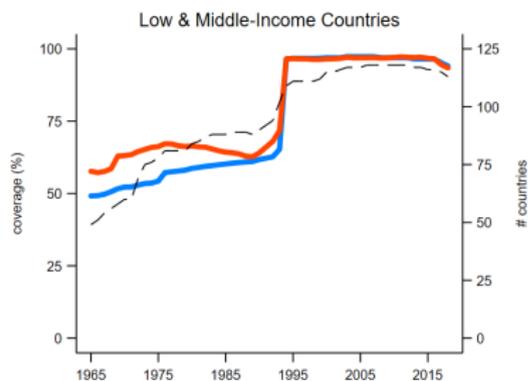
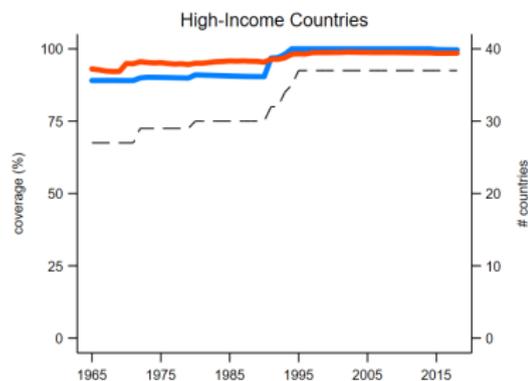
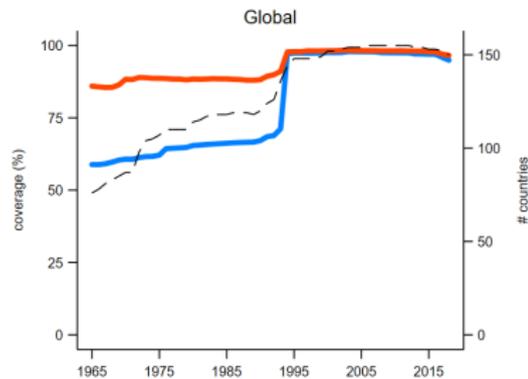
Data separates PIT from CIT and includes social security

Cross-reference with historical scholarly work

Coming soon: Website with full data-sets and 100+ case-studies

▶ data sources

Data Coverage: Effective tax rates



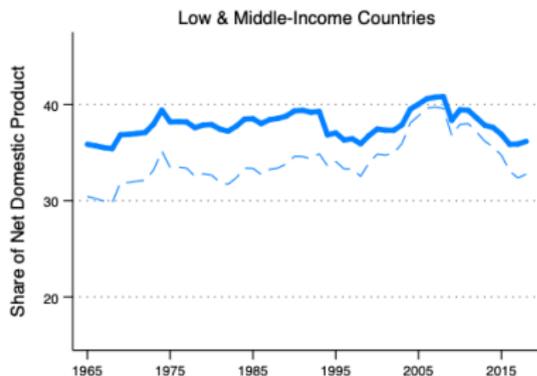
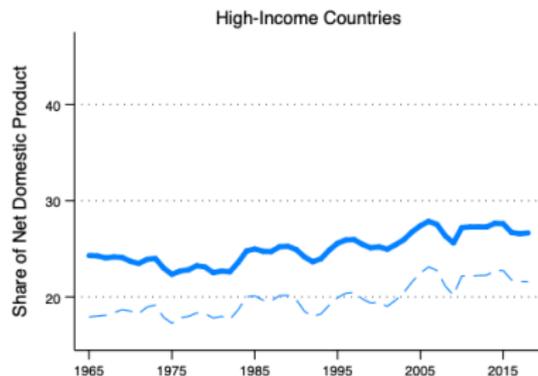
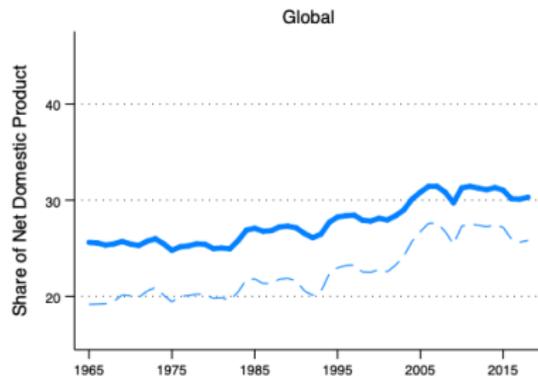
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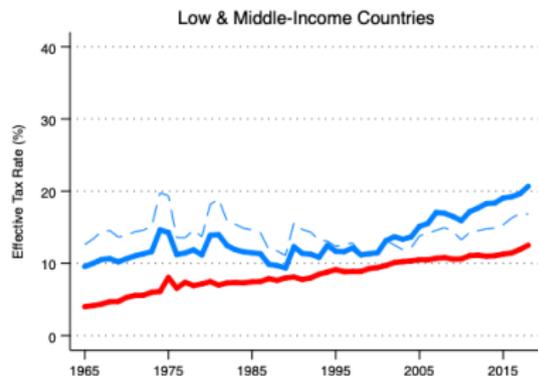
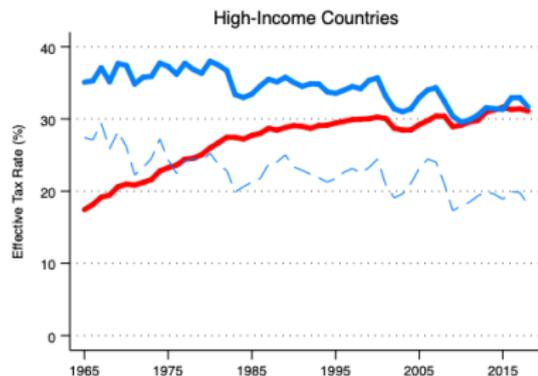
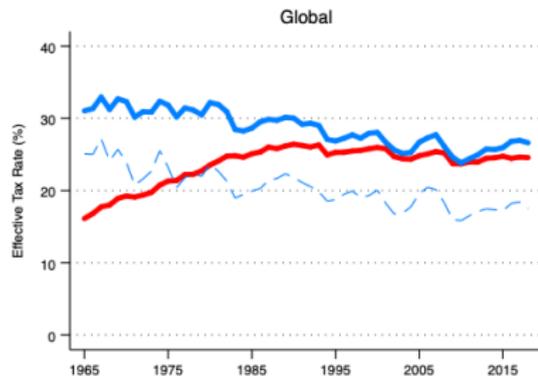
Trends in factor shares and factor taxation

- ▶ Objective: Display time-series representative at global level
- ▶ For example: The global ETR_K equals worldwide capital taxes divided by worldwide capital income
 - ▶ Interpretation: The expected tax burden faced by a unit of capital chosen at random around the world
- ▶ Measurement notes
 - ▶ Two quasi-balanced panels (pre and post-1994)
 - ▶ Trends also reflect countries' changing weight in global economy

Global trend in capital share θ_K , 1965 - 2018



Global trends in ETR_K and ETR_L , 1965 - 2018



Trends: Robustness

- ▶ The increase in ETR_K in developing countries is novel
- ▶ This finding is robust to a number of checks
 - ▶ Sample exclusions (ex-Communist; resource-rich; small population)
 - ▶ Measurement (assignment rules for taxes; mixed income in national income)

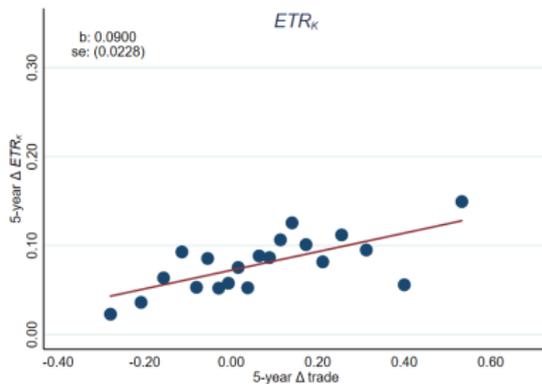
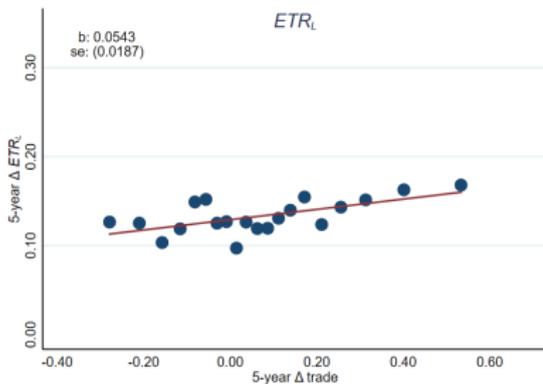
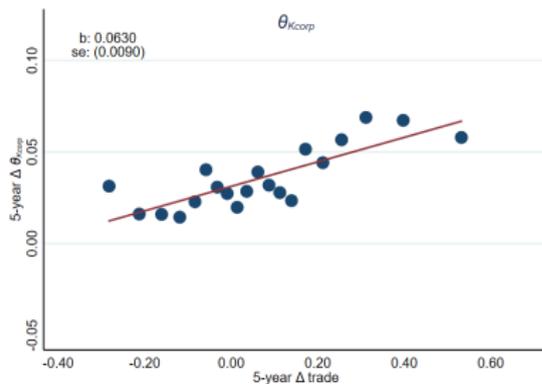
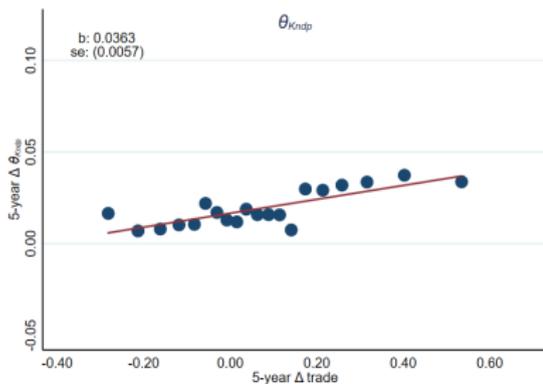
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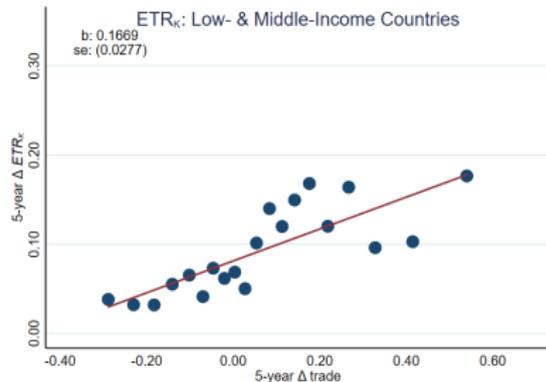
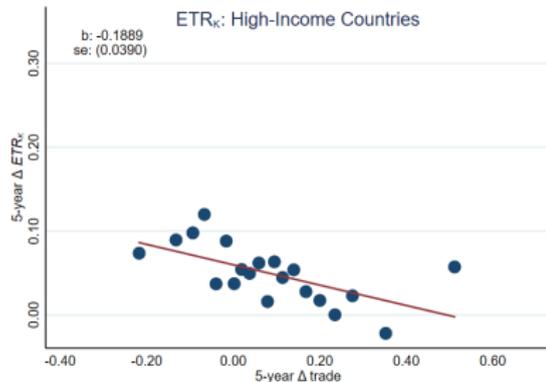
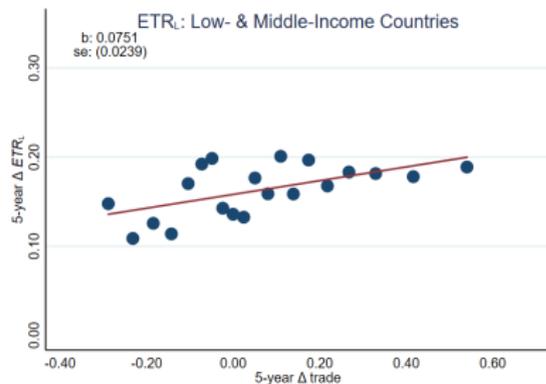
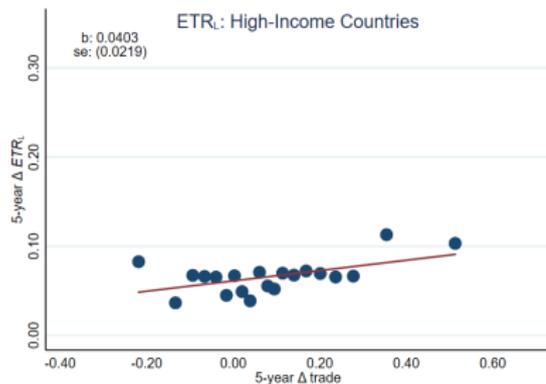
Role of trade openness in determining trends

- ▶ In developed countries, changes in factor taxation are consistent with cross-border mobility
 - ▶ K -mobility also consistent with collapse of CIT rates [▶ Go](#)
- ▶ In developing countries, trends are starkly different [▶ Go](#)
 - ▶ Motivates the systematic analysis of trade openness on factor taxation
- ▶ Implement three distinct empirical strategies
 1. Within-country correlations (binned scatterplot)
 2. Event-studies centered on policy-induced trade liberalization
 3. Instruments for trade (Egger et al., 2019)

1st research design: Panel OLS (binned scatterplots)



Panel OLS: Heterogeneity by development level



2nd research design: Event studies around large tariff liberalization events

- ▶ Focus on *policy-induced* trade liberalization events
- ▶ Events reviewed in Goldberg and Pavcnik (2006, 2016) + China's WTO accession (Brandt et al., 2017).
 - ▶ Colombia (1985); Mexico (1985); Brazil (1988); Argentina (1989); India (1991); Vietnam (2001); China (2001)
- ▶ Events characterized by large reductions in measurable, policy-induced trade barriers (tariff rates):
 - ▶ 59% to 15% in Brazil; 80% to 39% in India; 48% to 20% in China

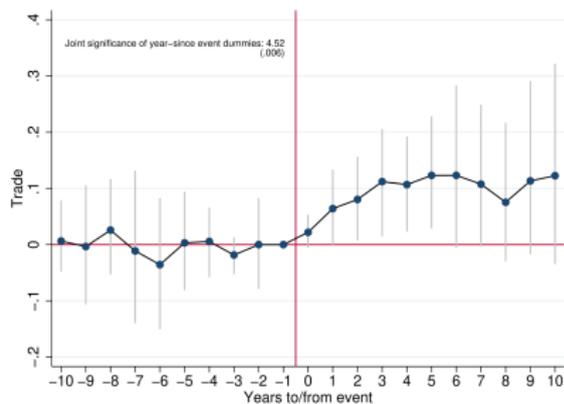
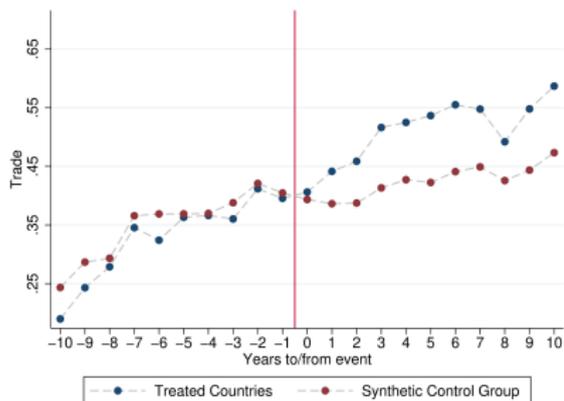
Event studies: Empirical model

- ▶ Construct synthetic control country for each country-event and each outcome (Abadie et al., 2010)
 - ▶ Create event-study graphs in levels
 - ▶ Robustness: Simultaneously match on all outcomes
- ▶ Estimate dynamic regression model

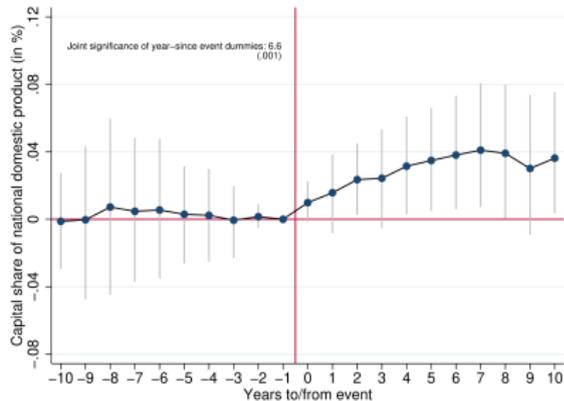
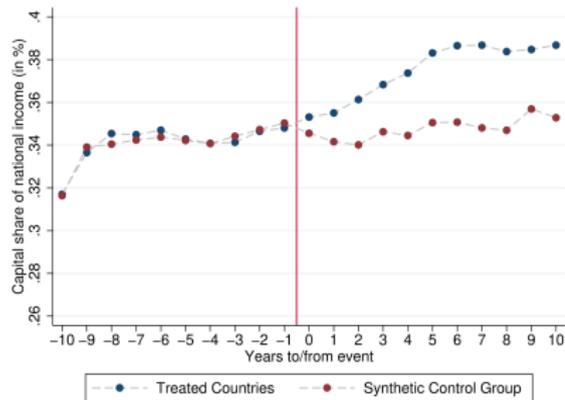
$$Y_{it} = \sum_{j=-10, j \neq -1}^{10} \mu_j * \mathbb{1}(j = t)_t * D_i + \theta_t + \kappa_i + \pi_{Year(it)} + \epsilon_{it}$$

- ▶ Robustness: Calculate DiD effects and report average post-reform coefficients based on imputation methodology (Borusyak, Jaravel, and Spiess, 2021)

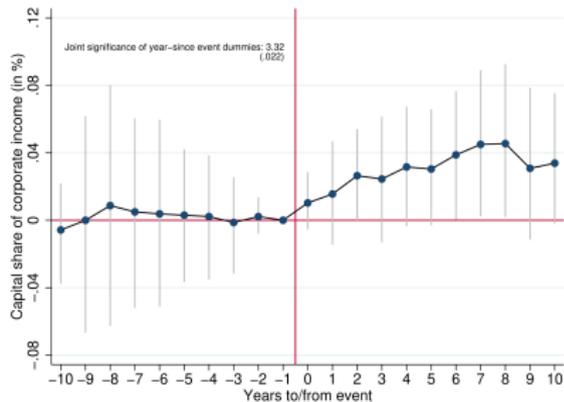
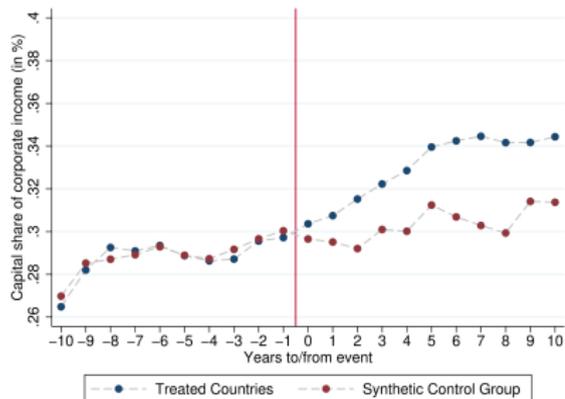
Event study impact on trade openness



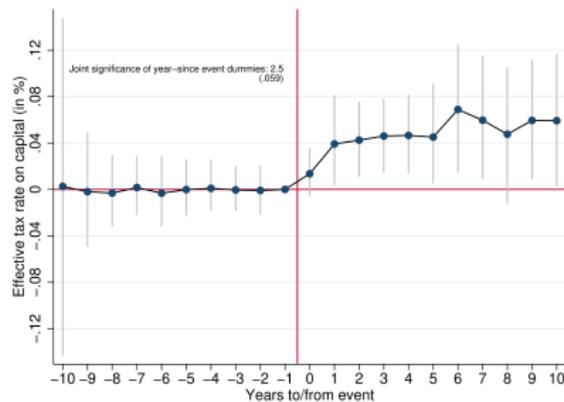
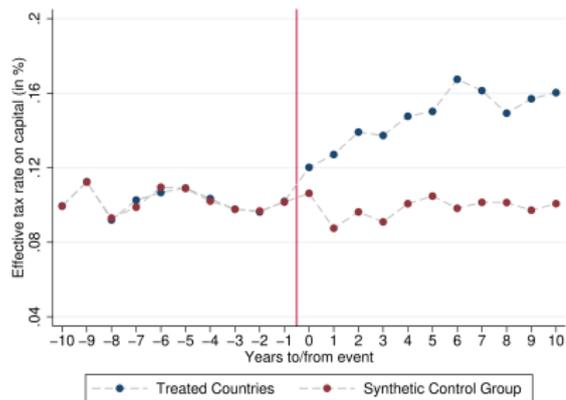
Event study impact on capital share of national income



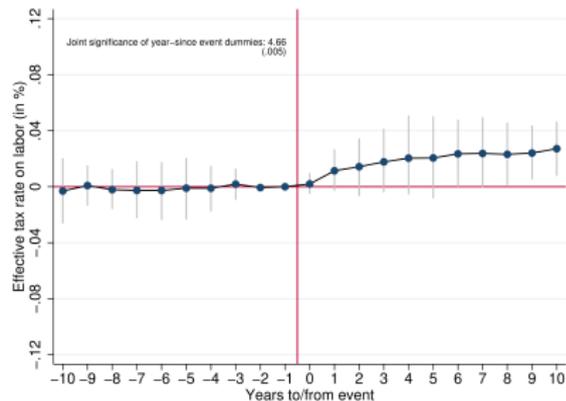
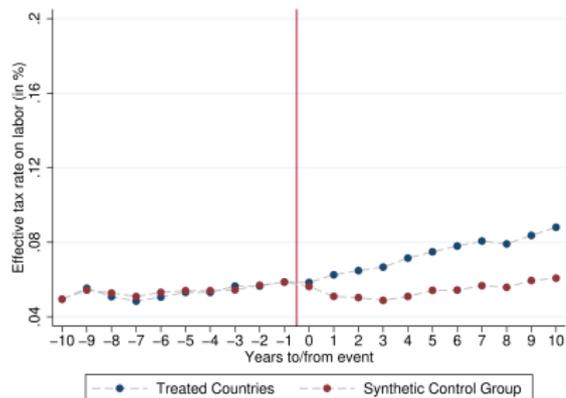
Event study impact on capital share of corporate income



Event study impact on effective taxation of capital



Event study impact on effective taxation of labor



Event studies: Summary and limitations

- ▶ Breaks from stable pre-trends observed in short-run likely reflect direct impact of trade liberalization
- ▶ Narrative analysis: Non-tariff openness reforms were implemented in the medium-run of the post-period
 - ▶ Slow-moving confounders can also impact post-trends
- ▶ *Preferred interpretation*: Compelling graphical evidence of direct impact of trade openness on factor taxation
 - ▶ Caution against interpreting exact magnitudes

3rd research design: Instrumenting for trade

- ▶ Event-studies are based on specific developing countries, and magnitude of impacts are hard to interpret
 - ▶ Motivates more general estimation
- ▶ We estimate OLS and IV versions of the regression model

$$y_{ct} = \mu * trade_{ct} + \Theta * X_{ct} + \beta_c + \pi_t + \epsilon_{ct}$$

- ▶ Use the 2 instruments from Egger et al. (2019)
 1. Instrument I: Quantitative GE model; uses variation in average bilateral trade frictions between country-pairs
 2. Instrument II: Time-series variation in global oil prices interacted with country-specific measure of access to intl markets

▶ Instrument I: Details

▶ Instrument II: Details

▶ Relevance of instruments

IV: Trade impacts on factor share and factor taxation

	Capital Share		Effective Tax Rate	
	overall	corp. sector	on capital	on labor
Panel A: OLS				
Trade	0.0195* (0.0109)	0.0217 (0.0148)	0.0168 (0.0302)	0.0246** (0.0101)
Panel B: IV				
Trade	0.151** (0.0698)	0.184** (0.0800)	0.375* (0.213)	0.163*** (0.0538)
First-stage F-statistic	26.07	26.07	26.07	26.07
Panel C: IV (no weights)				
Trade	0.118* (0.0681)	0.122 (0.0826)	0.250** (0.105)	0.133** (0.0526)
First-stage F-statistic	8.415	8.415	8.415	8.415
Panel D: IV (w controls)				
Trade	0.115** (0.0475)	0.142** (0.0546)	0.400*** (0.112)	0.226*** (0.0551)
First-stage F-statistic	19.02	19.02	19.02	19.02
<i>N</i>	4518	4518	4518	4518

IV results: Summary

- ▶ An increase in trade openness causes both the capital share of national income and ETR_K to increase
 - ▶ Positive but less pronounced effect on ETR_L
 - ▶ Consistent with findings from first two research designs
- ▶ Results are robust to a battery of checks
 - ▶ Weights, trade measure, ETR measures, controls
- ▶ Mechanisms? Stylized setting to fix ideas:

$$ETR_f = \frac{T_f}{Y_f} = \frac{\tau_f * Y_f^{Enforce}}{Y_f} = \tau_f * \theta_f^{Enforce}$$

Mechanism: 'Efficiency' hypothesis (τ_f)

Efficiency hypothesis τ_f : Cross-border integration makes capital relatively more mobile than labor

- ▶ To prevent its flight, government limits τ_K
- ▶ To balance the budget, government increases τ_L

Investigate trade impacts on the corporate income tax (CIT) rate

- ▶ Imperfect proxy for τ_K
- ▶ Sanity check: CIT rate correlates strongly with ETR_K

Mechanism: 'Tax capacity' hypothesis ($\theta_f^{Enforce}$)

Two strands of research motivate 'tax capacity' prediction

- ▶ Trade studies: Openness can cause an increase in firm size and growth of employee workforce
- ▶ PF-Dev studies: Enforcement is successful in larger firms with complex operations and more employees

Tax capacity hypothesis $\theta_f^{Enforce}$: Openness causes changes to firm structure and labor markets which relax tax enforcement constraints

IV: Mechanisms

	OLS	IV		
	(1)	Benchmark (2)	Unweighted (3)	Controls (4)
CIT rate	-0.002 (0.003)	-0.064*** (0.017)	-0.051* (0.028)	-0.061*** (0.017)
Self-employment	-0.0117 (0.0145)	-0.220* (0.126)	-0.185*** (0.0460)	-0.174*** (0.0560)
Corporate profits	0.0339*** (0.0128)	0.175** (0.0767)	0.124*** (0.0321)	0.206*** (0.0726)
Employee compensation	0.00848 (0.0175)	-0.0749 (0.0904)	-0.0964 (0.0669)	0.0485 (0.0785)
Mixed income	-0.0231 (0.0182)	-0.0685 (0.105)	-0.0391 (0.0301)	-0.202** (0.0816)

Mechanisms: Heterogeneity by development level

- ▶ Analysis reveals presence of several, partly countervailing, mechanisms that shape effective tax burdens
- ▶ Are there differences in mechanisms by development level?
 - ▶ E.g. Enforcement constraints vary with development
- ▶ Estimate heterogeneous effects in the IV model:

$$y_{ct} = \mu * trade_{ct} + \kappa * trade_{ct} * \mathbb{1}(HighIncome) + \Theta * X_{ct} + \beta_c + \pi_t + \epsilon_{ct}$$

IV: Heterogeneity by development level

	ETR_K (1)	ETR_L (2)	CIT-rate (3)	K-share (4)	SE-share (5)	Corp-Share (6)
Trade	0.444** (0.181)	0.145 (0.093)	-0.043* (0.024)	0.182** (0.077)	-0.252** (0.107)	0.219*** (0.063)
Trade*1(H-Inc)	-0.441 (0.347)	0.120 (0.194)	-0.032 (0.047)	-0.219 (0.137)	0.232 (0.209)	-0.298 (0.143)
Trade in H-Inc	0.003 (0.231)	0.265** (0.122)	-0.075*** (0.457)	-0.036 (0.083)	-0.021 (0.151)	-0.079 (0.102)
<i>N</i>	4518	4518	3810	4518	4518	4518

Additional evidence on mechanisms

Support for 'efficiency hypothesis' [▶ Go](#)

- ▶ Reductions in CIT rate (and ETR_K) are stronger in
 - ▶ Less populous countries
 - ▶ Countries with less legal K -flow restrictions
 - ▶ The post-1995 era of 'hyper-globalization'
- ▶ Stronger increase in labor taxation in those settings

Support for 'tax capacity' hypothesis [▶ Go](#)

- ▶ Trade impact on *overall* taxation is > 0 in developing countries but $= 0$ in developed countries

Summary across research designs

- ▶ IV analysis reveals existence of several, partly countervailing, mechanisms of globalization
 - ▶ Heterogeneity in mechanisms by development level can help to rationalize observed differences in ETR_K trends
- ▶ Through three distinct research designs, we have thus uncovered a robust pattern
 - ▶ Positive effect on K -taxation in developing countries
 - ▶ Stronger shift to L -taxation in developed countries
- ▶ Quantitative role of trade in developing countries
 - ▶ The long-run increase in trade openness can account for 30.7% of the long-run rise in effective capital taxation

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Conclusion: Nuanced impacts of globalization

- ▶ We assemble a global database to provide novel evidence on trends in factor taxation + study causal effects of globalization
- ▶ Establish two main results
 1. Heterogeneity in long-run factor taxation by development level
 2. Cross-border integration impacts tax systems through several, partly countervailing, mechanisms
- ▶ Globalization has nuanced effects on the scope and relative taxation of capital and labor
 - ▶ In developing countries in particular, trade openness has not led to the erosion of capital taxation

Appendix

Methodology: ETR formulas

$$Y = Y_L + Y_K = CE + OS_{PUE} + OS_{HH} + OS_{CORP} \quad (1)$$

$$T_f = \sum [\lambda_{if} \cdot \tau_i] \quad (2)$$

$$ETR_f = \frac{T_f}{Y_f} \quad (3)$$

where:

- ▶ $Y_L = CE + \alpha OS_{PUE}$
- ▶ $Y_K = (1 - \alpha) OS_{PUE} + OS_{HH} + OS_{CORP}$
- ▶ T_f = factor tax revenue from taxes τ_i with factor incidence λ_{if}
- ▶ ETR_f is the effective tax rate on each factor

Methodology: Tax incidence assignment

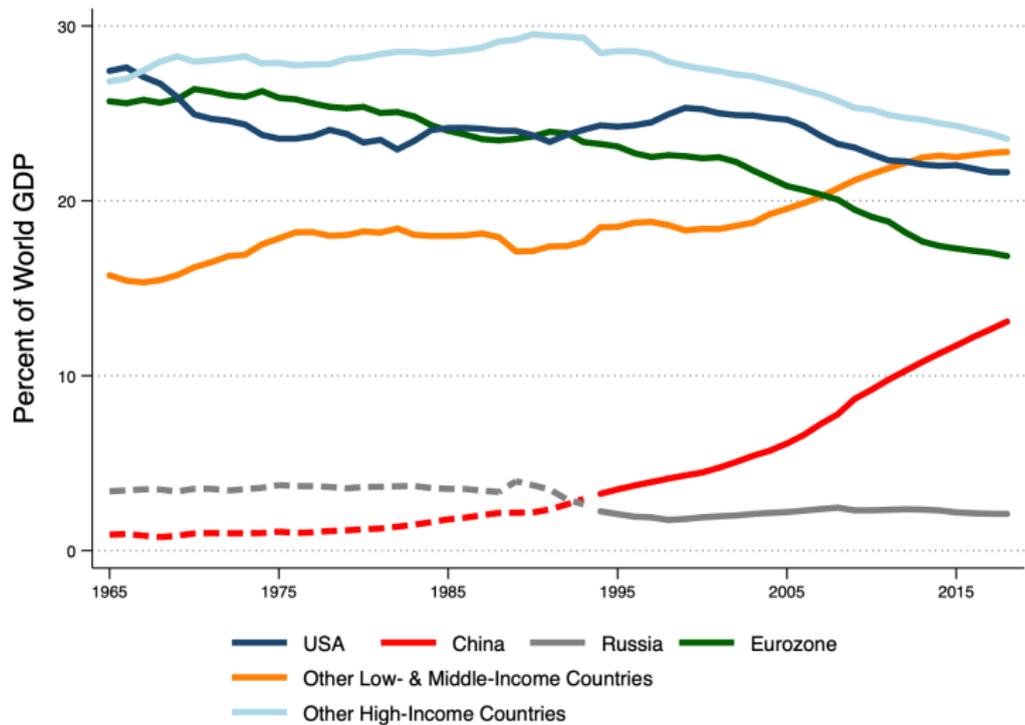
Allocation of Taxes to Factor Incomes, by Type of Tax

Type of tax, τ	Series	Allocation to L , λ_{τ}	Notes
<i>Panel A: Direct Taxes</i>			
Personal income tax (PIT)	1100	$\lambda_{i,t}^{PIT} = f(p, \alpha)$	most PIT attributed to L
Corporate income tax (CIT)	1200	0%	all CIT attributed to K
Other (unallocable) income tax	1300	50% PIT	rare; small magnitude
Social security & payroll taxes	2000	100%	all payroll taxes attributed to L
Property & wealth taxes	4000	0%	all asset taxes attributed to K
<i>Panel B: Indirect Taxes & Other Revenues</i>			
Indirect taxes	5000	—	assumed proportional to θ_L
Other taxes	6000	—	minor; assumed proportional
Non-tax revenues	7000	—	excluded

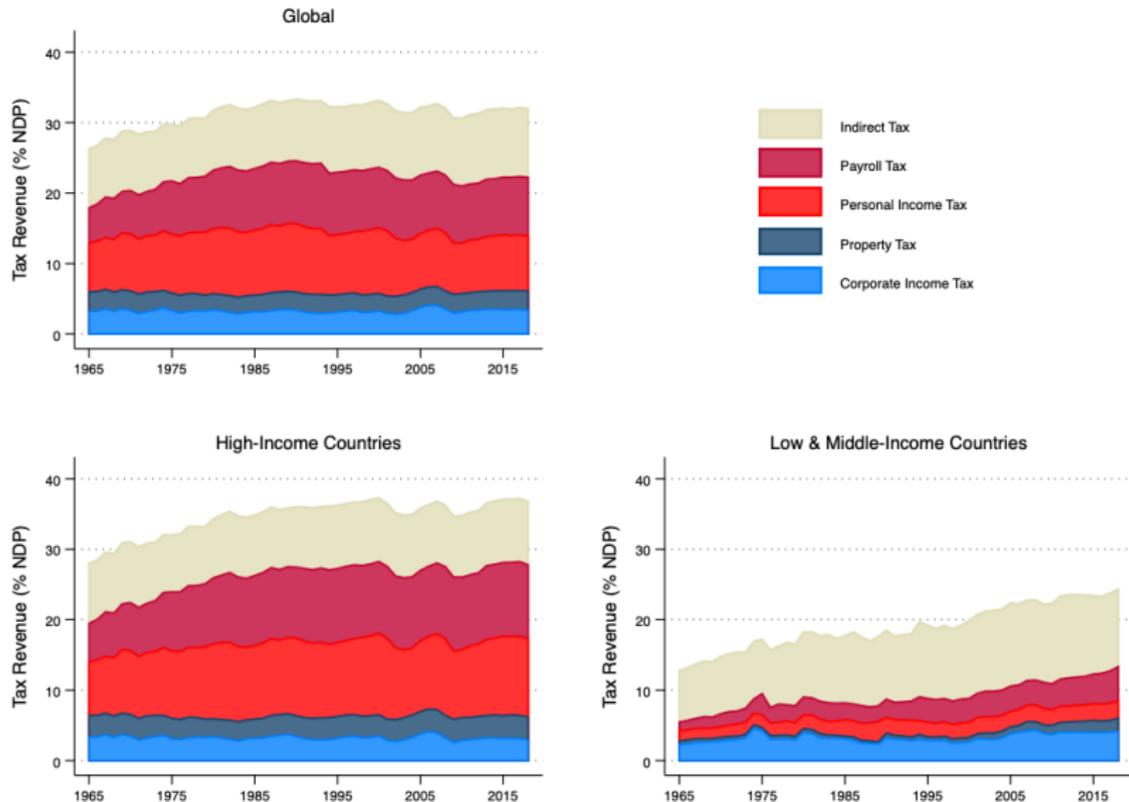
Data provenance

	country-year obs.	%
Panel A: Factor Share Data		
SNA2008	2403	34.8%
SNA1968	1484	21.5%
composite/imputed	3016	43.7%
<i>N</i>	<i>6903</i>	<i>100%</i>
Panel B: Tax Revenue Data		
OECD	2881	41.7%
Harvard/archives	2092	30.3%
ICTD	1276	18.5%
IMF historical	654	9.5%
<i>N</i>	<i>6903</i>	<i>100%</i>

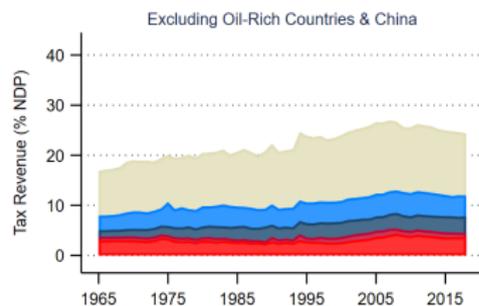
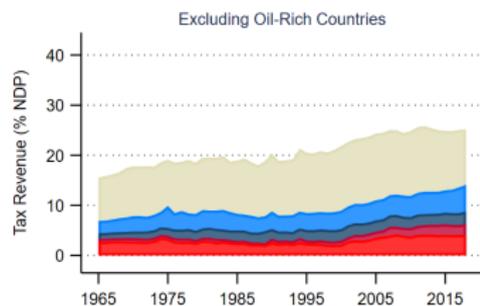
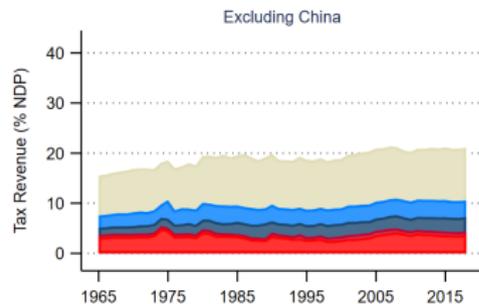
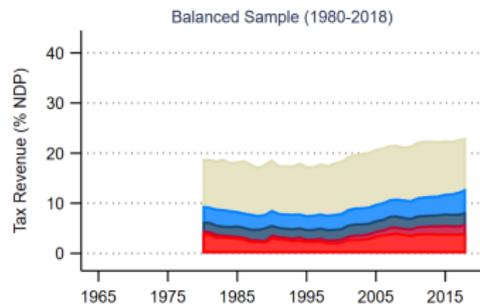
Share of global GDP, by country



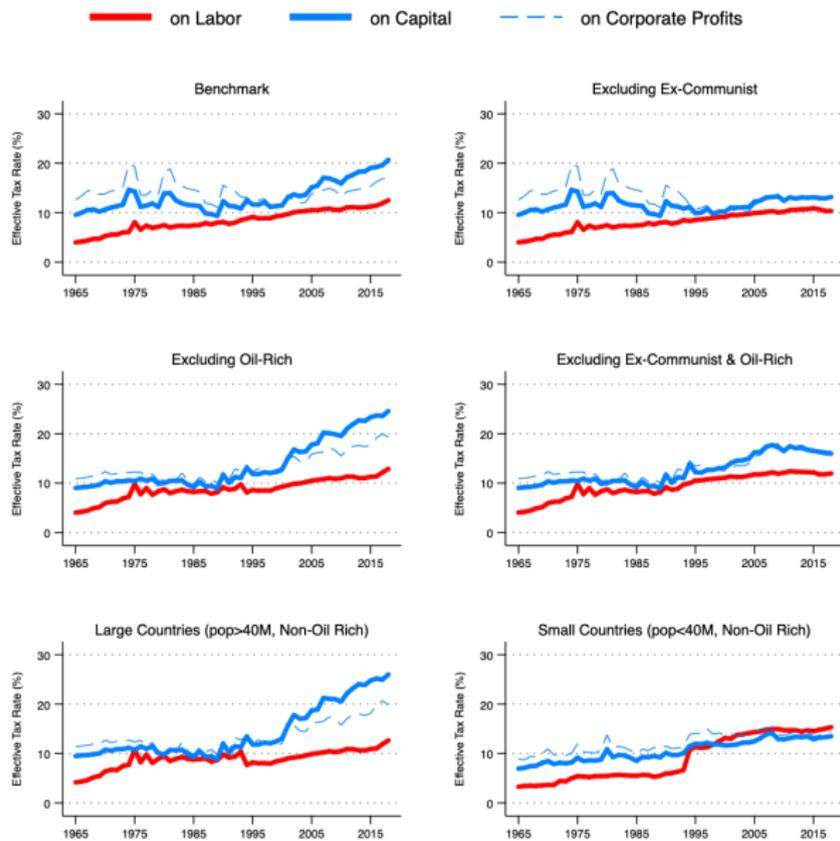
Global trends in tax revenues, 1965 - 2018



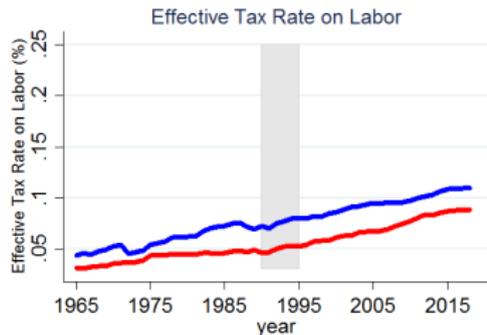
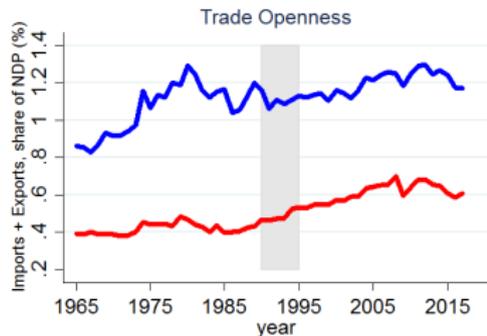
Robustness: Tax revenues in developing countries



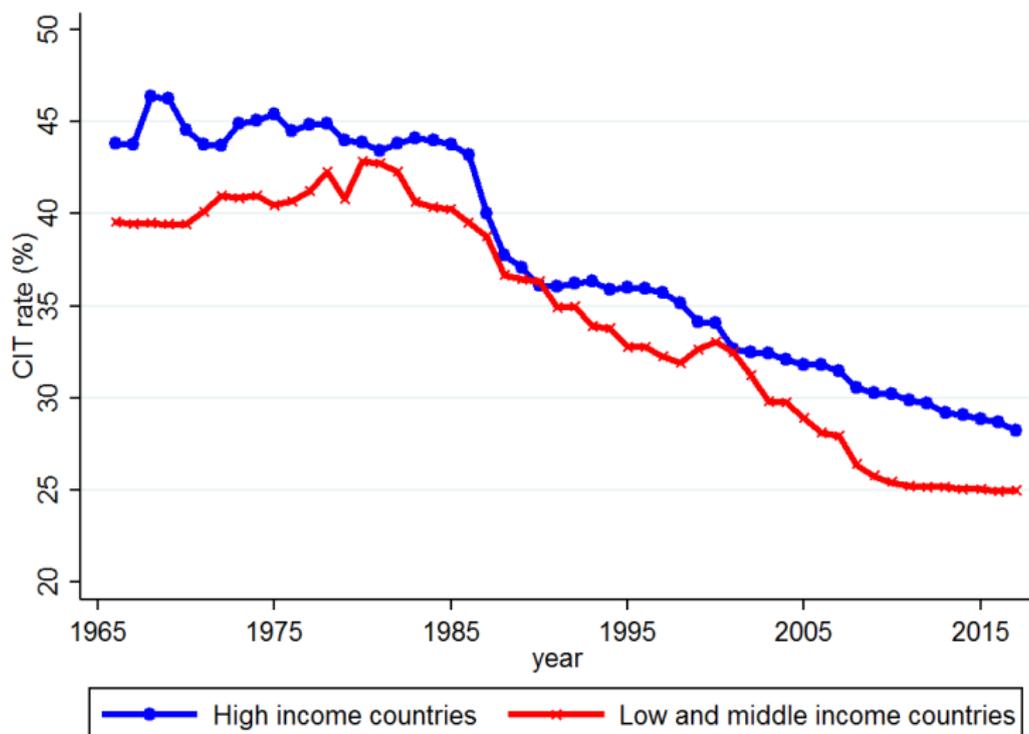
Robustness: ETR_K and ETR_L in developing countries



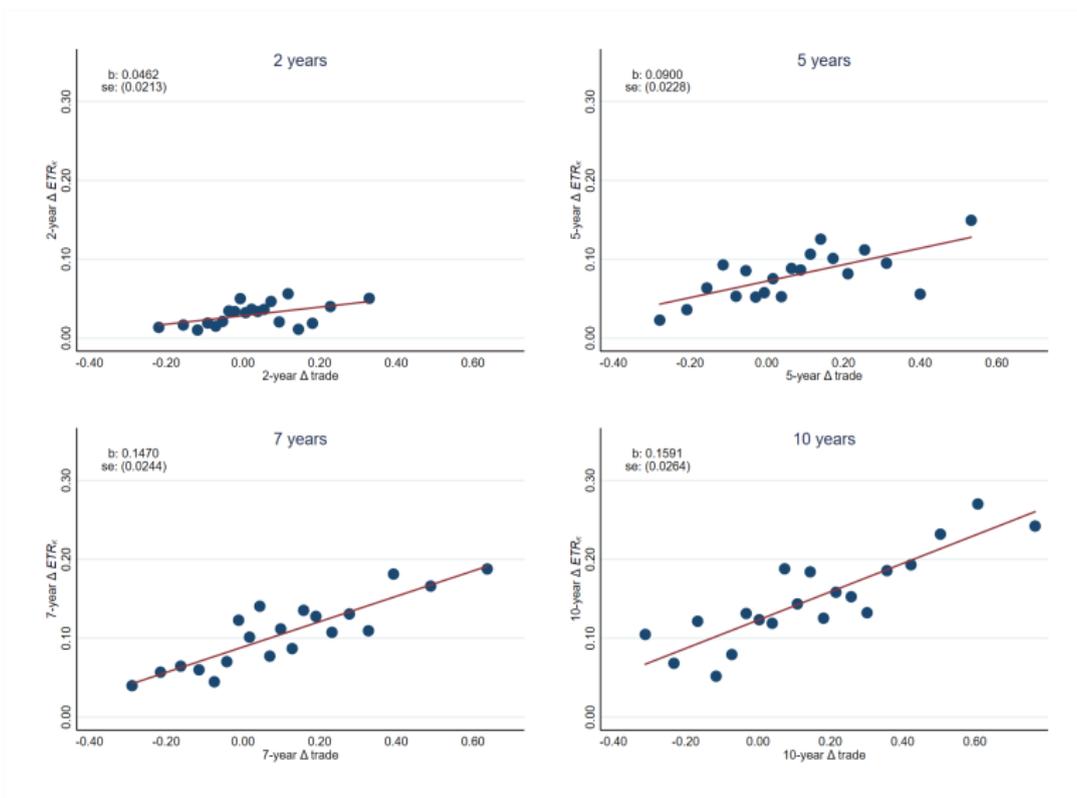
Trends in factor taxation by initial trade openness



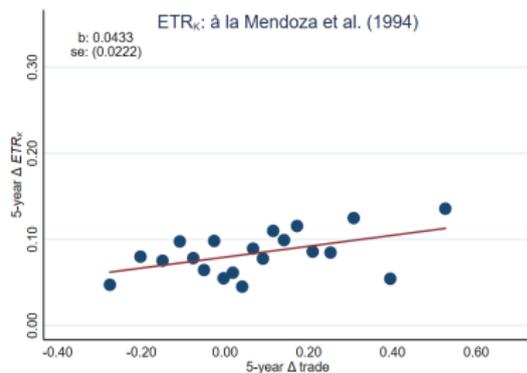
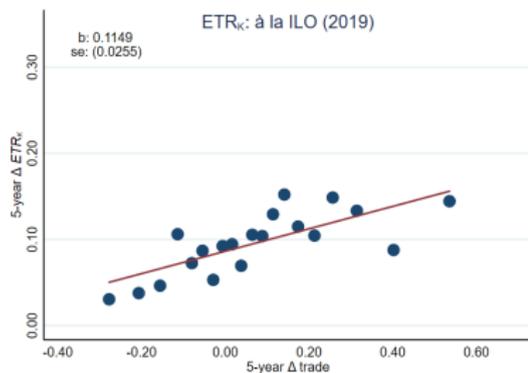
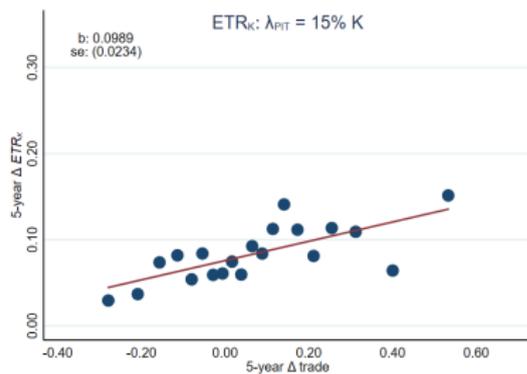
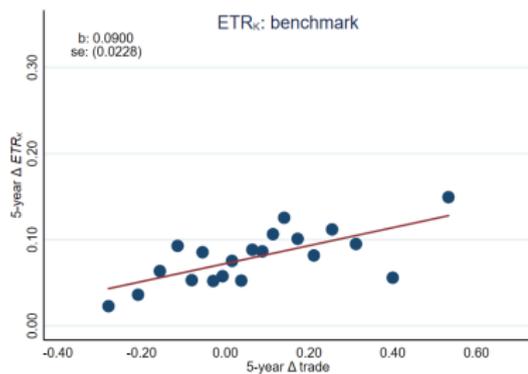
Trends in corporate income tax rates by development level



OLS (binscatter): Robustness to alternative time horizons



OLS (binscatter): Robustness to alternative measurements



Details about instrument I

- ▶ Instrument relies on model structure of quantitative general equilibrium models of trade

$$\pi_{ijt} = e_{jt} \times \iota_{it} \times \beta_{ijt}$$

- ▶ Under gravity model assumptions, the instrument uses average bilateral trade frictions between I-X pairs as source of variation

$$z_{it}^{gravity} = \sum [\beta_{ijt} \cdot \beta_{jit}]$$

- ▶ *Exogeneity condition*: Distribution (not level) of trade costs among I-X pairs is orthogonal to factor shares and factor taxation

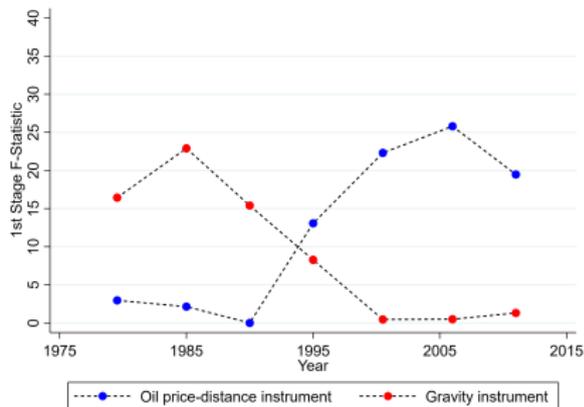
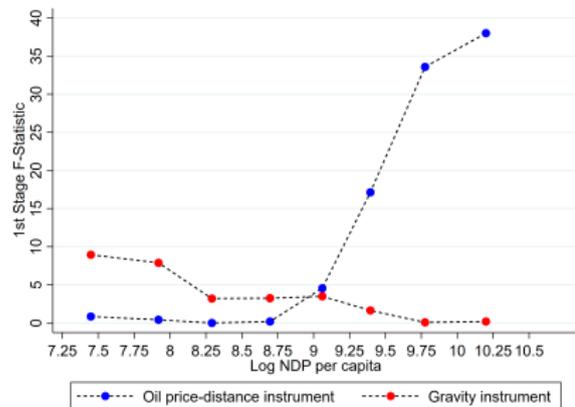
Details about instrument II

- ▶ Exploit time-series variation in global oil prices interacted with country-specific measure of access to intl markets
- ▶ Construct access as variance of distance from three most populous cities to closest maritime port

$$Z_{it}^{pricedist} = \frac{1}{2} \sum_{k=1}^3 [(p_t d_i^k - p_t \bar{d}_i)^2]$$

- ▶ *Exogeneity condition*: Country-specific trade costs induced by global oil prices are orthogonal to factor shares and taxation
 - ▶ Robustness: Allow oil-rich countries to be on independent time-path

Two instruments: Strength across subsamples



◀ back

IV results: Robustness to alternative trade measurements

	Capital Share		Effective Tax Rate	
	overall	corp. sector	on capital	on labor
Trade in G&S (%NDP)	0.154** (0.0707)	0.192** (0.0817)	0.516** (0.208)	0.189*** (0.0568)
First-stage F-statistic	32.30	32.30	32.30	32.30
Trade in G&S (%NDP), winsorized	0.148** (0.0671)	0.185** (0.0774)	0.513** (0.203)	0.195*** (0.0537)
First-stage F-statistic	37.60	37.60	37.60	37.60
Trade in G&S (log levels)	0.0359*** (0.0117)	0.0436*** (0.0149)	0.0724* (0.0390)	0.00714 (0.0171)
First-stage F-statistic	8.562	8.562	8.562	8.562
Trade in Goods Only (%NDP)	0.205** (0.0980)	0.253** (0.113)	0.604** (0.270)	0.188** (0.0887)
First-stage F-statistic	30.05	30.05	30.05	30.05
<i>N</i>	4505	4505	4505	4505

◀ back

▶ weights

▶ controls

▶ θ_K à la ILO

▶ ETR

IV results: Robustness to alternative weights

	Capital Share		Effective Tax Rate	
	overall	corp. sector	on capital	on labor
IV: with NDP weights	0.154** (0.0707)	0.192** (0.0817)	0.516** (0.208)	0.189*** (0.0568)
First-stage F-statistic	32.30	32.30	32.30	32.30
IV: with population weights	0.241** (0.116)	0.253* (0.136)	0.618** (0.287)	0.161* (0.0857)
First-stage F-statistic	11.13	11.13	11.13	11.13
IV: unweighted	0.116* (0.0638)	0.121 (0.0781)	0.278** (0.108)	0.138** (0.0536)
First-stage F-statistic	9.007	9.007	9.007	9.007
<i>N</i>	4505	4505	4505	4505

◀ back

▶ trade

▶ controls

▶ θ_K à la ILO

▶ ETR

IV: Robustness to controls & oil-rich*time fixed effects

	Capital Share		Effective Tax Rate	
	overall	corp. sector	on capital	on labor
IV: without controls	0.154**	0.192**	0.516**	0.189***
	(0.0707)	(0.0817)	(0.208)	(0.0568)
First-stage F-statistic	32.30	32.30	32.30	32.30
IV: with controls	0.117***	0.150***	0.546***	0.250***
	(0.0418)	(0.0488)	(0.126)	(0.0554)
First-stage F-statistic	21.78	21.78	21.78	21.78
IV: with oil-rich time FE	0.396*	0.460*	0.893*	0.311**
	(0.213)	(0.245)	(0.503)	(0.153)
First-stage F-statistic	3.182	3.182	3.182	3.182
IV: with controls & oil-rich time FE	0.270**	0.294**	0.805***	0.429**
	(0.121)	(0.131)	(0.304)	(0.164)
First-stage F-statistic	3.830	3.830	3.830	3.830
<i>N</i>	4505	4505	4505	4505

IV results: Robustness to estimating θ_K using ILO (2019)

	Capital Share	Effective Tax Rate	
	overall	on capital	on labor
OLS	-0.00786 (0.0207)	0.00388 (0.0336)	0.0212** (0.0105)
IV: benchmark specification	0.214 (0.132)	0.314** (0.131)	0.232*** (0.0738)
First-stage F-statistic	32.30	32.30	32.30
IV: with controls	0.221** (0.110)	0.317*** (0.106)	0.300*** (0.0638)
First-stage F-statistic	21.78	21.78	21.78
IV: unweighted	-0.115 (0.117)	0.262** (0.131)	0.0910 (0.0606)
First-stage F-statistic	9.007	9.007	9.007
<i>N</i>	4505	4505	4505

◀ back

▶ trade

▶ weights

▶ controls

▶ ETR

IV results: Robustness to alternative ETR measurements

	OLS (1)		IV (2)		IV: with controls (3)		IV: unweighted (4)	
	ETR_K	ETR_L	ETR_K	ETR_L	ETR_K	ETR_L	ETR_K	ETR_L
à la Mendoza et al. (1994)	-0.00127 (0.0185)	0.0123 (0.00907)	0.354** (0.157)	0.161*** (0.0575)	0.381*** (0.0974)	0.206*** (0.0467)	0.180** (0.0712)	0.0785* (0.0461)
PIT = 0% on capital	0.0107 (0.0246)	0.0284** (0.0109)	0.526*** (0.194)	0.183*** (0.0586)	0.553*** (0.123)	0.246*** (0.0568)	0.296*** (0.109)	0.129** (0.0541)
PIT = 30% on capital	0.00940 (0.0313)	0.0243** (0.00989)	0.541** (0.224)	0.180*** (0.0558)	0.579*** (0.139)	0.236*** (0.0517)	0.289** (0.113)	0.130** (0.0511)
PIT = 15% on capital	0.0108 (0.0278)	0.0264** (0.0104)	0.533** (0.208)	0.182*** (0.0570)	0.565*** (0.130)	0.241*** (0.0541)	0.293*** (0.110)	0.130** (0.0525)
First-stage F-statistic			32.30	32.30	21.78	21.78	9.007	9.007
N	4505	4505	4505	4505	4505	4505	4505	4505

◀ back

▶ trade

▶ weights

▶ controls

▶ θ_K à la ILO

IV: Additional heterogeneity results I

Heterogeneity H_c :	1 (Small population)	Capital openness	1 (Post-1995)
Panel A: CIT rate			
Trade	-0.053*** (0.014)	-0.063*** (0.018)	-0.044* (0.024)
Trade* H_c	-0.034 (0.054)	-0.034 (0.079)	-0.014 (0.022)
Coefficient on Trade in H_c	-0.088* (0.049)	-0.094 (0.072)	-0.058*** (0.012)
Panel B: ETR_K			
Trade	0.357** (0.177)	0.617** (0.274)	0.504* (0.279)
Trade* H_c	-0.491 (0.544)	-0.483 (0.456)	-0.218 (0.207)
Coefficient on Trade in H_c	-0.134 (0.456)	0.133 (0.224)	0.285** (0.131)

IV: Additional heterogeneity results II

Heterogeneity H_c :	1 (Small population)	Capital openness	1 (Post-1995)
Panel C: ETR_L			
Trade	0.169*** (0.061)	0.144 (0.158)	0.124 (0.115)
Trade* H_c	0.145 (0.282)	0.159 (0.275)	0.059 (0.098)
Coefficient on Trade in H_c	0.314 (0.242)	0.304** (0.139)	0.183*** (0.044)

▶ Back

IV: Impacts on overall taxation

	Corporate income taxes (1)	Capital taxes (2)	Total taxes (3)
Trade	0.102*** (0.028)	0.168*** (0.061)	0.241** (0.150)
Trade*1(High-income)	-0.127** (0.061)	-0.188 (0.121)	-0.281 (0.391)
Trade in High-income	-0.025 (0.035)	-0.019 (0.077)	-0.039 (0.200)
<i>N</i>	4518	4518	4518