The indirect effect of import competition on corporate tax avoidance

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MOTIVATION

- Tax dodging has become a major policy concern in a context marked by tax scandals, budget deficits, and rising income inequalities.
- A specific group of enterprises is very often accused of large-scale tax avoidance: multinational enterprises (MNE). They exploit technicalities of the law (e.g., loopholes, mismatches between tax systems) in order to artificially shift profits towards tax-friendly jurisdictions and reduce their tax liability.
- The methods employed to do so are now well-documented. One consists in locating intellectual property rights in low-tax countries and using royalty payments to deflate profits booked in high-tax countries (Beer et al., 2020).
- Determinants of corporate tax avoidance receive growing attention but the role played by output market competition is theoretically unclear.

RESEARCH QUESTION

Does competition affect corporate tax avoidance? If so, how?

APPROACH

I build on 2 strands of the literature: economics and accounting.

- I focus on the China shock → massive shock that differentially exposed sectors and offers the possibility to exploit the granting of the Permanent Normal Trade Relation status by the US to China in late 2000 as a quasi-natural experiment to establish causality (Pierce and Schott, 2016).
- I construct indicators of tax avoidance using financial statements and look at their evolution before and after the conferral (De Simone et al., 2019).

DATA

- Sources: Compustat, NBER, Pierce and Schott (2016), and Schott (2008).
- Sample: US-listed manufacturing firms operating between 1990 and 2005.
- I define 4 firm-year complementary variables of corporate tax avoidance:

$$ETR_{ijt} = \frac{\textit{Income taxes}_{ijt}}{\textit{Pre-tax income}_{ijt}} \qquad CETR_{ijt} = \frac{\textit{Cash income taxes}_{ijt}}{\textit{Pre-tax income}_{ijt}}$$

$$ETR2_{ijt} = \frac{\textit{Non-deferred income taxes}_{ijt}}{\textit{Pre-tax income}_{ijt}} \qquad CFM_{ijt} = \frac{\textit{Cash income taxes}_{ijt}}{\textit{Operating cash flows}_{ijt}}$$

Firm i mainly operating in 4-digit SIC industry j in year t.

- Exposure to the shock induced by the granting is sector-specific and given by the difference between the non-normal-trade-relations tariff rate ($NNTR$) and the normal-trade-relations tariff rate (NTR) in 1999.

IDENTIFICATION STRATEGY

I adopt a difference-in-differences methodology:

$$CTA_{ijt} = \alpha + \beta PNTR_{jt} + \gamma X_{ijt} + \mu_i + \nu_t + \epsilon_{ijt}$$

- CTA can be either ETR, $ETR2$, $CETR$, or CFM.
- $PNTR_{jt} = \mathbb{1}_{t \geq 2001} \times (NNTR_{j1999} - NTR_{j1999})$.
- X_{ijt} a vector of confounding factors.
- μ_i and ν_t form a set of firm and year fixed effects.

BASELINE RESULTS

The estimation results indicate a positive average effect of Chinese import competition on corporate tax avoidance:

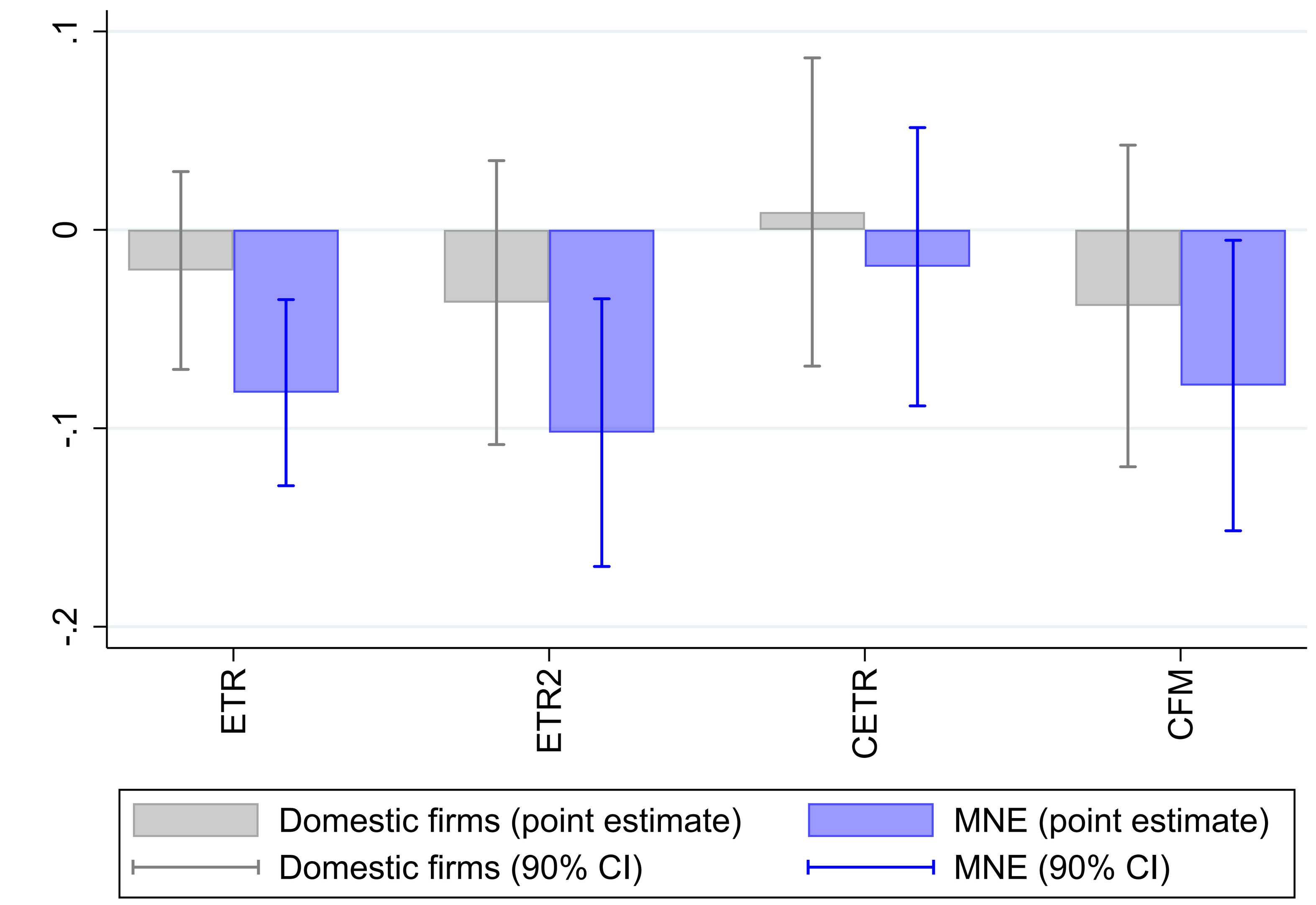
CTA_{ijt}	ETR_{ijt}	$ETR2_{ijt}$	$CETR_{ijt}$	CFM_{ijt}
β	-0.06^b	-0.08^c	-0.01	-0.07^d
Controls	Yes	Yes	Yes	Yes
Firm and year FEs	Yes	Yes	Yes	Yes

Standard errors are clustered at the 4-digit SIC industry. $^d p < 0.15$, $^c p < 0.10$, $^b p < 0.05$, $^a p < 0.01$.

These results are validated by a series of robustness checks (cf. full paper).

MECHANISM: DOMESTIC FIRMS *VERSUS* MNE

The estimation results also reveal that the average effect is driven by MNE, which is reminiscent of profit shifting activities:



Standard errors are clustered at the 4-digit SIC industry.

MECHANISM: THE ROLE OF INTANGIBLES

	ETR_{ijt}	$intangibles_{ijt}$
$PNTR_{jt}$	-0.03	0.02
$PNTR_{jt} \times MNE_{ijt}$		0.04^c
$intangibles_{ijt}$	0.04^a	
$intangibles_{ijt} \times MNE_{ijt}$	-0.06^b	
Controls	Yes	Yes
Firm and year FEs	Yes	Yes

MNE is a dummy variable equal to 1 if the firm is multinational and *intangibles* represents the share of intangible assets in total assets at the firm-level. Standard errors are clustered at the 4-digit SIC industry. $^d p < 0.15$, $^c p < 0.10$, $^b p < 0.05$, $^a p < 0.01$.

Additional estimation results show that:

- MNE avoid taxes by using their intangible assets (cf. column 1),
- the China shock prompted MNE to invest in intangible assets and the latter facilitated their tax-dodging strategies (cf. columns 1 and 2),
- these investments in intangibles were aimed at escaping Chinese import competition in the first place (cf. full paper).

TAKEAWAY

Chinese import competition shock

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Investments in intangible assets by MNE

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Intensification of profit shifting activities

POLICY IMPLICATIONS

- The China shock contributed to the decline in the average effective tax rate of US-listed firms observed between 1990 and 2005 (Dyreng et al., 2017).
- Trade, competition, and corporate income taxes are connected → trade, industrial, and fiscal policies should be conducted jointly.

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