

# The Indirect Effect of Import Competition on Corporate Tax Avoidance

Baptiste Souillard

*ECARES, SBS-EM, Université Libre de Bruxelles*

Royal Economic Society – Annual Conference

April 13, 2021



# Motivation



- Profits are subject to **taxation**.
- To lighten this financial **burden**, firms adapt how they operate and invest.
- Some firms **avoid taxes**, i.e., some firms exploit legal technicalities to reduce their tax liability (e.g., loopholes and mismatches).
- Corporate tax avoidance has now become a **major policy concern**.
  - Context: tax scandals, budget deficits, rise of inequalities, covid-19.
  - Profit shifting of multinational corporations  $\approx$  \$100b annual loss in tax revenues in the US (Clausing, 2016).

# What I do in this paper

- The role played by **competition** is theoretically unclear in the literature (Marrelli and Martina, 1988; Goerke and Runkel, 2011).
- To shed more light on this, I build on 2 distinct strands of research.
  - **Economics**: impact of the China shock → massive shock + quasi-natural experiment (e.g., Autor et al., 2013; Pierce and Schott, 2016).
  - **Accounting**: measurement of corporate tax avoidance (e.g., Hanlon and Heitzman, 2010; De Simone et al., 2019).
- I study the effect of **Chinese import competition** on tax avoidance of **US-listed firms** using rich data on their financial statements.

# Preview of the results

- The paper documents a **positive** and **causal** effect of import competition on corporate tax avoidance.
- This effect is specific to **multinational enterprises** (MNEs) and passes through **intangible assets**.

↑ import competition  $\Rightarrow$  ↑ intangible assets  $\Rightarrow$  ↑ profit shifting

- Plus, the increase in tax avoidance is a **side effect**: MNEs invested in intangibles to escape competition in the first place.
- The findings carry **policy implications**.
  - The China shock contributed to the recent decline in the average effective tax rate of US-listed firms (Dyreng et al., 2017).
  - The results help understand the recent backlash against large firms and globalization (Helpman, 2017; Rodrik, 2018; Walter, 2021).

# Related literature

## Corporate tax avoidance

- Growing evidence of profit shifting activities (Beer et al., 2020)
  - Channels: e.g., Egger et al. (2010), Griffith et al. (2014), Alstadsaeter et al. (2018), Davies et al. (2018), Laffitte and Toubal (2019).
  - Macro estimates: e.g., Crivelli et al. (2016), Clausing (2016), Cobham and Jansky (2018), Tørsløv et al. (2018), Laffitte et al. (2020).
- Determinants of tax dodging (Alm et al., 2019; Wang et al., 2020)
  - Internal drivers: e.g., Desai and Dharmapala (2009), McGuire et al. (2014), Higgins et al. (2015), Khan et al. (2017), Souillard (2020).
  - External factors: e.g., Marrelli and Martina (1988), Goerke and Runkel (2011), Hoopes et al. (2012), Dyreng et al. (2016), Edwards et al. (2016), Tian et al. (2016), Cen et al. (2017).

## China shock

- Labor markets: e.g., Autor et al. (2013), Mion and Zhu (2013), Utar and Ruiz (2013), Utar (2014), Acemoglu et al. (2016), Pierce and Schott (2016).
- Firm behavior: e.g., Iacovone et al. (2013), Bloom et al. (2016), Hombert and Matray (2018), Chakraborty and Henry (2019), Amiti et al. (2020).

# Outline of the talk

- ① Introduction
- ② Data
- ③ Causal effect
- ④ Mechanism
- ⑤ Conclusion

# Outline of the talk

- 1 Introduction
- 2 Data**
- 3 Causal effect
- 4 Mechanism
- 5 Conclusion

# Sources and key variables

## Firm-level data and tax avoidance variables

The **firm-level** data come from Compustat.

- It consists of balance sheets, income statements, and cash flows of publicly listed firms in North America since 1950.
- I construct 4 firm-year indicators of corporate tax avoidance:
  - ratio of income taxes to pre-tax income (ETR),
  - ratio of non-deferred income taxes to pre-tax income (ETR2),
  - ratio of cash income taxes paid to pre-tax income (CASHETR),
  - ratio of cash income taxes paid to operating cash flows (CFM).
- They are complementary and the most prevalent in the literature.

► Table



# Sources and key variables

## Industry-level data and import competition variable

I supplement Compustat data with **industry-level data** at the 4-digit SIC level from the NBER-CES Manufacturing Industry Database and Schott (2008).

- NBER-CES → annual output, employment, etc from 1958 to 2011.
- Schott (2008) → US bilateral trade flows from 1972 to 2005.
- The competition variable is the penetration ratio of US imports from China:

$$IMP_{ijt} = IMP_{jt} = \frac{Imports_{jt}^{China, US}}{Output_{jt}^{US} + Imports_{jt}^{World, US} - Exports_{jt}^{US, World}}$$

Firm  $i$  mostly active in sector  $j$  in year  $t$ .

- This ratio varies both over time and across sectors. [► Example](#)

# Sample

Focus on US-listed manufacturing firms between 1990 and 2005

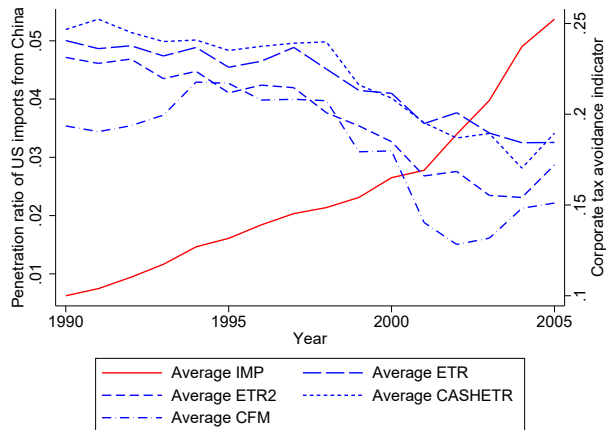
I use a subsample containing only **US-headquartered** firms operating **between 1990 and 2005** in **manufacturing**.

- Headquartered in the US for comparability.
- 1990s: start of the boom of China's exports. [▶ Graph](#)
- 90 percent of China's exports were manufacturing products.

The unbalanced sample includes 5,739 firms operating in 218 industries.

# First evidence

Figure 1 – Import competition and corporate tax avoidance: macro-level evidence [► Table](#)



- The positive correlation also holds at the industry-level. [► Graph](#) [► Table](#)

# Outline of the talk

- 1 Introduction
- 2 Data
- 3 Causal effect**
- 4 Mechanism
- 5 Conclusion

# Econometric model

## Benchmark specification

I assess the effect of import competition on corporate tax avoidance by regressing:

$$CTA_{ijt} = \beta_0 + \beta_1 IMP_{jt} + \beta_2 X_{ijt} + \alpha_i + \delta_t + \epsilon_{ijt}$$

- $CTA$ : corporate tax avoidance variable.
- $IMP$ : penetration ratio of US imports from China.
- $X$ : vector of control variables (e.g., sales, pre-tax income, tax loss carry forward, assets, profitability, leverage, foreign operations).
- $\alpha$ : firm-level fixed effects.
- $\delta$ : year-level fixed effects.

# Baseline results

A positive effect of competition on corporate tax avoidance

Table 1 – Effect of import competition on corporate tax avoidance: baseline equation

	(1) $ETR_{ijt}$	(2) $ETR2_{ijt}$	(3) $CASHETR_{ijt}$	(4) $CFM_{ijt}$
$IMP_{jt}$	-0.20 <sup>a</sup> (0.03)	-0.18 <sup>b</sup> (0.07)	-0.18 <sup>a</sup> (0.04)	-0.26 <sup>a</sup> (0.06)
Controls	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.20	0.21	0.13	0.12
Nb. of obs.	23,097	22,286	16,688	16,584

Notes. Standard errors, in parentheses, are clustered at the 4-digit 1987 SIC industry. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

► Counterfactual exercise

# Sensitivity tests

Exclusion of outliers, more controls, model specification, and falsification tests

The effect is

- robust to removing different types of **outliers**: extreme values of the right-hand side variables, firms with negative profits, entries and exits, firms involved in a merger/acquisition operation.
- robust to extending the set of **covariates**: more globalization-related variables, finer sets of fixed effects.
- consistent across **specifications**: 3-digit industry level, 4-year averages, 16-year differences.
- corroborated by **falsification tests**: random industry, pre-period data.

► Table

# Endogeneity

## Lagged independent variables and IV strategy

- The control variables raise concerns about **reverse causality** and may lead to the “**bad controls**” problem (Angrist and Pischke, 2009).
  - Use lagged right-hand side variables to mitigate these issues. [▶ Table](#)
- Changes in import competition come from both **supply**- and **demand**-side shocks.
  - Need to isolate changes coming from the supply-side.
  - Use the share of imports from China in 8 other high-income countries as an instrument (Autor et al, 2013; Iacovone et al., 2013; Chakraborty and Henry, 2019). [▶ Table](#)
  - The identification relies on 3 (too strong?) assumptions.



# Endogeneity

## Difference-in-differences approach

- Alternative: exploit the **granting of PNTR status** to China in 2000.
  - This event is responsible for 1/3 of the growth of US expenditures in Chinese goods between 2000 and 2005 (Handley and Limao, 2017).
  - Treatment: difference between NNTR and NTR tariff rates (sector-specific).
  - The variation mostly comes from NNTR tariff rates (established in 1930).
  - The equation becomes:

$$CTA_{ijt} = \beta_0 + \beta_1 PNTR_{jt} + \beta_2 X_{ijt} + \alpha_i + \delta_t + \epsilon_{ijt}$$

with  $PNTR_{jt} = 1_{t \geq 2001} (NNTR_{j1999} - NTR_{j1999})$ .

► Table

► Parallel trends + placebo

- Robust to the issue raised by de Chaisemartin and D'Haultfoeuille (2020).

# Outline of the talk

- 1 Introduction
- 2 Data
- 3 Causal effect
- 4 Mechanism**
- 5 Conclusion

# What is behind this average effect?

Profit shifting of multinational firms via intangible assets

- **MNEs** have greater possibilities for dodging taxes: They can artificially **shift profits** toward low-tax countries.
  - Is the average effect driven by MNEs?
  - Yes! ▶ Figure
  - Robust to the definition of an MNE (financial statements vs Exhibit 21 files).
- The strategic use of **intra-firm royalty payments** constitutes one of the dominant profit shifting channels (Heckemeyer and Overesch, 2017) + the China shock pushed firms to **innovate** (e.g., Bloom et al., 2016).
  - Indirect effect of competition through intangible assets?
  - Yes! ▶ Table
  - Robust to the definition of an intangible (broad definition or patents).

**China shock  $\Rightarrow$  MNEs invested in intangibles  $\Rightarrow$  MNEs shifted more profits**

# Did MNEs invest in intangibles just to shift more profits?

No, they did it to escape competition in the first place

- If MNEs invested in intangibles principally to shift more profits and save taxes, we would note more **FDIs of MNEs in tax havens** after the shock.
    - ⇒ Did MNEs intensify their network of subsidiaries in tax havens?
    - ⇒ No! ▶ Table
  - Besides, investments in intangibles could help firms upgrade and thereby **escape competition**.
    - ⇒ Is the negative impact of the China shock on sales mitigated by intangibles?
    - ⇒ Yes! ▶ Table
- ⇒ The increase in corporate tax avoidance is a **side effect** of import competition.

# Outline of the talk

- 1 Introduction
- 2 Data
- 3 Causal effect
- 4 Mechanism
- 5 Conclusion**

# Summary of the paper

- The effect of competition on corporate tax avoidance is an unresolved question in the existing literature.
- This paper attempts to provide answers by investigating the effect of rising Chinese import competition on tax avoidance of US-listed firms.
- The paper documents a **positive, causal, and statistically robust** effect of trade-induced competition on corporate tax avoidance.
- The China shock prompted **MNEs** to invest in **intangibles**, and these assets facilitated their **profit shifting** activities.
- This effect is truly **indirect**: These intangibles primarily aimed at alleviating losses, not saving taxes.

Thank you for your attention!

Questions, comments, and suggestions are welcome:  
[baptiste.souillard@ulb.be](mailto:baptiste.souillard@ulb.be)

Full paper:  
[www.baptistesouillard.com](http://www.baptistesouillard.com)

# Appendix



# Corporate tax avoidance variables

Table 2 – Correlation between tax avoidance variables  
(within firms)

	<i>ETR</i>	<i>ETR2</i>	<i>CASHETR</i>	<i>CFM</i>
<i>ETR</i>	1.00			
<i>ETR2</i>	0.53	1.00		
<i>CASHETR</i>	0.26	0.41	1.00	
<i>CFM</i>	0.20	0.27	0.64	1.00

Notes. This table reports the average Pearson's correlation coefficients between the four tax avoidance variables (within firms). For a firm-year observation to be included in the computation of a correlation coefficient, the two tax avoidance variables must lie in the [0,1] interval.

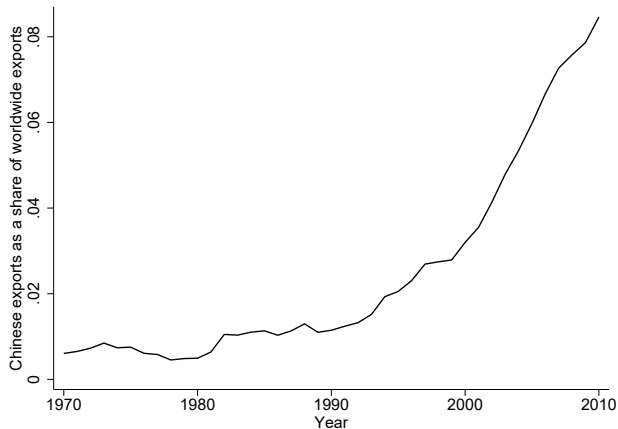
# Import penetration ratio across sectors

- The penetration ratio of Chinese exports to the US of *hardwood* veneer and plywood products (SIC 2435) was 12 percent in 2005, i.e., about twice the average.
- For *softwood* veneer and plywood products (SIC 2436), the import penetration ratio was **40 times smaller** in the same year (0.3 percent).

► Back

# China's exports

Figure 2 – Exports from China between 1970 and 2010



► Back

# Correlation (1)

Table 3 – Import competition and corporate tax avoidance: macro-level regressions

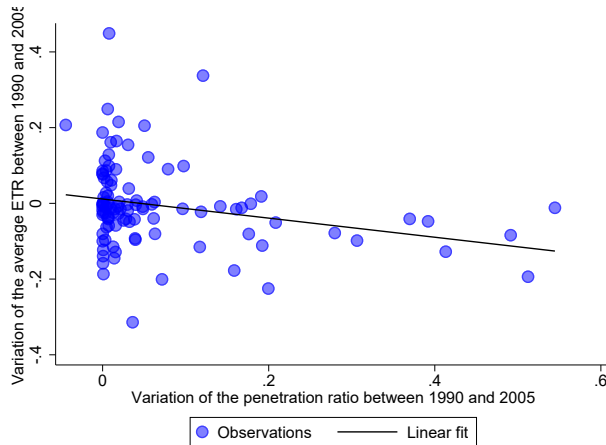
	(1) $\overline{ETR}_t$	(2) $\overline{ETR2}_t$	(3) $\overline{CASHETR}_t$	(4) $\overline{CFM}_t$
$\overline{IMP}_t$	-1.36 <sup>a</sup> (0.13)	-1.76 <sup>a</sup> (0.22)	-1.73 <sup>a</sup> (0.20)	-1.62 <sup>a</sup> (0.39)
Controls	No	No	No	No
Nb. of obs.	16	16	16	16

Notes. Standard errors are in parentheses. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

► Back

## Correlation (2)

Figure 3 – Import competition and corporate tax avoidance: industry-level evidence



► Back

## Correlation (3)

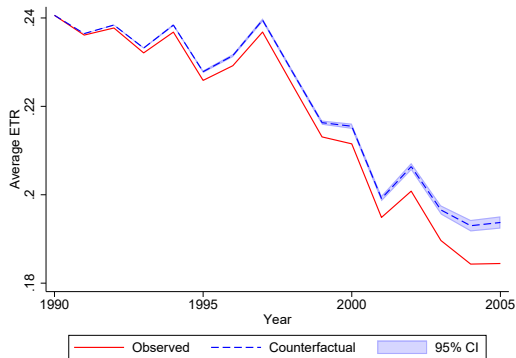
Table 4 – Import competition and corporate tax avoidance:  
industry-level regressions

	(1) $\overline{ETR}_{jt}$	(2) $\overline{ETR2}_{jt}$	(3) $\overline{CASHETR}_{jt}$	(4) $\overline{CFM}_{jt}$
$IMP_{jt}$	-0.11 <sup>d</sup> (0.07)	-0.11 <sup>c</sup> (0.06)	-0.06 (0.06)	-0.12 <sup>d</sup> (0.08)
Year FEs	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	Yes	Yes
Nb. of obs.	1,785	1,771	1,783	1,783

Notes. Standard errors, in parentheses, are clustered at the 4-digit 1987 SIC industry. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

# Baseline results

Figure 4 – Counterfactual analysis with back-of-the-envelope computations



- The average ETR would have been **0.93 percentage point** higher in 2005 had the penetration ratio of US imports from China stayed constant.
- The China shock contributed **17 percent** to the decline in the average ETR observed between 1990 and 2005. [▶ Back](#)

# Robustness tests

Table 5 – Effect of import competition on corporate tax avoidance: robustness checks

	(1) <i>ETR</i>	(2) <i>ETR2</i>	(3) <i>CASHETR</i>	(4) <i>CFM</i>
<i>Baseline estimates</i>	-0.20 <sup>a</sup>	-0.18 <sup>b</sup>	-0.18 <sup>a</sup>	-0.26 <sup>a</sup>
<i>Panel A: exclusion of outliers</i>				
A1. Extreme values	-0.36 <sup>a</sup>	-0.30 <sup>a</sup>	-0.33 <sup>a</sup>	-0.43 <sup>a</sup>
A2. Negative profits	-0.15 <sup>a</sup>	-0.11 <sup>c</sup>	-0.17 <sup>a</sup>	-0.22 <sup>a</sup>
A3. Entries and exits	-0.22 <sup>a</sup>	-0.23 <sup>a</sup>	-0.17 <sup>a</sup>	-0.22 <sup>a</sup>
A4. Involved in M&A	-0.23 <sup>a</sup>	-0.19 <sup>a</sup>	-0.18 <sup>a</sup>	-0.27 <sup>a</sup>
<i>Panel B: more controls</i>				
B1. Trends in globalization	-0.17 <sup>a</sup>	-0.15 <sup>b</sup>	-0.19 <sup>a</sup>	-0.21 <sup>a</sup>
B2. Trends in globalization (USDIA included)	-0.20 <sup>a</sup>	-0.15 <sup>c</sup>	-0.18 <sup>b</sup>	-0.14 <sup>b</sup>
B3. State-year FEs	-0.20 <sup>a</sup>	-0.19 <sup>a</sup>	-0.16 <sup>a</sup>	-0.26 <sup>a</sup>
B4. State-year-MNE status FEs	-0.21 <sup>a</sup>	-0.18 <sup>a</sup>	-0.15 <sup>a</sup>	-0.27 <sup>a</sup>
<i>Panel C: alternative specifications</i>				
C1. SIC 3-digit industry	-0.15 <sup>a</sup>	-0.16 <sup>a</sup>	-0.10 <sup>b</sup>	-0.18 <sup>a</sup>
C2. 4-year periods	-0.30 <sup>a</sup>	-0.11	-0.17 <sup>c</sup>	-0.23 <sup>a</sup>
C3. 16-year differences	-0.18 <sup>c</sup>	-0.36 <sup>a</sup>	-0.16 <sup>c</sup>	-0.32 <sup>b</sup>
<i>Panel D: falsification tests</i>				
D1. Random industry	0.01	-0.02	-0.01	0.05
D2. Pre-period data	-0.11	-0.06	0.35	0.36



# Endogeneity (1)

Table 6 – Effect of import competition on corporate tax avoidance: endogeneity

	(1) <i>ETR</i>	(2) <i>ETR2</i>	(3) <i>CASHETR</i>	(4) <i>CFM</i>
<i>Panel A: lagged controls</i>				
A1. One-year lags	-0.21 <sup>a</sup>	-0.16 <sup>b</sup>	-0.19 <sup>a</sup>	-0.30 <sup>a</sup>
A2. Two-year lags	-0.21 <sup>a</sup>	-0.14 <sup>d</sup>	-0.19 <sup>a</sup>	-0.27 <sup>a</sup>
<i>Panel B: 2SLS à la Autor et al. (2013)</i>				
B1. First-stage results: $IMP_{jt}$ on instrument				
Point estimate				
F-statistic				
B2. Second-stage results: $CTA_{ijt}$ on $\widehat{IMP}_{jt}$				
Point estimate				
<i>Panel C: PNTR as a quasi-natural experiment</i>				
Controls	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes

Notes. Standard errors are clustered at the 4-digit 1987 SIC industry and are not reported for space. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

# Endogeneity (2)

Table 7 – Effect of import competition on corporate tax avoidance: endogeneity

	(1) <i>ETR</i>	(2) <i>ETR2</i>	(3) <i>CASHETR</i>	(4) <i>CFM</i>
<i>Panel A: lagged controls</i>				
A1. One-year lags	-0.21 <sup>a</sup>	-0.16 <sup>b</sup>	-0.19 <sup>a</sup>	-0.30 <sup>a</sup>
A2. Two-year lags	-0.21 <sup>a</sup>	-0.14 <sup>d</sup>	-0.19 <sup>a</sup>	-0.27 <sup>a</sup>
<i>Panel B: 2SLS à la Autor et al. (2013)</i>				
B1. First-stage results: $IMP_{jt}$ on instrument				
Point estimate	0.63 <sup>a</sup>	0.63 <sup>a</sup>	0.62 <sup>a</sup>	0.63 <sup>a</sup>
F-statistic	32.65	33.16	29.12	30.23
B2. Second-stage results: $CTA_{ijt}$ on $\widehat{IMP}_{jt}$				
Point estimate	-0.31 <sup>a</sup>	-0.28 <sup>b</sup>	-0.28 <sup>a</sup>	-0.37 <sup>a</sup>
<i>Panel C: PNTR as a quasi-natural experiment</i>				
Controls	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes

Notes. Standard errors are clustered at the 4-digit 1987 SIC industry and are not reported for space. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

# Endogeneity (3)

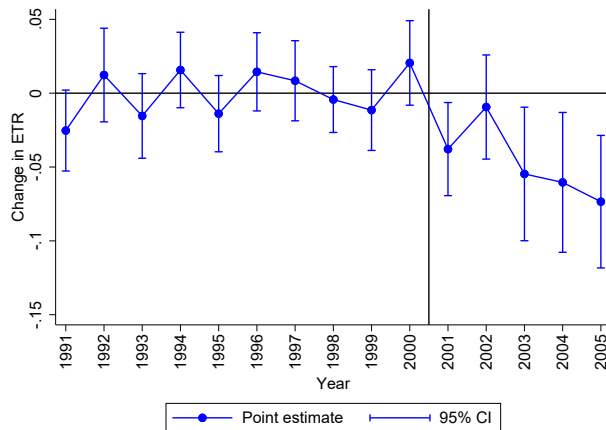
Table 8 – Effect of import competition on corporate tax avoidance: endogeneity

	(1) <i>ETR</i>	(2) <i>ETR2</i>	(3) <i>CASHETR</i>	(4) <i>CFM</i>
<i>Panel A: lagged controls</i>				
A1. One-year lags	-0.21 <sup>a</sup>	-0.16 <sup>b</sup>	-0.19 <sup>a</sup>	-0.30 <sup>a</sup>
A2. Two-year lags	-0.21 <sup>a</sup>	-0.14 <sup>d</sup>	-0.19 <sup>a</sup>	-0.27 <sup>a</sup>
<i>Panel B: 2SLS à la Autor et al. (2013)</i>				
B1. First-stage results: $IMP_{jt}$ on instrument				
Point estimate	0.64 <sup>a</sup>	0.63 <sup>a</sup>	0.62 <sup>a</sup>	0.63 <sup>a</sup>
F-statistic	32.65	33.16	29.12	30.23
B2. Second-stage results: $CTA_{ijt}$ on $\widehat{IMP}_{jt}$				
Point estimate	-0.30 <sup>a</sup>	-0.28 <sup>b</sup>	-0.28 <sup>a</sup>	-0.37 <sup>a</sup>
<i>Panel C: PNTR as a quasi-natural experiment</i>				
	-0.06 <sup>b</sup>	-0.08 <sup>c</sup>	-0.01	-0.07 <sup>d</sup>
Controls	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes

Notes. Standard errors are clustered at the 4-digit 1987 SIC industry and are not reported for space. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

# Endogeneity (4)

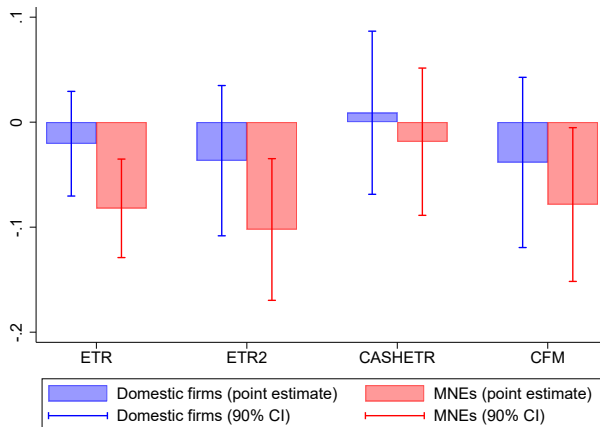
Figure 5 – Pre-trends in *ETR* and dynamics of the effect



► Back

# Mechanism (1)

Figure 6 – Domestic firms vs MNE



► Back

## Mechanism (2)

Table 9 – Effect of import competition on corporate tax avoidance: mechanism

	(1) <i>ETR<sub>ijt</sub></i>	(2) <i>ETR<sub>ijt</sub></i>	(3) <i>ETR<sub>ijt</sub></i>	(4) <i>ETR<sub>ijt</sub></i>	(5) <i>intangibles<sub>ijt</sub></i>
<i>PNTR<sub>jt</sub></i>	-0.06 <sup>b</sup> (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.03 (0.03)	0.02 (0.03)
<i>PNTR<sub>jt</sub> × MNE<sub>ijt</sub></i>		-0.06 <sup>a</sup> (0.02)			0.04 <sup>c</sup> (0.02)
<i>intangibles<sub>ijt</sub></i>			0.02 (0.01)	0.04 <sup>a</sup> (0.02)	
<i>intangibles<sub>ijt</sub> × MNE<sub>ijt</sub></i>				-0.06 <sup>b</sup> (0.03)	
Controls	Yes	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes	Yes

Notes. Standard errors are clustered at the 4-digit 1987 SIC industry. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

► Back

## Mechanism (3)

Table 10 – Effect of import competition on corporate tax avoidance: A side one?

	(1) $TAXHAVEN_{ijt}^{ext}$	(2) $TAXHAVEN_{ijt}^{int}$
$PNTR_{jt}$	0.04 (0.07)	3.15 (4.50)
$PNTR_{jt} \times intangibles_{ijt}$		
Controls	Yes	Yes
Firm FEs	Yes	Yes
Year FEs	Yes	Yes
Nb. of obs.	28,443	4,641

Notes. Standard errors, in parentheses, are clustered at the 4-digit 1987 SIC industry. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .

# Mechanism (4)

Table 11 – Effect of import competition on corporate tax avoidance: A side one?

	(1) $TAXHAVEN_{ijt}^{ext}$	(2) $TAXHAVEN_{ijt}^{int}$	(3) $sales_{ijt}$
$PNTR_{jt}$	0.04 (0.07)	3.15 (4.50)	-2,740.44 <sup>b</sup> (1,226.00)
$PNTR_{jt} \times intangibles_{ijt}$			1.44 <sup>b</sup> (0.70)
Controls	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes
Nb. of obs.	28,443	4,641	30,141

Notes. Standard errors, in parentheses, are clustered at the 4-digit 1987 SIC industry. <sup>d</sup> $p < 0.15$ , <sup>c</sup> $p < 0.10$ , <sup>b</sup> $p < 0.05$ , <sup>a</sup> $p < 0.01$ .