

# The indirect effect of import competition on corporate tax avoidance

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# Motivation



- ▶ Profits are subject to **taxation**
- ▶ To lighten this **burden**, firms adapt how they organize, operate, and invest
- ▶ Some **avoid taxes**, i.e., exploit technicalities of the law to save taxes
- ▶ Corporate tax avoidance has now become a **major policy concern**
  - Tax scandals, budget deficits, rise in income inequalities, pandemic, etc
  - Profit shifting  $\approx$  \$100b annual loss in tax revenues for the US (Clausing, 2016)

## What I do in this paper

- ▶ The role played by **competition** is an unresolved question in the literature (Marrelli and Martina, 1988; Goerke and Runkel, 2011)
- ▶ To provide answers, 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; Bloom et al., 2016; Pierce and Schott, 2016; Hombert and Matray, 2018)
  - **Accounting**: measurement of corporate tax avoidance (e.g., Frank et al., 2009; Hanlon and Heitzman, 2010; Henry and Sansing, 2018; Badertscher et al., 2019; De Simone et al., 2019)
- ▶ I study the effect of **Chinese import competition** on tax avoidance of US-headquartered public manufacturing firms using 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
- ▶ This effect is a **side one**: it seems that MNEs invested in intangibles to escape competition in the first place
- ▶ The findings carry **policy implications**:
  - they shed light on the determinants of corporate tax avoidance
  - they suggest that the China shock contributed 17 percent to the decline in the average effective tax rate of US-listed firms observed between 1990 and 2005 (Dyrenge et al., 2017)
  - they help understand the recent backlash against large firms and globalization (Helpman, 2017; Ravallion, 2018; Rodrik, 2018)

## Related literature

- ▶ 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)
- ▶ Studies on the **determinants** of corporate tax avoidance (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)
- ▶ Numerous papers investigating the **effect of the 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)
  - Firms: 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

- ➊ Introduction
- ➋ Data
- ➌ Causal effect
- ➍ Mechanism
- ➎ Conclusion

# Outline of the talk

- 1 Introduction
- 2 Data**
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## Sources and key variables

### Firm-level data and tax avoidance variables

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

- ▶ Compustat consists of **balance sheets**, **income statements**, and **cash flows** of **publicly listed firms** in North America since 1950
- ▶ I construct **4 firm-year specific 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)
- ▶ These variables are **complementary** and the **most prevalent** metrics in the accounting 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): annual bilateral US exports and imports from 1972 to 2005
- ▶ The import 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

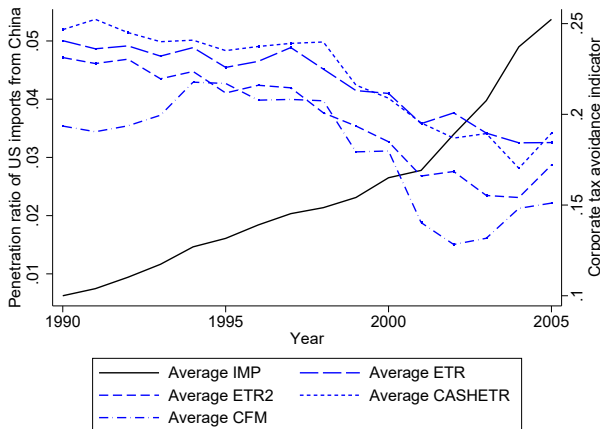
I use a subsample containing only **US-headquartered** firms operating **between 1990 and 2005** in **manufacturing**

- ▶ 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 on import competition and corporate tax avoidance

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



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

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# 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 issues

Lagged independent variables, IV strategy, and diff-in-diff approach

- ▶ **Reverse causality + “bad controls”** (Angrist and Pischke, 2009)  
 ⇒ lagged right-hand side variables [▶ Table](#)
- ▶ Isolate **supply-side** driven shocks of import competition  
 ⇒ strategy akin to Autor et al. (2013)
  - Imports from China of 8 other high-income countries
  - Identification relies on 3 (too strong?) assumptions [▶ Table](#)
- ▶ Alternative: exploit the **granting of PNTR** by the US to China in 2000
  - Responsible for 1/3 of the growth of US expenditures in Chinese goods (Handley and Limao, 2017)
  - Key variable: difference between the NNTR and NTR tariff rates
  - Most of the variation comes from NNTR tariff rates, established in the 1930s

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

with  $\text{PNTR}_{jt} = 1_{t \geq 2001} (\text{NNTR}_{j1999} - \text{NTR}_{j1999})$  [▶ Table](#) [▶ Parallel trends + placebo](#)

- Robust to the correction proposed by de Chaisemartin and D'Haultfoeuille (2020)



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# What is behind this average effect?

Profit shifting of multinational firms via intangible assets

- ▶ **MNEs** can avoid taxes more easily than domestic firms: growing evidence in the literature that they **shift profits** towards low-tax countries
    - ⇒ Is the average effect driven by MNEs?
    - ⇒ Yes! ▶ Table
    - ⇒ Robust to the definition of an MNE (Exhibit 21 SEC files)
  - ▶ There are 3 main tools to shift profits: **royalty payments**, loans, and transfer prices
  - ▶ Only the first channel can be identified in Compustat and the strategic location of intangibles is one of the dominant profit shifting channels (Heckemeyer and Overesch, 2017)
    - ⇒ Indirect effect of competition through intangible assets?
    - ⇒ Yes! ▶ Table
    - ⇒ Robust to the definition of an intangible (extended definition, patent data)
- ⇒ **China shock** → **MNEs invested in intangibles** → **MNEs shifted more profits**

## Did MNEs invested in intangibles 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 should note more **foreign direct investments of MNEs in tax havens** after the shock
    - ⇒ Did MNEs intensify their network of subsidiaries in tax havens?
    - ⇒ No! ▶ Table
  - ▶ Alternatively, investments in intangibles could be a way to **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

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## Summary of the paper

- ▶ The effect of import competition on corporate tax avoidance has not yet been studied in the literature
- ▶ This paper attempts to fill this gap by investigating the effect of rising **Chinese import competition** on **tax avoidance of US publicly 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 allowed them to **shift more profits** towards low-tax countries
- ▶ However, this effect is truly **indirect**: these intangibles primarily aimed at alleviating losses rather than saving taxes

Thank you for your attention!

Questions, comments, and suggestions are welcome:

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Full paper and more info about my research:

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

# Corporate tax avoidance variables

Table 2 – Correlation of 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>	0.54	1.00		
<i>CASHETR</i>	0.25	0.44	1.00	
<i>CFM</i>	0.20	0.29	0.66	1.00

*Notes.* This table reports the mean 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.

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## Import penetration ratio across sectors

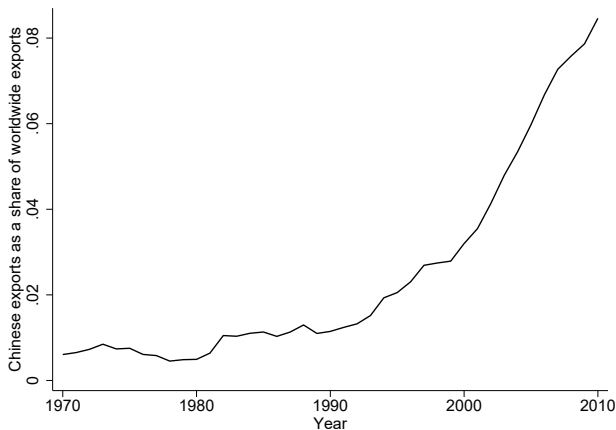
- ▶ The penetration ratio of Chinese exports to the US of **hardwood veneer and plywood products** (SIC 2435) was 12 percent in 2005, i.e., about twice the average
- ▶ For **softwood veneer and plywood products** (SIC 2436), the import penetration ratio was **40 times smaller** in the same year (0.3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

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# China's exports

Figure 2 – Exports from China between 1970 and 2010



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## Correlation (1)

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

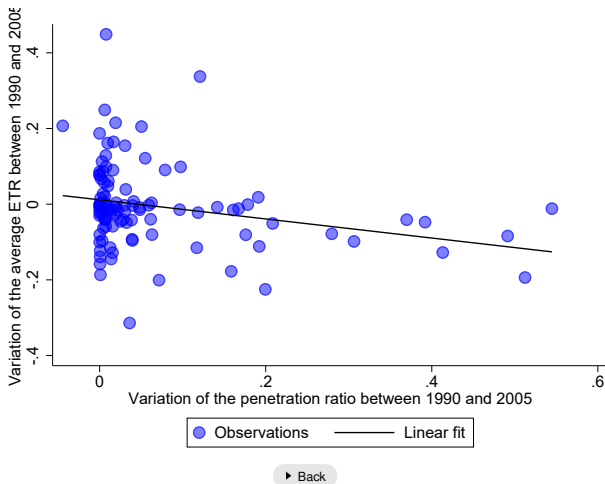
	(1) $\overline{ETR}_t$	(2) $\overline{ETR2}_t$	(3) $\overline{CASHETR}_t$	(4) $\overline{CFM}_t$
$\overline{IMP}_t$	-1.36 <sup>a</sup> (0.13)	-1.76 <sup>a</sup> (0.22)	-1.73 <sup>a</sup> (0.20)	-1.62 <sup>a</sup> (0.39)
Controls	No	No	No	No
Nb. of obs.	16	16	16	16

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> $p < 0.01$ .

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## Correlation (2)

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



## Correlation (3)

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

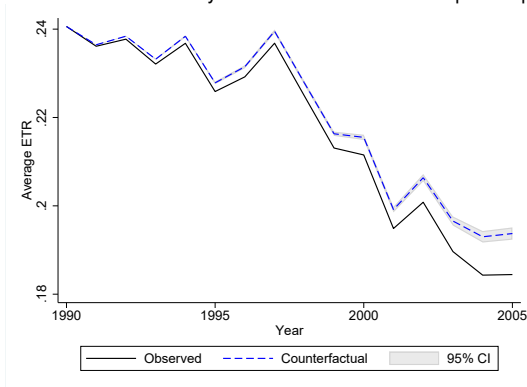
	(1) $\overline{ETR}_{jt}$	(2) $\overline{ETR2}_{jt}$	(3) $\overline{CASHETR}_{jt}$	(4) $\overline{CFM}_{jt}$
$IMP_{jt}$	-0.11 <sup>d</sup> (0.07)	-0.11 <sup>c</sup> (0.06)	-0.06 (0.06)	-0.12 <sup>d</sup> (0.08)
Year FEs	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	Yes	Yes
Nb. of obs.	1,785	1,771	1,783	1,783

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> $p < 0.01$ .

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## 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 if the penetration ratio of US imports from China had been 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>CASHE<sub>ETR</sub></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>	-0.11 <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

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## Endogeneity issues (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 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> $p < 0.01$ .

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## Endogeneity issues (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 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> $p < 0.01$ .

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## Endogeneity issues (3)

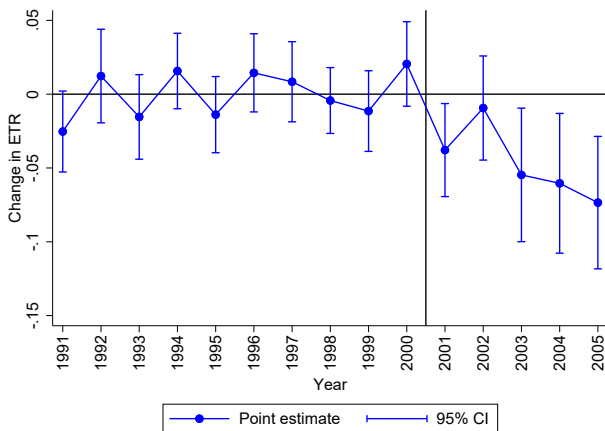
Table 8 – Effect of import competition on corporate tax avoidance: endogeneity

	(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 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> $p < 0.01$ .

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## Endogeneity issues (4)

Figure 5 – Pre-trends in *ETR* and dynamics of the effect[► Back](#)

## Mechanism (1)

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

	(1) $ETR_{ijt}$	(2) $ETR_{ijt}$
$PNTR_{jt}$	-0.06 <sup>b</sup> (0.03)	-0.02 (0.03)
$PNTR_{jt} \times MNE_{ijt}$		-0.06 <sup>a</sup> (0.02)
Controls	Yes	Yes
Firm FEs	Yes	Yes
Year FEs	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> $p < 0.01$ .

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## Mechanism (2)

Table 10 – Effect of import competition on corporate tax avoidance: mechanism

	(1) $ETR_{ijt}$	(2) $ETR_{ijt}$	(3) $ETR_{ijt}$	(4) $ETR_{ijt}$	(5) $intangibles_{ijt}$
$PNTR_{jt}$	-0.06 <sup>b</sup> (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.03 (0.03)	0.02 (0.03)
$PNTR_{jt} \times MNE_{ijt}$		-0.06 <sup>a</sup> (0.02)			0.04 <sup>c</sup> (0.02)
$intangibles_{ijt}$			0.02 (0.01)	0.04 <sup>a</sup> (0.02)	
$intangibles_{ijt} \times MNE_{ijt}$				-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> $p < 0.01$ .

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## Mechanism (3)

Table 11 – 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> $p < 0.01$ .

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## Mechanism (4)

Table 12 – 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> $p < 0.01$ .

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