

The Globalization of Corporate Control

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^aDisclaimer: This paper should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB.

Presentation Overview

1. Intro & Motivation
2. Data and Methodology
3. Patterns
4. Correlates Internationalization of Corporate Control
5. Conclusion

Intro & Motivation

Motivation.

Globalization, Aspects

- trade in goods and services
- finance [FDI, debt, bank, equity, M&A]
- outsourcing
- migration flows
- multinationals' practices
- international taxation [race to the bottom]
- corporate control (listed, publicly traded firms)
 - Corporate finance research does not examine the international angle

Motivation.

Globalization, Financial Off Shore Centers - Tax Havens

- **Considerable public interest on tax havens**
 - Public and Media
 - Policy. Recent G-7/G-20 proposals
- **Role of tax haven jurisdictions seems to have increased**
 - types of transactions and services has broadened
 - number of jurisdictions has increased
 - many "marginal" cases [Belgium, Netherlands, UK]
 - US states [Delaware, South Dakota]
- **About 10% of world GDP is held offshore** [Zucman, 2013]
 - considerable country heterogeneity [Alstadsaeter, Johannesen, and Zucman (2018) using partial BIS data]; hard to explain it with taxation, political regime, institutions, etc.
- **Tax havens account for more than 10% of all cross-border positions and 10% of all corporate financing** [Coppola, Maggiori, Neiman, and Schreger (2021)]

1. **Map international corporate control** for publicly traded corporations in 2012
 - Foreign controlling shareholders [via domestic or tax-haven incorporated intermediaries]
 - Controlling shareholders in financial off-shore centers [via intermediate companies in other tax haven jurisdictions or in other foreign]
 - Domestic controlling shareholders [directly or via foreign or tax haven intermediate firms]
2. **Patterns of International Corporate Control**
 - Foreign Control at Destination Source
 - Control by or via Tax Havens at Destination Source
3. **Correlates of International Corporate Control and Tax Havens Use**
 - Size. Population and Income
 - Corruption. Institutional Quality
 - Taxation. Statutory and Effective

1. Financial Globalization (Capital Flows).

- *Capital Flows*. Alfaro, Kalemli-Ozcan, and Volosovyc (2008), Lane and Milesi-Ferretti (2008), Lane and Shambaugh (2011), Forbes (2010)
- *FDI, Equity, Debt, and Banking*. Wei (2000); Portes and Ray (2005), Papaioannou (2009), Aviat and Coeurdacier (2007)
- *Indirect Exposure and Off-Shore Centers*. Copolla, Maggiori, and Neiman, (2021). Damgaard, Elkjaer, and Johannesen (2019).

2. Corporate Finance. [Corporate Ownership and Control]

- *Law and Finance*. La Porta, Lopez-De-Silanes, and Shleifer (1999), Claessens, Djankov, and Lang (2000), Faccio and Lang (2002), Laeven and Levine (2007)
- *International Corp. Finance*. Rossi and Volpin (2003), Aminadav and Papaioannou (2020)

3. Tax Havens and Financial Off-Shore Centers Zucman (2015)

- *Profit Shifting*. Johannesen, Torslov, and Wier (2019), Guvenen et al. (2018)
- *Asset Hiding*. Alstadster, Johannesen, and Zucman (2018), Zucman (2018)

Data and Methodology

1. Ownership Data

- ORBIS
- Extensions

2. Identifying Corporate Control

3. Cross-Border and Domestic Control

- Categories. Company Examples
- Categories. Country Example

1. **ORBIS.** Bureau van Dijk. Kalenli-Ozcan et al. (2015)
 - matched with Datasteam (Thompson Reuters) and Compustat (North America and Global)
 - gaps, errors, duplicates, incomplete coverage
2. **Aminadav and Papaioannou (JF 2020).**
 - manually extend ORBIS and correct errors
 - added info on 10,857 listed firms in 2007 and 2012
3. **This Paper's Update. 2012.**
 - Extra 4,002 listed firms (3,695 unique shareholders) in 2012
 - corrected more errors and inconsistencies

Approach. Manual checks of all publicly-traded firms (starting from those with no/incomplete information on ownership)

Sources (publicly available)

- Financial data providers [e.g., Bloomberg, Dun Bradstreet, Google Finance, Credit Risk Monitor, and Forbes.]
- Government publications and regulatory agency reports [e.g., SEC, BoE]
- General news
- *International Consortium of Investigative Journalists* [effort had started before the initial releases]

Consistency Checks. Cross-Country Comparisons

27,315 public (listed) firms from 126 jurisdictions. Exclude

- companies with market cap below 1 million USD. [956 very small firms in 48 countries]
- companies with aggregate ownership links below 1%. [300 firms in 49 jurisdictions]
- companies in countries with less than 10 listed firms [113 firms in 40 jurisdictions]
- stakes held by shareholders from jurisdictions with stakes in 10 or fewer companies [56 jurisdictions]
- companies whose controller is from a jurisdiction that controls 5 or fewer companies [75 companies; 37 controlling jurisdictions]

=> Final Sample. 25,884 listed firms in 2012.

Dataset. Listed-Company Sample. 2012

Features

25,884 listed firms in 2012.

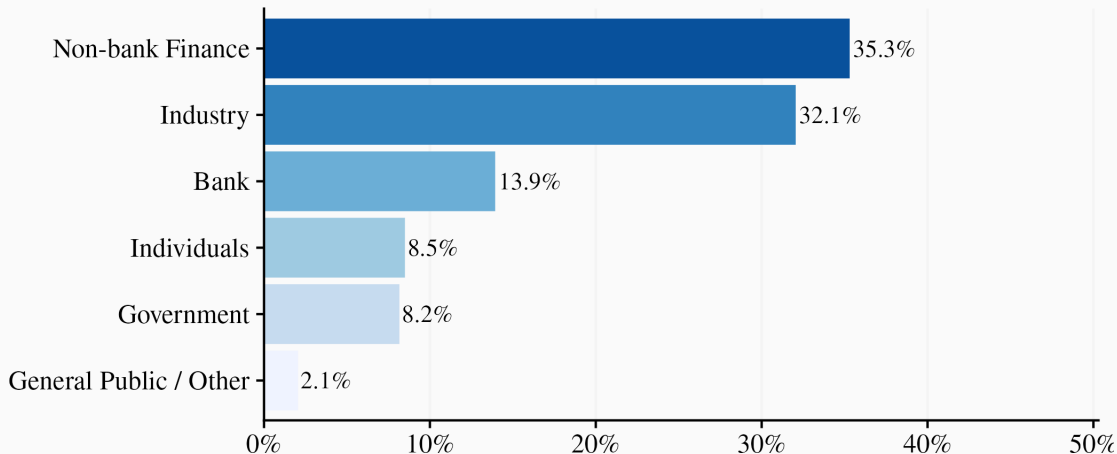
- located/incorporated in 86 jurisdictions [96% world GDP; 87% market equity in Datastream; 81% global market cap in WB]
- shareholding entities from 91 jurisdictions
- controlling shareholders from 80 countries
- combined market capitalization: 41.3\$ trillion. [data capture about 50% of it]

Shareholder Types. 19 → 6 Categories

1. Government
2. Banks
3. Non-Bank Financial Institutions [PE/VC/HF/Insurance]
4. Individuals/families
5. Industry and Other Private or Not-Identified Firms
6. Public/Other

Shareholder Types [25,884 listed firms, 86 countries]

All Listed Firms [Controlled and Non-Controlled]



Identifying Corporate Control. Approaches

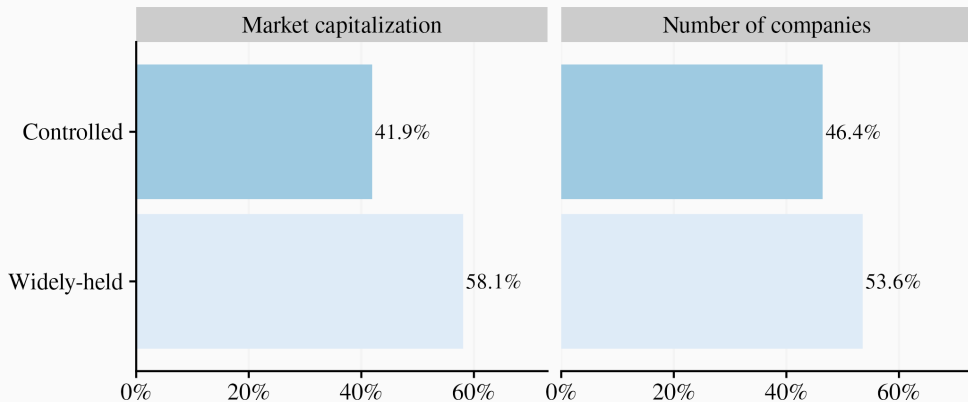
1. Voting Rights Cutoffs.

- 20%. [La Porta et al. \(1999\)](#). Aminadav and Papaioannou (2020)
- 25%. Lins, Volpin, and Wagner (2013)
- 10%. Laeven and Levine (2008)

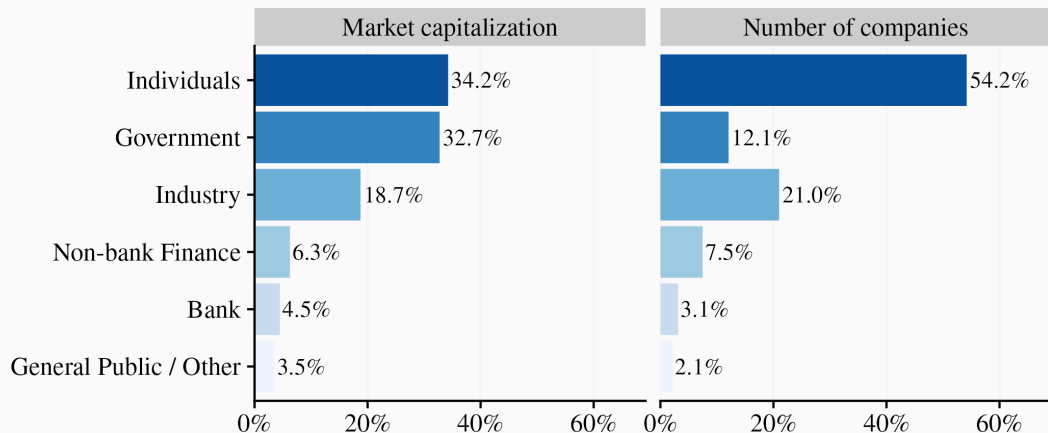
2. Voting Power Index (Shapley-Shubik). Aminadav and Papaioannou (2020)

Controlled and Widely-Held Listed Corporations (Firm Level)

25,884 companies in 86 countries



Corporate Control by Controlling Shareholder Type (Firm Level)



International Corporate Control. Nationality. Immediate and Ultimate Controlling Entity

1. Immediate Shareholder Entity/Company

- 1.1 domestic
- 1.2 foreign (non-tax haven)
- 1.3 tax haven (foreign)

2. Ultimate Controlling Shareholder

- 2.1 domestic
- 2.2 foreign (non-tax haven)
- 2.3 tax haven (foreign)

International Corporate Control. Categories

1. Domestic control direct or through domestic immediate (intermediary)
2. Domestic control through foreign non-tax haven immediate (intermediary)
3. Domestic control through foreign tax haven immediate (intermediary)
4. Foreign control through domestic immediate (intermediary)
5. Foreign control direct or through through foreign immediate (intermediary)
6. Foreign control through tax-haven immediate (intermediary)
7. Tax haven control through domestic immediate (intermediary)
8. Tax haven control through foreign (non-tax haven) immediate (intermediary)
9. Tax haven control direct or through another tax haven immediate (intermediary)

Tørsløv, Wier, and Zucman (2018) and OECD (2000)

- **Both** Andorra, Anguilla, Antigua and Barbuda, Bahamas, Bahrain, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Cyprus, Gibraltar, Liberia, Liechtenstein, Maldives, Malta, Marshall Islands, Monaco, Netherlands Antilles, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Vanuatu
- **Only OECD (2000)** Mauritius, Nauru, Samoa, San Marino, Seychelles, United States Virgin Islands
- **Only Tørsløv, Wier, and Zucman (2018)** Hong Kong, Ireland, Jordan, Lebanon, Luxembourg, Macao, Netherlands, Singapore, Switzerland (, Belgium)

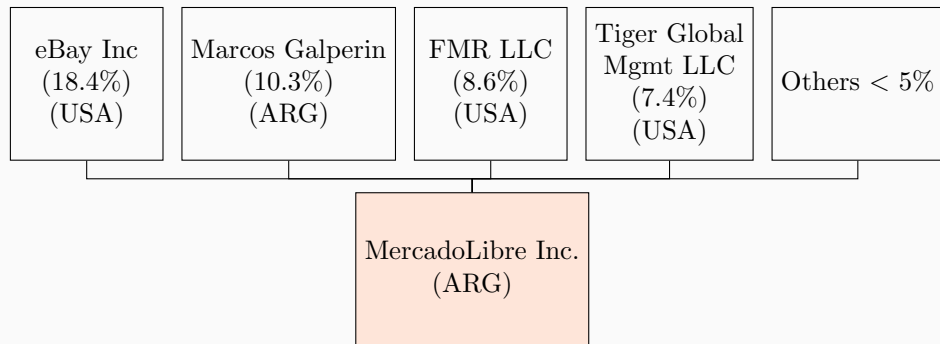
1. **Company level**

- Controlled companies. 9 categories
- Widely-held companies. without large shareholder

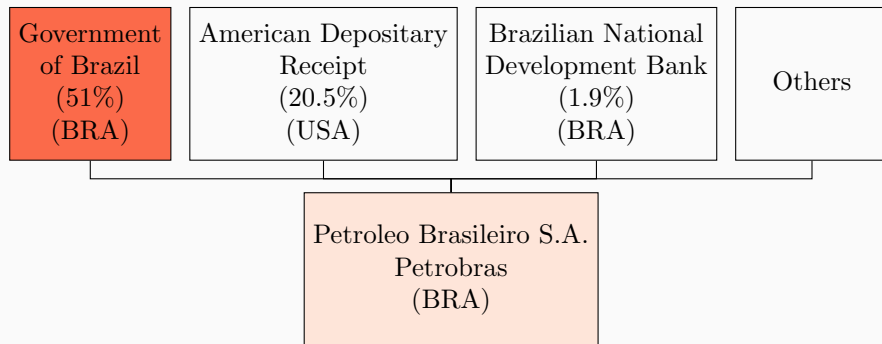
2. **Country (jurisdiction) level**

- Destination
- Source

Widely-held Mercado Libre Inc.

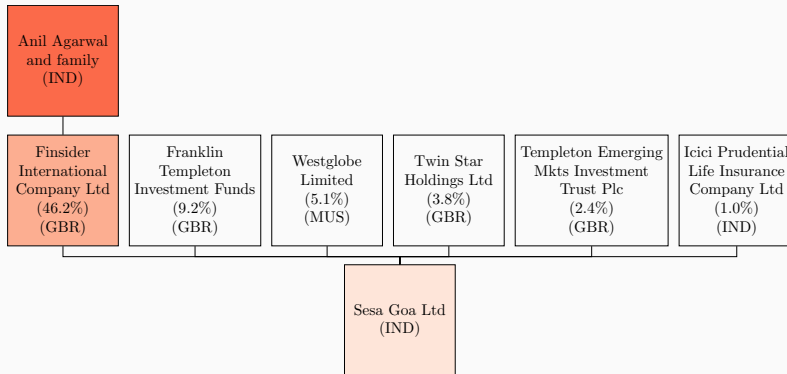


Domestic control direct or through domestic immediate (intermediary) Petroleo Brasileiro S.A. (Petrobras)



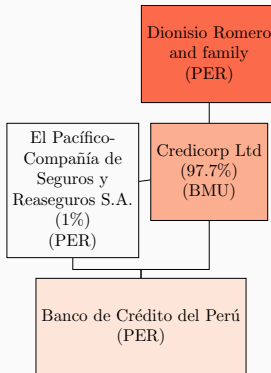
Domestic control through foreign non-tax haven immediate (intermediary)

Sesa Goa Ltd



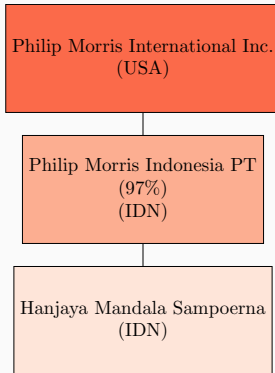
Domestic control through foreign tax haven immediate (intermediary)

Banco de Crédito del Perú



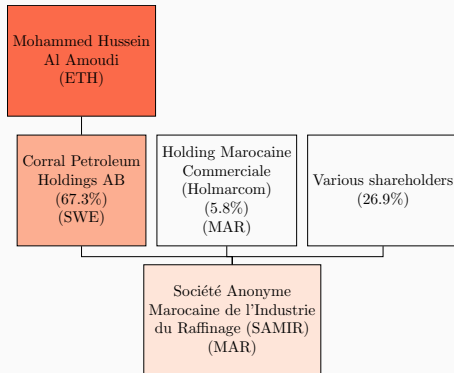
Foreign control through domestic immediate (intermediary)

Hanjaya Mandala Sampoerna



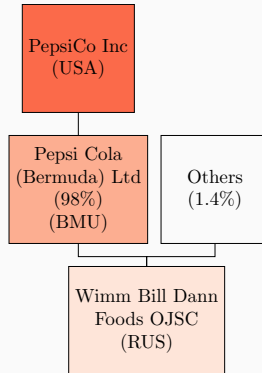
Foreign control direct or through through foreign immediate (intermediary)

Société Anonyme Marocaine de l'Industrie du Raffinage (SAMIR)



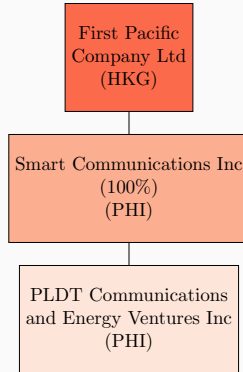
Foreign control through tax-haven immediate (intermediary)

Wimm Bill Dann Foods OJSC



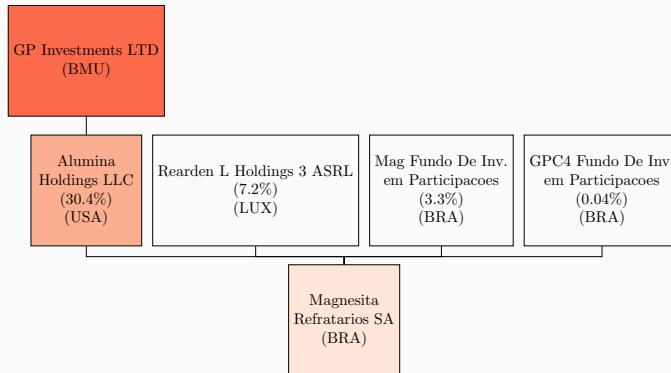
Tax haven control through domestic immediate (intermediary)

PLDT Communications and Energy Ventures Inc.

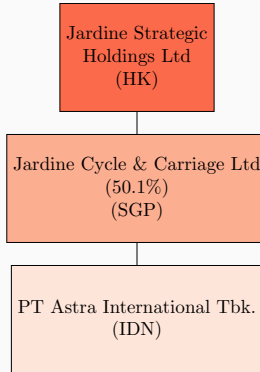


Tax haven control through foreign (non-tax haven) immediate (intermediary)

Magnesita Refratários SA



Tax haven control direct or through another tax haven immediate (intermediary) PT Astra International Tbk.



Country Example. Argentina. Destination

- **76 companies; total market cap. 32 billion USD in 2012**
 - 71 controlled (w/ shareholder w/ voting rights >20%; market cap 26 billion USD)
 - 5 widely-held (market cap. 6 billion USD)
- **25 controlled by a Argentine entity, worth 13375 M USD.**
 - 25 controlled by a Argentine entity through a Argentine entity, worth 13375 M USD.
 - 0 controlled by a Argentine entity through a foreign entity.
 - 0 controlled by a Argentine entity through a tax haven entity.
- **24 controlled by a foreign entity, worth 9537 M USD.**
 - 10 controlled by a foreign entity through a Argentine entity, worth 1963 M USD.
 - 13 controlled by a foreign entity through a foreign entity, worth 5877 M USD.
 - 1 controlled by a foreign entity through a tax haven entity, worth 1697 M USD.
- **3 controlled by a tax haven entity, worth 404 M USD.**
 - 1 controlled by a tax haven entity through a Argentine entity, worth 148 M USD.
 - 2 controlled by a tax haven entity through a foreign entity, worth 256 M USD.
 - 0 controlled by a tax haven entity through a tax haven entity.
- 19 domestic corporations, worth 2746 M USD without information on nationality

Country Example. Argentina. Source

- Argentine entities (individuals/families, banks, government, industry, non-bank finance) in 2012 control 30 companies worth 14 billion USD
- **25 domestic firms, worth 13375 M USD**
 - 25 domestic firms controlled through a domestic entity, worth 13375 M USD.
 - 0 domestic firms controlled through a foreign entity.
 - 0 domestic firms controlled through a tax haven entity.
- **5 foreign firms, worth 662 M USD**
 - 3 foreign firms controlled through a domestic entity, worth 353 M USD.
 - 0 foreign firms controlled through a foreign entity.
 - 2 foreign firms controlled through a tax haven entity, worth 309 M USD.
- **0 tax haven firms**
 - 0 tax haven firms controlled through a domestic entity.
 - 0 tax haven firms controlled through a foreign entity.
 - 0 tax haven firms controlled through a tax haven entity.

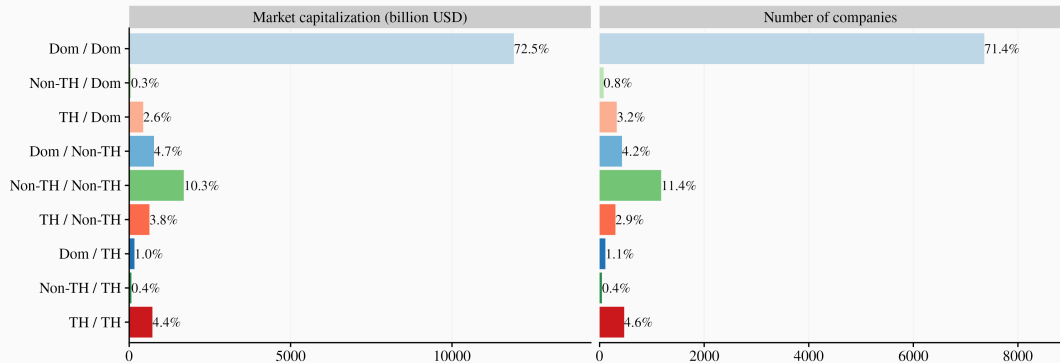
Patterns

Cross-Country Patterns and Mappings

1. Cross-Border Corporate Control
2. Tax Havens

Corporate Control across the World.

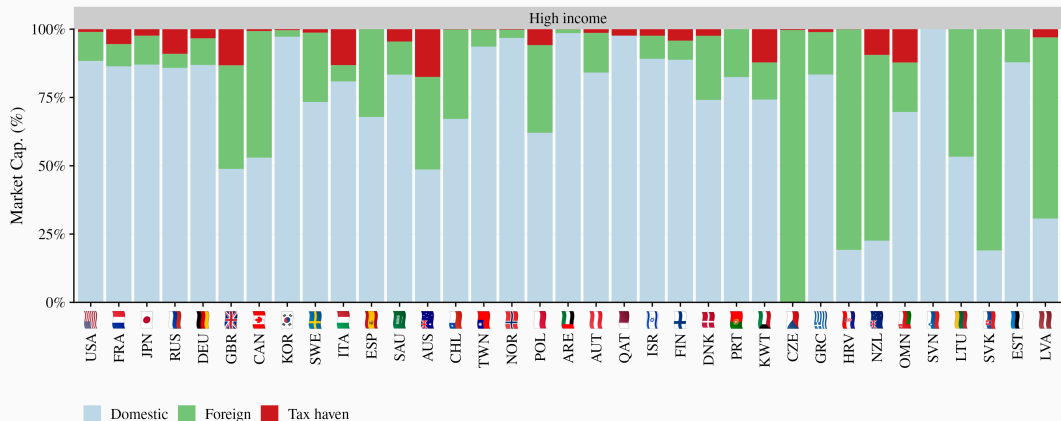
Immediate (Left) and Ultimate (Right) Controlling Shareholder



Dom indicates a domestic shareholder or controlled.
Non-TH indicates a foreign non-tax haven.
TH indicates a foreign tax haven.
E.g., Dom / TH indicates that the main shareholder is domestic,
and the ultimate controller is from a foreign tax haven.

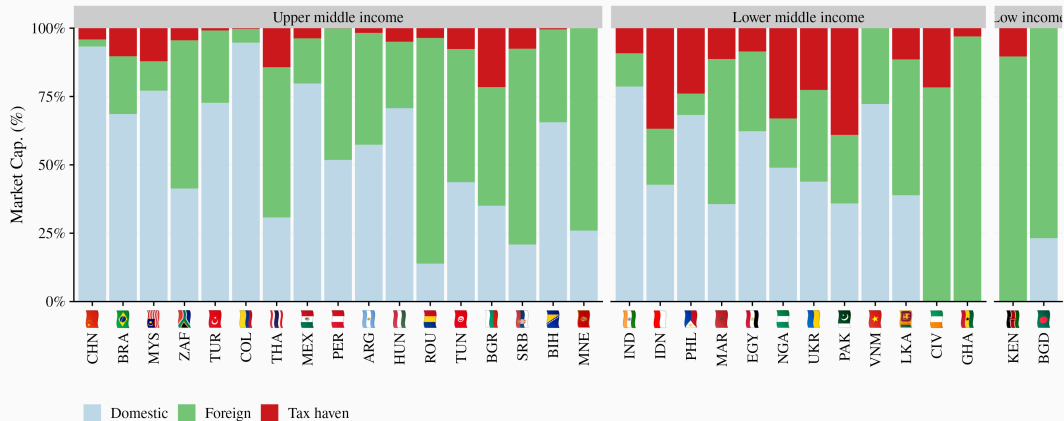
International Corporate Control. Ultimate Controller

Industrial Countries



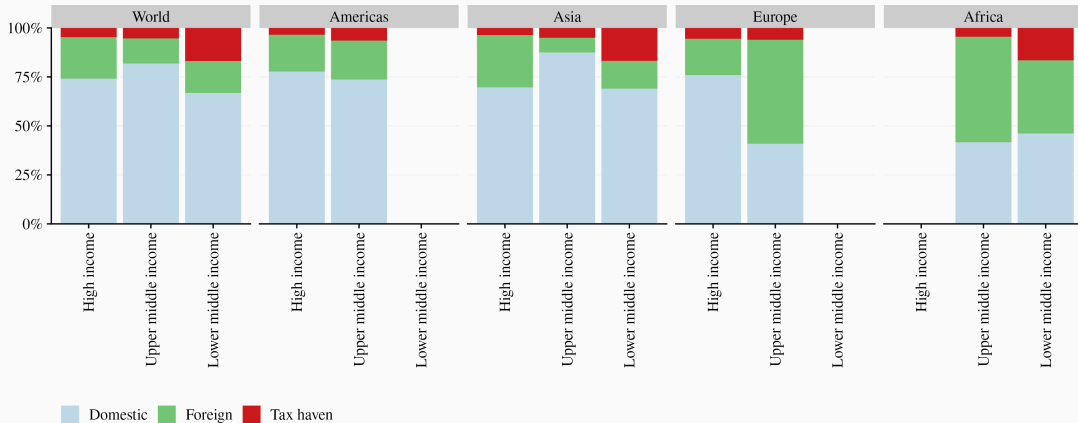
International Corporate Control. Ultimate Controller

Emerging and Frontier Market Countries



International Corporate Control. Ultimate Controller

Regional and Income Group Categorization



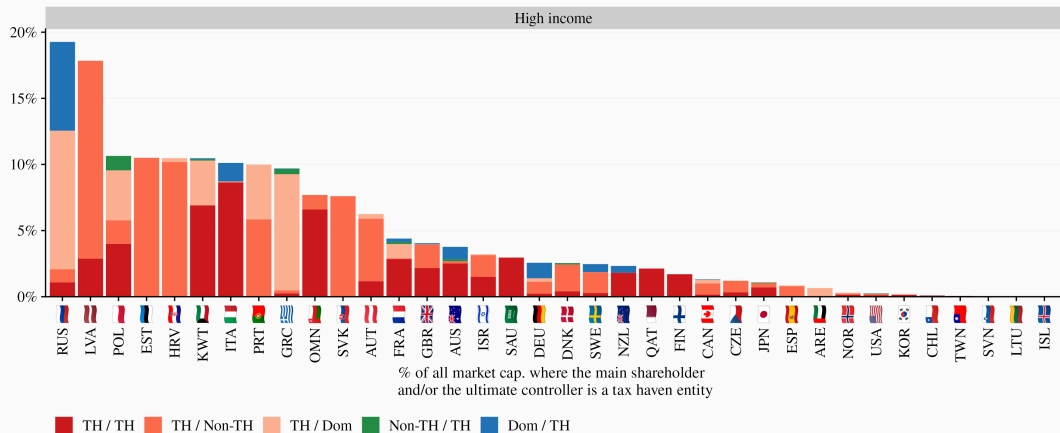
Only groupings with at least 3 countries are shown.

International Corporate Control. International Controlling Shareholders (1). Patterns. Summary

- **Wide variation in internationalization of corporate control**
- **Considerable foreign control:**
 - Almost all Eastern European countries.
 - Africa. All sample countries
 - Parts of Latin America. Peru, Argentina, Chile, [very low in Colombia]
- **Small share of foreign controlled firms in:**
 - China
 - East Asia. Taiwan, South Korea
 - West Europe, Japan, the United States, United Kingdom, United States

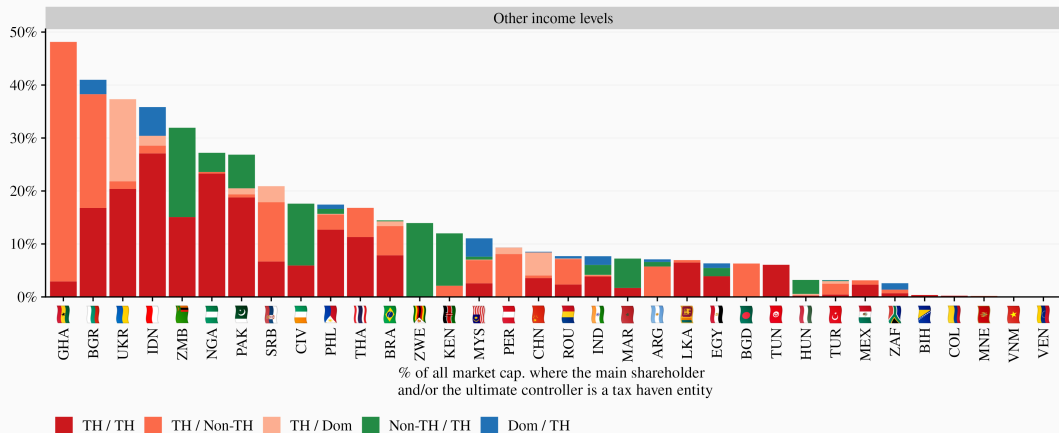
Tax Havens in International Corporate Control

High-Income Countries. Destination

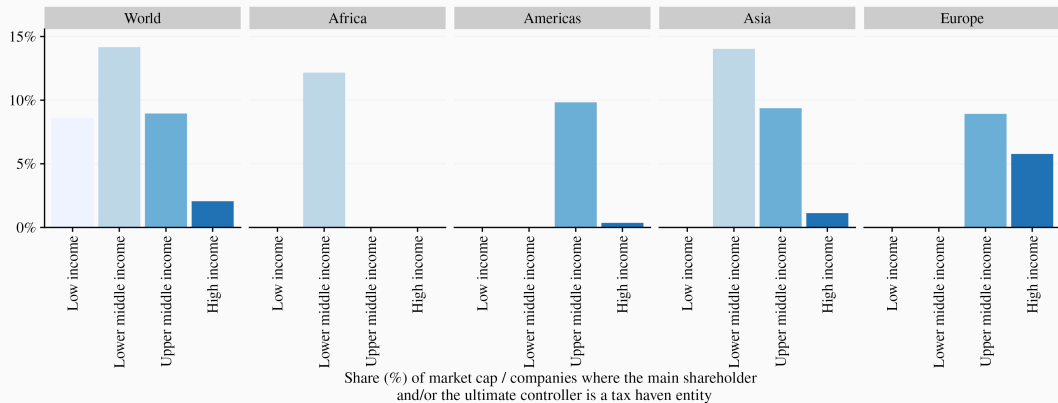


Tax Havens in International Corporate Control, cont

Emerging and Frontier Market Countries. Destination



Tax Havens in International Corporate Control By Continent and Income Group



Only groupings with at least 3 countries are shown.
Companies from tax haven jurisdictions are not counted.

International Corporate Control. (2). Tax Havens Patterns. Summary

- **Wide variation tax haven use, even in the same region** [Czech Republic - Hungary]
- **Low tax haven use in:**
 - Scandinavia, Japan, United Kingdom, United States [but US state variability]
- **Considerable tax haven use in:**
 - Eastern Europe. Bulgaria, Ukraine, Serbia, Latvia and Russia
 - Africa. Ghana, Zambia, Nigeria, Ivory Coast, and Kenya
 - East Asia. Indonesia, Pakistan, Philippines.
 - Latin America. Brazil, Peru, Argentina
- **TH/DOM**. In some countries control by domestic (individuals/families) via tax-haven entities. Russia, Ukraine, Greece, Poland, Portugal, and China.
- **TH/Non-TH**. In some countries foreigners invest via tax-haven immediate.
Latvia, Estonia, Croatia, Slovakia, Austria, Portugal, UK, Ghana, Bulgaria, Peru, and Bangladesh

Correlates Internationalization of Corporate Control

Correlates Internationalization of Corporate Control.

Section Structure

1. Objective

2. Aspects

2.1 Institutions

2.2 Taxation

Objective

Cross-Country Analysis

- **Objective.** Characterize international corporate control and tax havens role
 - Connect and compare to vast research on international capital flows, FDI, portfolio (debt, equity investment)
 - Connect and compare to studies on tax havens [Zucman (2019, 2018), Coppola et al. (2021)]
- **Policy.**
 - International taxation
 - Role of tax havens
 - Regulation
- **Caveat. Simple correlations without causal interpretation**
 - omitted variables, reverse causation, error-in-variables

International Control Correlates.

Approach Aspects

Approach Cross-Country (Conditional) Correlations

- **International Control.** Destination and Source
- **Control via Tax Havens.** Destination and Source

Dimensions

1. **Size.** Population and Development
2. **Corruption (Institutions)**
3. **Taxation.** Corporate, Capital, Labor [statutory and effective]

Correlates (1).

Market Size and International Corporate Control

Large literature on international trade and cross-border capital flows and investment

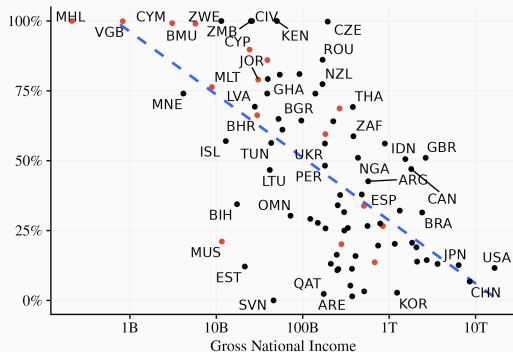
- Portes and Rey (2005), Rose and Spiegel (2004), Tille and Van Wincoop (2010), Lane and Milesi-Ferretti (2010), Forbes (2010), Fratzscher (2012)
- Hau and Ray (2008), Matsuyama (2005, 2004)
- *Reviews*. Head and Mayer (Handbook Int. Econ, 2014), Anderson (Ann. Rev. Ec 2011)

Size and International Corporate Control

Incl. Tax-Haven Jurisdictions

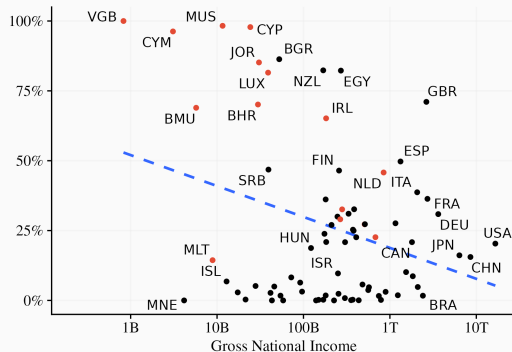
Panel A

Share of market cap in controlled
local firms controlled by foreigners



Panel B

Share of market cap of controlled
foreign firms relative to all
firms controlled by country



Market Size at Destination and International Corporate Control Incl. Tax-Haven Jurisdictions

	Destination			
	Market Cap		Number of companies	
	Share of foreign controlled firms in all controlled firms	Share of stakes in foreign firms among all recorded stakes	Share of foreign controlled firms in all controlled firms	Share of foreign firms in all firms with a stake
	Model 1	Model 2	Model 3	Model 4
Log GNI per cap.	−0.137*** (0.024)	−0.114*** (0.021)	−0.067*** (0.017)	0.030 (0.043)
Log Population	−0.083*** (0.012)	−0.062*** (0.012)	−0.058*** (0.011)	−0.058* (0.027)
Num. Obs	85	85	85	85
Adjusted R2	0.446	0.343	0.427	0.162
Fixed Effects	Continent	Continent	Continent	Continent

Market Size at Source and International Corporate Control Incl. Tax-Haven Jurisdictions

	Source			
	Market Cap		Number of companies	
	Share of foreign controlled firms in all controlled firms	Share of stakes in foreign firms among all recorded stakes	Share of foreign controlled firms in all controlled firms	Share of foreign firms in all firms with a stake
	Model 1	Model 2	Model 3	Model 4
Log GNI per cap.	0.051+ (0.029)	0.059+ (0.030)	0.093*** (0.020)	0.086** (0.028)
Log Population	-0.054** (0.019)	-0.089*** (0.014)	-0.038* (0.015)	-0.074*** (0.012)
Num. Obs	78	89	78	89
Adjusted R2	0.189	0.424	0.361	0.477
Fixed Effects	Continent	Continent	Continent	Continent

Market Size at Destination and Source and Use of Tax Havens

Excl. Tax-Haven Jurisdictions

	Destination				Source			
	Market Cap.		Num. Companies		Market Cap.		Num. Companies	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Log GNI	-0.008 (0.007)		-0.004 (0.004)		0.004 (0.008)		-0.001 (0.006)	
Log GNI per cap.		-0.041** (0.012)		-0.024** (0.008)		-0.025 (0.024)		-0.025 (0.021)
Log Population		0.005 (0.008)		0.005 (0.005)		0.012 (0.007)		0.005 (0.006)
Num. Obs	66	66	66	66	47	47	47	47
Adjusted R2	0.044	0.234	0.053	0.219	-0.014	0.082	-0.054	0.051
Fixed Effects	Continent	Continent	Continent	Continent	Continent	Continent	Continent	Continent

Correlates (2).

Corruption (Institutional Quality) and International Corporate Control

- **Lucas' paradox.** *Why Doesn't Capital Flow from Rich to Poor Countries?*
 - **Role of Institutions.** Alfaro, Kalemli-Ozcan, and Volosovyc (2007, 2008). Wei (2000). Papaioannou (2009). Daude and Fratzscher (2008)
 - Paper's focus on International Corporate Control
- **Law and (International) Finance.**
 - **Agency Theory and Contractual Frictions.** Shleifer and Wolfenzon (2006). Durnev and Kim (2005), Bukart, Panunzi and Sheleifer (2003)
 - Empirical focus on international control
- **Tax Havens. Parasites or Symbionts?** Rose (2006), Zucman (2015)
 - Paper's focus on Tax Havens in Corporate Control

Corruption at Destination and International Corporate Control

	Destination			
	Market Cap		Number of companies	
	Share of foreign controlled firms in all controlled firms	Share of stakes in foreign firms among all recorded stakes	Share of foreign controlled firms in all controlled firms	Share of foreign firms in all firms with a stake
	Model 1	Model 2	Model 3	Model 4
Control of Corruption	0.040 (0.038)	0.018 (0.039)	0.062+ (0.035)	0.209* (0.091)
Num. Obs	84	84	84	84
Adjusted R2	0.424	0.315	0.416	0.201
Fixed Effects	Continent	Continent	Continent	Continent
Controls	Pop.&GNIpc	Pop.&GNIpc	Pop.&GNIpc	Pop.&GNIpc

Corruption at Source and International Corporate Control

	Source			
	Market Cap		Number of companies	
	Share of foreign controlled firms in all controlled firms	Share of stakes in foreign firms among all recorded stakes	Share of foreign controlled firms in all controlled firms	Share of foreign firms in all firms with a stake
	Model 1	Model 2	Model 3	Model 4
Control of Corruption	0.056 (0.042)	0.022 (0.058)	0.052 (0.033)	0.045 (0.054)
Num. Obs	77	86	77	86
Adjusted R2	0.148	0.340	0.339	0.416
Fixed Effects	Continent	Continent	Continent	Continent
Controls	Pop.&GNIpc	Pop.&GNIpc	Pop.&GNIpc	Pop.&GNIpc

Corruption and the Use of Tax Havens in International Corporate Control

	Destination		Source	
	Market Cap.	Num. Companies	Market Cap.	Num. Companies
	Model 1	Model 2	Model 3	Model 4
Control of Corruption	−0.041* (0.016)	−0.030* (0.011)	−0.037 (0.022)	−0.033+ (0.019)
Num. Obs	66	66	47	47
Adjusted R2	0.281	0.277	0.112	0.091
Fixed Effects	Continent	Continent	Continent	Continent
Controls	Pop.&GNIpc	Pop.&GNIpc	Pop.&GNIpc	Pop.&GNIpc

- **International Capital Flows.** Wei (2000), Alfaro, Kalemli-Ozcan, and Volosovyc (2007, 2008), Razin (1994)
- **Globalization and Taxation.** Feldstein (1994), Egger, Nigai, and Strecker (2019)
- **Tax Havens.** Hines and Rice (2004), Brubert and Mutti (1991) Johannesen, Torslov, and Wier (2019), Guvenen et al. (2018), Tørsløv et al. (2020), Alstadsaeter, Johannesen, and Zucman (2018)

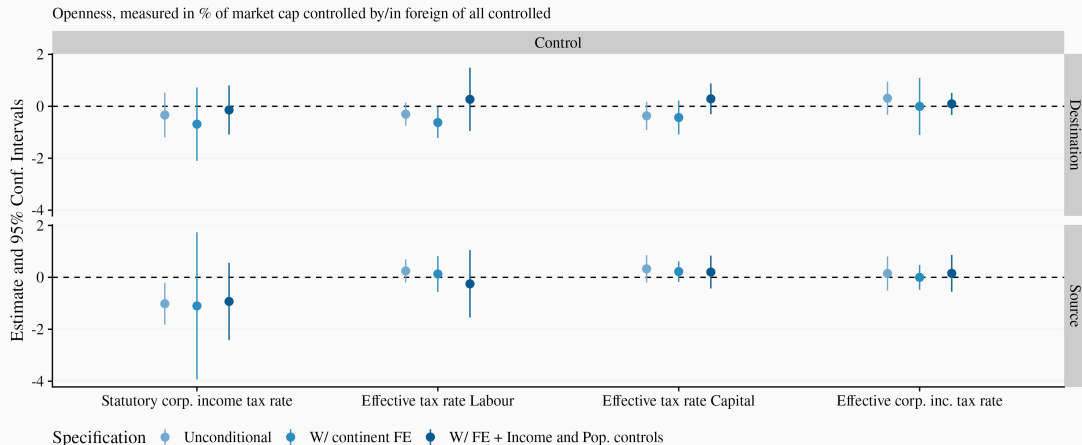
Correlates (3).

Statutory and Effective Taxes. Capital and Labor

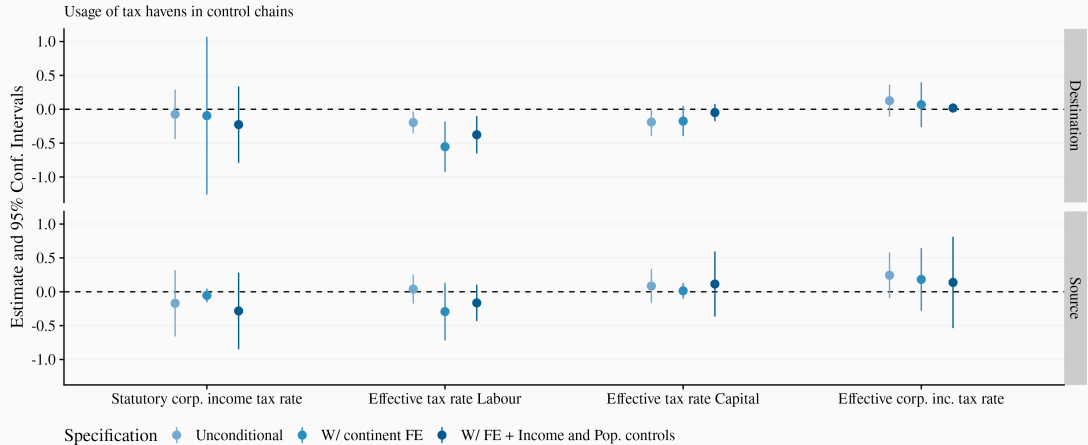
Bachas, Fisher-Post, Jensen, and Zucman (2021)

- Statutory tax rates
- Effective tax rates on capital and labor

Taxes and International Corporate Control



Taxes and Tax Haven Use in International Corporate Control



Summary (1): Correlates International Corporate Control.

1. Size. Population and Development

- Destination. Int. corporate control is larger in smaller and underdeveloped countries
- Source. Int. corporate control is lower for richer and more populous countries

2. Corruption (Institutions)

- Destination. no association [opposing mechanisms?]
- Source. Int. corporate control (abroad) is somewhat higher for more institutionally advanced countries with less corruption [diversification benefits]

3. Taxation. Corporate, Capital, Labor [effective]

- Destination. weak associations; higher effective taxes – > somewhat lower foreign control
- Source. weak associations

Summary (2): Correlates Tax Havens in Corporate Control

1. Size. Population and Development

- Destination. Tax havens in int. corporate control larger in less developed countries
- Source. no association

2. Corruption (Institutions)

- Destination. Int. control via/from tax havens is higher in less institutionally developed countries with, scoring higher in corruption perceptions measures
- Source. Somewhat higher share of tax haven use in corporate control (abroad) in less institutionally advanced countries with more corruption

3. Taxation. Corporate, Capital, Labor [effective]

- Destination. weak correlations
- Source. weak associations

Conclusion

1. Map international dimension of corporate control for publicly traded corporations

- Foreign controlling shareholders [via domestic or tax-haven incorporated intermediaries]
- Controlling shareholders in financial off-shore centers [via intermediate companies in other tax haven jurisdictions or in other foreign]
- Domestic controlling shareholders [directly or via foreign or tax haven intermediate firms]

2. Patterns of International Corporate Control

- Foreign Control at Destination and Source
- Control by or via Tax Havens at Destination and Source

3. Correlates of International Corporate Control and Tax Havens Use

- Institutions-Corruption
- Taxation. Statutory and Effective

- **Sample**

- years. 2019 (and 2007). Study dynamics in internationalization and tax haven use
- fully map chains of control
- distinguish by controlling shareholder type [individual/family, bank, PE/HF/VC, other]

- **Gravity Model of Corporate Control**

- bilateral features; geographic distance, historical ties, cultural similarities, investment treaties, currency regime, etc
- compare with trade, FDI, equity, and bank flows

- **Legal Origin. Mechanisms.**

- investor Protection, Courts and Bankruptcy, Labor Market Regulation, Capital Markets and Company Law