Firms, Investors, and Global Capital Allocation

Brent Neiman, Professor, University of Chicago
Booth School of Business

Residency, Nationality, and Tax Havens

Saturday, August 29, 2020
How Petrobras Raises Capital From Developed Countries
How Petrobras Raises Capital From Developed Countries

Petroleo Brasileiro SA
Brazil
USA
EMU
$0
$0
How Petrobras Raises Capital From Developed Countries

Petrobras International Finance Co. (Cayman Islands) raises capital from USA banks, which then invest in Petrobras Brasileiro SA (Brazil). The transaction involves $1bn from the USA and $0 from EMU (European Monetary Union).
How Petrobras Raises Capital From Developed Countries

- **Petroleo Brasileiro SA** (Brazil)
- **Petrobras International Finance Co.** (Cayman Islands)
- **Petrobras Global Finance BV** (Netherlands)
- **Petrobras Global Trading BV** (Netherlands)

- Initial capital: $5bn
- Additional capital: $1bn, $1bn, $6bn, $0, $0
- Destinations: USA, EMU

_The diagram illustrates the flow of capital from Petrobras to its international finance and trading subsidiaries, highlighting the various capital sources and their destinations._
Example: Petrobras Bond (CUSIP 71645WAR2)

- $2.7 Billion, coupon of 5.375%, 10-year, issued January 2011
- Immediate issuer: Petrobras Int. Fin. Co., Cayman Islands
- Official statistics: bond from Cayman Islands, finance/bank. More useful if a bond from Brazil, energy
- Material that follows comes from Coppola, Maggiori, Neiman, and Schreger (2020)
Why Issue in Tax Havens?

1. Avoid taxation (corporate and investor)
2. Avoid capital controls
3. Avoid regulation
4. Access a different investor base
1. US Firms Use Tax Havens to Reduce Tax Burden

- US corporate taxes cover worldwide income
- Common to move headquarters to Ireland

![Graph showing the trend of US Tax Inversions from 2005 to 2017](chart.png)
2. Chinese Firms Use Tax Havens to Avoid Capital Controls

▶ China restricts foreign investment in strategic industries

▶ Get around this using Variable Interest Entity (VIE) structure:

- **Standard Structure**
  - Foreign Shareholders
  - China’s portfolio liabilities, linked to stock price
  - Operating Company
  - Chinese Shareholders

- **VIE Structure**
  - Foreign Shareholders
  - Listed Company
  - China’s liabilities, not linked to stock price
  - Operating Company
  - Chinese Owners
  - WFOE
  - SPV

▶ Foreign investment in Alibaba, Baidu, JD.com, and Tencent all, by residency, flows through the Cayman Islands!
3. European Firms Use Tax Havens to Avoid Regulation

- EU introduced “Market Abuse Regulation” (MAR) in July 2016
- Extended strict disclosure requirements to issues in most of EU, but not Guernsey and Jersey
## 4. EM Firms Use Tax Havens to Access DM Investors

<table>
<thead>
<tr>
<th></th>
<th>Share of Bond Issuance</th>
<th>Share of DM Portfolios</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parent</td>
<td>TH Sub</td>
</tr>
<tr>
<td>Petrobras</td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
<td>Vale</td>
<td>35%</td>
<td>58%</td>
</tr>
<tr>
<td>JBS</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Braskem</td>
<td>9%</td>
<td>81%</td>
</tr>
<tr>
<td>Cosan</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td><strong>All BRA Corporates</strong></td>
<td><strong>58%</strong></td>
<td><strong>35%</strong></td>
</tr>
</tbody>
</table>
Using a number of commercial data sources, we map 27m securities from issuer (Residency) to ultimate parent (Nationality)

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Residency</th>
<th>Parent</th>
<th>Nationality</th>
<th>Value ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Corporate bonds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petrobras Intl. Finance Co.</td>
<td>CYM</td>
<td>Petroleo Brasileiro SA</td>
<td>BRA</td>
<td>12.8</td>
</tr>
<tr>
<td>Gaz Capital SA</td>
<td>LUX</td>
<td>Gazprom PJSC</td>
<td>RUS</td>
<td>29.7</td>
</tr>
<tr>
<td><strong>B. Equities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alibaba Group Holding Ltd.</td>
<td>CYM</td>
<td>Alibaba Group Holding Ltd.</td>
<td>CHN</td>
<td>441.6</td>
</tr>
<tr>
<td>Medtronic Plc</td>
<td>IRL</td>
<td>Medtronic Plc</td>
<td>USA</td>
<td>85.7</td>
</tr>
</tbody>
</table>
How Big A Deal? Tax Haven Share of Total Financing

Corporate Bonds

Equities


TH Share in Total Financing
How Big A Deal? Tax Haven Share Cross-Border Financing

The graph shows the TH Share in Foreign Issuance from 2007 to 2017. Two categories are plotted: Corporate Bonds and Equities. Corporate Bonds show a steady increase with minor fluctuations, while Equities exhibit a more gradual rise.
Residency-based vs. Nationality-based Statistics

- What is meant by Residency and Nationality?
Residency-based vs. Nationality-based Statistics

- What is meant by Residency and Nationality?

- Cases where Residency = Nationality:
  - Non-US governments issue USD bonds in New York (Brazil)
  - American (Global) Depository Receipts (ADRs)

- Cases where Nationality ≻ Residency:
  - Issue through foreign operating subsidiary (Toyota Motors NA)
  - Dual listings: Companies listed in multiple countries

- Cases where Nationality ≻ Residency:
  - Issue through foreign shell-company (Petrobras)
  - Tax inversions to THs (Medtronic)

More to come on this...
Residency-based vs. Nationality-based Statistics

- What is meant by Residency and Nationality?

- Cases where Residency = Nationality:
  - Non-US governments issue USD bonds in New York (Brazil)
  - American (Global) Depository Receipts (ADRs)

- Cases where Nationality ≻ Residency:
  - Issue through foreign operating subsidiary (Toyota Motors NA)
  - Dual listings: Companies listed in multiple countries

More to come on this...
Residency-based vs. Nationality-based Statistics

- What is meant by Residency and Nationality?

- Cases where Residency = Nationality:
  - Non-US governments issue USD bonds in New York (Brazil)
  - American (Global) Depository Receipts (ADRs)

- Cases where Nationality ≻ Residency:
  - Issue through foreign operating subsidiary (Toyota Motors NA)
  - Dual listings: Companies listed in multiple countries

- Cases where Nationality ≻ Residency:
  - Issue in THs through foreign shell-company (Petrobras)
  - Tax inversions to THs (Medtronic)

- “Right” notion of nationality depends on the question! More to come on this...
Who Issues Equity in Tax Havens?

- Bermuda ($699bn)
- Cayman Islands ($2369bn)
- Channel Islands ($309bn)
- Hong Kong ($1252bn)
- Luxembourg ($168bn)
- Panama ($48bn)
Who Issues Bonds in Tax Havens?

Bermuda ($111bn)

- USA
- QAT
- CHN
- BMU
- HKG
- CHE
- Other

Luxembourg ($662bn)

- USA
- CHE
- RUS
- DEU
- GBR
- NLD
- Other

Cayman Islands ($670bn)

- CHN
- USA
- BRA
- ARE
- HKG
- GBR
- Other

Channel Islands ($166bn)

- CHE
- GBR
- USA
- DEU
- ESP
- ZAF
- Other

Hong Kong ($170bn)

- CHN
- HKG
- GBR
- SGP
- THA
- TWN
- Other

Panama ($15bn)

- USA
- PAN
- COL
- MEX
- BRA
- ESP
- Other
Tax Havens an Important and Growing Area

- We focus on security issuance, but also key for transfer pricing and profit shifting (legally and otherwise) and for use by wealthy households to accumulate wealth.

- Key papers in the area (among others):