

China in Tax Havens

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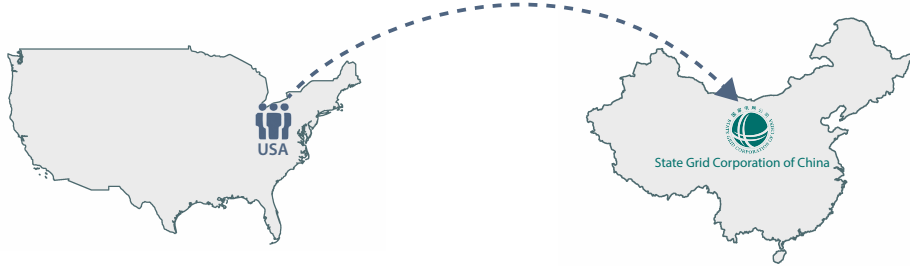
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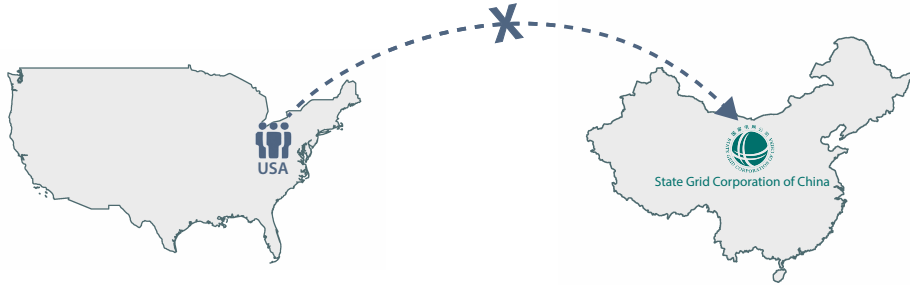
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June 2023

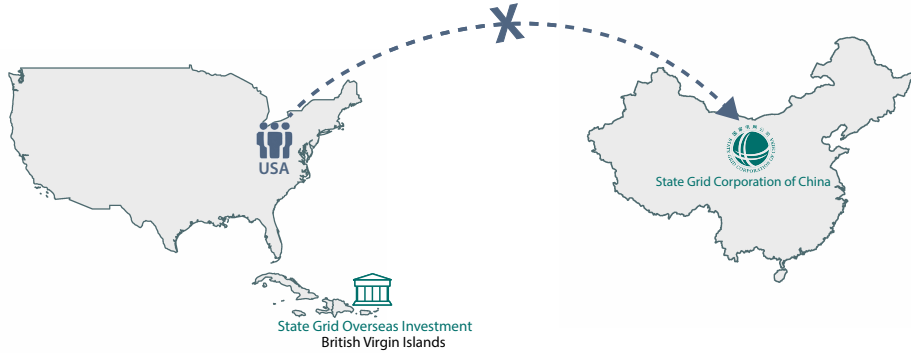
How State Grid Raises Capital From Developed Countries



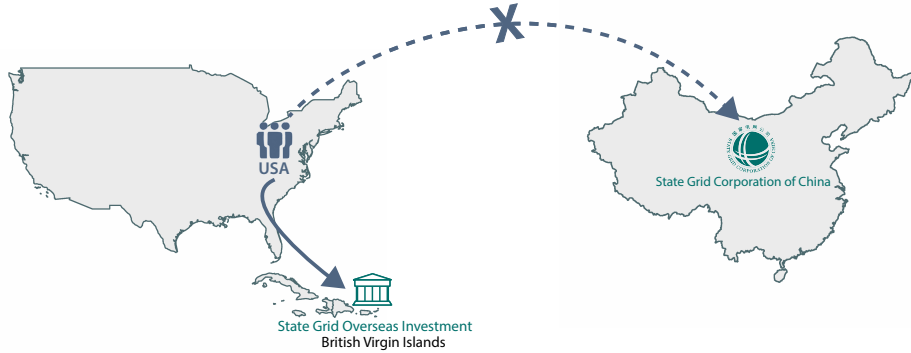
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Tax Havens in International Capital Flows

- ▶ Tax Haven's (TH's) account for $> 10\%$ of all cross-border portfolio positions. 14% of US foreign portfolio holdings are in Cayman Islands!
- ▶ TH issuances account for $\approx 10\%$ of all corporate financing, and nearly 50% of all cross-border issuances
- ▶ For some emerging markets, *nearly all* of corporate sector's bond financing from developed markets flows through THs
- ▶ Rapid growth since at least 2005

China in Tax Havens

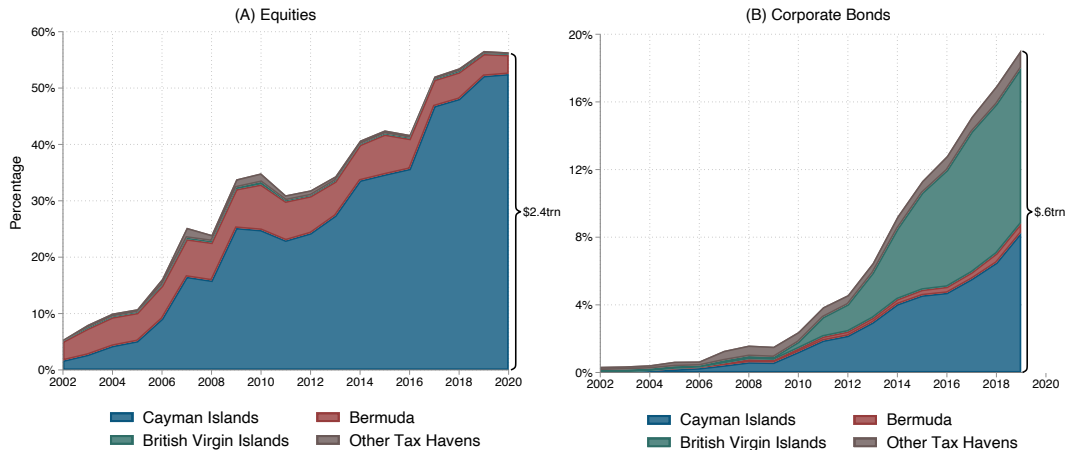
- ▶ A large amount of tax-haven intermediated flows go to Chinese entities
- ▶ Changes map of global capital allocation:
 - ▶ Increasingly hard to see true exposures in data. Best example: US holdings of CHN securities underestimated by \$600 billion
 - ▶ Chinese firms raise huge amounts of debt in the British Virgin Islands and Caymans
 - ▶ Foreign portfolio investment in China flows through tax havens not directly to China
 - ▶ Foreign flows exposed to uncertain regulation and political risk

Related Literature

- ▶ **Nationality-Based Statistics:** Avdjiev, McCauley, Shin (2016); Fuertes and Serena (2016); Bertaut, Bressler, Curcuru (2019); Damgaard et al. (2019); Coppola, Maggiori, Neiman, and Schreger (2021)
- ▶ **China in the International Financial System:** Prasad (2016), Cerutti and Obstfeld (2018), Bahaj and Reis (2020), Horn, Reinhart, and Trebesch (2021), Clayton, Dos Santos, Maggiori, and Schreger (2022)
- ▶ **Tax Havens, Firm Capital Structure:** Hines, Rice (1994); Warnock and Cleaver (2003); Desai et al. (2005); Huizinga et al. (2008); Hines (2010); Dharmapala et al. (2011); Zucman (2013, 15); Fuertes, Serena (2016); Hanlon et al. (2015); Torslov et al. (2018); Bilicka (2019); Guvenen et al. (2019)

The Offshore Markets: China's Presence in Tax Havens

China's Share of Outstanding Securities Issued in Tax Havens



Why Issue in Tax Havens?

1. Avoid taxation (corporate and investor)
2. Avoid capital controls
3. Avoid regulation
4. Access a different investor base

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)
- ▶ Cases where **Nationality** $\succ^? \prec$ **Residency** :
 - ▶ Issue through foreign operating subsidiary (Toyota Motors NA)
- ▶ Cases where **Nationality** \succ **Residency** :
 - ▶ Issue in THs through foreign shell-company (Alibaba)
 - ▶ Tax inversions to THs (Medtronic)

Restating Official Statistics with Reallocation Matrices

- ▶ Use info from CGS, Morningstar, Factset, Dealogic, SDC, Capital IQ, and Orbis to map 27m securities from issuer (**Residency**) to ultimate parent (**Nationality**).
- ▶ Merge mapping with Morningstar data on mutual fund and ETF *positions*
 - ▶ \$33 trillion at security-level for 9 developed markets
 - ▶ Confirm representativeness in cross-section of countries
- ▶ Key assumption: Within each year, asset class, and bilateral country pair, fund holdings are representative of the universe of portfolio investment
 - ▶ Demonstrate funds representative of US insurance and Norwegian SWF

Reallocation Matrices

What share of investments in each country on residency basis go to others when on a nationality basis? (*rows sum to 100%*):

Share Reallocated To:							
Destination	BRA	CHN	CYM	GBR	LUX	USA	RoW
BRA	100.0						
CHN		99.2		0.8			
CYM	20.1	33.0	1.4	3.5		13.3	28.7
GBR	0.2			86.5		4.0	9.3
LUX	4.7	0.1		1.5	4.4	44.8	44.5
USA	0.3	0.1		1.3		92.3	6.0

Reallocation Matrix for US Corporate Bond Investments

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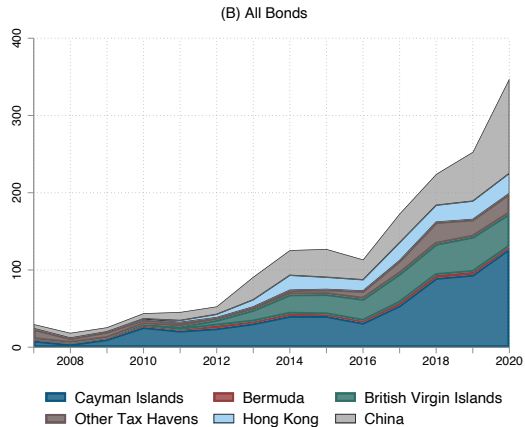
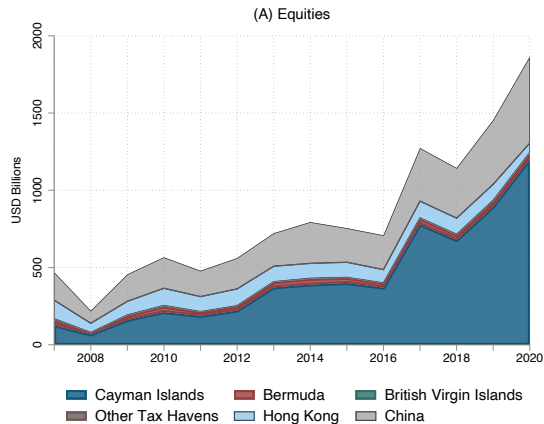
Reallocation Matrices

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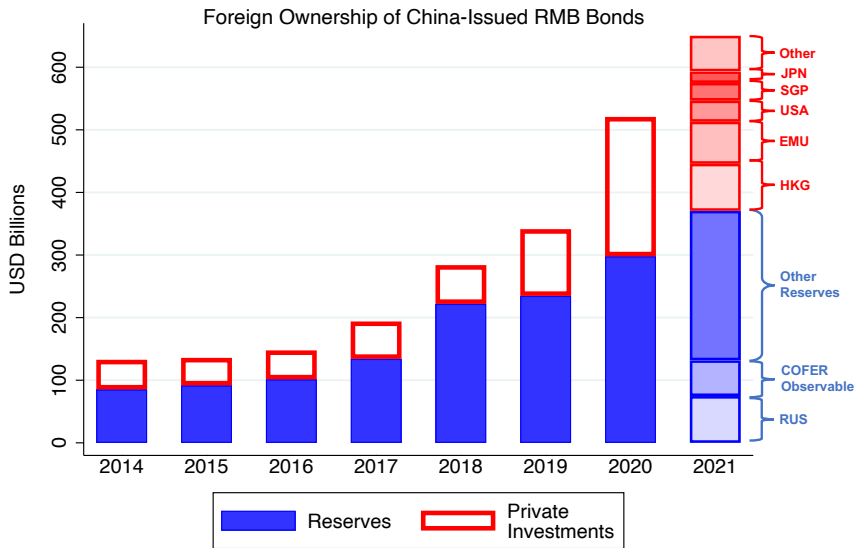
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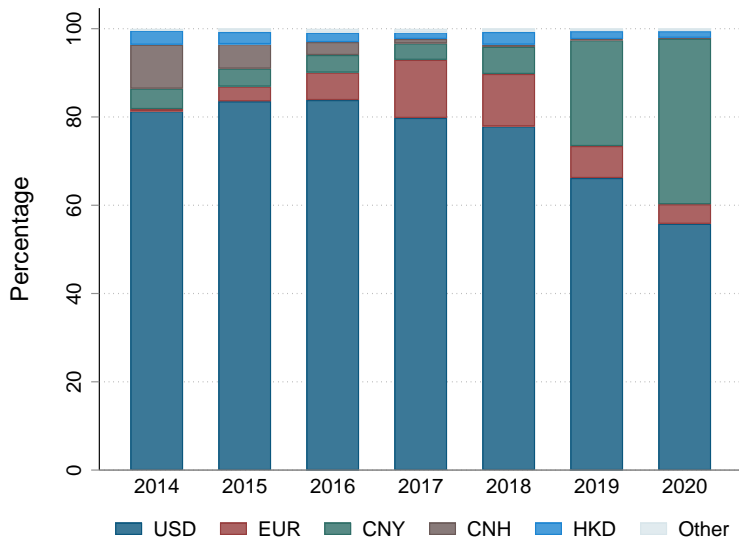
Foreign Portfolio Holdings of Chinese Assets



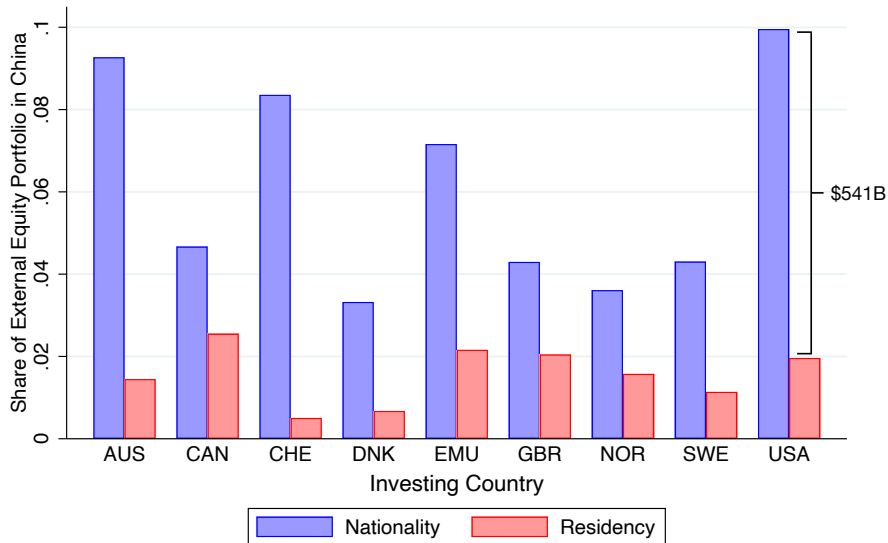
Opening Up of China's Bond Markets: Official, Then Private Investors



Changing Currency Composition of Foreign Holdings of Chinese Bonds



Developed Market Investment in Chinese Equity, 2017

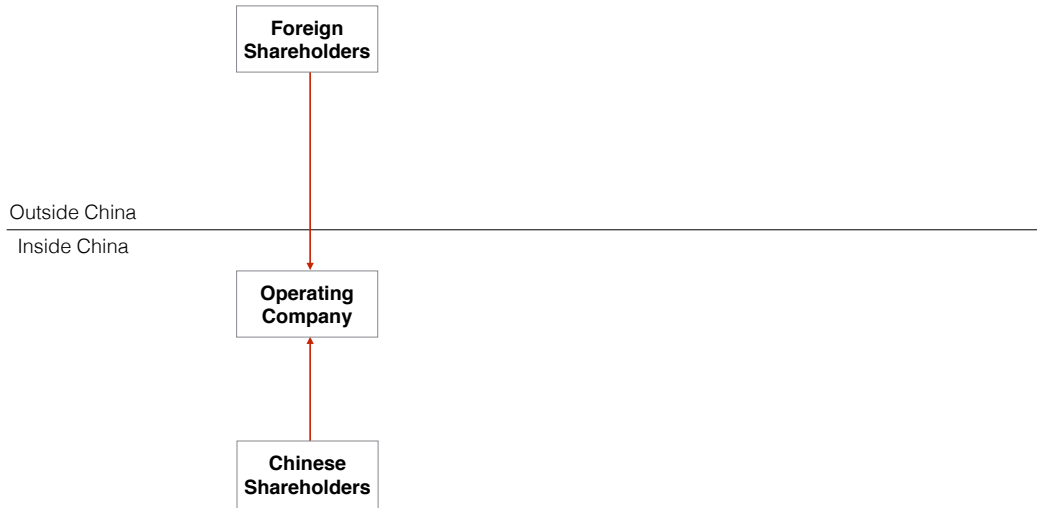


Equity Reallocations to China, 2017

Firm	Residency	Market Cap	Industry
Tencent	CYM	493.6	Internet Software/Services
Alibaba	CYM	435.2	Internet Retail
Baidu	CYM	64.7	Internet Software/Services
China Mobile	HKG	207.6	Wireless Telecommunications
Netease	CYM	45.3	Internet Software/Services
JD.Com	CYM	49.7	Internet Retail
CNOOC	HKG	64.1	Oil & Gas Production
New Oriental Ed	CYM	14.8	Other Consumer Services
AAC Technologies	CYM	21.8	Electronic Components
TAL Ed Group	CYM	8.3	Other Consumer Services

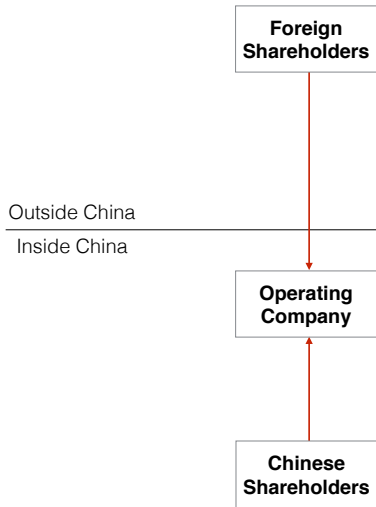
Standard vs. VIE Structure

Standard Structure

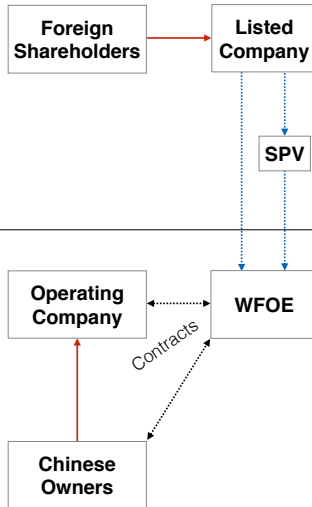


Standard vs. VIE Structure

Standard Structure



VIE Structure



Shaky Exposure to Chinese VIEs Larger Than Thought

- ▶ Investments in VIEs risky due to government enforcement, punitive taxation, owner expropriation, etc.
- ▶ Alibaba's prospectus for IPO on NYSE (SEC Form F-1):
"If the [Chinese] government deems that the contractual arrangements in relation to our variable interest entities do not comply with [Chinese] governmental restrictions on foreign investment, or if these regulations or the interpretation of existing regulations changes in the future, we could be subject to penalties or be forced to relinquish our interests in those operations."

Implications for China's Net Foreign Assets (NFA)

- ▶ Net Foreign Asset Position (NFA) captures net claims on RoW:

$$NFA = A - L$$

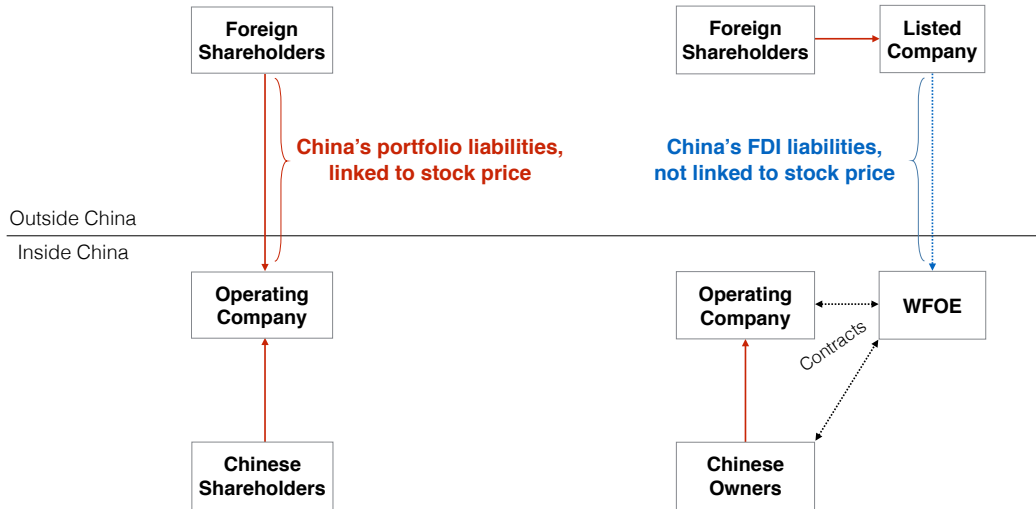
$$\Delta NFA = CA + \text{Valuation Changes}$$

- ▶ VIE structure causes understatement of L
 - ▶ Missing valuation changes

Implications for China's Net Foreign Assets (NFA)

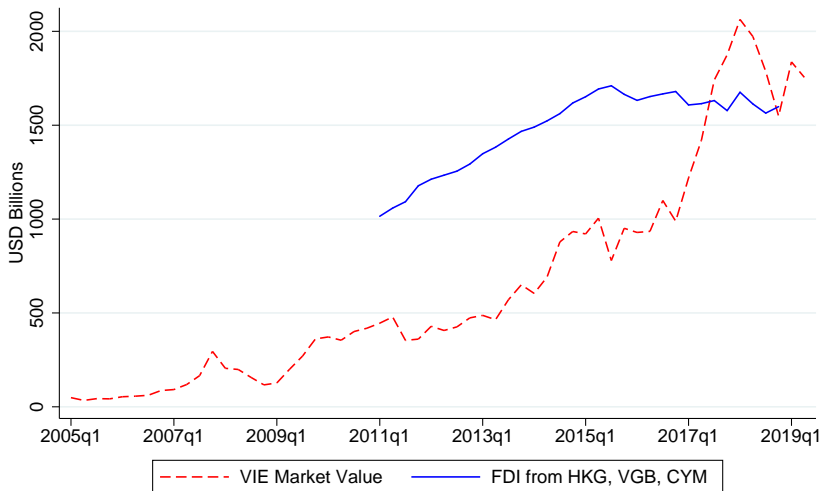
Standard Structure

VIE Structure

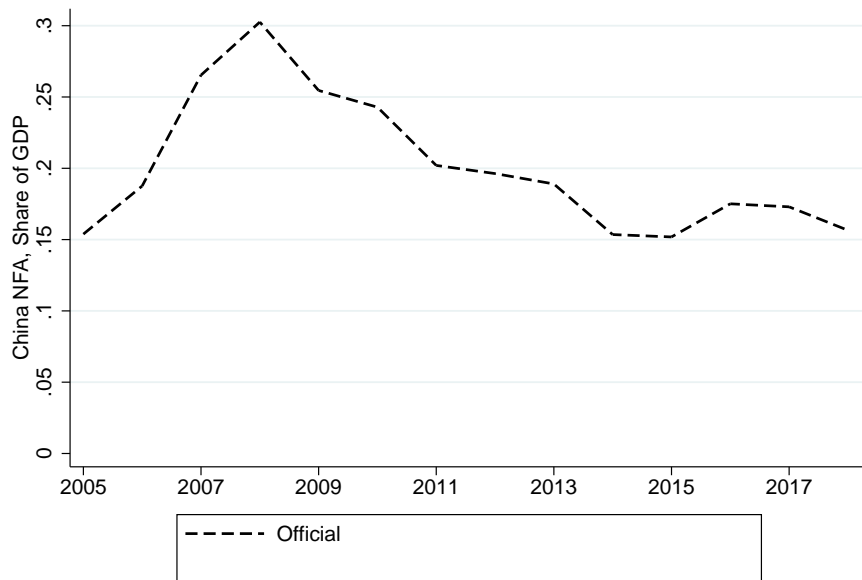


Does VIE Structure Result in Mismeasurement of NFA?

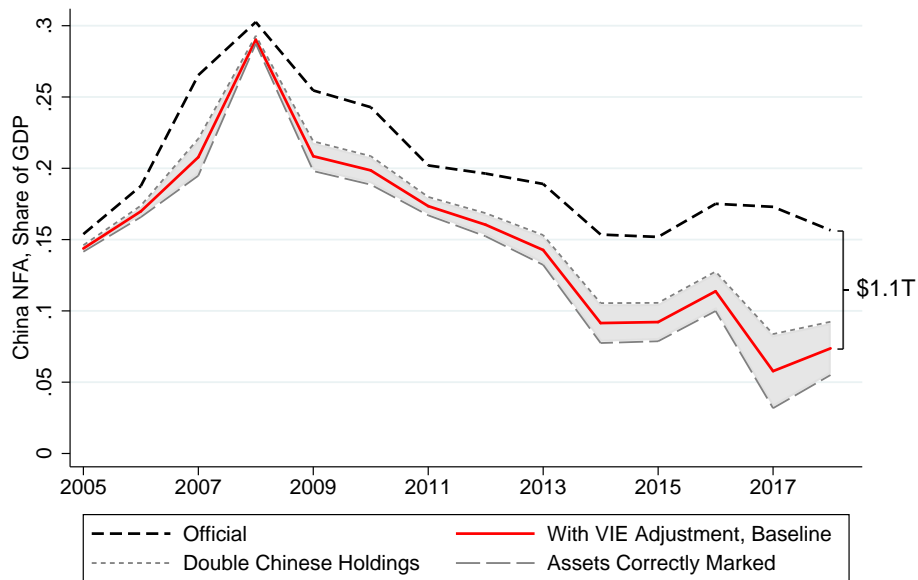
- Unclear exactly how positions associated with VIEs are booked. But they do not appear linked to listed company market values.



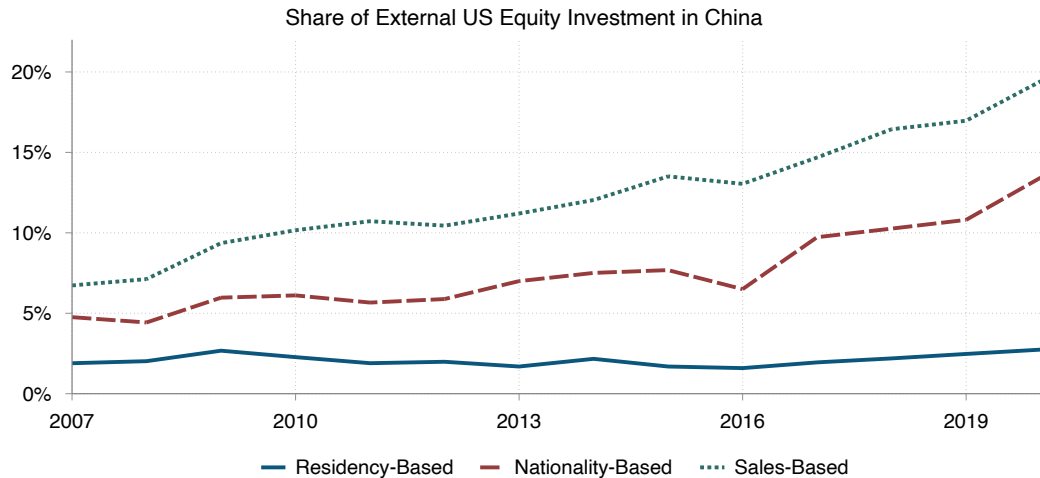
NFA Mismeasurement is Large



NFA Mismeasurement is Large



Portfolio Exposures to China Much Larger Than Official Data Accounts For



Conclusion

- ▶ Pierce veil of THs and restate bilateral investments
- ▶ China a particularly important destination of tax-haven intermediated flows
- ▶ While equity flows VIE driven, more uncertainty on motives for bond finance
- ▶ Follow Global Capital Allocation Project, download data, and use codes at www.globalcapitalallocation.com