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ABSTRACT

We document the rise of China in offshore capital markets. Chinese firms use global tax havens to access foreign capital both in equity and bond markets. In the last twenty years, China's presence went from raising a negligible amount of capital in these markets to accounting for more than half of equity issuance and around a fifth of global corporate bonds outstanding in tax havens. Using rich micro data, we show that a range of Chinese firms, including both tech giants and SOEs, use these offshore centers. We conclude by discussing the macroeconomic and financial stability implications of these patterns.

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Tax havens and offshore financial centers have recently received considerable attention by policymakers and academics. While these jurisdictions are commonly associated with the financial operations of firms and wealthy individuals from high-income Western economies, these offshore financial centers also play an increasingly important role for financing emerging market firms. In particular, Chinese firms have been raising large sums of capital from foreign investors in global tax havens by establishing offshore affiliates to issue equities and bonds. Despite the large scale of these activities, they have received limited attention in academia and policy. One potential reason is that tracking these investment patterns is difficult because they generally rely on a series of financing subsidiaries and shell companies in these jurisdictions. Importantly, standard international financial statistics are compiled on a residency basis, wherein the country of the investment is ascribed to the location of the immediate issuing entity. If a Chinese firm issues debt via a Cayman Island subsidiary, such statistics classify the recipient of the investment as the Cayman Islands and not China. Coppola, Maggiori, Neiman and Schreger (2021) develop a methodology to estimate global capital allocations looking through the veil of offshore subsidiaries. In this paper, we leverage this previous work along with updated and expanded data to provide an entity-level assessment of how the Chinese government, state-owned enterprises, and corporates are attracting foreign portfolio investment, both onshore and offshore. This analysis also complements the recent work by Clayton, Dos Santos, Maggiori and Schreger (2022) on China’s internationalization of its domestic bond market.

1 Mapping Capital Flows to China

1.1 Residency and Nationality

Balance of Payment statistics and International Investment Positions are recorded on a residency basis. This means that the location of an international investment is recorded according to where the immediate issuer of a security is based. The nationality principle, instead, assigns all securities to the location of the ultimate parent company. While there are certainly times when the the residency definition provides useful measures, in the case of tax haven issuance via shell companies, the issuing firm is likely to do little to no investment in the local jurisdiction, and so these flows offer a particularly distorted picture of global

capital allocation (Avdjiev et al. 2016).

1.2 Data and Methodology

In order to measure foreign investment in Chinese entities on a nationality basis, we need two types of information. First, we need a map linking every security issued around the world both to its immediate issuing entity and location, as well as this entity’s ultimate parent and its corresponding location. Second, we need security-level data on which foreign investors own which securities around the world. For securities holdings, we use data on global mutual fund and exchange-traded fund (ETF) holdings from Morningstar, the portfolios of US insurance companies from S&P Global Market Intelligence, as well as the holdings of the Norwegian sovereign wealth fund that are publicly available. These data are described in detail in Maggiori et al. (2020) and Coppola et al. (2021). Our map between securities on a residency and nationality basis uses the algorithm and methodology developed in Coppola et al. (2021). This procedure combines subsidiary-parent information from seven different commercial datasets, along with prioritization rules. The information on the amount outstanding of each security is built by combining data from Factset, Dealogic, and Worldscope. Finally, data on country-level foreign investment on a residency basis is from the U.S. Treasury International Capital data and the IMF Coordinated Portfolio Investment Survey. Coppola et al. (2021) used data up to 2017 and here we update the estimates to end of year 2020. We show that the last three years have witnessed both a continuation of previous trends, with China expanding its corporate presence offshore, and new trends, with foreign investors entering the onshore bond market.¹

2 Foreign Investment in China

2.1 The Rise of China in Offshore Markets

Panels (a) and (b) of Figure 1 document how quickly China has become one of the largest issuers of securities in offshore centers. We start by estimating the total value of securities outstanding issued by an entity resident in a tax haven whose nationality is not the tax

¹The Global Capital Allocation Project website provides publicly available estimates as well as documentation and code at globalcapitalallocation.com.

haven itself.² We then compute the fraction of this total that is accounted for by entities that are Chinese by nationality. For equities, Panel (a) shows that Chinese firms went from being a trivial fraction of the total in the early 2000s to accounting for more than 60% of the total value outstanding by 2020. For corporate bonds, Chinese firms are also a fast-growing presence, but they account for a smaller share than for equities, constituting almost 20% of the total by 2019.³ The Cayman Islands, Bermuda, and the British Virgin Islands are the tax haven of choice for these firms.

2.2 The Geography of Foreign Investment

We turn next to understanding the relative importance of these offshore jurisdictions compared to the domestic market in how Chinese entities attract foreign portfolio investment.⁴ Panel (c) of Figure 1 focuses on equities and shows that, at the end of 2020, approximately 70% of foreign fund investment in China by nationality was via a tax haven affiliate of a Chinese firm, with the Cayman Islands domiciled entities accounting for the bulk of this phenomenon.

Panel (d) of Figure 1 focuses on bonds, both sovereign and corporate. This figure shows two interesting patterns. First, offshore entities account for the bulk of foreign bond investment in China by nationality. Second, investment in securities directly issued by Chinese entities increased rapidly during the years 2016-2020. Underlying these aggregate patterns, the micro data on security holdings reveals interesting heterogeneity.

Figure 2 documents the fast-changing currency composition of foreign investment fund bond holdings in China on a nationality basis, including holdings of sovereign and corporate bonds issued in either onshore or offshore markets. The vast majority of debt securities issued via tax haven subsidiaries are in foreign currency (mostly U.S. dollars, some in euros) and on behalf of corporate ultimate parents. As shown by Clayton et al. (2022), most of the debt securities issued in the Chinese domestic market and held by foreigners are

²The list of tax havens is the same as in Coppola et al. (2021). Here we exclude Hong Kong given the focus on China.

³The definition of corporate debt used here excludes asset backed securities. U.S. banks are substantial issuers of ABS via Cayman domiciled special purpose vehicles.

⁴These estimates follow the methodology and tax haven definition in Coppola et al. (2021) to restate TIC and CPIS data. We include the following eight countries as holders: USA, EMU, GBR, CAN, CHE, NOR, SWE, DNK. “Residency” are all securities issued by China resident entities. We allow for reallocations into China by nationality from all tax havens, including Hong Kong.

instead denominated in Renminbi and issued by either the central government or Chinese policy banks (hence effectively government-guaranteed). Therefore, the recent rise in onshore Chinese renminbi (CNY) in foreigners' portfolios reflects the increasing investment in Chinese government bonds issued onshore. The figure also make clear that the importance of the offshore Renminbi, the CNH currency, has diminished over the sample period.

2.3 How Chinese Firms Raise Capital From Foreigners

Figure 3 focuses on four large developed economies as investors and tracks their investments in bonds and equities of major Chinese firms. The middle column shows whether the investment occurs via a shell company in a tax haven or directly in China. Tech companies such as Alibaba, Tencent, and Baidu receive the vast majority of capital from these developed country investors through offshore subsidiaries. The Cayman Islands play a major role in matching these firms with foreign investors: they are a global supermarket for attracting all foreign investors, not just U.S. based ones.⁵

This investment into Cayman Islands based entities reflects the use of variable interest entity (VIE) structures by Chinese firms. Under Chinese law, foreign investors are restricted from owning equity in firms operating in strategic industries, including the tech industry. In order to abide by the letter of Chinese law and still attract foreign equity investment, some Chinese firms incorporate a shell company resident in the Cayman Islands that they list publicly on global stock exchanges such as the New York Stock Exchange. This Cayman Island resident shell, in turn, enters into a series of bilateral contracts, none of which are formally equity contracts, with the operating company and its Chinese owners. These contracts aim to replicate equity ownership by giving control and a claim to the residual profits of the operating company to shareholders of the offshore shell company. Under international accounting standards, these contracts are sufficient for the offshore shell company to claim them to be equivalent to equity and report on a consolidated worldwide group basis. At the same time, the operating firm in China takes the opposite view of these contracts and attests to local regulators that it is fully owned by Chinese residents.

Chinese tech companies are the largest but by no means the only Chinese issuers in tax havens. For example, State Grid Corporation of China, China National Overseas Offshore

⁵Beck et al. (2023) show that Euro Area domiciled mutual funds are more likely to invest in emerging markets, including China, via tax havens than are other types of European investors.

Oil (CNOOC), and Sinopec are all bond issuers via their British Virgin Islands subsidiaries. The motivation behind these state-owned firms’ offshore presence is far less clear and might have to do with foreign investors, regulators, and rating agencies being less comfortable with bankruptcy procedures and bond holder rights in Chinese courts.

3 Implications For Policy and Research

The patterns documented above have implications for global markets that we group into four categories.

Financial Stability. There are major concerns about the legality and enforceability of VIE structures. At the time of writing, there is a bipartisan proposal in the U.S. Senate to require VIEs listed on U.S. exchanges to publicly identify as such because “variable interest entities based in foreign jurisdictions, including the People’s Republic of China, pose a specific and significant risk to investors in the United States, including because investors that purchase shares of those entities (A) have no equity or direct ownership interest; and (B) lack legal recourse” and investors in these securities may be unaware of such risks.⁶ In addition, China’s securities regulator proposed to increase its oversight over Chinese firms utilizing a VIE structure to list abroad.⁷ Indeed, when Jianzhi Education used a VIE structure to list on NASDAQ in October 2022, it warned that its corporate structure posed an investment risk “if the PRC government finds these contractual arrangements non-compliant with the restrictions on direct foreign investment in the relevant industries.”⁸

In the corporate debt area, there are a number of questions raised by the prevalence of issuance in tax havens. In particular, there is uncertainty about how tax-haven issued corporate debt will be treated in bankruptcy. With Evergrande and other Chinese real estate firms declaring bankruptcy and intermediating much of their dollar borrowing from foreigners through tax havens, it remains an open question how the offshore and onshore creditors are treated.

⁶See Senate bill S.4757: <https://www.congress.gov/bill/117th-congress/senate-bill/4757/text?r=1&s=1>.

⁷At the end of 2021 China’s National Development and Reform Commission and the Ministry of Commerce issued an update on Special Administrative Measures for Foreign Investment Access (commonly known as Negative List), essentially requiring VIE listing to be approved by Chinese regulators. However, much uncertainty remains in practice on what the rules and regulatory procedures are going to be.

⁸<https://law.asia/jianzhi-education-chinese-vie-debut-nasdaq/>

Global Efforts to Regulate Tax Havens. Recently, governments have stepped up their efforts to regulate the usage of offshore jurisdictions in many dimensions, from taxation to exchange of information and transparency. While there has been progress and some international cooperation on corporate taxation, for instance the OECD global minimum tax agreement, there has been less action on capital markets operating offshore. With the US and China operating as major players in raising capital and investing via global tax havens, policy efforts to reform offshore capital markets are likely to require the cooperation of these two global powers—which is difficult to achieve given geopolitical tensions.

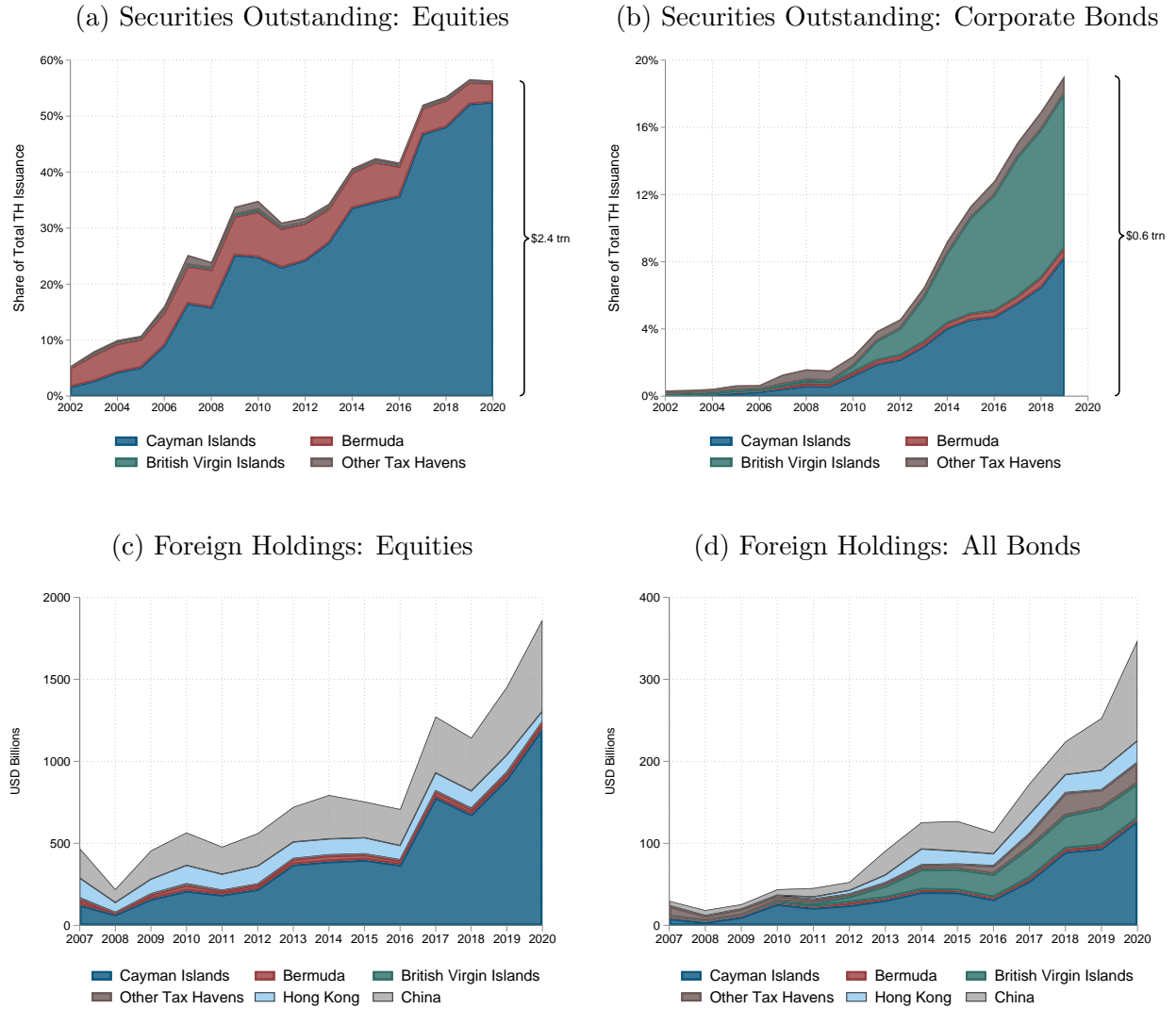
Changing the Supply of Investable Assets. The rise of China’s offshore presence as well as its opening up of the domestic bond market to foreign investors are a shock to the supply and composition of investable assets in global markets. Indeed, Chinese bonds and equities are now included in major investment indices and account for a substantial and increasing component. It is an open question what the effect of this supply of asset shock will be on global interest rates and asset prices.

China’s Role in the International Financial System. Over the past decade, China has undertaken a number of important reforms, such as the introduction of the Stock Connect and Bond Connect programs, to encourage foreigners to invest onshore in Chinese securities. Given that these reforms to encourage investment onshore have occurred contemporaneously with the rise of China’s firms in global tax havens, it remains to be seen whether China’s current reliance on tax haven based intermediation is a defining feature of foreign investment in China or a passing phase during China’s liberalization process.

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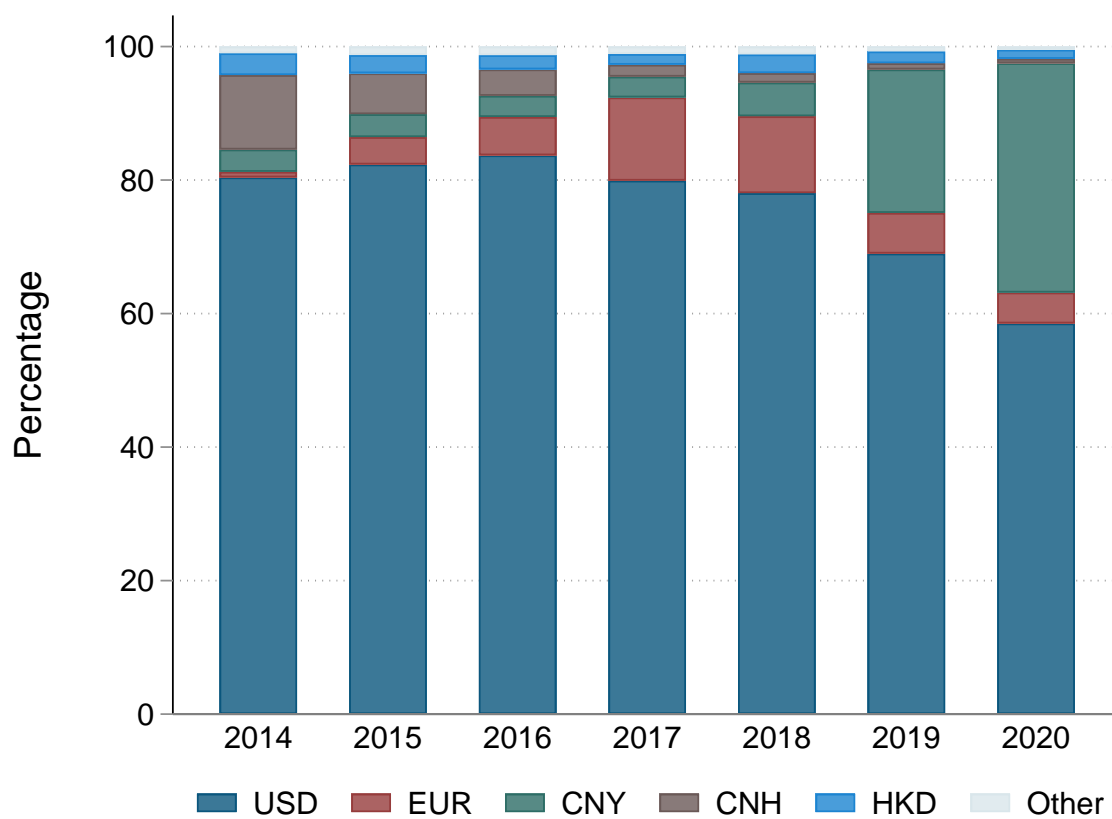
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Figure 1: The Rise of China in Offshore Asset Markets



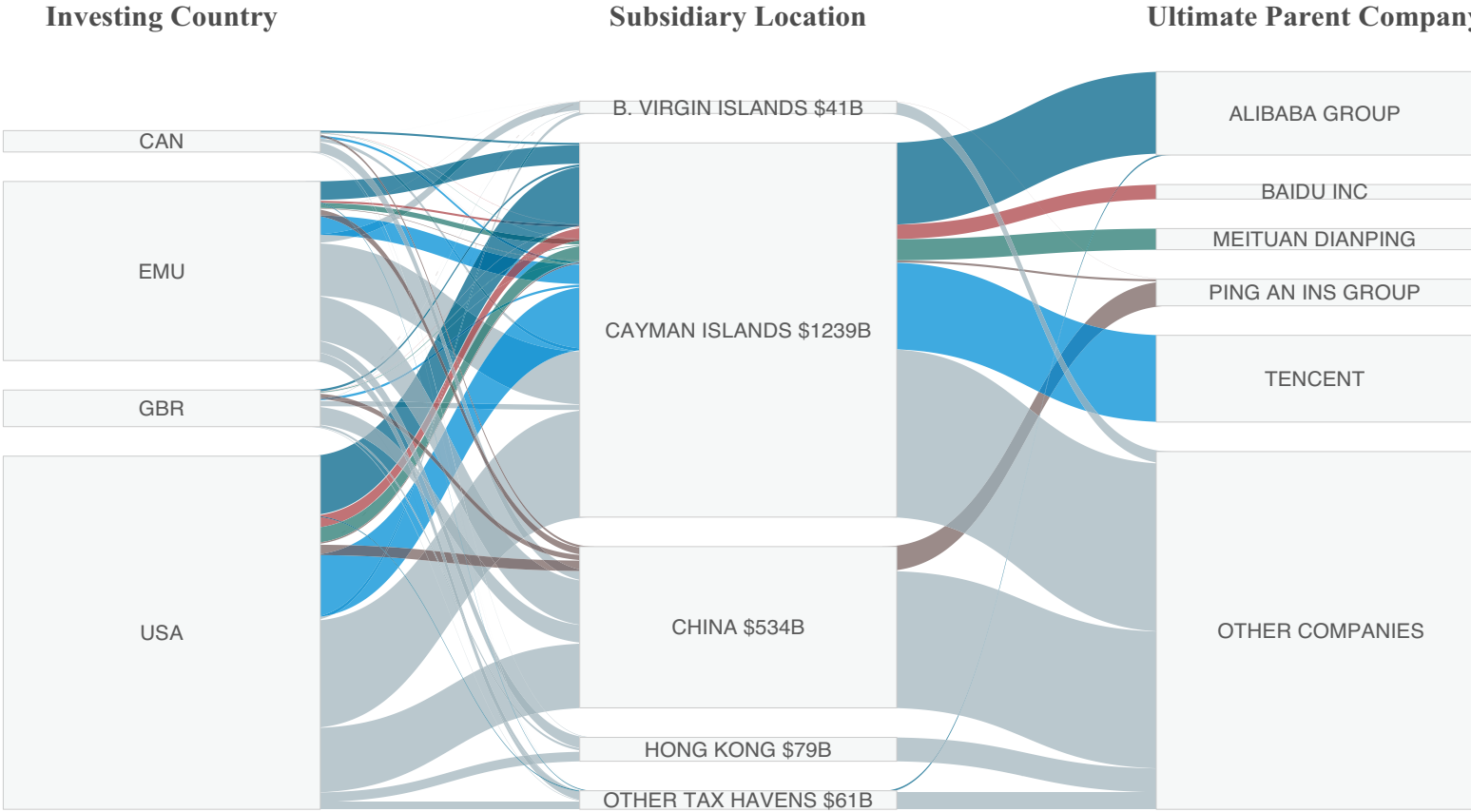
Notes: Panels (a) and (b) plot the share of total outstanding securities issued by entities resident in tax havens that are Chinese by nationality. Panels (c) and (d) plot foreign portfolio holdings of Chinese assets estimated by nationality and the breakdown by original residency. The label “China” indicates the asset is issued by an entity resident in China. Panels (a) and (c) are for equity securities, Panel (b) for corporate bonds, Panel (d) for all bonds. Market values are shown in Panels (a), (c), and (d). Notional amounts are shown in Panel (b).

Figure 2: Foreign Investment in Chinese Bonds by Currency



Notes: This figure plots the currency composition of foreign portfolio holdings in bonds issued by entities that are Chinese by nationality.

Figure 3: The Geography of Foreign Investment



Notes: This figure shows the patterns of reallocation of portfolio investment in tax havens for selected Chinese corporate entities. Estimates are for December 2020 and include both bonds and equities.