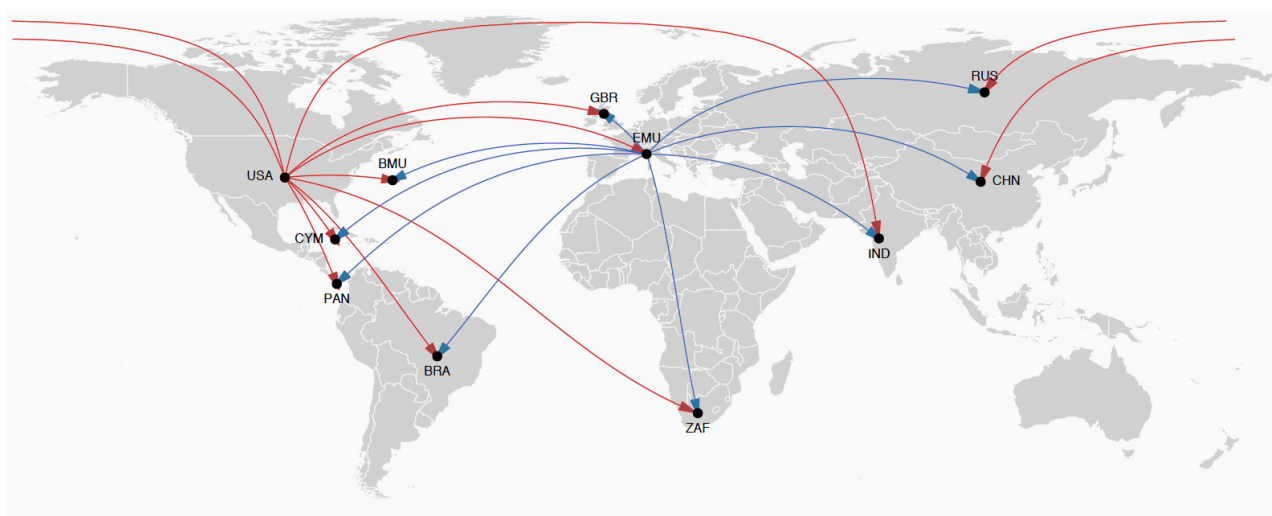


NEW ESTIMATES OF GLOBAL CAPITAL ALLOCATION, 2018-20

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UPDATES: ESTIMATES OF GLOBAL PORTFOLIOS

The Global Capital Allocation Project has released updated estimates of global portfolio positions, including unwinding positions in tax havens that otherwise obfuscate the true underlying economic relationships.

Corporations often borrow from investors, especially foreign investors, via subsidiaries in tax havens such as the Cayman Islands, Bermuda, and Ireland. These countries' liabilities to the rest of the world vastly exceed economic activity that actually takes place locally. The capital is being used somewhere else.

Our research provides publicly available estimates not only of the scale of these financing operations, but also of which investors

Our estimates provide bilateral portfolio positions that look through phantom positions in tax havens. For multinational corporations we also provide alternative estimates that distribute firm equity and bonds according to the geography of firms' final sales.

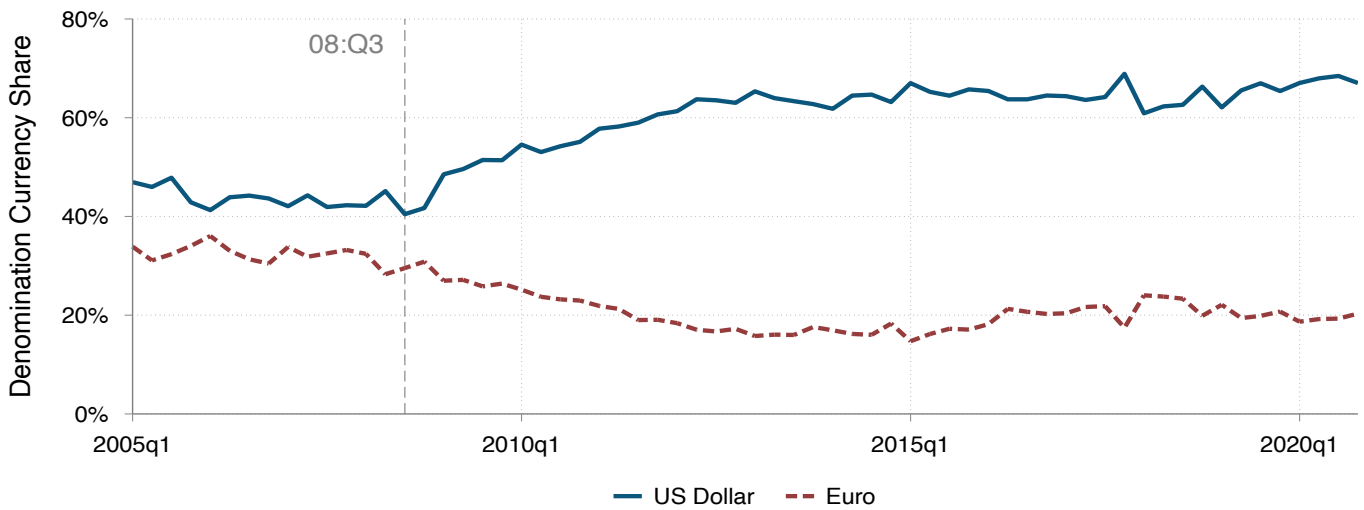
are buying these offshore assets. The estimates cover bilateral investment positions for most countries in the world and look through these offshore subsidiaries.

We also provide estimates that classify the geography of investment in bonds and equities in proportion to where the issuing firms make their sales, rather than classifying firms as belonging to a single country.

EXECUTIVE SUMMARY

- Updated estimates released by the Global Capital Allocation Project shed light on financial linkages connecting countries around the world, highlighting trends in cross-border portfolio investments globally over the period 2018-2020 — including the worldwide COVID crisis.
- The US dollar has further consolidated its position as the dominant currency in global bond finance, gaining ground over the Euro and other currencies: at the end of 2020, 67% of cross-border corporate bonds positions were denominated in US dollars, as compared to 42% at the end of 2007.
- Exposures of developed countries' investors to China through stock and bond ownership have increased: for instance, on a nationality basis, 11% of the US external portfolio is invested in China.
- These exposures to China predominantly occur through offshore vehicles in the Cayman Islands, and they are even larger when accounting for indirect exposures via firms' final sales to Chinese consumers.

Fig. 1. Currency composition of global cross-border corporate bond holdings



THE CONTINUING DOMINANCE OF THE US DOLLAR

Throughout the pandemic firms and governments have issued large amounts of bonds in global markets. The dollar has maintained its dominant position as the currency of choice for corporate bonds held across borders, even when neither the holder nor issuing entity is American. .

Starting with the global financial crisis, there was a broad shift in global bond portfolios away from the Euro and into the Dollar (Figure 1). Fifteen years later, that shift has proven very persistent.

This concentration of global portfolios into a single currency makes the current dollar strength and higher US interest rates likely to affect corporations worldwide. Interestingly, investors keep focusing on the dollar despite increased debt-to-GDP ratios in the US and a shrinking size of the US economy compared to the world.

LARGE PORTFOLIO EXPOSURES TO CHINA

Exposure to China is much larger than commonly understood. Figure 2 shows that in standard (residency-based) data, China constitutes a small and constant fraction of US residents' foreign equity holdings. These estimates count only equities issued by China-resident corporations.

The blue line additionally includes equities issued by Chinese companies' affiliates in tax havens such as the Cayman Islands. Alibaba, Baidu, and Tencent all issue equity in this way. Under this more comprehensive (nationality-based) view, US residents' portfolios were much more exposed to China up to 2020, leaving them exposed to the subsequent tumble in Chinese tech stocks.

The pattern is even more pronounced when accounting for firms' final sales. Further exposure to China arises from Western multinationals making a large fraction of their final sales in China.

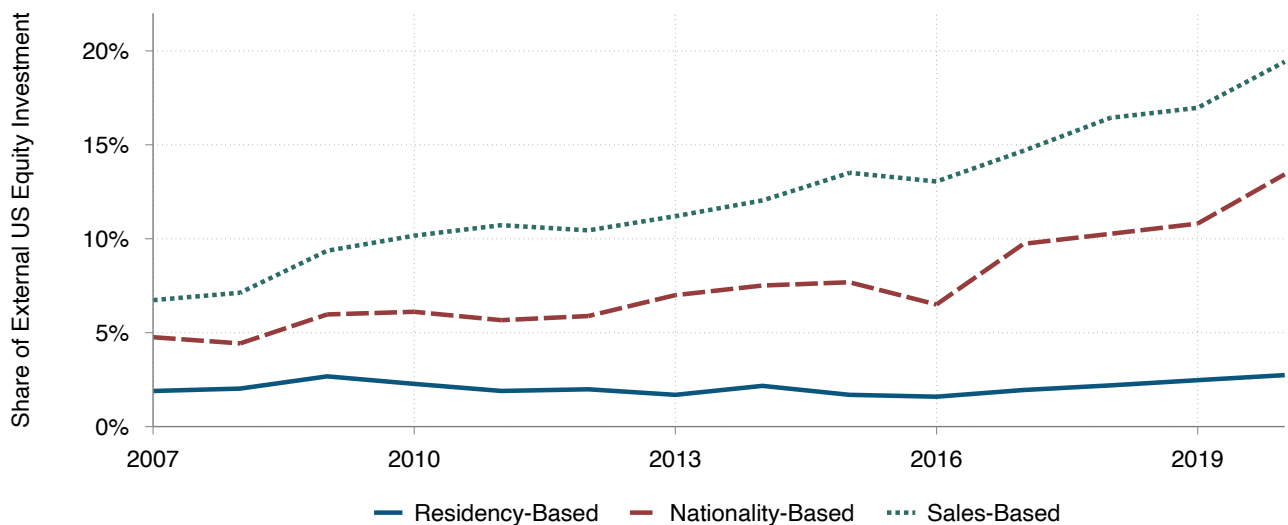
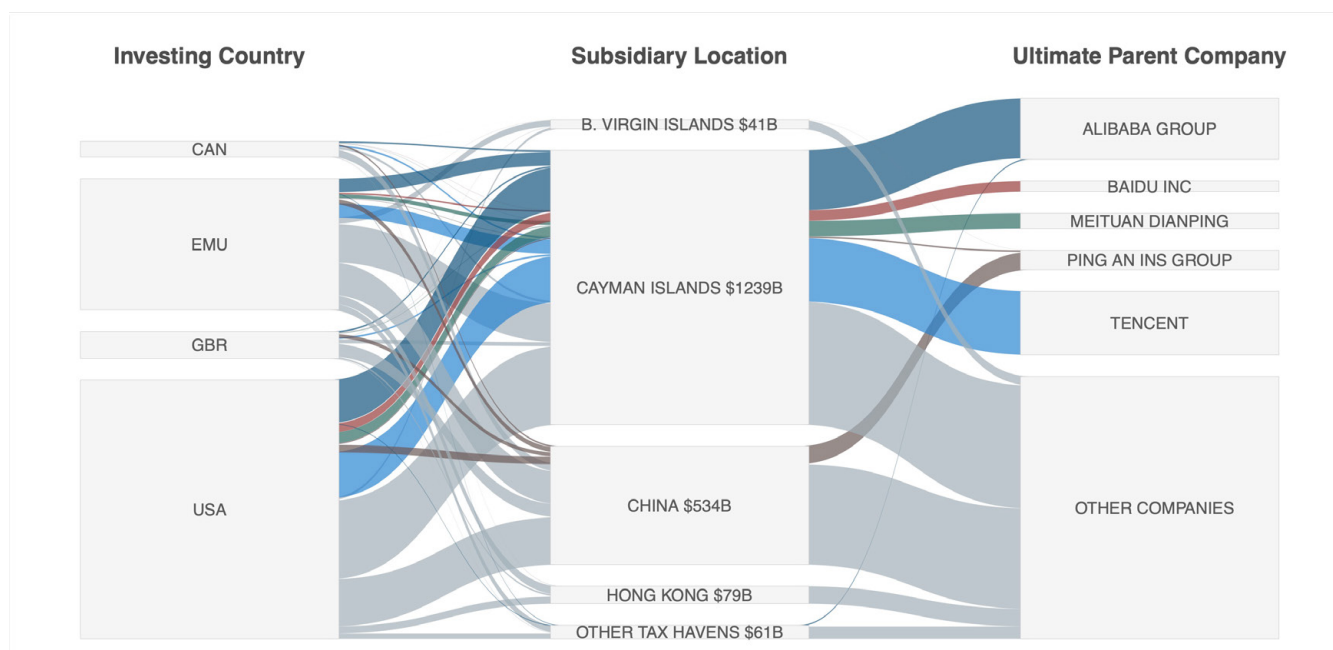


Fig. 2. US portfolio equity exposures to China

Fig. 3. Portfolio exposures to China occur through offshore vehicles



OFFSHORE VEHICLES FUNNEL CAPITAL TO CHINA

The difference between the residency-based and nationality-based estimates of developed countries' exposures to China is the result of the use of offshore financing vehicles by Chinese firms.

In *Figure 3*, we show the substantial usage of offshore venues by Chinese firms to raise capital (bonds and equities) from developed countries' investors. The direct holdings of securities issued in China are small compared to these indirect holdings.

The Cayman Islands play a major role in this flow of capital from western investors to Chinese corporations.

THE SHARE OF US EXTERNAL EQUITY HOLDINGS INVESTED IN CHINA **13%**

Chinese companies establish affiliates in these tax havens to elude China's restrictions on raising capital—especially equity capital—from foreign investors. These so-called *variable interest entity* (VIE) structures have grown enormously in size and present specific risks for investors. These unconventional corporate structures have recently been under scrutiny by the US Securities and Exchange Commission.

TECHNICAL NOTES

The estimates are updates based on the articles "International Currencies and Capital Allocation" (*Journal of Political Economy*, 2020) and "Redrawing the Map of Global Capital Flows: The Role of Cross-Border Financing and Tax Havens" (*Quarterly Journal of Economics*, 2021), which are available on our [website](#). These articles and their appendices contain additional technical details and information on the data sources. The underlying estimates for all countries and destinations are available for download [here](#). Please consult the accompanying documentation for a user guide.

Figure 1 is based on corporate bonds held across borders by investment funds. *Figure 2* is based on US Treasury official data (*red line*), our estimates of holdings of Chinese firms' securities by nationality based on holdings of US domiciled funds and insurance companies (*blue line*), and our estimates of exposures to China in the holdings of US domiciled funds and insurance companies based on issuers' final sales (*green line*). *Figure 3* estimates are for Dec 2020 and based on IMF CPIS data, US Treasury data, and holdings of insurance companies and investment funds for the US and investment funds for rest of the countries. The EMU estimates are more uncertain due to sectoral composition and holdings in the Netherlands, Luxembourg, and Ireland being domestic.

LEARN MORE

- The Global Capital Allocation Project is a research lab based at Stanford University, Columbia University, and the University of Chicago.
- Our goal is to shed light on global capital flows in order to improve international macroeconomic policy.

- Please visit our website globalcapitalallocation.com for our research and estimates. Subscribe to our [mailing list](#) to receive updates and be the first to hear about new content. For media inquiries and technical questions, please email us at info@globalcapitalallocation.com.

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