Public Micro Data

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International Macro with Public Micro Data

Yesterday, extensive discussion of analysis with

- Commercial microdata (e.g., Morningstar)
- Public macrodata (e.g., TIC, CPIS, LBS)
- Administrative data (e.g., ECB, SHS)

Today: What can we do with publicly available microdata?

- Focus here on **N-PORT**

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM N-PORT

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This version of Form N-PORT is effective December 11, 2023 and includes amendments pursuant to Investment Company Names, Investment Company Act Release No. 35000 [88 FR 70436 (Oct. 11, 2023)]. More information about compliance dates and the amendments the Commission adopted may be found in this release.

FORM N-PORT
MONTHLY PORTFOLIO INVESTMENTS REPORT

Form N-PORT is to be used by a registered management investment company, or an exchange-traded fund organized as a unit investment trust, or series thereof ("Fund"), other than a Fund that is regulated as a money market fund ("money market fund") under rule 2a-7 under the Investment Company Act of 1940 [15 U.S.C. 80a] ("Act") (17 CFR 270.2a-7) or a small business investment company ("SBIC") registered on Form N-5 (17 CFR 239.24 and 274.5), to file reports of monthly portfolio holdings pursuant to rule 30b1-9 under the Act (17 CFR 270.30b1-9). The Commission may use the information provided on Form N-PORT in its regulatory, enforcement, examination, disclosure review, inspection, and policymaking roles.

DATA CATALOG

🏠 / Datasets / **Organizations**

🏠 / 🏛 / Securities and Exchange Commission / Form N-PORT Data Sets
/ Economic and Risk Analysis

2025 Q2

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More Details

URL: https://www.sec.gov/files/dera/data/form-n-port-data-sets/2025q2_nport.zip

2025q2_nport.zip

Source: Form N-PORT Data Sets

≡ **Resources**

| 2025 Q2 |
| 2025 Q1 |
| 2024 Q4 |
| 2024 Q3 |
| 2024 Q2 |
| 2024 Q1 |
| 2023 Q4 |
| 2023 Q3 |
| 2023 Q2 |

About this Resource

| Last updated	unknown
Created	unknown
Name	2025 Q2
Format	Zip File
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Dataset Structure

- Each quarter, mutual funds have to report *detailed* portfolio holdings
  Asset: Value (USD), FX, ISIN, CUSIP, LEI, Currency, Country, Maturity
  Fund: CIK, LEI, Address, Total Assets, Total Liabilities, Credit Spread, Gains

- Data is then organized as .tsv files

- The key to organize them are **Accession File** and **Holding ID**
  - Accession file #s identify a portfolio report for each fund and period
  - Holding ID #s identify a variety of characteristics for each security

- In progress: GCAP Github Repository to clean and organize entire data

accession_number	holding_id	issuer_name	issuer_lei	issuer_cusip	currency	currency_value	exc_rate	asset_cat	issuer_type	country	identifier_isin	series_name	series_id	series_lei	total_assets
0001752724-19-184953	17167280	Microsoft Corp.	INR2EJN1ERAN0W5ZP974	594918104	USD	29745637699.51	.	EC	CORP	US	US5949181045	Vanguard Total Stock Market Index Fund	S000002848	HJ2RZRUQEVF2A5SPRB21	830309361592.09
0001752724-19-184953	17159451	Apple Inc.	HWUPKR0MPOU8FGXBT394	037833100	USD	25521912756.84	.	EC	CORP	US	US0378331005	Vanguard Total Stock Market Index Fund	S000002848	HJ2RZRUQEVF2A5SPRB21	830309361592.09
0001741773-19-001015	16417694	TSMC	549300KB6NK5SBD14S87	Y84629107	TWD	34918252	31.023001	EC	CORP	TW	TW0002330008	Janus Henderson Global Research Fund	S000010489	C0GC60LX4ZGTZPLZA692	2822150441
0001752724-19-205797	18326541	Alibaba Group Holding Ltd.	5493001NTNQJDH60PM02	01609W102	USD	4070293416.54	.	EC	CORP	KY	US01609W1027	Vanguard Total International Stock Index Fund	S000002932	BF5U5YXM0ZHVXS3F8G71	404082816844.99
0001479360-19-000750	16044334	BMW AG	YEH5ZCD6E441RHVHD759	575602909	EUR	2245331.02	.91750002	EC	CORP	DE	DE0005190003	PIMCO RAE International Fund	S000048955	549300QHP6XVOG84J529	500981068.37
0001752724-19-167473	15325827	US Treasury	254900HROIFWPRGM1V77	912828YE4	USD	4934107944.63	.	DBT	UST	US	US912828YE44	Metropolitan West Total Return Bond Fund	S000001147	549300APUP7QV16M4J34	94504286115.28999
0000810893-19-004146	15597123	Brazil Govt	254900ZFY40OYEADAP90	ACI0KD2R3	BRL	1799767795.41	4.1550002	DBT	NUSS	BR	BRSTNCLTN7B7	PIMCO Total Return Fund	S000009707	GCOBPT5OHTVIN37L8N43	127847062670.49
0001145549-19-049263	17147607	UniCredit SPA	549300TRUWO2CD2G5692	904678AQ2	USD	329911818.98	.	DBT	CORP	IT	US904678AQ20	Dodge & Cox Income Fund	S000011205	5493009DXXXVQJ40VE42	66336185883.16
0000810893-19-004127	15605988	Stanford University	JIUV0DC2REIJXQ26CR37	85440KAA2	USD	150758092.5	.	DBT	CORP	US	US85440KAA25	PIMCO Income Fund	S000016548	XSQUIHC65X62JACTUZ45	217562627145.2
0000810893-19-004146	15596991	BMW Finance NV	5299006ZHG3IXU0PNJ56	05600LAA4	USD	134073174.21	.	DBT	CORP	NL	US05600LAA44	PIMCO Total Return Fund	S000009707	GCOBPT5OHTVIN37L8N43	127847062670.49
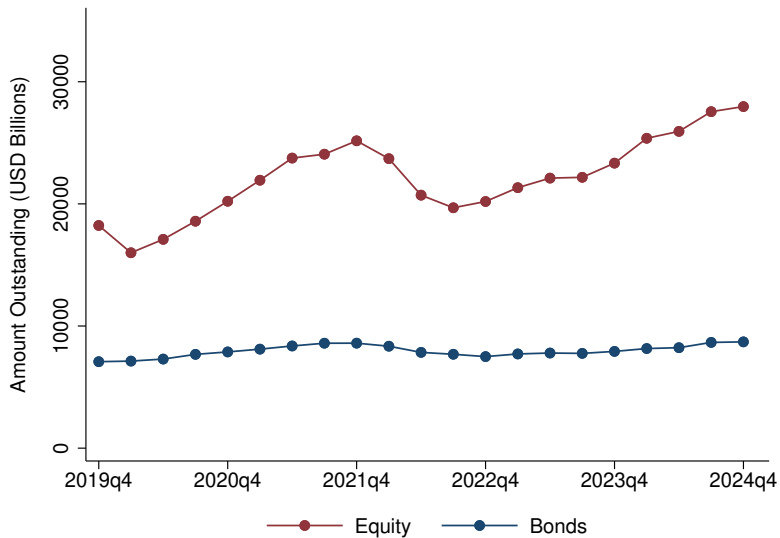
Reported Holdings ← Holding ← Identifiers   Fund

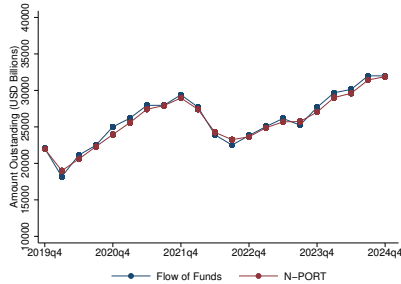Reported Holdings ← Accession ← Fund

Coverage

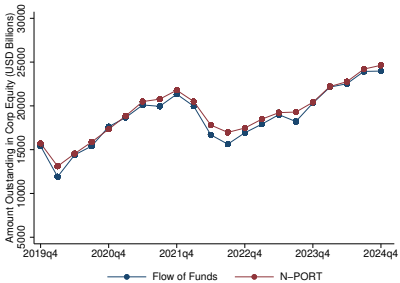## Can you use N-PORT for Macro Analysis?
Domestic

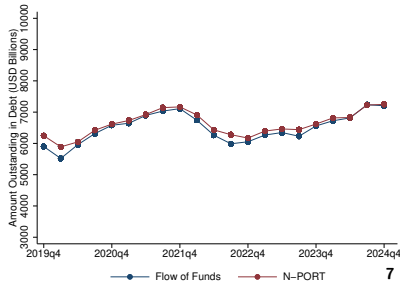N-PORT *versus* Flow of Funds: U.S. Mutual Fund Holdings
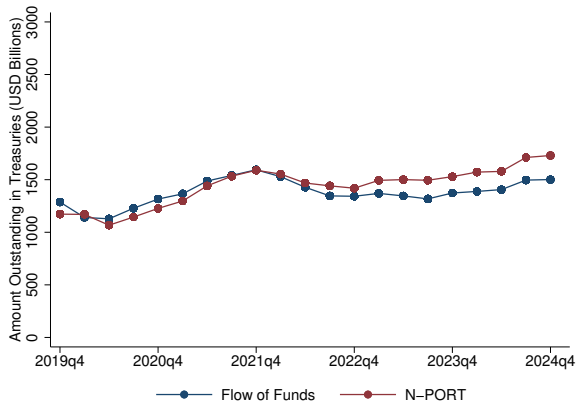
(a) Total Assets

(b) Equity
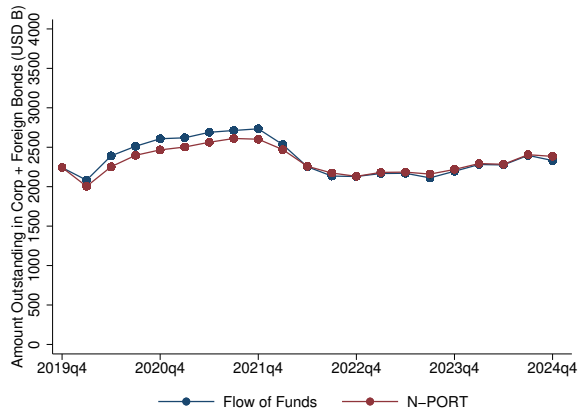

(c) Debt

Can you use N-PORT for Macro Analysis?
Domestic

N-PORT *versus* Flow of Funds: U.S. Mutual Fund Holdings
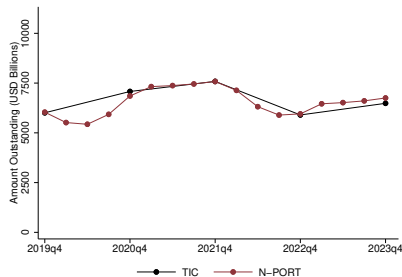
(d) Treasury

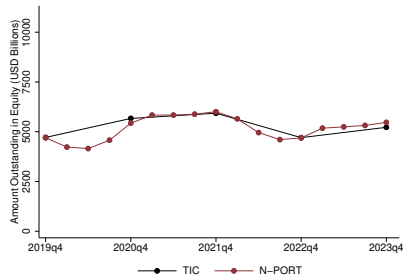(e) Corporate and Foreign Bonds

Can you use N-PORT for Macro Analysis?

International

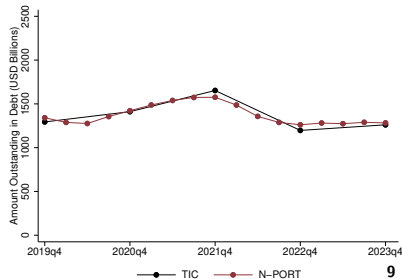N-PORT *versus* TIC: U.S. Mutual Fund Holdings of Foreign Securities

(a) Foreign Assets
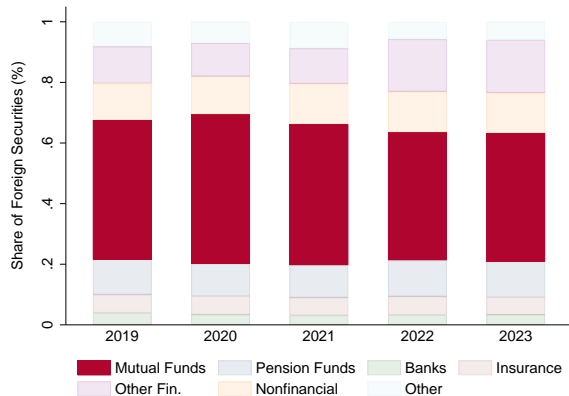

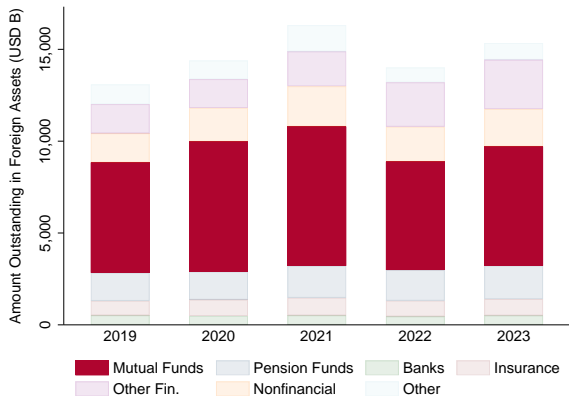
(b) Foreign Equity

(c) Foreign Debt

Same Issues as Commercial Fund Data for Aggregate Analysis

TIC: U.S. Holdings of Foreign Securities by Holder
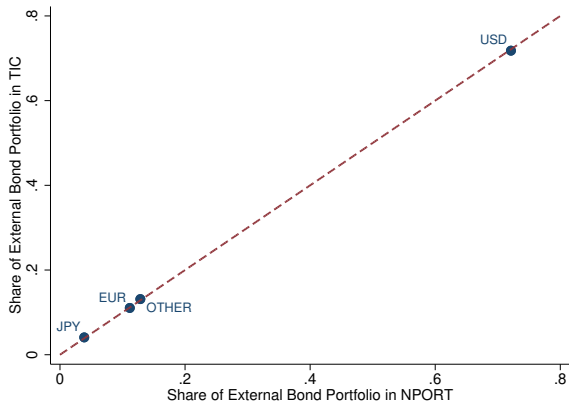
(a) U.S. Billions
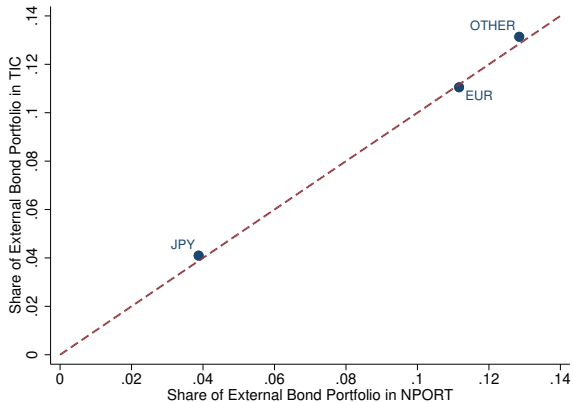
(b) Share

Is N-PORT Representative of TIC?
Mutual Fund Holdings

N-PORT *versus* TIC: U.S. Mutual Fund Holdings of Foreign Debt by Currency
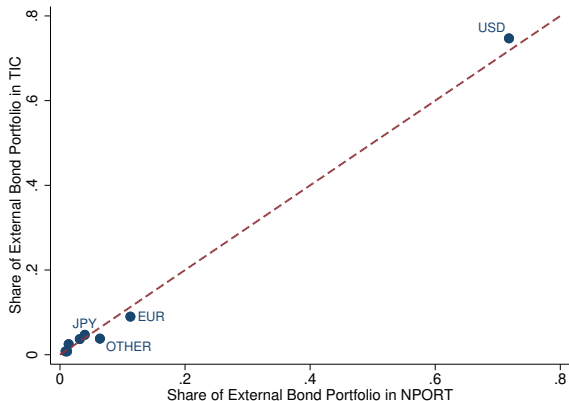
(a) All Currencies

(b) Excluding USD

Is N-PORT Representative of TIC?
Total Holdings

N-PORT *versus* TIC: U.S. Holdings of Foreign Debt by Currency

(a) All Currencies
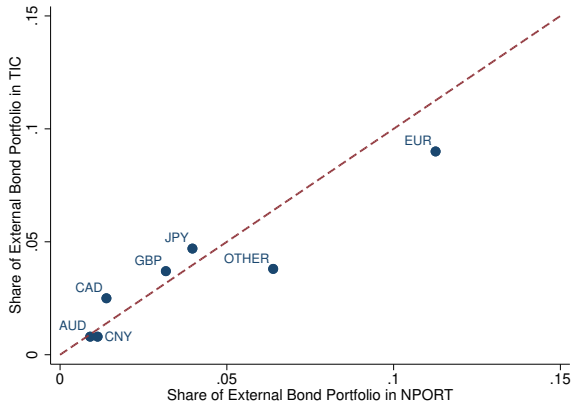
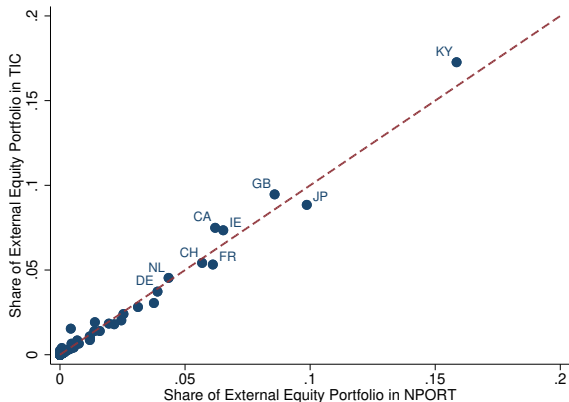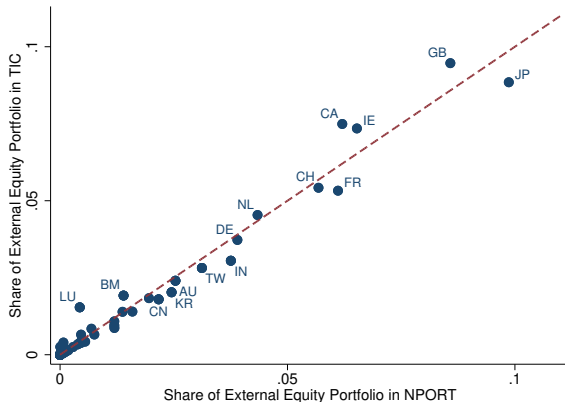(b) Excluding USD

Is N-PORT Representative of TIC?
Total Holdings

N-PORT *versus* TIC: U.S. Holdings of Foreign Equity by Country

(a) All Countries

(b) Excluding Cayman Islands

Is N-PORT Representative of Morningstar?

N-PORT *versus* Morningstar: U.S. Mutual Funds Holdings by Security
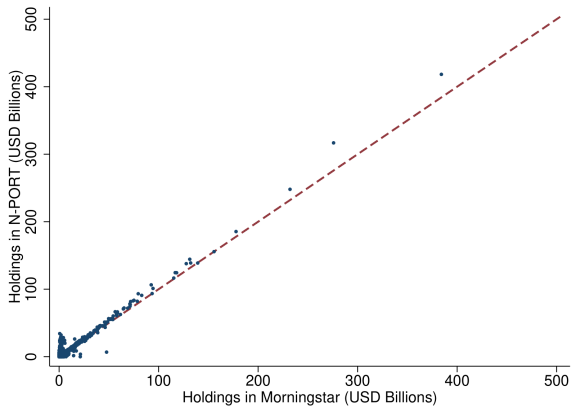
(a) All Assets   (b) Smallest 12.5%
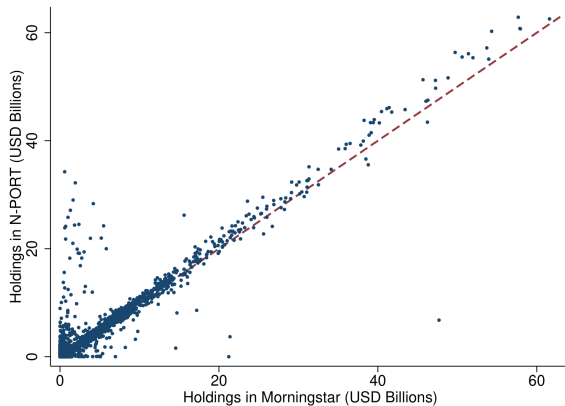
Analysis with N-PORT

- Here, follow the analysis of Maggiori, Neiman and Schreger (2020) using N-PORT instead of Morningstar

- Need to calculate the share of portfolio owned by U.S. funds
  - Maggiori, Neiman and Schreger (2020) use share of global mutual fund ownership as denominator
  - Issue: N-PORT covers a single country (USA)
  - Here: Use commercial data on amount of security outstanding
    - These sources are more common to university libraries and government

Home-Currency Bias

- ▶ Run security-level regressions to study how investors in different countries buy the debt of the *same* in *different* currencies:

$$s_{j,p,c} = \alpha_{j,p} + \beta_j \mathbf{1}_{\{\text{Currency}_c = \text{Currency}_j\}} + \text{Controls} + \varepsilon_{j,p,c}$$

  - ▶ $s_{j,p,c} \equiv$ share of security c issued by firm p that is held by country j
  - ▶ $\mathbf{1}_{\{\text{Currency}_c = \text{Currency}_j\}} \equiv$ home-currency dummy
  - ▶ $\alpha_{j,p} \equiv$ (ultimate-parent) firm fixed effect
  - ▶ Controls included for maturity and coupon

- ▶ N-PORT: U.S. home-currency bias

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Home-Currency Bias in N-PORT

$$s_{j,p,c} = \alpha_{j,p} + \beta_j \mathbf{1}_{\{\text{Currency}_c = \text{Currency}_j\}} + \text{Controls} + \varepsilon_{j,p,c}$$

	N-PORT ('22)			Morningstar ('17)
Currency	0.129***	0.123***	0.120***	0.626***
	(0.003)	(0.003)	(0.005)	(0.013)
Constant	0.012***	0.002		
	(0.000)	(0.002)		
Obs.	34,062	34,062	34,062	36,229
# of Firms	7,187	7,187	7,187	7,802
R^2	0.255	0.272	0.709	0.892
Firm FE	No	No	Yes	Yes
Controls	No	Yes	Yes	Yes

Standard errors are clustered at the firm level: $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

Home-Country and Home-Currency Bias

- Similar regression framework, but now consider three specifications:

$$s_{j,p,c} = \alpha_{j,0} + \gamma_{j,0}\mathbf{1}_{\{\text{Country}_p=j\}} + \varepsilon_{j,p,c}$$

$$s_{j,p,c} = \alpha_{j,1} + \beta_{j,0}\mathbf{1}_{\{\text{Currency}_c=\text{Currency}_j\}} + \varepsilon_{j,p,c}$$

$$s_{j,p,c} = \alpha_{j,2} + \gamma_{j,1}\mathbf{1}_{\{\text{Country}_p=j\}} + \beta_{j,1}\mathbf{1}_{\{\text{Currency}_c=\text{Currency}_j\}} + \varepsilon_{j,p,c}$$

  - $\mathbf{1}_{\{\text{Country}_p=j\}} \equiv$ home-country dummy
  - $\mathbf{1}_{\{\text{Currency}_c=\text{Currency}_j\}} \equiv$ home-currency dummy
  - No firm fixed effects to allow for country variation

- N-PORT: U.S. home-country and home-currency bias

Home-Country and Home-Currency Bias in N-PORT

$$s_{j,p,c} = \alpha_{j,0} + \gamma_{j,0}\mathbf{1}_{\{\text{Country}_p=j\}} + \varepsilon_{j,p,c}$$

$$s_{j,p,c} = \alpha_{j,1} + \beta_{j,0}\mathbf{1}_{\{\text{Currency}_c=\text{Currency}_j\}} + \varepsilon_{j,p,c}$$

$$s_{j,p,c} = \alpha_{j,2} + \gamma_{j,1}\mathbf{1}_{\{\text{Country}_p=j\}} + \beta_{j,1}\mathbf{1}_{\{\text{Currency}_c=\text{Currency}_j\}} + \varepsilon_{j,p,c}$$

	N-PORT ('22)			Morningstar ('17)
Country	0.086***		0.046***	0.078***
	(0.005)		(0.005)	(0.009)
Currency		0.129***	0.110***	0.625***
		(0.003)	(0.003)	(0.009)
Constant	0.067***	0.012***	0.007***	0.029***
	(0.003)	(0.000)	(0.001)	(0.002)
Obs.	34,062	34,062	34,062	36,229
# of Firms	7,187	7,187	7,187	7,802
R^2	0.126	0.255	0.285	0.802

Standard errors are clustered at the firm level: $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

References

MAGGIORI, M., NEIMAN, B. and SCHREGER, J. (2020). International currencies and capital allocation. *Journal of Political Economy*, **128** (6), 2019–2066.