The Missing Wealth of Nations: Are Europe and the U.S. Net Debtors or Net Creditors?

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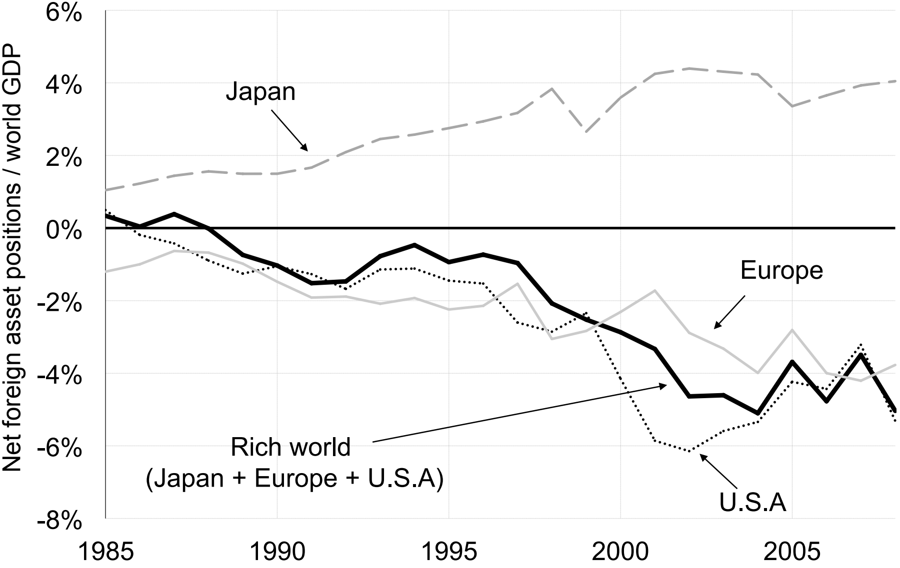
There are two puzzles in international investment statistics:

1. **Long-standing anomalies in global accounts:** e.g., more liabilities than assets tend to be recorded at the global level
2. Contrary to basic theoretical expectations, **the rich world is a net debtor**, dragged down by Europe and the U.S.

In Official Statistics, the Rich World is a Net International Debtor



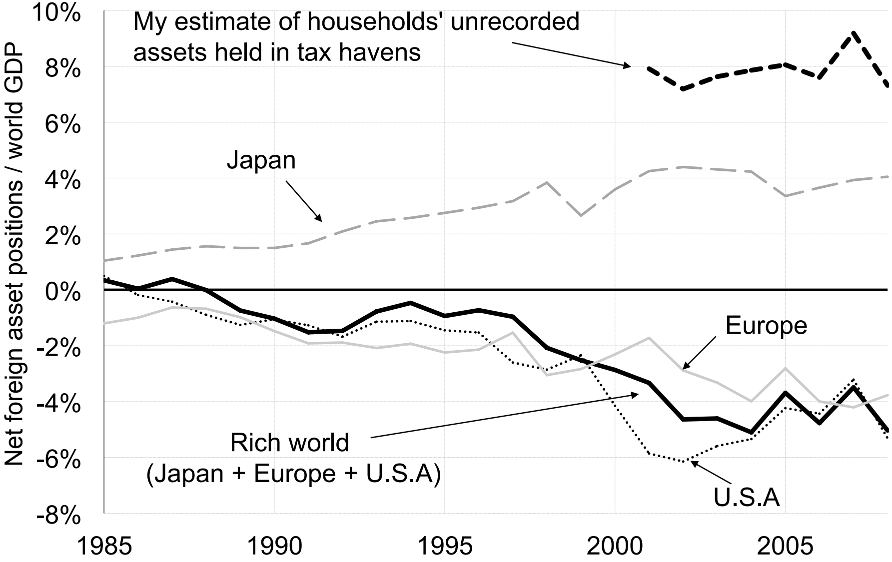
The deterioration of the rich world's net position has been at the center of research and policy debates over the last decade:

- A large literature analyzes poor-to-rich capital flows and **global imbalances**
- Widespread view in public debate that external assets are now in poor countries and debts in rich countries **("China owns the world")**
- Is this view well-founded? This paper answers **NO** and tries to explain why

Rich Countries Are Richer Than We Think

- Official statistics miss most of the funds held by households in **offshore tax havens**
- These funds are large: **8% of households' financial wealth** is held in tax havens
- 6% goes unrecorded: portfolio securities
- This coverage gap explains most of the long-standing anomalies in global accounts
- It mostly affects rich countries

Unrecorded Offshore Assets Are Double the Recorded Net Debt of The Rich World



The Rich World is Still a Net Creditor

Accounting for unrecorded offshore assets:

- Turns **the eurozone**, officially the world's second largest net debtor, into a net creditor
- Significantly improves the U.S. net position
- **Turns the rich world into a net creditor**

→ Despite a decade of global imbalances, external assets are still in rich countries and debts in poor countries: **China does not own the world yet**

What This Paper Does (1)

Presents a **method** to compute households' offshore assets

- This method is based on a set of systematic anomalies in international statistics
- These anomalies are large, persistent, and internally consistent
- They reveal a simple pattern: households own mutual fund shares through tax havens
- Results backed by great deal of anecdotal evidence and official Swiss data

What This Paper Does (2)

The paper makes three additional contributions:

1. Provides **evidence** as to who owns offshore accounts, based on a unique Swiss dataset
2. Analyzes the **implications** for global imbalances of accounting for tax havens
3. Provides **concrete proposals** to improve international statistics

I - Tax Havens Cause Anomalies in International Statistics

How Securities Should be Recorded in Principle

If a French resident (corporation, individual...) owns a portfolio of U.S. equities through a Swiss bank:

- France should record a foreign asset on the U.S.
- The U.S. should record a foreign liability
- Switzerland should record nothing **(residence principle)**

How Securities Are Recorded in Practice

In practice, when a French **household** owns a portfolio of U.S. equities through a Swiss bank:

- France records no foreign assets (wrongly)
- The U.S. records a foreign liability (rightly)
- Switzerland records nothing (rightly)

Tax Havens Cause Anomalies in Stock Data

The use of tax havens by households causes two related anomalies in stock data:

1. **Global asset-liability discrepancy**: Less security assets than liabilities are recorded globally
2. **Debtor-creditor discrepancies**: Liabilities recorded by the U.S. are larger than the sum of assets recorded by all countries on the U.S.

This Paper Focuses on Stock Data

A great deal of progress in portfolio stock data in recent years makes it possible to use the anomalies in stock data to study the portfolios held by households in tax havens:

- The global asset-liability gap reveals **the value of households' offshore portfolios**
- The debtor-creditor discrepancies reveal **where the missing portfolios are invested**
- Though less harmonized, **flow data are consistent** with what stock data show

II - A Comprehensive Dataset on Security Assets and Liabilities

The Main Datasource on the Assets Side is the CPIS

- The CPIS gives the bilateral assets A_{ij} of 74 leading countries i on 238 hosts j
- Supplemented by SEFER (reserve) and SSIO (international organizations)
- CPIS-SEFER cover 93% of all security holdings in 2001; 86% in 2008
- Main non-reporters: China, oil exporters, Taiwan, some offshore centers

Filling in the Coverage Gaps of the CPIS

- Variety of methods and sources to fill in all the gaps of the CPIS-SEFER
- Reasonably good information for the large non-reporters (e.g., China)
- Vast majority of non-CPIS reporters have negligible holdings

→ **The anomalies in my database capture offshore wealth only**

Data for Liabilities

- Main source for L_i: Lane and Milesi-Ferretti's (2007) updated and extended **External Wealth of Nations database**
- Supplemented by new estimates for offshore centers not covered using variety of sources

$\rightarrow$ Final dataset contains all identifiable bilateral security assets A_{ij} and aggregate liabilities L_i for all countries i each year over 2001-2008 and for each asset class (equity, bond)

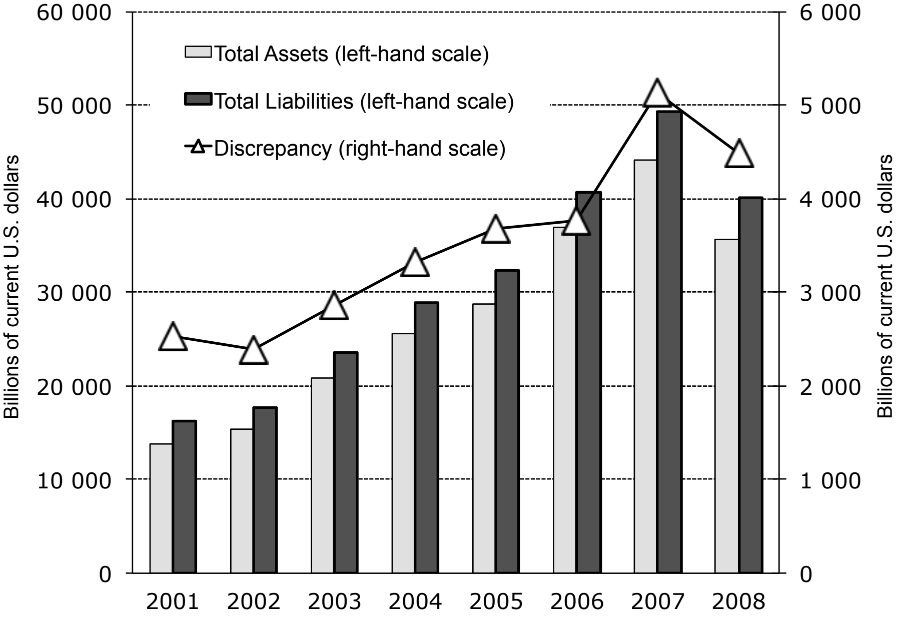
III - Estimates of the Unrecorded Portfolios Held in Tax Havens

6% of Households' Financial Wealth Goes Unrecorded

- Globally, cross-border security assets should equal liabilities ($40,000bn in 2008)
- But the data show a $4,500bn gap in 2008, particularly large for equities ($3,000bn: 20% of total cross-border equities)

→ A global overview of portfolio positions suggests that in 2008 households held in tax havens unrecorded portfolios worth $4,500bn = **6% of their financial wealth**

Each Year, Less Security Assets than Liab.

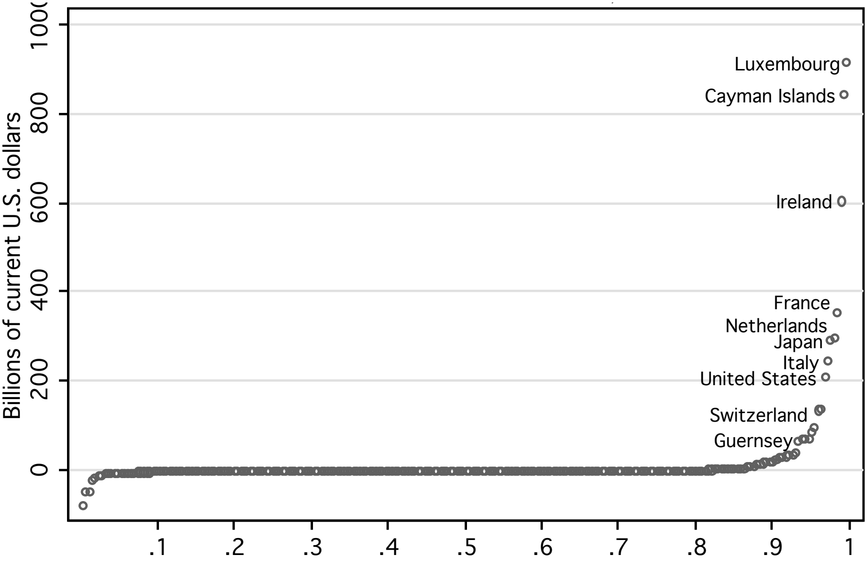


Unrecorded Portfolios Are Mostly Mutual Fund Shares

As the differences between debtor-reported liabilities L_j and creditor-derived liabilities $\sum_i A_{ij}$ reveal, the owners of unrecorded accounts invest:

- In equity and bonds issued by the leading developed economies
- In mutual fund shares (= equities) issued by the three big fund centers: Luxembourg, Ireland, and the Cayman Islands

In 2008, the Owners of Offshore Accounts Invest Mostly in Luxembourg Funds



Offshore Accounts Make Tax Evasion Easy

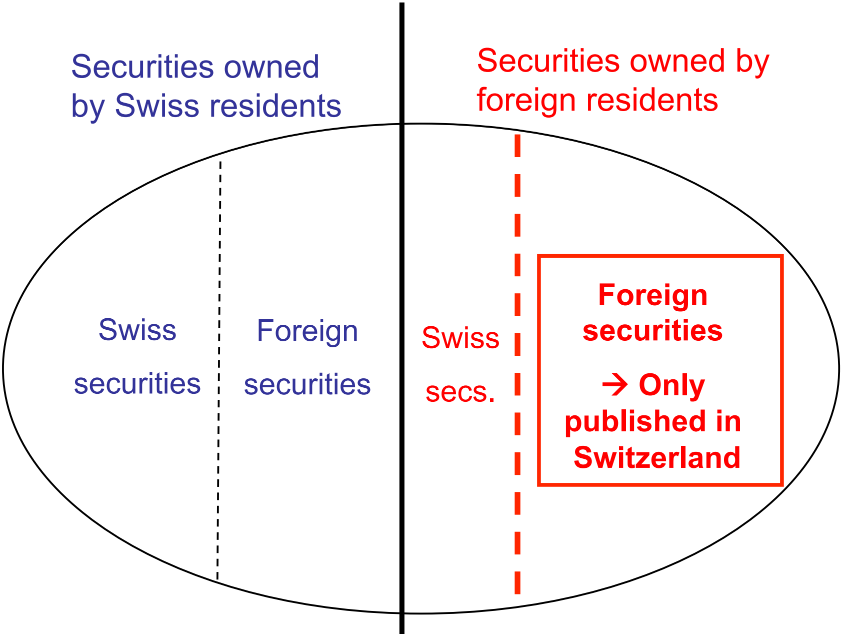
Investing in Luxembourg funds from Swiss accounts **enables foreigners to avoid/evade all taxes**:

- No tax on cross-border dividend payments from Luxembourg to Switzerland
- No Swiss tax on foreign dividend payments
- Easy to evade domestic income tax

$\rightarrow$ Makes perfect sense (NB: 8,000 funds distributed in Switzerland: 4,500+ incorporated in Luxembourg and 1,200+ in Ireland)

IV - Offshore Wealth in Switzerland

The SNB Publishes a Unique Dataset



The SNB's Data Are Fully Consistent With the Anomalies in International Statistics

	World	Switzerland
Offshore securities ($bn)	4,490	1,545
Bonds	37%	35%
Equities	*63%*	65%
Mutual Fund Shares	*48%*	*50%*

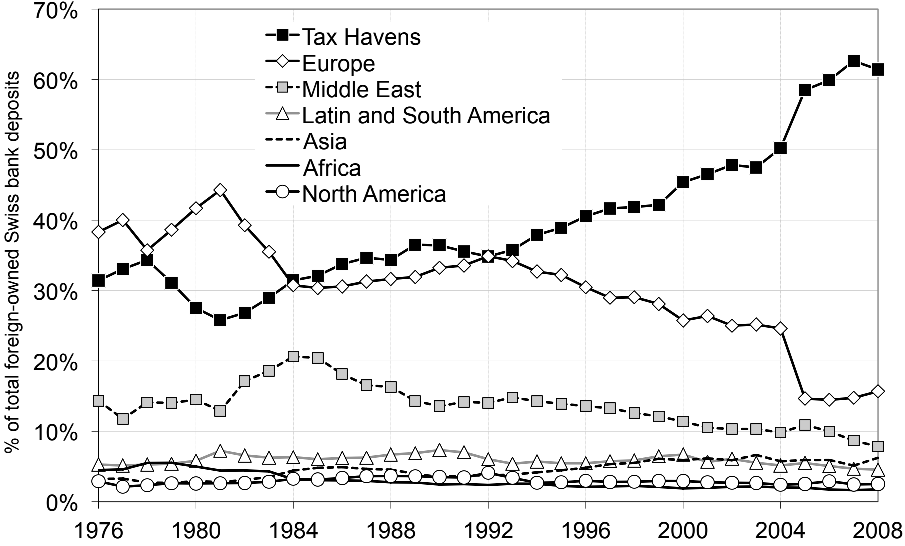
The SNB Also Provides Unique Information on Offshore Bank Deposits

- In tax havens, households own portfolio securities but also bank deposits
- The SNB publishes the value of the Swiss bank deposits held by foreigners
- This gives a good idea of what offshore bank deposits represent globally: around **2% of households' financial wealth**

The SNB Also Provides Unique Information on Who Owns Swiss Accounts

- The SNB publishes a full country breakdown of the owners of Swiss bank deposits
- Most Swiss accounts are held through sham entities incorporated in Panama or the British Virgin Islands $\longrightarrow$ large amounts assigned "to" tax havens in SNB's statistics
- Clear evidence that **around half of Swiss accounts belong to eurozone residents**

Most Swiss Accounts Probably Belong to Europeans



V - Implications of Tax Havens for Global Imbalances

Accounting for Unrecorded Assets Turns the Eurozone Into a Net Creditor

Officially recorded NFA/GDP ratio (2001-2008 average)

		Share of non-Swiss fortunes belonging to euro-area			
		0%	**25%**	**50%**	**75%**
	0%	-11%	-6%	0%	6%
Share of Swiss fortunes belonging to euro-area	**40%**	-6%	0%	5%	11%
	50%	-5%	1%	7%	12%
	60%	-3%	2%	8%	13%

Corrected NFA/GDP ratio

Accounting for Unrecorded Assets Substantially Improves the U.S. Net Position

Officially recorded NFA/GDP (2001-2008 average)

		Share of non-Swiss fortunes belonging to the U.S.			
		0%	**25%**	**50%**	**75%**
Share of Swiss fortunes belonging to the U.S.	**0%**	$\boxed{-18\%}$	-13%	-9%	-5%
	5%	-17%	-13%	-8%	-4%
	15%	-16%	-12%	-7%	-3%

Corrected NFA/GDP

International Imbalances Are Still Small Compared to Domestic Imbalances

- Back in the 1980s-1990s, the rich world was a sizable net creditor
- Global imbalances have not been large enough to turn the rich world into a net debtor overall
- Offshore holdings are **huge** compared to recorded net foreign asset positions...
- ...Less so compared to the wealth of the world's richest households (15% of the top 1%'s financial wealth)

VI - Conclusion: Two Concrete Proposals to Improve International Statistics

Rich Countries Are Richer Than We Think

The funds held by households in tax havens are large:

- Double the net debt of the rich world
- Double Chinese reserves
- The eurozone and the rich world are likely to be net creditors

$\longrightarrow$ Major revisions to international investment statistics are called for

Offshore Assets Could be Easily Measured and Taxed

Two simple reforms would make for substantial improvements:

- Ask banks to compute data on a **beneficial ownership** basis (information already available for anti-money laundering purposes)
- **Exchange data on offshore portfolios** through the BIS (already done for bank deposits)

$\rightarrow$ Easy. And measurement would make taxation possible

Measuring and Taxing Unrecorded Offshore Assets is Key for the Eurozone

- Greece, Spain, Portugal... have officially recorded NFA $\approx$ -100% of GDP
- In these countries, unrecorded offshore assets may reach up to 30% of GDP
- Accurate NFAs are key to understand the magnitude of the required external adjustment
- Taxing unrecorded offshore is an important element in the required fiscal adjustment

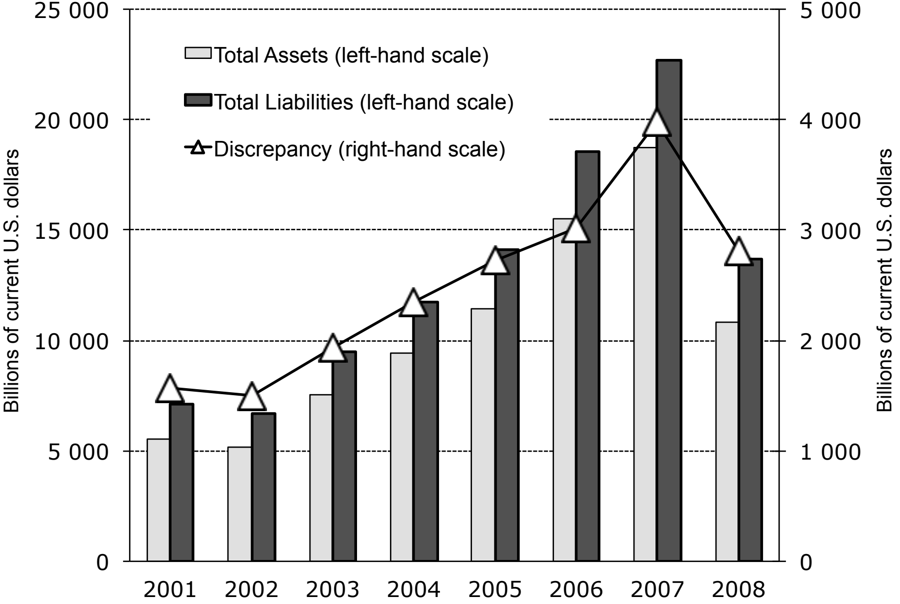
Supplementary Slides

Tax Havens Cause Anomalies in Flow Data

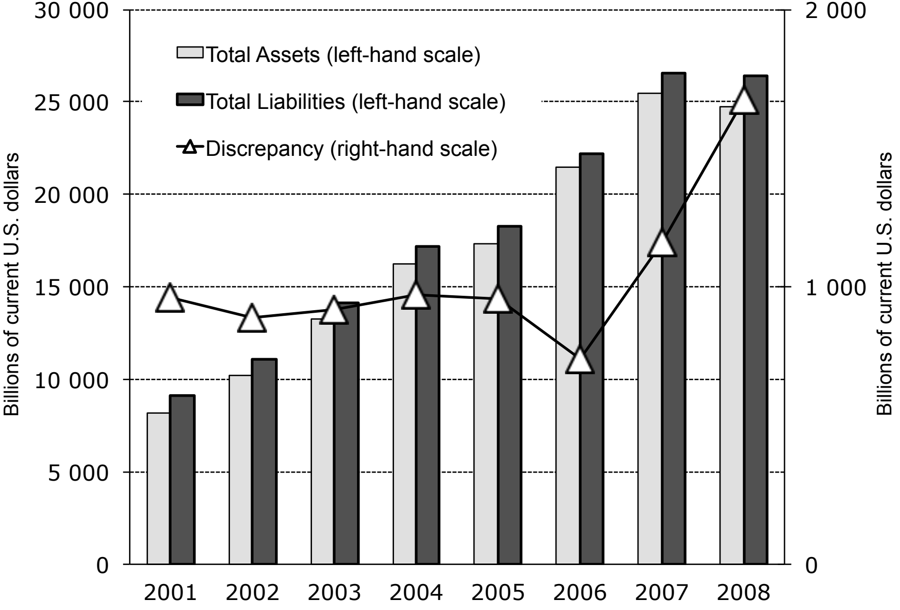
The use of tax havens by households causes statistical anomalies in flow data:

1. More **investment income** paid than received globally
2. More **securities** sold than purchased globally
3. **Errors and omissions** and discrepancies between **cumulated flows and stock positions** in individual countries' statistics

Each Year, Less Equity Assets than Liab.



Each Year, Less Bond Assets than Liab.

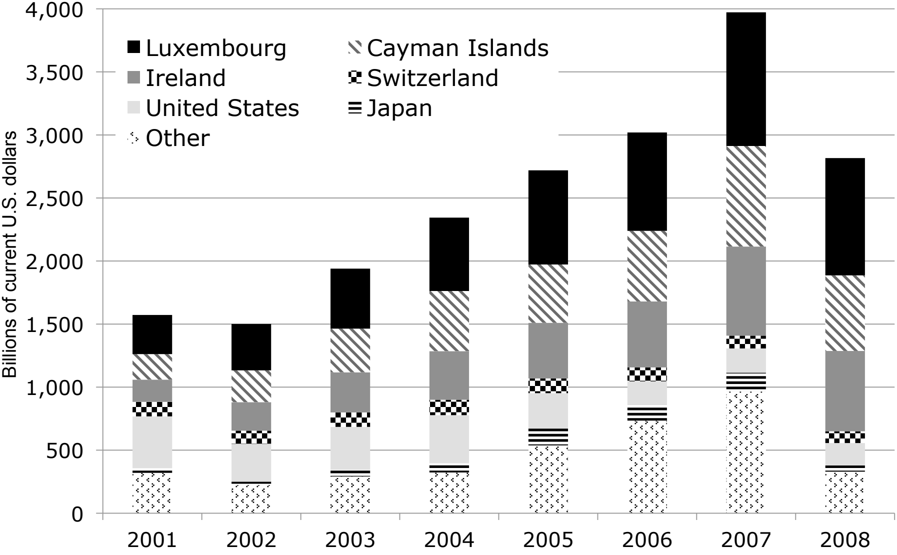


Estimates Coming From Stock Data Are Consistent With Flow Data

		2001	2002	2003	2004	2005	2006	2007	2008
[1]	Stocks (Ω), \$bn	2,532	2,392	2,858	3,316	3,676	3,760	5,131	4,490
[2]	Inflows, \$bn	*38*	*164*	*153*	*240*	*230*	*116*	*189*	*364*
[3]	Valuation, \$bn	*n.a.*	*-304*	*313*	*218*	*130*	*-31*	*1,182*	*-1,006*
[4]	Interest & dividends (D), \$bn	126	124	118	121	128	121	106	156
[5]	Yield ($r_\Omega = D/\Omega$)	*5.0%*	*5.2%*	*4.1%*	*3.6%*	*3.5%*	*3.2%*	*2.1%*	*3.5%*

Sources: Stocks: my estimates
Inflows, interest & dividends: IMF estimates (BoPS, Table C-1: “Global discrepancies in BoPS”)

The Owners of Offshore Accounts Invest Increasingly in Mutual Funds



Offshore Wealth: Summary Stats in 2008

6% of households' financial wealth

	World	Switzerland
Offshore securities ($bn)	4,490	1,545
Bonds	37%	35%
Equities	63%	65%
Mutual Fund Shares	*48%*	*50%*
Offshore bank deposits ($bn)	1,388	478

2% of households' financial wealth

Future Research

- Looking forward, will global imbalances matter more than domestic imbalances?
  $\rightarrow$ Piketty & Zucman (2012), "Will China Own the World? An Essay on the World Distribution of Wealth" (in progress)
- Is current action against offshore tax evasion effective?
  $\rightarrow$ Johannesen & Zucman (2012), "The End of Bank Secrecy? An Evaluation of the G20 Tax Haven Crackdown" (PSE WP)