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Investment Consulting

Some of the graphs/pictures are not
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Home Bias – Swiss Pension Fund Experience

EPFIF - Zurich, June 16, 2015

PPCmetrics AG

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Home, Sweet Home (Bias)

«There is no place like home»

Home Bias: Overweighting of the home market compared to its market capitalization (French and Poterba (1991))

- **Possible explanations:**
 - **Higher return expectations** (French and Poterba (1991))
 - **Hedging possibilities against domestic risks** such as local goods price (Adler and Dumas (1983)).
 - **Trading costs, taxes, and border control barriers** (Glassman and Riddick (2001)).
 - **Information asymmetries** (Ahearne, Grieever, and Warnock (2004))
 - **Governance** (Dahlquist, Pinkowitz, Stulz, and Williamson (2003))
 - **Behavioral explanations**, i.e., familiarity, patriotism and overconfidence (e.g., Coval and Moskowitz (1999))
 - **Exchange rate volatility** (Fidora, Fratzscher, and Thimann (2006))

Home Bias

Home Bias in Equities



Switzerland = 0.50

Home Bias

Home Bias in Bonds

- **The home bias ...**
 - **... is significantly declining** due to the internet or mutual funds, especially for equities (Amadi (2005)).
 - **... is larger in the case of bonds**, especially strong in the US (Fidora, Fratzscher, and Thimann (2006)).
 - **... is larger for investors from emerging markets** for equities as well for bonds (Coeurdacier and Rey (2013)).
 - **... is larger for countries with larger (real) currency volatility** (Fidora, Fratzscher, and Thimann (2006)) .
 - **... is also existent for US and EU pension funds** (Hochberg and Rauh (2013), Bakker (2006)).
 - **... is larger in countries with poorer corporate governance** (Dahlquist, Pinkowitz, Stulz, and Williamson (2003)).

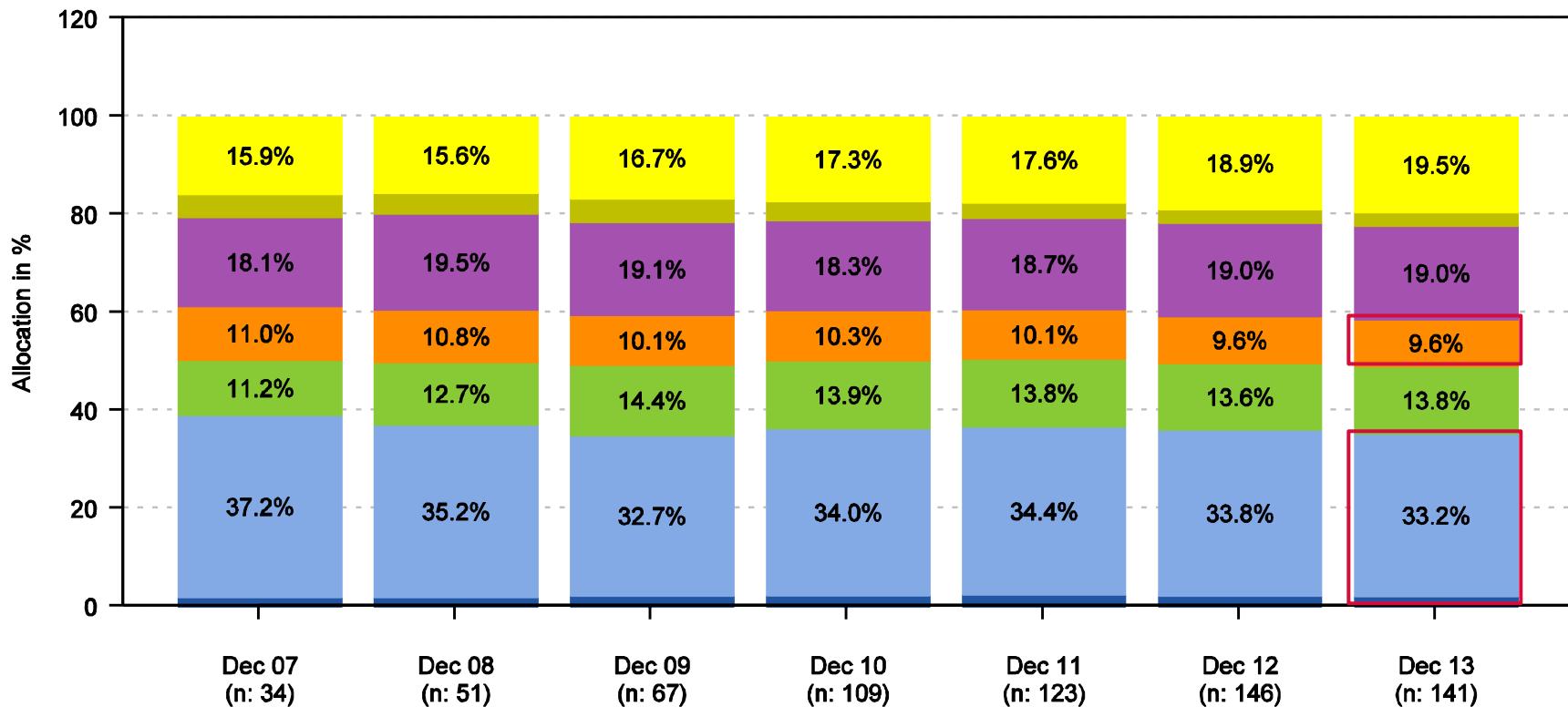
Home Bias

Home Bias for Swiss Pension Funds (1)

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Average strategy over time - Overview

01.01.2007 - 31.12.2013



- Liquidity
- Bonds CHF
- Bonds FC
- Swiss Equities

- Global Equities
- Alternative assets
- Real Estate

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Swiss Pension Funds
Equity = 0.39
Bonds = 0.70

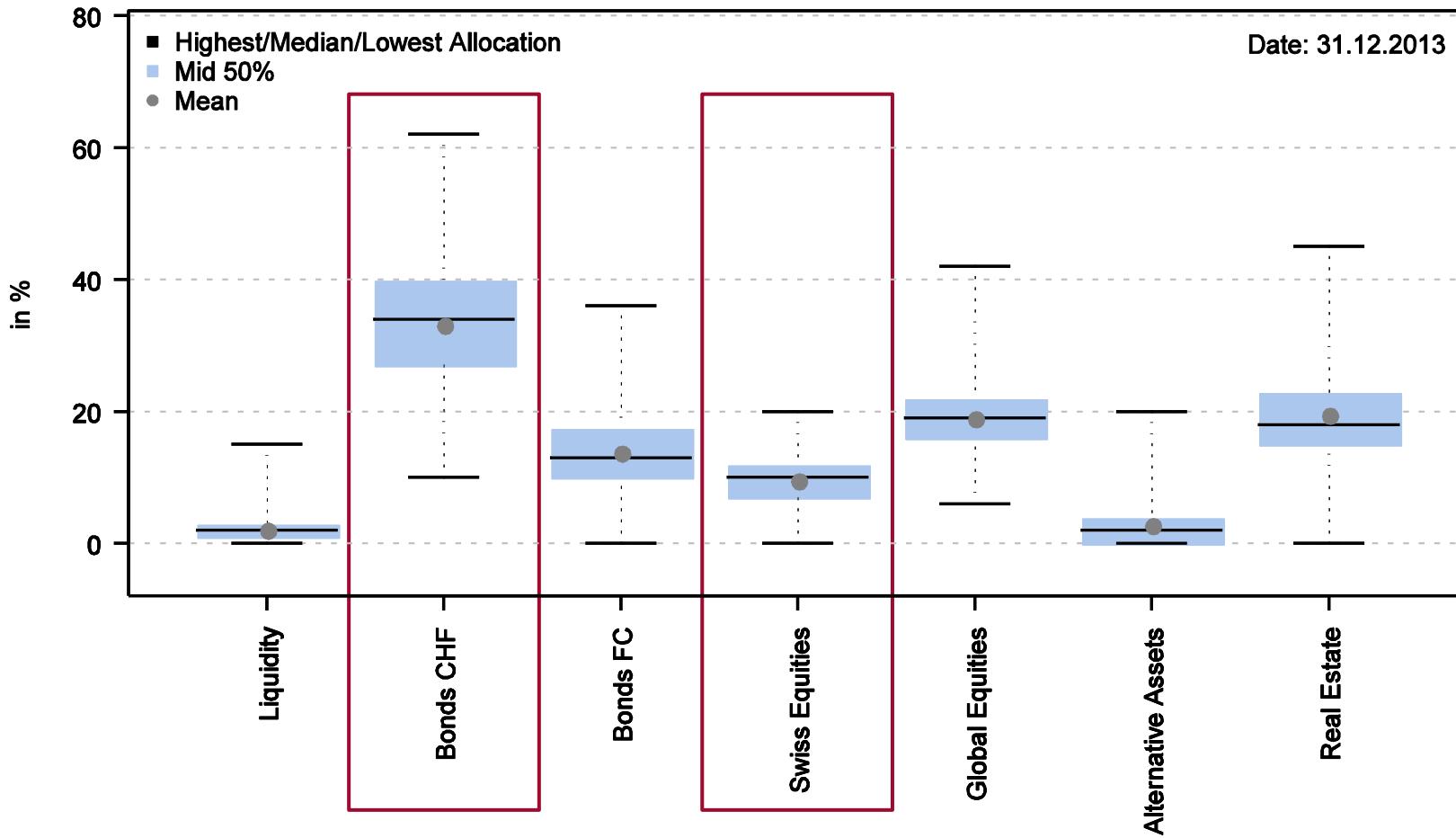
n: Number of pension funds / Pension fund assets according to art. 44 BVV 2 as at end of period in m of CHF: 244'196

Home Bias

Home Bias for Swiss Pension Funds (2)

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Strategy - Overview



© PPCmetrics AG Number of pension funds: 141 / Pension fund assets according to art. 44 BVV 2 as at end of period in m of CHF: 244'196

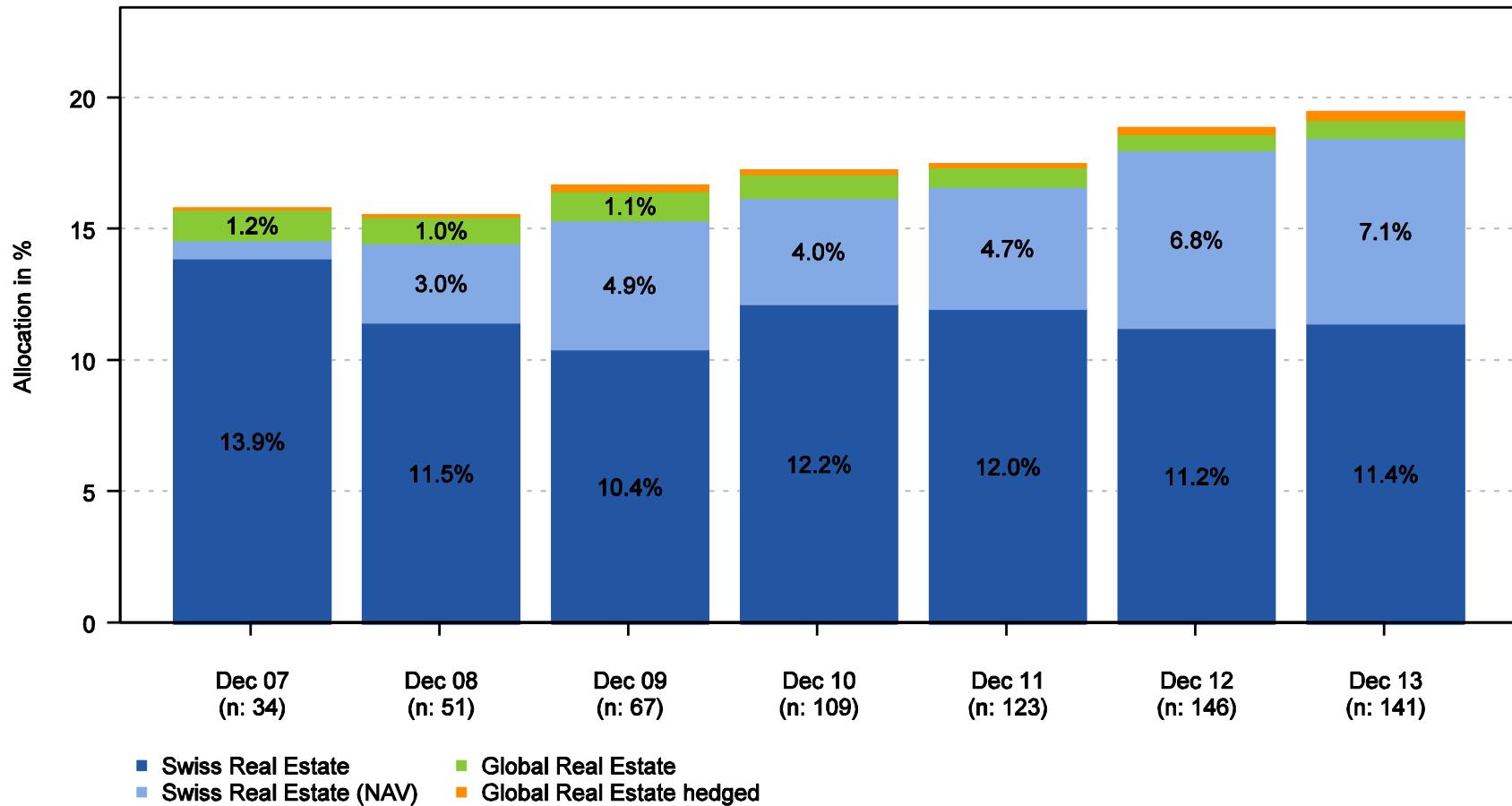
Home Bias

Home Bias for Swiss Pension Funds (3)

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Average strategy over time - Real Estate

01.01.2007 - 31.12.2013



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n: Number of pension funds / Pension fund assets according to art. 44 BVV 2 as at end of period in m of CHF: 47'684

What's the Problem Anyway?

Generally, what are the Costs of a Home Bias?

- According to **financial theory**: The home bias leads to a **lack of international diversification** and, therefore, to **lower expected risk-return profiles** (Sharpe (1964), Lintner (1995), French and Poterba (1991))
 - Even in the presence of transaction costs
 - However, these costs of the lack of international diversification decreased due to globalization (Agnesens (2014)), but they are still there...
- According to **macroeconomic theory**: The home bias leads to **suboptimal international risk sharing for consumption** (Lewis (1991))
 - But this view does not account for direct foreign investments...

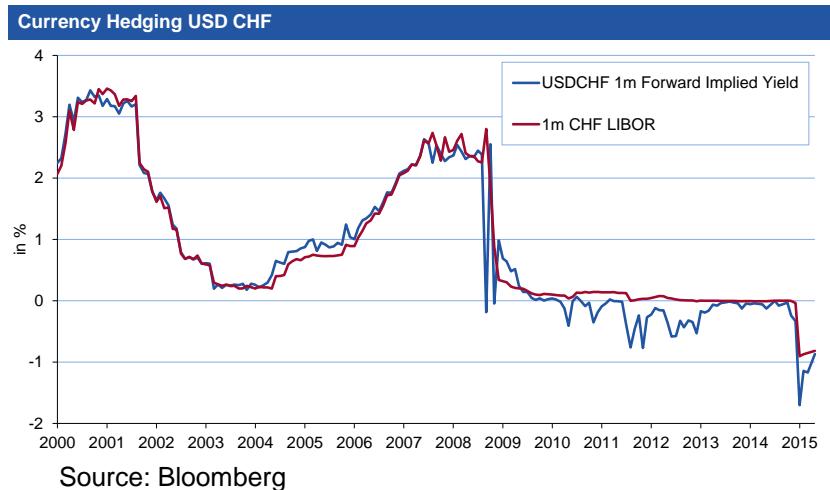
What's the Problem Anyway?

Pension Funds: Are Bonds different?

- Yes, because of their liability hedging capabilities
- What's the problem with foreign bonds?
 - There might be no adequate compensation for currency risk
 - CHF hedged foreign currency bonds are not an exact match of the liabilities
 - Problem of «hedging costs»

	Swiss Government Bonds	Swiss Aggregate Bonds	Global Government Bonds (hedged)
Correlation with liability proxy	0.96	0.90	0.61
Tracking error with liability proxy	1.18%	1.63%	3.69%

Source: Own calculations, data from January 1973 to March 2015



What's the Problem Anyway?

Pension Funds: What about Equities then?

- **Information asymmetries, governance, or behavioral explanations** are **not good reasons** for having a home bias.
- But what about **hedging possibilities, trading costs, or exchange rate volatility**? And what about **return**?

What's the Problem Anyway?

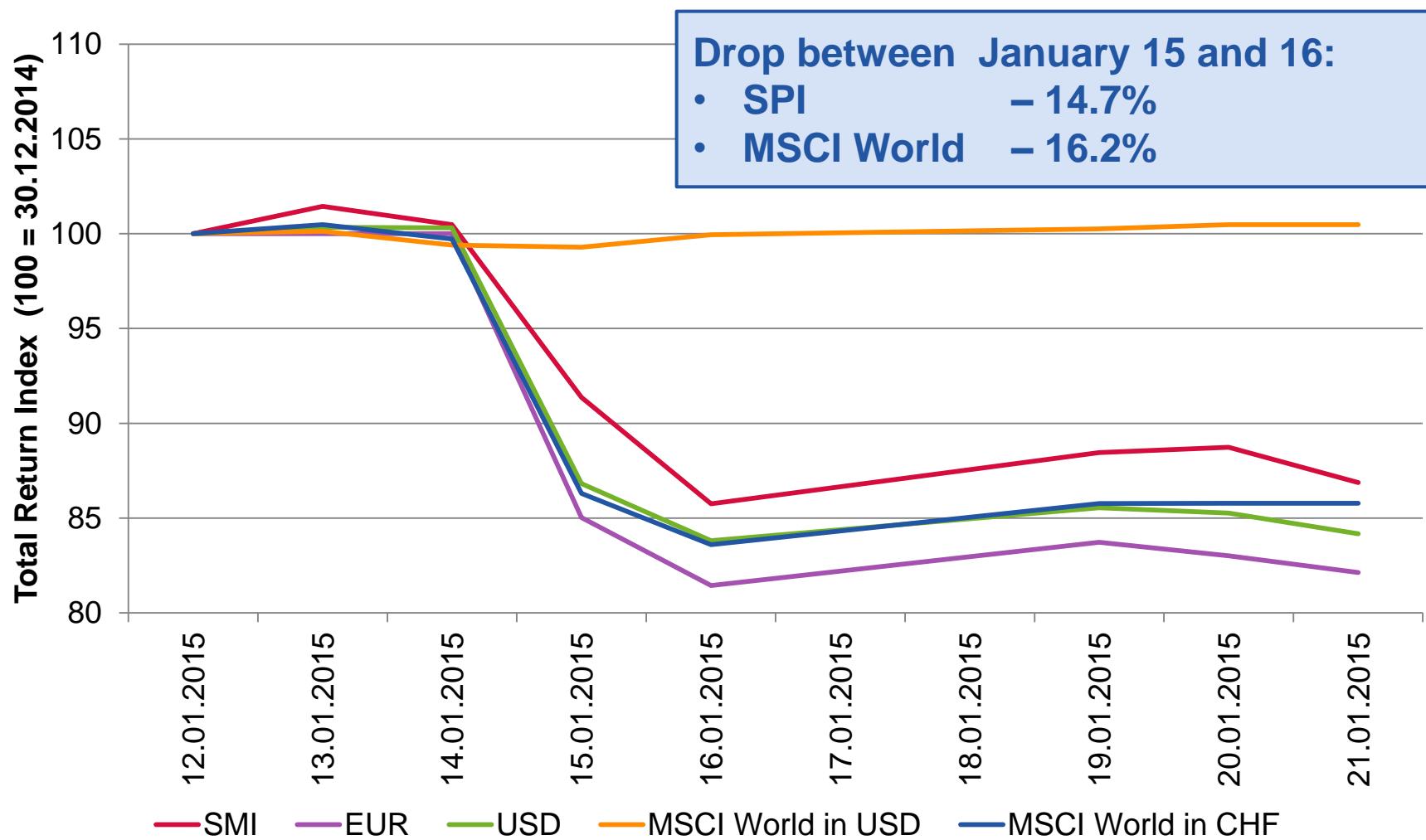
Pension Funds: Hedging or Transaction Costs?

- **What about hedging then?**
 - Since equities are **not a good investment from a liability matching perspective** the hedging argument fails as well...
 - ⇒ There might be even an **argument to exclude** home equity markets. Negative correlation between the ability of the employers as well as the employees to provide recapitalization contributions and equity markets returns.
 - ⇒ On the other side, they might be a good **hedging instrument** for **wage increases** (e.g., Black (1989)).
- What about **trading cost or taxes?**
 - Bid ask spreads are in most of the developed equity markets smaller than in Switzerland.
 - Taxes are also not a good argument because Swiss pension funds are tax exempt in most countries.

What's the Problem Anyway?

What about Equities: Less Currency Risk?

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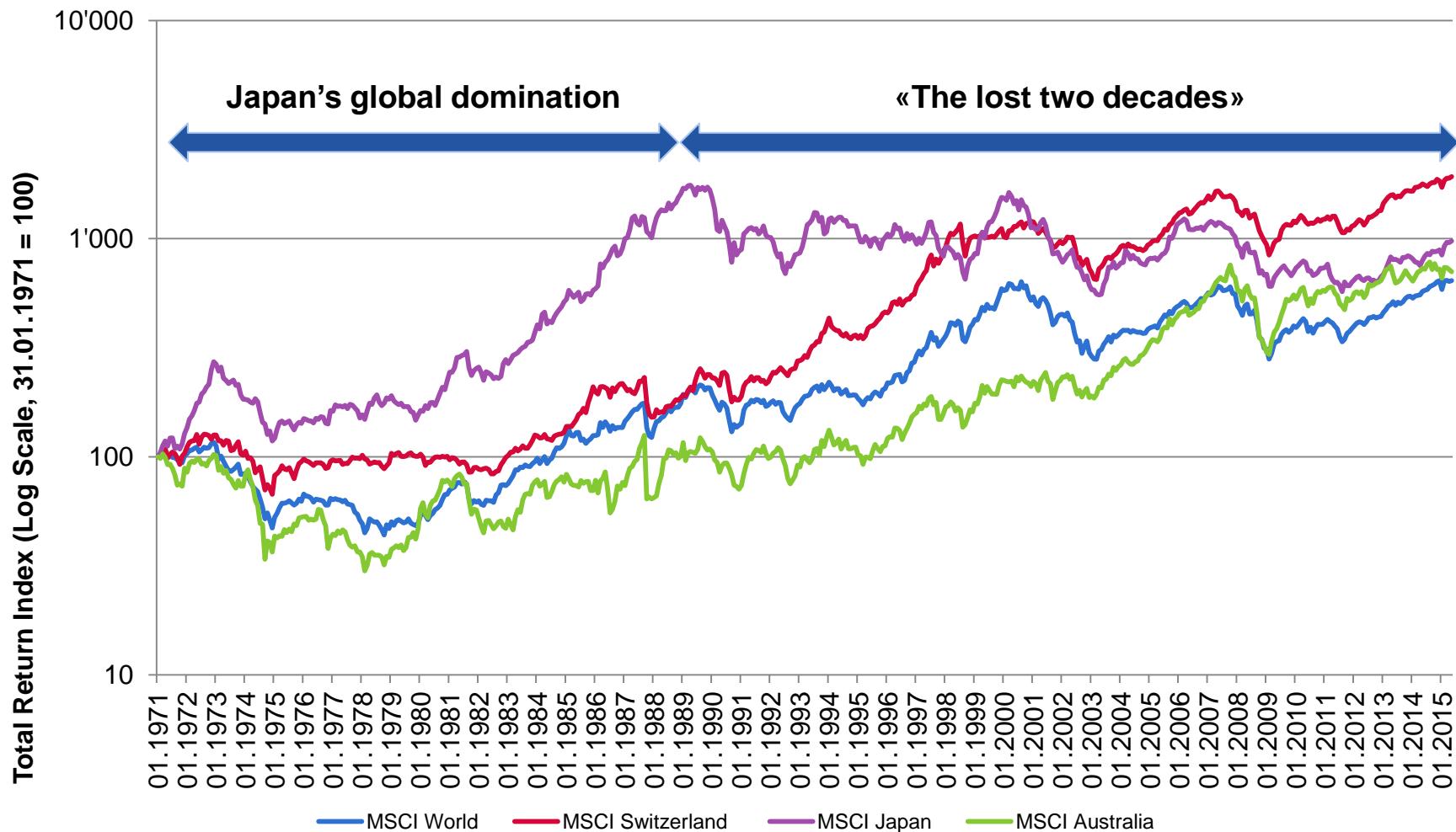
What's the Problem Anyway?

What about Equities: Concentration Risks

What's the Problem Anyway?

What about Equities: Fat Tails or «Japan Szenario»

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Source: Bloomberg (own calculations), <http://www.thebubblebubble.com/japan-bubble/>, <http://www.lucidica.com/>, <http://www.topspeed.com/>

What's the Problem Anyway?

What about Real Estate

- Since Swiss Real Estate does **not have any liability matching properties**, the same arguments as in the case of equities do apply.
 - Generally, real estate is a questionable «asset class» since they are simply firms from a special industry and since most other firms own real estate.
- However.... actually, there **are some practical arguments!**
 - **Not sufficient access to the market** (direct investments)
 - **Information asymmetries** (direct investments)
 - **No(t many) appropriate collective investment schemes**
 - At the moment, **selling Swiss direct investments** is not reasonable because **they are traded at a large discount**.

Case Study

Sovereign Wealth Funds

- **What is a SWF?**
 - According to the IMF a SWF is a state-owned investment fund or entity established as stabilization fund, savings fund, reserve investment corporations, development fund, or contingent pension reserve fund.
- **Home bias of selected SWF («self selection problem»)**

SWF	Size (bn CHF)	Home Bias (Equity)
Alaska Permanent Fund	52	-0.23
CPP Investment (Canada)	18	0.12
Future Fund (Alaska)	72	0.17
Government Pension Fund (inkl. Norway)	802	0.02
National Pensions Reserve Fund (Ireland)	20	0.01
Temasak (Singapore)	154	0.31

- **Home bias is typical** for the average investor, even for large and sophisticated investors such as pension funds or sovereign wealth funds (even without the development funds).
 - Generally, it is smaller for the larger and more sophisticated ones.
 - In the case of **bonds**, a home bias can make sense because hedged foreign bonds are not an instrument for **liability matching**.
 - There are many reasons such as currency risks for a home bias in the case of equities (or real estate), but almost none of them are good ones!
- **Reassess your allocation towards Swiss equities and real estate, find your reasons for this allocation and question it.**

Thank you!



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