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Investment Consulting

Some of the graphs/pictures are not available online

EPFIF

In Search of New Risk Premia

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Structure of my Talk

- Introduction
- Swiss Pension Funds
- Historical Evidence
- Consequences for Asset Allocation
- Takeaways

Introduction
General Considerations (1)

«No risk – no return»

(«There is no such thing as a free lunch!»)

Introduction
General Considerations (2)

- **But not all risks are compensated!**

Introduction
General Considerations (3)

- **The goal is not to minimize risk; it is to take the smart risk.**

Introduction
What is a Risk Premium anyway?

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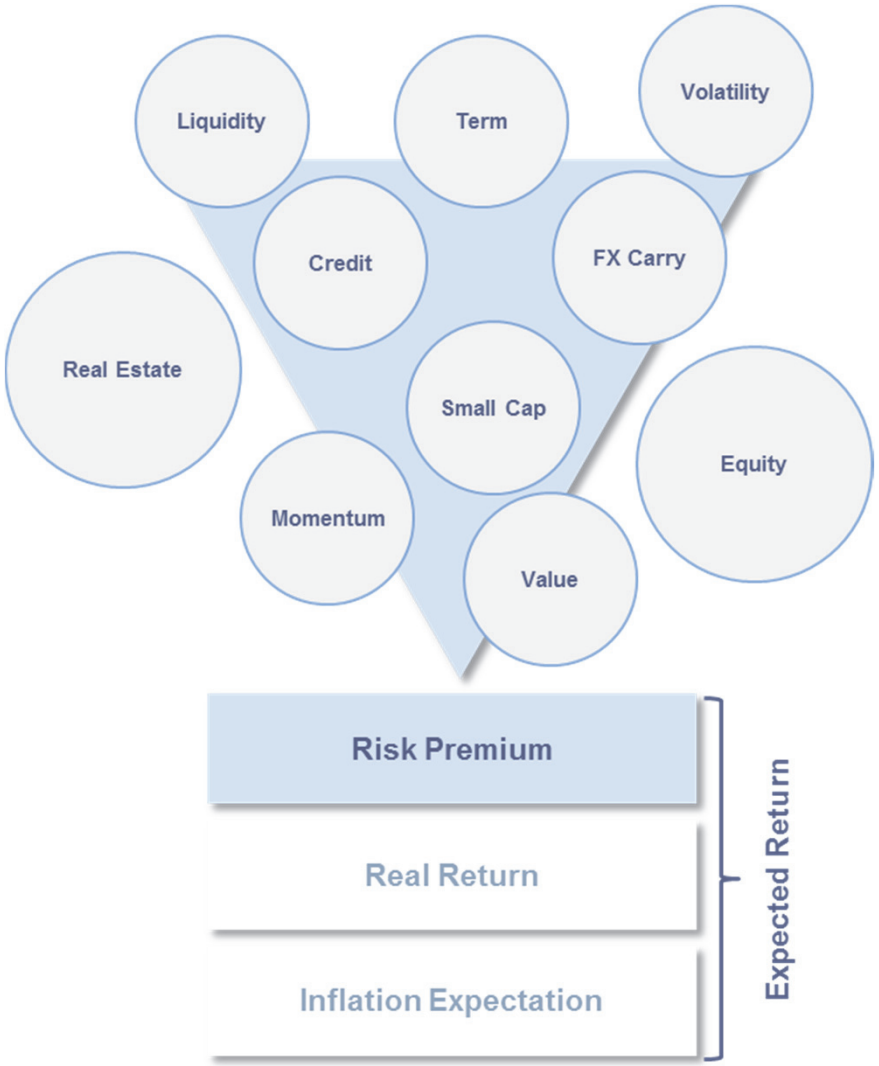
Risk premium is the minimum compensation over the risk free return that is required by individuals to hold a risky asset.

- **A Risk Premium** has to have the following **properties**:
  - **No elimination through diversification**
  - **Long-term compensation** (in the short run and the medium run they can be negative)
  - **No replication possible**
  - **Passive** (or at least rule based) **harvesting possible**

Source: Bender, Briand, Nielson, and Stefek (2010)

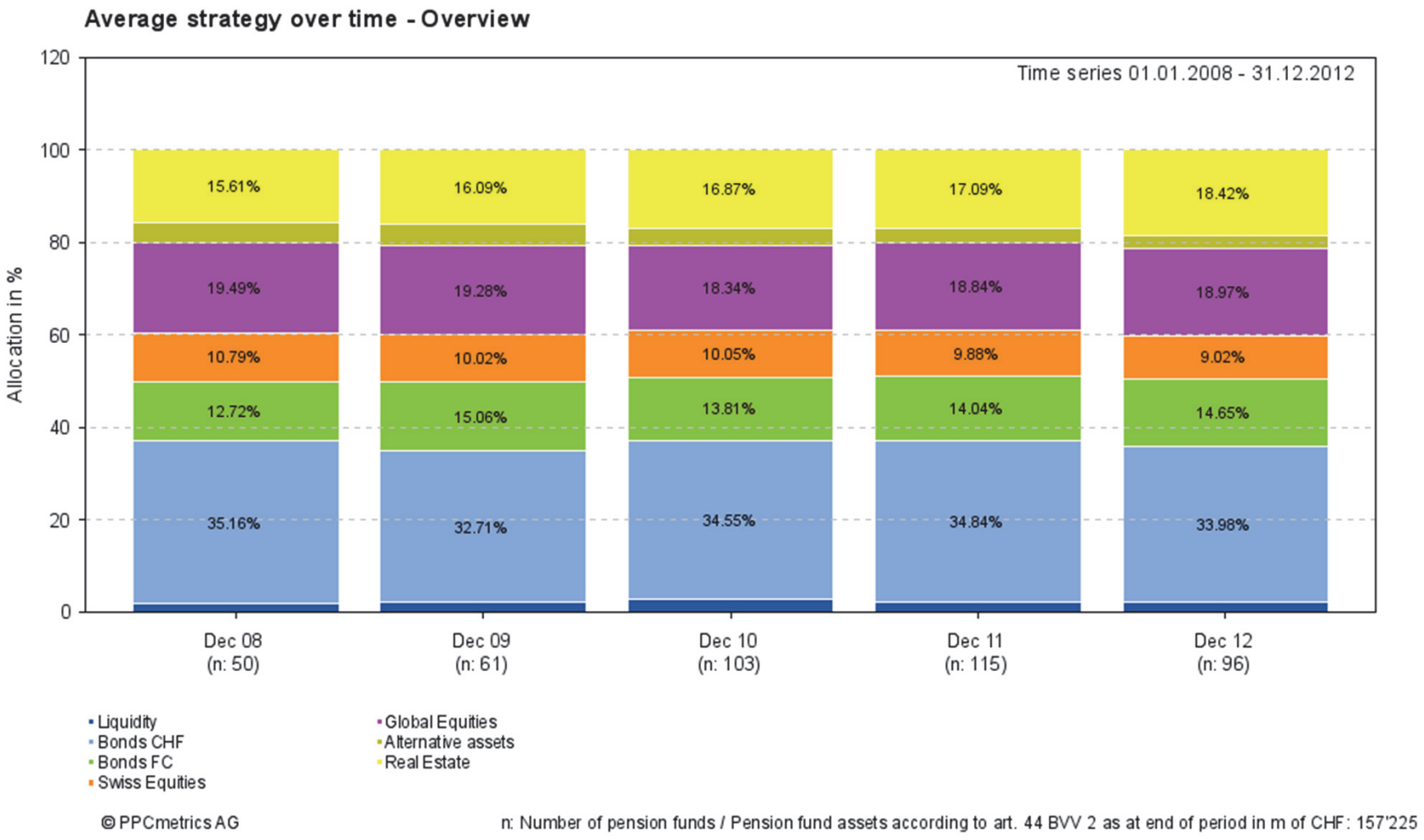
Introduction
Some Risk Premiums mentioned in Academic Studies



- The **illiquidity premium** is an investor's additional return for holding securities that are less traded.
- The **credit premium** is an investor's required additional return for holding bonds that are subject to credit, i.e. default and recovery, risk.
- The **term premium** is an investor's additional return for holding a long-term bond instead of a series of shorter-term bonds.
- The **carry premium** is an investor's additional return for holding high interest currencies instead of low interest currencies.

Source: Bühler, Kunkel, Liechti and Rohner (2013)

Swiss Pension Funds
Asset Allocation over Time



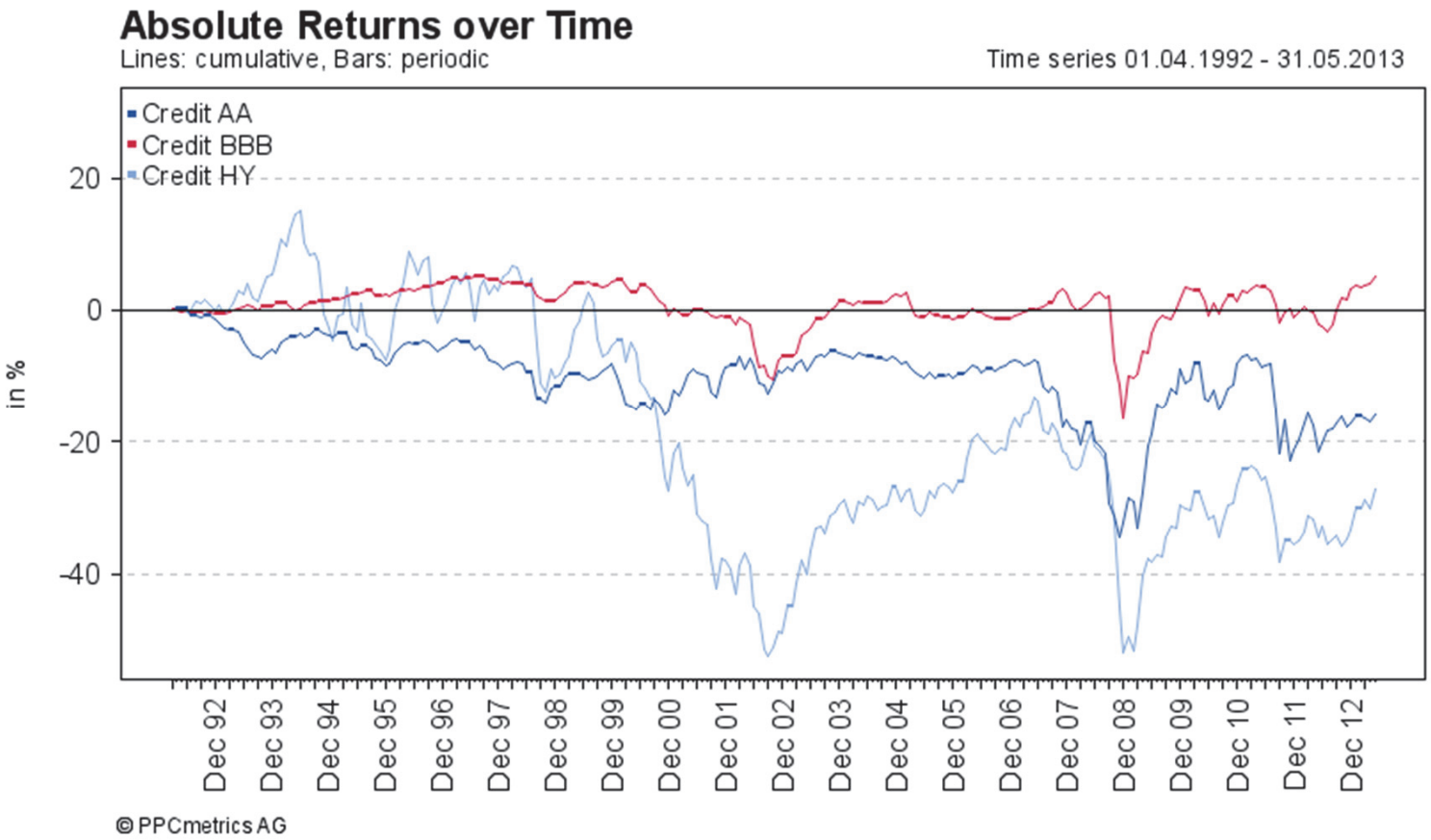
Swiss Pension Funds
What about Harvesting those Risk Premiums?

- Although most Swiss Pension Funds (and most its consultants) do not explicitly structure their strategic asset allocation according to those «new» risk premia, they have, at least indirectly, **exposure to those risk premia**.
  - **Swiss Equities**: Most of those pension funds use the SPI as benchmark. This benchmark includes small caps and therefore they harvest a **small cap** and an **illiquidity premium**.
  - **Swiss and global bonds:** Most swiss pension funds include **corporates**, and therefore, also harvest **credit** as well as **illiquidity premium**. In addition, bond benchmarks do have a long duration, therefore they also have exposure to the **term premium**.
  - **Emerging market equity** (and/or local emerging market debt): Therefore they also capture some of the **FX carry premium**.

Swiss Pension Funds
Consequences

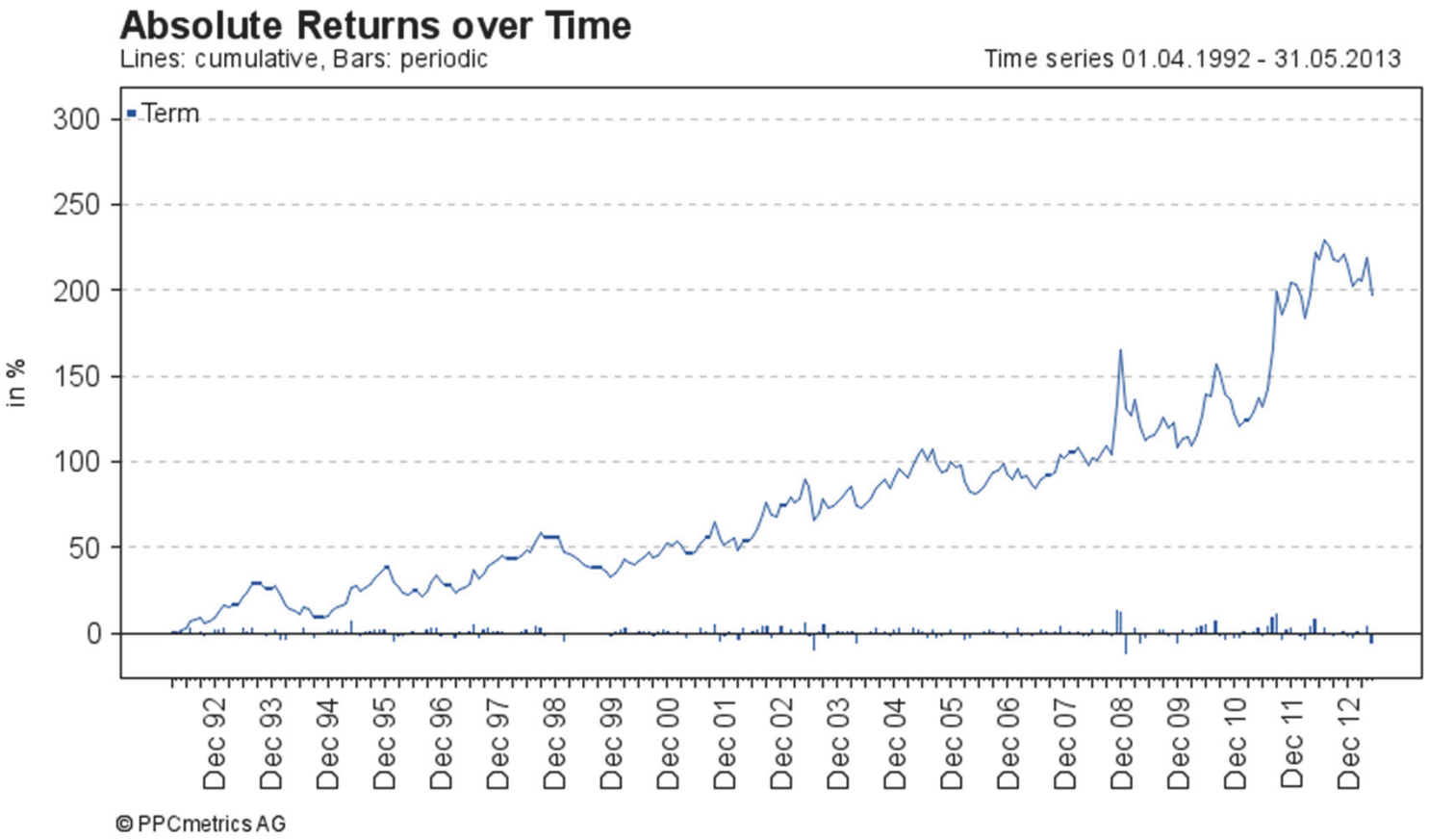
- **Bottom Line: There is no need for action for most swiss pension funds!**

Historical Evidence
Credit Premium



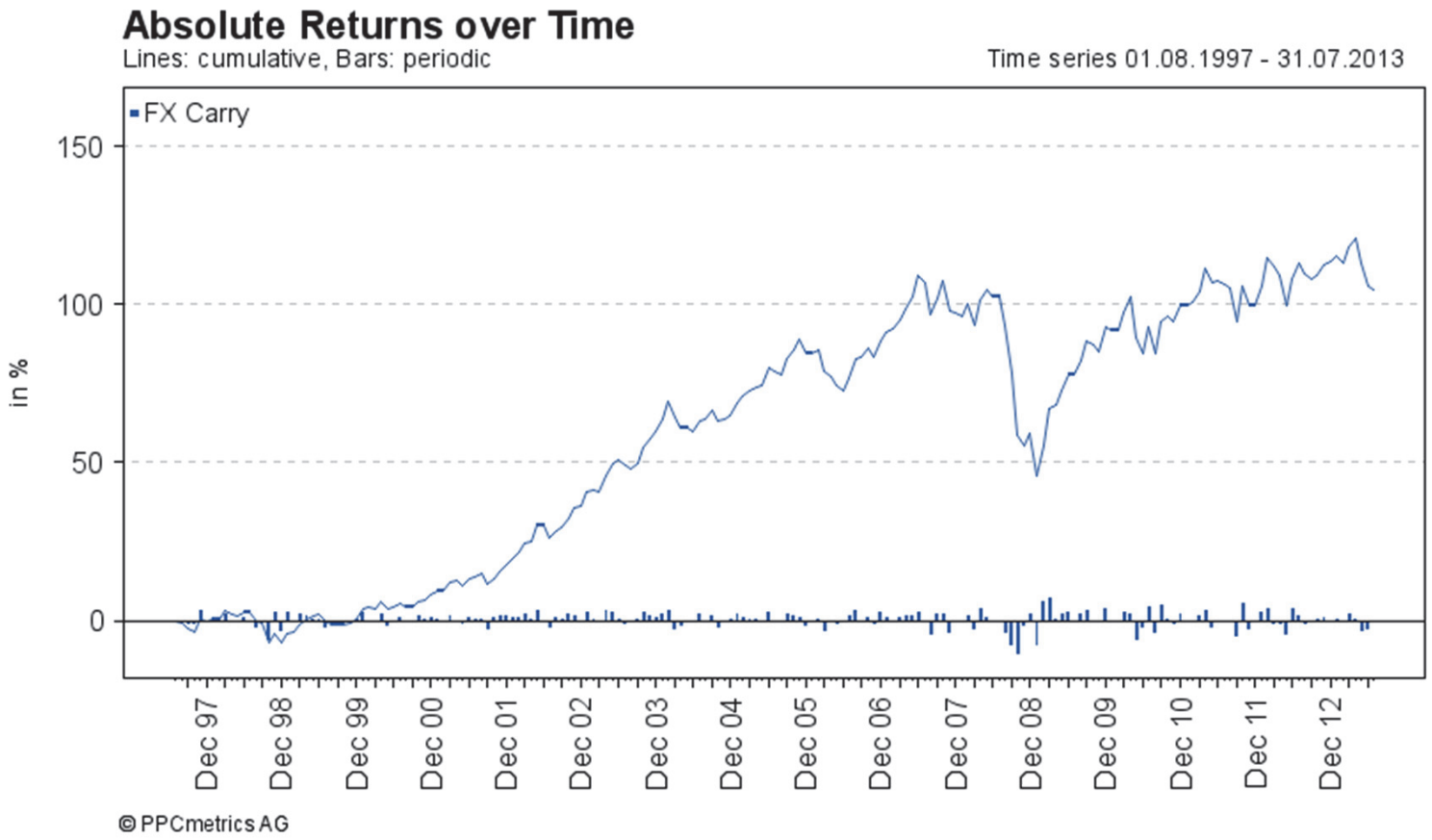
Credit AA: Difference between Aa and US treasury bond returns.
Credit BBB: Difference between Baa und Aa bond returns.
Credit HY: Difference between High Yield und Baa bond returns.

Historical Evidence
Term Premium



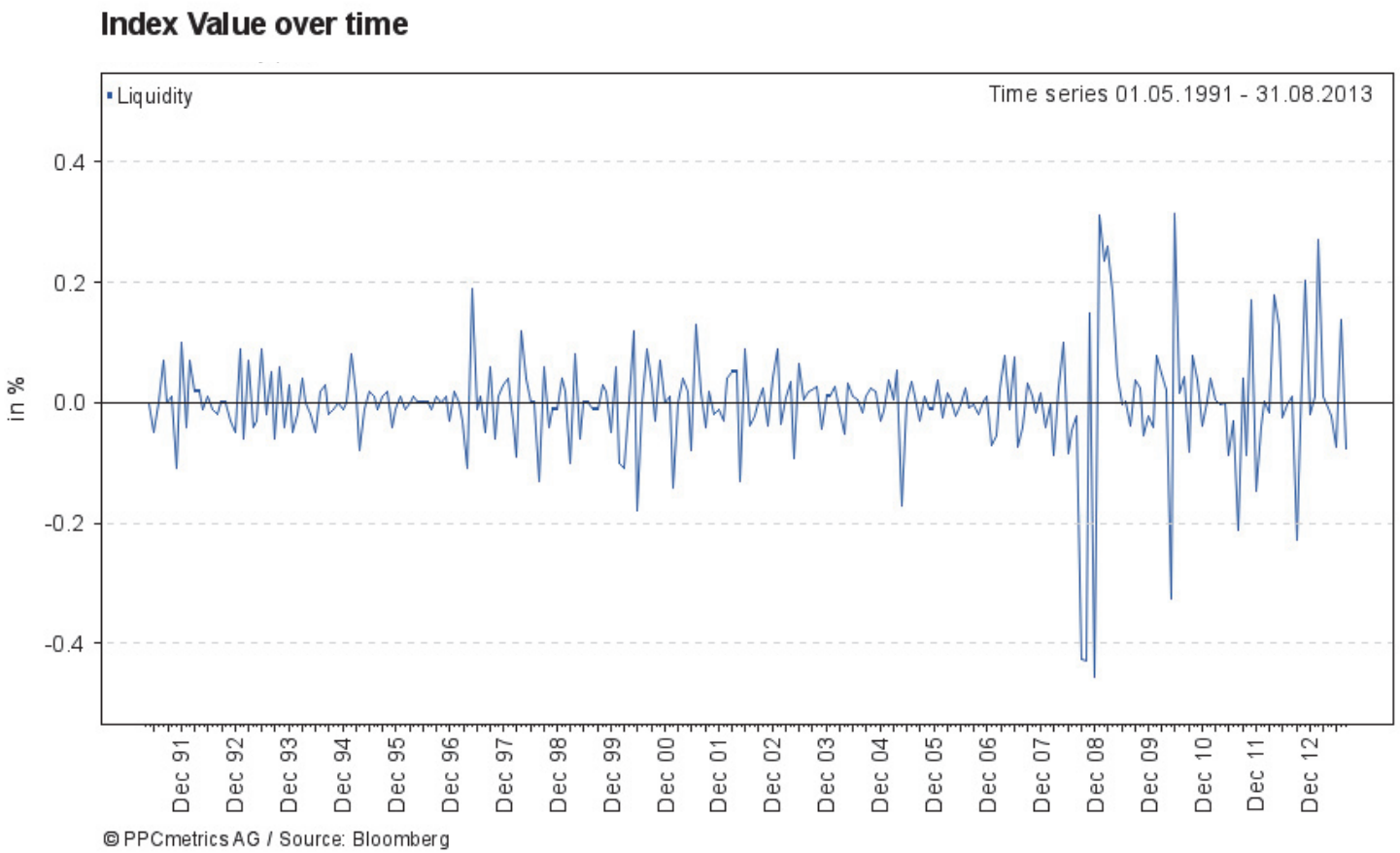
Term: Difference between long and short maturity US treasury bond returns.

Historical Evidence
Carry Premium



FX Carry: Difference between the three G10 currencies with the highest and the three G10 currencies with the lowest interest rates.

Historical Evidence
Illiquidity Premium



Liquidity: Negative Innovations in the difference in Yield between off-the-run and on-the-run 10-Year US Treasury Bonds.

Consequences for Asset Allocation
Go for it!

- Although Swiss Pension Funds do have exposure to most of the risk premiums, they could explicitly try to harvest those risk premiums either by **adding «new» asset classes** to their strategic asset allocation, **increasing the exposure to «alternative» asset classes**, or changing their benchmarks.
- This should be done through an ALM study
- But the **first step** would be to **check their exposure** to those risk premia they already have!

Consequences for Asset Allocation

Think first before you move!

1. The **past does not equal the future!**
2. Some of these so called risk premia do **not have a decent economic explanation.**
3. Some of these risk premia **could be anomalies**.
   - According to Schwert (2003), they often go away when they get discovered.
4. The historic returns of those risk premia do **not include transaction costs**.
5. At last, they are risk premia, i.e., **investing in them is risky; there is no such thing as a free lunch**!

Consequences for Asset Allocation
A Cautionary Example

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- **Performance of Harvard endowment** June 2008 to June 2009: **-27%.** The fund shrank from USD 37 billion to USD 26 billion.
  - They asked each school of the university to cut expenses and compensation, and to scale back ambitions in the face of reduced revenue.
- **What happened?**
  - Harvard endowment was one of the **early adopters of the endowment model**, which recommends that long-term investors should hold lots of **illiquid, alternative assets**, especially private equity and hedge funds.
  - In its desperate need for cash, HMC tried to sell some of its $1.5 billion private equity portfolio. But buyers in secondary markets demanded huge discounts.

Source: Ang (2013)

Take aways

- **Be careful where you take your risks!**