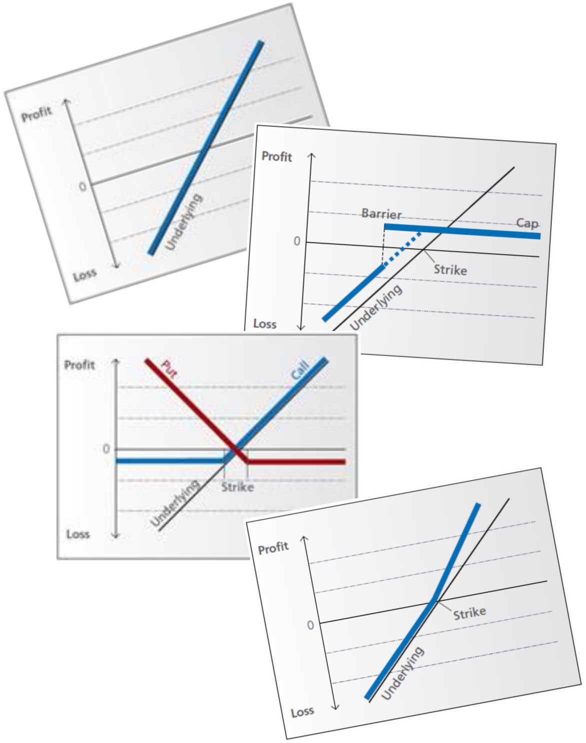
Welcome



Unveiling the Results of the First Comprehensive Study on Structured Products in Switzerland

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swiss:finance:institute

Governance

Authors of the study

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Is this acceptable governance for the study?

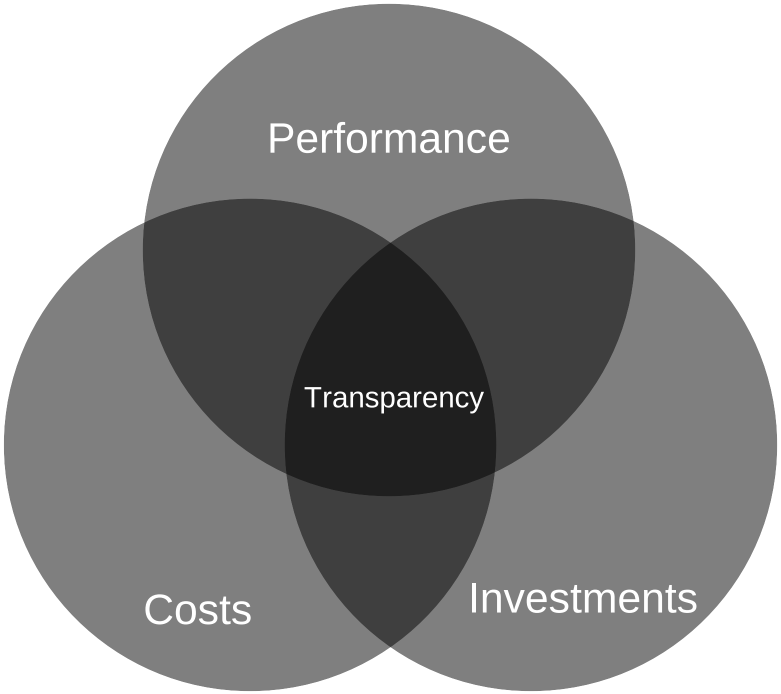
- No bias in the time period under consideration for the performance study. The start of the study period coincides with the onset of the most recent global financial crisis, of 2008, and covers the entire crisis period.
- The analysis of costs is a delicate matter given the very definition of structured products. Relying on purely academic authorship is likely to produce only low quality results. This can be observed in many purely academic contributions of recent years.
- Almost impossible to write about realistic investments from a purely academic perspective.
- The different backgrounds of the authors ensure a system of checks and balances.

Agenda

- Context of the study and our presentation today
- SFI White Paper study results
- Questions & answers

The first comprehensive, representative study of structured products in Switzerland

Figure 1: Scope of the study.



Methodology

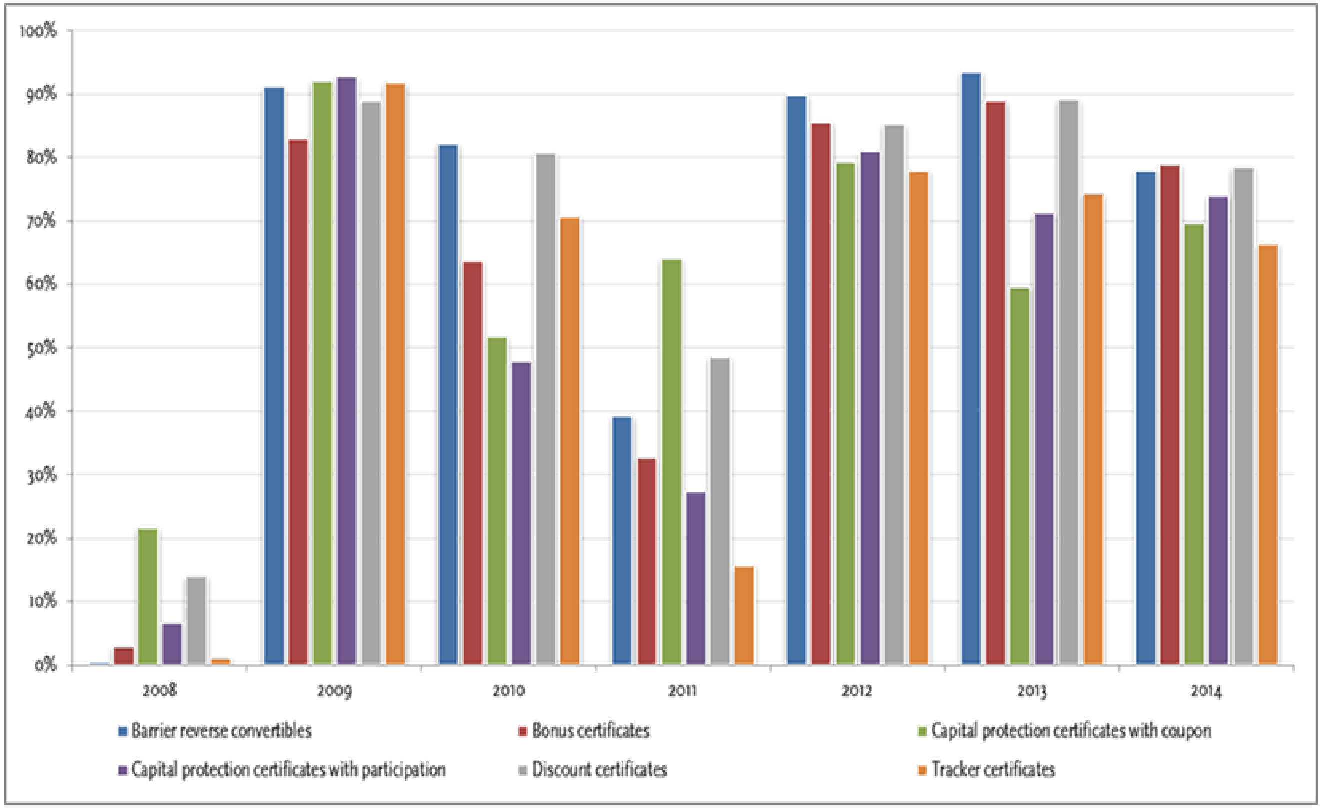
- Empirical investigation into the Swiss market.
- Survey conducted among major issuers to estimate risk management costs.

Sample

- 20,000 and 7,275 products for the performance and cost analyses, respectively.
- Product types:
  - Barrier reverse convertibles;
  - Bonus certificates;
  - Capital protection certificates;
  - Discount certificates;
  - Tracker certificates.

Performance (I)

Figure 2: Fractions of products with positive returns.

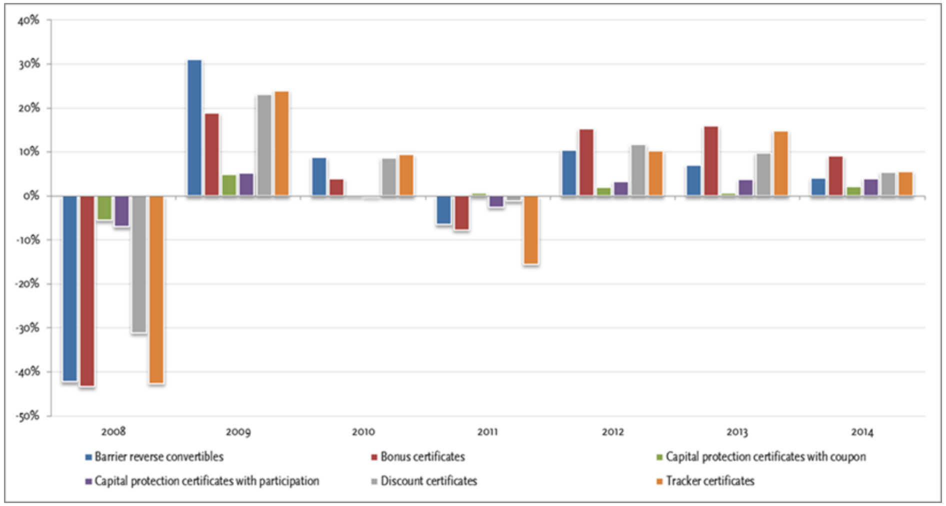


Main insights

- 2012–2014: Some 80% of structured products generated positive returns.

Performance (II)

Figure 3: Median performance.

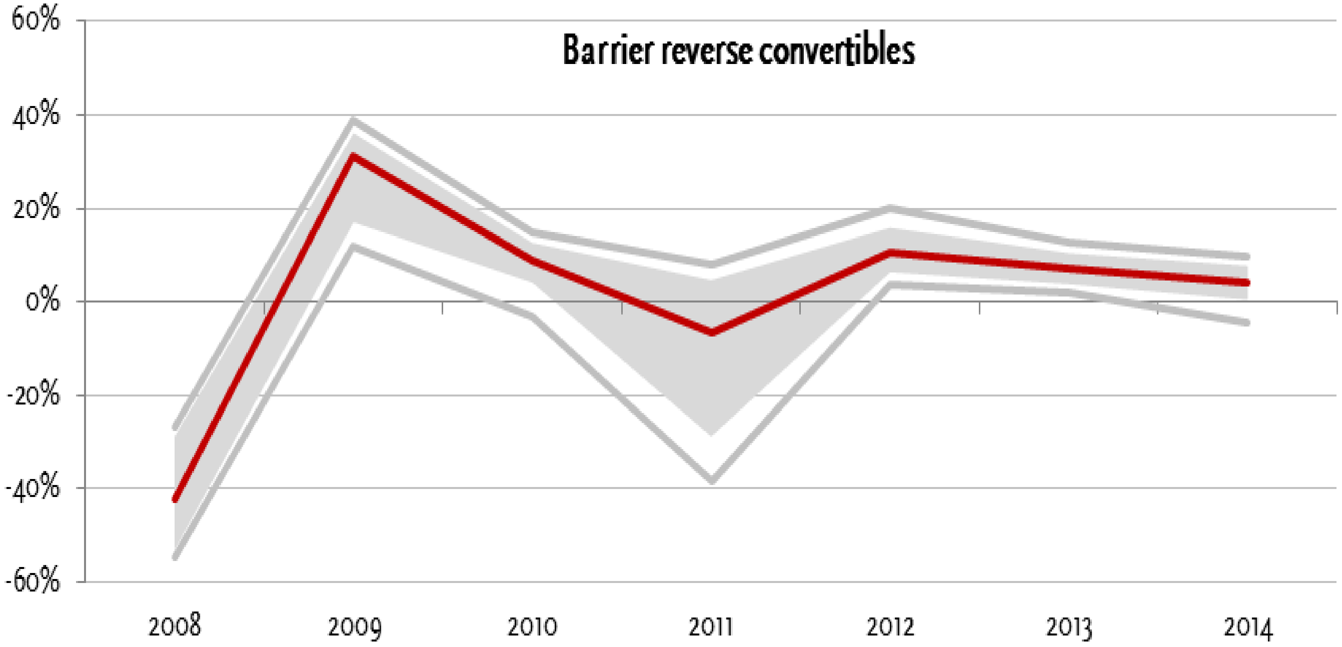


Main insights

- Median returns of between 5% and 15%.
- Best year:
  - 2009; most medians were in the range of 19% to 31%.
- Worst years:
  - 2011 (European debt crisis) and 2008 saw large drops in equity markets.
  - These drops also affected structured products, and they too had negative medians.
- Capital protection products behave in a similar way to bonds.

Performance: Barrier reverse convertibles

Figure 4: Barrier reverse convertibles. Median (red line), 25%–75% quantile band (gray area), and 15%–85% quantiles (gray lines).

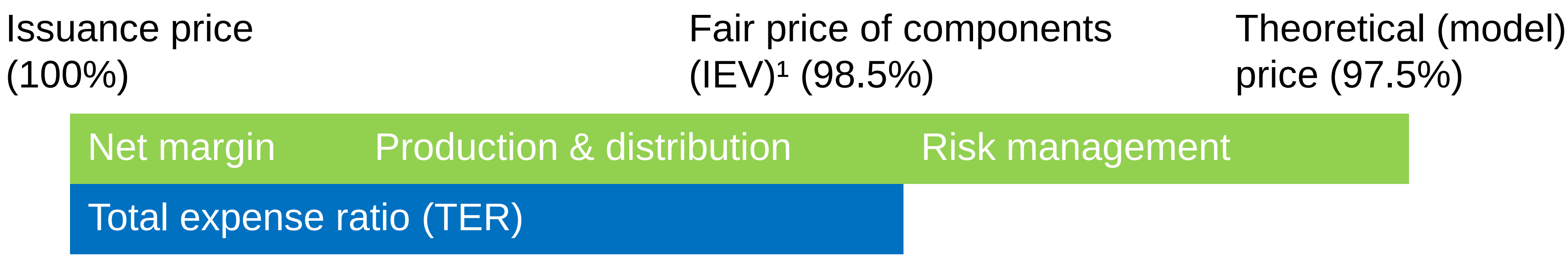


Main insights

- Return distribution widened in 2011 compared to 2008.
- Return versus risk.

Costs: The problem

Figure 5: The different fee and cost components of a structured product.



[1] IEV = issuer estimated value

Problems

- Costs are known best at the maturity of the products.
- Many components of the costs are not public.
- Risk management is, unlike production and distribution costs, a profit and loss component of the product borne by the issuer. Price of the complexity and liquidity.

Costs: The results

Table 1: TERs p.a. for the period April 2012 to April 2015 amounted to:

Product type	Number of products	25% quantile	50% quantile	75% quantile
Barrier reverse convertibles	5,477	0.81%	1.71%	2.64%
Bonus certificates	333	0.19%	0.98%	2.22%
Capital protection certificates	48	0.24%	0.58%	1.38%
Discount certificates	1,370	0.92%	1.39%	2.28%
Tracker certificates	47	0.11%	0.32%	0.62%

Tracker certificates versus funds:

- Tracker certificates face similar costs to ETFs.
- Core ETF costs are lower than those of tracker certificates.
- Active tracker certificates seem to have a price advantage over mutual funds.

Investments: Investor behavior and BRC case study (I)

Figure 6: Lowest value of the S&P500 for annual 3y investments (S&P).

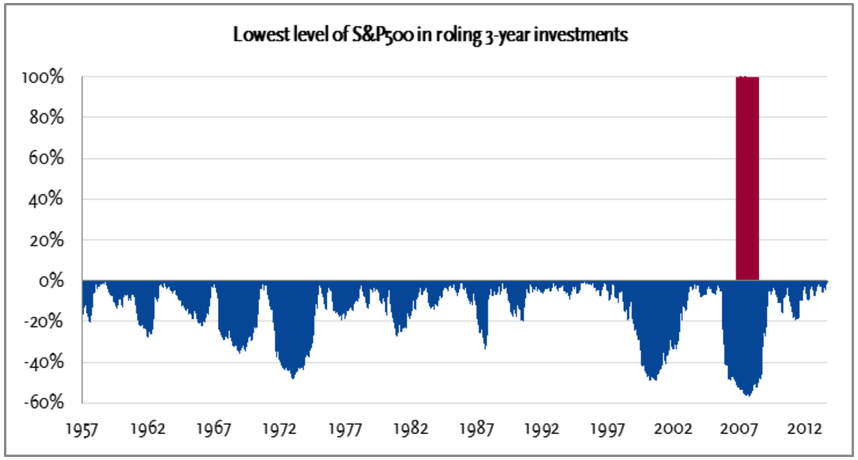


Table 2: Barrier events of active BRCs, 2008–2014 (Derivative Partners AG).

Year	Number of active BRCs	Number of active BRCs[1]	Number of barrier events	Percentage
2008	5,196	5,196	3,115	60%
2009	5,461	3,538	272	8%
2010	7,182	6,968	561	8%
2011	9,839	9,480	3,418	36%
2012	11,498	9,178	371	4%
2013	11,932	11,706	632	5%
2014	10,905	10,700	233	2%

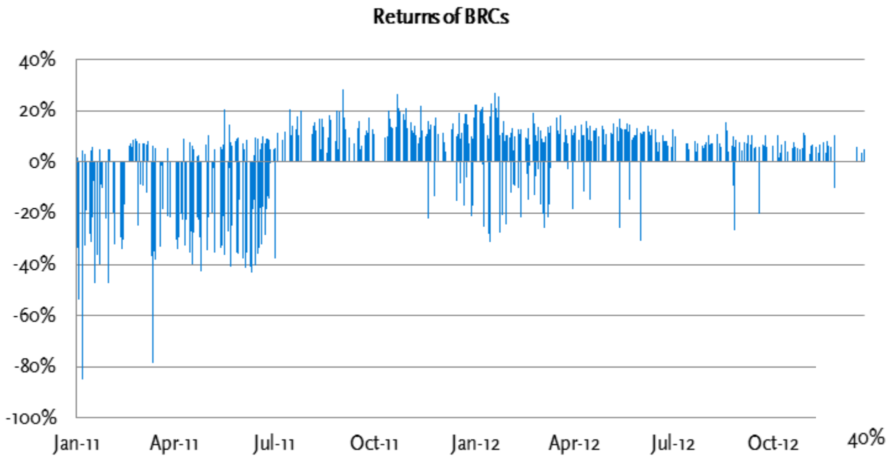
[1] Less BRCs with barrier event in the previous year.

Main insights

- Swiss investors prefer to invest in barrier reverse convertibles on stocks.
- Such investments occur more often when markets are calm, which is remarkable.
- In turbulent markets investors in such products receive a higher coupon and/or can choose a lower barrier for the same coupon than in normal markets.
- A 50% or lower barrier level would have led to capital protection in most past periods.
- A 70% or 80% barrier cannot be considered to be appropriate for investors that seek a stock-market-cycle-independent investment.

Investments: Investor behavior and BRC case study (II)

Figure 7: Returns of tailor-made BRCs for the investors who used a tailor-made structured-product platform of a Swiss structured products issuer.

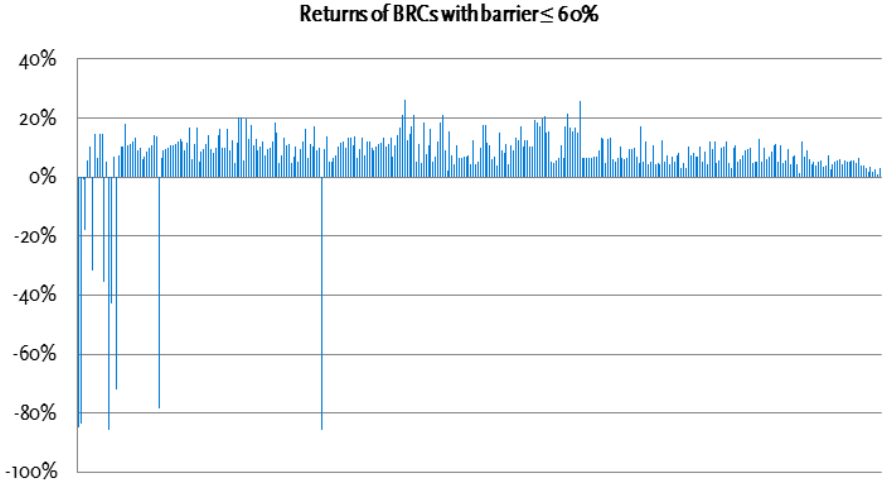


Main insights (see figure on the left)

- Average return: 2.2%.
- Products with a positive return: 77%.

Main insights

- Average return: 7.7%.
- Products with a positive return: 97.9%.
- Poison pills.



Investments: Opportunities and SNB and ECB Events (I)

- Events occurred. There is no need to hope that something will happen.
- Strong events often distort the markets.
- This simplifies the investment view: Do you believe that markets will return to their normal states?
- There is no need to bet whether markets will increase or decrease; only on whether they will return back to their normal states.

Advantage of events

Investors

- Need to be fit to invest; cold-blooded; rational.

- Need to have a short time-to-market, otherwise opportunities are gone.
- Need to carve out accurately the investment idea—it is all about alpha.

→ Setup for structured products

Investment products

Investments: Opportunities and SNB and ECB Events (II)

Opportunity 1

- SNB and ECB: Stronger CHF against EUR, and QE boosts European stock markets.
- Investment idea: Buy for 0.85 CHF a high quality European stock portfolio selected by the issuer's research unit.
- Product: Simple tracker certificate.
- Time-to-market: 2 days after the SNB's announcement.
- Risks: Strong corrections in European stock markets.

Opportunity 2

- SNB: Negative performance on deposits after costs for private clients and before costs for corporate clients. High volatility in equity markets.
- Investment idea: Invest in 3 diversified stock indices (SMI, S&P500, EUROSTOXX50) with a very low barrier of, say, 40%. Coupon of 1% to 2% expected.
- Product: BRC (worst of).
- Time-to-market: 1 hour after the SNB's announcement.
- Risks: Although market risk is low, the risk properties are **not** the same as for a deposit.

Investments: Opportunities and SNB and ECB Events (II)

Opportunity 3

- SNB: Almost all Swiss stocks suffered heavy losses.
- Investment idea: There was no distinction—on the part of market participants—between Swiss firms facing heavy exposure to CHF and those facing weak exposure. Overreaction is the market distortion.
- Product: Simple, static tracker certificate on research-selected stocks.
- Time-to-market: 2 days after the SNB's announcement.
- Risks: Second correction in Swiss equity markets.

Opportunity 4

- SNB: USD 1m rates at 0.2% in cash markets. USD 1y rates via FX swap with -0.75% CHF rate at 2.7%. Interest rate basis is the market distortion.
- Investment idea: Exploit this difference as a qualified investor with a USD account.
- Product: FX swap.
- Time-to-market: Immediate.
- Risks: The opportunity does not converge.

Investments: Opportunities and SNB and ECB Events (II)

Opportunity 5

- SNB: Negative interest rates → YtM of bonds in CHF becomes negative → sell.
- Investment idea: Product that is close to bonds—i.e., pays notional amount plus coupon—with similar risk and a positive YtM.
- Product: Credit linked notes (CLN). Choice from CDS markets for debtors with positive basis (=market distortion). CLN are:
  - More liquid than bonds;
  - Have the same debtor risk plus the issuer of CLN note risk;
  - Enable investors to have a CHF exposure in a large corporate in Europe or the US that has no CHF bond outstanding—CLN are a diversification tool for bond portfolios;
  - CLN follow a procedure well defined by the ISDA in cases of default. What happens to your bond if it defaults?
- Time-to-market: Several days. Limited number of issuers.
- Risks: Irrationality when it comes to credit risk.

All 5 investment opportunities had a positive return year-to-date.

Questions & answers

Any questions?

Thank you for your attention.