

## New Currency Investment Strategies

Interview with Philipp Halbherr



**Philipp Halbherr, Head of Institutionals & Multinationals at Cantonal Bank of Zurich, answers our questions on how the bank used recent SFI research in currency portfolio management (see page 2) to develop new investment products for its clients.**

### What is the investment objective behind ZKB's Stable Return Currency?

The objective is to offer an attractive return potential in the form of stable returns and low correlations to traditional investment classes even in times of crisis. The product invests in high yielding currencies funded by low yielding currencies. Unlike traditional carry trade strategies, we also include the risk and correlation of the different currencies, applying a mean-variance approach similar to the one explained in the paper "On the Risk and Return of the Carry Trade". In addition, we look at the currencies' short-term trends.

### How was the basket of currencies selected?

All freely tradable currency pairs with the Swiss franc are included. So there are currently 20 currencies in the basket, which is even broader than the one in the paper.

### Who is most likely to purchase and benefit from such a strategy?

Institutional clients may look at the strategy as an alterna-

tive for hedge funds. The strategy will also appeal to retail clients who consider equities too risky and bond yields too low.

### How has this strategy performed so far?

The stable return currency has not yet been launched for the public. We believe market conditions are not ideal at the moment, since interest differentials have

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"Bridging the gap between science and practice needs attention, time, and resources."  
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PHILIPP HALBHERR

converged to zero worldwide. But we are ready to launch it as soon as interest rates rise in some countries. We've already launched a similar product, Stable Return Equity, which has returned 10% since its launch in February 2013, given a volatility of 8%.

### What is the investment objective of Stable Return Equity?

The stable return equity strategy has the same objective as the stable return currency strategy: attractive return potential, namely relatively stable returns and

low correlation to other asset classes. This strategy exploits the volatility premium, since implied volatility is very often above realized volatility and in most cases is higher than the equity market premium.

### What other research conducted at SFI has ZKB's investment banking unit benefited from?

Until now, we've had three PhD students at ZKB who successfully completed SFI's PhD program. Working with PhD students has proved to be very productive. At ZKB we feel lucky to have Prof. Paolo Vanini take care of the students and give them the guidance they need for their research.

### What open research questions would you like to see tackled by SFI researchers?

Researchers, as well as practitioners, need to stay in a constant dialog about new findings in research and new issues in practice. I really appreciate the initiative of the SFI Knowledge Center. It will help bring scientific results to practitioners. Bridging the gap between science and practice is not a one-time shot nor is it for free. It needs attention, time, and resources. Then it can be very fruitful. I don't know yet what's the exact next open question we'd like to see tackled at SFI, but if we stay in contact we surely will find out soon.

MP

## SFI NEWS

### New Industry Placement Program for Master's Students

The Swiss Finance Institute's Knowledge Center has launched a new initiative, Knowledge Catalyst, with the aim of increasing the ties between Master's programs at SFI partner universities and the financial industry. The Knowledge Catalyst serves as an industry placement program for Master's students and provides the students with challenging and industry-oriented topics.

<http://knowledge-catalyst.sfi.ch>

### New Faculty Appointment at the University of Zurich

Steven Ongena, a renowned expert in banking, has been appointed Professor of Banking at the University of Zurich and holds an SFI Senior Chair. Prof. Ongena's papers have been published in leading academic journals in finance and economics. He has received numerous awards for his research, including a Wim Duisenberg Research Fellowship of the European Central Bank in 2009 and a Fordham-RPI-NYU Rising Star in Finance Award in 2012.

[www.swissfinanceinstitute.ch/faculty\\_research/faculty/list\\_professors\\_local/local\\_professors\\_ongena.htm](http://www.swissfinanceinstitute.ch/faculty_research/faculty/list_professors_local/local_professors_ongena.htm)

### First Steps Into Social Media

In line with its objective to encourage an enriching dialog between Swiss finance academics and practitioners, the Swiss Finance Institute is now building a presence on social media. On its newly launched Facebook page, SFI will be posting regular updates about upcoming events, interviews on timely topics, and the latest research carried out by its faculty members.

[www.facebook.com/swissfinanceinstitutesfi](http://www.facebook.com/swissfinanceinstitutesfi)

## Upcoming Events

### January 15, 2014 – Zurich

Breakfast seminar with David Cole, Chief Risk Officer of Swiss Re. The topic of the event will be "Managing risk and opportunities for future generations."

[www.swissfinanceinstitute.ch/aboutus\\_events\\_template.htm?event=206](http://www.swissfinanceinstitute.ch/aboutus_events_template.htm?event=206)

### March 25, 2014 – Zurich

Evening seminar with Boris Collardi, CEO of Julius Baer. The talk is part of SFI's Swiss Banking Transformation Testimonials series.

[www.swissfinanceinstitute.ch/aboutus\\_events\\_template.htm?event=210](http://www.swissfinanceinstitute.ch/aboutus_events_template.htm?event=210)

### June 3, 2014 – Zurich

Breakfast seminar with Martin Scholl, CEO of Zürcher Kantonalbank. The talk is part of SFI's Swiss Banking Transformation Testimonials series.

[www.swissfinanceinstitute.ch/aboutus\\_events\\_template.htm?event=211](http://www.swissfinanceinstitute.ch/aboutus_events_template.htm?event=211)

# Rethinking the Carry Trade

## Crash-risk-proof currency portfolio management



**Popularity of the carry trade declined in the wake of the recent crisis. New SFI research shows that crash risk can be diversified away through mean-variance optimization.**

The traditional carry trade – to borrow in a currency with a low interest rate and lend in a currency with a higher interest rate – is the most popular currency trading strategy and has been historically very profitable. When Japan's economic woes pushed the country's interest rate below 1%, borrowing in yen and lending in higher-interest-rate currencies such as the Australian dollar, was an interesting and popular investment opportunity.

Popularity of the strategy declined in the wake of the Lehman Brothers bankruptcy, when carry trades dramatically suffered from crash risk, the proverbial “up by the stairs and down by the elevator” risk. For example, an investor who had lent in Australian dollars and borrowed in Japanese yen would have lost 22% of his investment in July 2008.

### A Diversified Currency Strategy

In a recent study, SFI Professor Karl Schmedders (University of Zurich), Dr. Walt Pohl (University of Zurich), and Dr. Fabian Ackerman (Cantonal Bank of Zurich) take a closer look at the true risk of carry trades.

The authors propose an alternative carry trade strategy. More specifically, they develop a carry trade portfolio that consists of

several currencies and is rolled over from one month to the next. Every month, the portfolio composition is updated using mean-variance optimization rules: maximize the portfolio's return for a given level of risk, or –equivalently – minimize portfolio risk for a given expected return.

To check how well the diversified carry trade portfolio performs in practice, the authors use the following example: They take the US dollar as the domestic currency and consider a portfolio of one-month investments in the following ten foreign currencies: Swiss franc, euro, Japanese yen, British pound, Australian dollar, Canadian dollar, Norwegian kroner, Swedish krona, Singapore dollar, and New Zealand dollar.

### Performance Tests

The study compares the performance of the diversified portfolio to that of three other

## Key Concepts

### Carry trade:

Investment strategy whereby an investor sells a currency with a relatively low interest rate and purchases a different currency yielding a higher interest rate.

### Mean-variance optimization:

To build a portfolio with the goal of maximizing the portfolio's return for a given level of risk or of minimizing risk for a given expected return.

strategies: S&P 500, which represents performance of the US equity market; a simple carry trade with a long position in the highest-interest-rate currency and a short position in the lowest-interest-rate currency; a diversified carry trade with a long position in the three highest-interest-rate currencies and a short position in the three lowest-interest-rate currencies.

By analyzing the performance of the four different strategies from 1990 to 2013, the authors take into account the recent financial crisis that broke out in summer 2007.

The paper's main finding is that a diversified portfolio built using mean-variance analysis consistently outperforms the other three currency investment strategies and performs well even during a crash like the Lehman Brothers bankruptcy.

“A sufficiently diversified carry trade has been a surprisingly low-risk and profitable investment strategy over the last 20 years,” Prof. Schmedders tells us. “This proves that crash risk can be diversified away via mean-variance optimization.”

One question that might arise is whether their results depend on the choice of the US dollar as the domestic currency. The authors perform the same analyses changing each time the domestic currency among their basket of eleven currencies. They show that the study's

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KARL SCHMEDDERS

main findings hold regardless of which domestic currency is chosen for the dynamic portfolio.

Having provided the foundation for a low-risk currency investment strategy in this paper, Prof. Schmedders and his co-authors are currently investigating the link between interest-rate changes and short-term exchange-rate movements. A better understanding of this link would help address several open questions in currency portfolio management.

MP

## Links

- “On the Risk and Return of the Carry Trade”, by F. Ackermann, W. Pohl, and K. Schmedders  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2184336](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2184336)

- Prof. Karl Schmedders, Head of SFI Knowledge Center and SFI faculty member, University of Zurich  
[www.swissfinanceinstitute.ch/faculty\\_research/faculty/list\\_professors\\_local/local\\_professors\\_schmedders.htm](http://www.swissfinanceinstitute.ch/faculty_research/faculty/list_professors_local/local_professors_schmedders.htm)

## Impressum

SWISS FINANCE INSIGHT is published online by the Swiss Finance Institute, Bd. du Pont d'Arve 42, Geneva 4 – Switzerland  
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T +41 (0)22 379 84 71