

Liquidity Risk in Strategic Asset Allocation



Felix Schlumpf, Head of Strategic Asset Allocation at Zurich Insurance Group, tells us about his experience as co-leader of a field project carried out recently in collaboration with the SFI Knowledge Catalyst, Professor Francesco Franzoni, and master's students from Università della Svizzera Italiana (University of Lugano).

What were the goals of Zurich Insurance Group when it decided to undertake this field project with the SFI Knowledge Catalyst?

The project was a good opportunity to get a fresh external view of our in-house model of liquidity risk for strategic asset allocation. In particular, we were keen on getting an academic perspective. The SFI Knowledge Catalyst's placement project for its industry-oriented master's students sounded like a good choice.

Now that the project has been concluded, what can you say have been the benefits for Zurich Insurance Group?

Thanks to this project, we were able to build a bridge between the theoretical underpinnings and the more practical aspects of the risk model we use in our department. In terms of resources, we couldn't have done this type of work by ourselves, because of lack of the necessary time. It was like getting an external consultant to help us out – arguably at a lower cost.

Were there any weak points or is there anything you would do differently, should you undertake another field project in the future?

Not really. Before starting the project, we talked to other practitioners who had previously been involved in field project collaborations with the SFI Knowledge Catalyst. They especially gave us some advice on how to work with students who did not necessarily have prior industry experience. That was very useful and all went well.

Hence, in your opinion, students' lack of prior work experience is not a problem for such field projects?

No, it isn't – not if you are aware of it and manage your expectations accordingly.

What are the next steps related to this specific field project?

We will certainly use the results of the project when we review our risk model internally. We review it on an ongoing basis – usually every six months. The project's results will be taken into account during the next review.

The **Swiss Finance Institute Knowledge Catalyst** is an initiative of the SFI Knowledge Center, which was conceived to perform an active intermediary role between academia and industry. The goal of the Knowledge Catalyst is to bring academic expertise to industry partners, while allowing industry-oriented Master's and PhD students at SFI partner academic institutions to gain important insights from, and apply their learning to, real industrial

situations through a fruitful exchange of knowledge.

Further information is available at www.SFI.ch/catalyst.

From October 2013 until June 2014, **SFI Professor Francesco Franzoni** co-lead a field project on liquidity risk together with the Strategic Asset Allocation team at Zurich Insurance Group. The research objective of the project – which the interview with Felix Schlumpf above refers to – was to study alternative measures of liquidity risk and to investigate ways in which Zurich Insurance Group's internal risk model could eventually be improved.

The project involved five master's students from Università della Svizzera Italiana (University of Lugano) who were placed by the SFI Knowledge Catalyst at the insurance firm for the duration of the project.

The findings of the project support the Zurich Insurance Group's own model and views on liquidity risk. This risk factor is shown to provide an attractive risk-reward ratio.

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SFI NEWS

Best Teacher Award

SFI Professor Alberto Plazzi, Università della Svizzera Italiana (University of Lugano), was awarded the 2014 Credit Suisse Award for Best Teaching. The award aims to promote quality teaching at Swiss universities and to strengthen Switzerland as a center for science and research.

Roundtable on Private Equity

SFI Professor François DeGeorge, Università della Svizzera Italiana (University of Lugano), was recently part of a roundtable organized by the Collier Institute of Private Equity, London Business School. Three academics and three practitioners discussed the motivations behind secondary buyouts in the private equity landscape and the performance of this type of investments.

The roundtable transcript is available at:

http://www.swissfinanceinstitute.ch/20140626_degeorge.pdf

SFI Bocken

SFI Education has begun a new collaboration with the Credit Suisse training and convention center Bocken, which is located in Horgen (Canton Zurich) and will host the SFI Campus at Credit Suisse Bocken Estate.

Upcoming Events

August 27–30, 2014 – Lugano
European Finance Association Annual meeting

Keynote speaker: Robert Shiller.

August 29, 2014 – Lugano
Opportunities and challenges in asset management

SFI Industry Forum – European Finance Association 41st Annual Meeting.

September 4, 2014 – Geneva
Swiss banking transformation testimonials

SFI Evening Seminar with Philippe Bertherat, Partner at Pictet & Cie.

September 16, 2014 – Zurich
Swiss banking transformation testimonials

SFI Breakfast Seminar with Christian Katz, CEO of SIX Stock Exchange.

For more information on upcoming events: www.SFI.ch/Events

Private Equity Performance and Liquidity Risk

The true diversification benefits of private equity



Private equity has traditionally been thought to provide diversification benefits. However, these benefits might be lower than anticipated. Recent SFI research finds that private equity suffers from significant exposure to the same liquidity risk factor as other asset classes.

Investing in private equity is among the preferred choices for long-term investors, such as endowments and pension funds, as they seek to diversify their portfolios. These long-term investors are clearly best suited for holding an asset that cannot be readily traded (hence, “illiquid”) such as private equity. Nevertheless, the diversification benefits of private equity have not been widely documented in the academic literature to date. One issue in particular that has not been addressed so far is whether private equity performance, like that of other asset classes, is affected by liquidity risk. That is, whether its performance co-moves with unexpected changes in overall market liquidity.

In a paper recently published in the *Journal of Finance*, SFI Professors Francesco Franzoni and Eric Nowak, Università della Svizzera Italiana (University of Lugano), address the topic of quantifying liquidity risk in private equity. The paper is co-authored with Ludovic Phalippou, Professor at the University of Oxford.

The authors empirically estimate a model that includes several factors that might affect private equity returns – including a liquidity risk factor. This allows them to compute the cost of capital for private equity and test whether private equity is efficiently priced.

To conduct their empirical analysis, the authors use a unique and comprehensive data set containing the exact monthly cash flows generated by a large number of liquidated private equity investments. The earliest investment in their sample starts in 1975, the most recent in 2006. In total, the data set contains over 4’400 investments.

Interestingly, the liquidity risk exposure of private equity investments appears to exceed that of 86% of traded stocks. Together with exposure to other factors (such as the book-to-market ratio), this brings the alpha of private equity to zero.

These results suggest that private equity is significantly exposed to the same liquidity risk factor as public equity and other asset classes. The premium due to liquidity risk accounts for the abnormal performance of this asset class is an important component of the cost of capital. The diversification gains that can originate from private equity may thus be lower than previously thought given the exposure to liquidity risk.

Key Concepts

Alpha: A measure of performance of an investment compared to a benchmark. Also referred to as “manager skill.”

Funding liquidity: The ease with which traders can obtain funding.

Liquidity risk: The risk that an asset cannot be traded quickly enough to prevent losses.

Market liquidity: The ease with which an asset is traded on a market.

Private equity: An asset class consisting of securities that are not publicly traded on a stock exchange.

Funding liquidity effects

Prompted by the finding of a significant exposure to liquidity risk, Franzoni and co-authors investigate the economic channel that relates private equity returns to aggregate market liquidity.

Private equity investments are sensitive to the liquidity of credit markets because their debts are occasionally refinanced. Previous academic studies have revealed that the funding liquidity of private equity lenders (mainly banks and hedge funds) is related to market liquidity. So the main conjecture made in this paper is that the relation between market liquidity and private equity returns is a reflection of the effect of funding liquidity on private equity performance.

An empirical test of this hypothesis using the tightening of credit standards from the Federal Reserve’s Senior Loan Officer Survey as a measure of funding liquidity reveals that this variable does, indeed, account for a significant part of the liquidity effect on private equity returns. This finding also provides supporting evidence of the link between market and funding liquidity postulated in the academic literature.

Reevaluating private equity performance

The results in the paper by Franzoni and co-authors are relevant for academics, practitioners, and regulators, since they take a closer look at an asset class that has gained increasing importance in the financial markets.

First of all, the study’s findings provide practitioners with a hurdle rate to evaluate private equity. Using this rate as a benchmark, they can assess the net present value of their track record. The

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cost of capital of about 18% in excess of the risk-free rate that they estimate is in sharp contrast to the widely used hurdle rate of 8%.

In addition, the paper’s results may call current compensation practices into question. Fund managers typically receive performance-based compensation if they achieve above 8% yearly returns. Yet, this hurdle rate is low in view of the study’s findings.

Regulators as well might find some useful insights in the results. Indeed, Solvency II and Basel II require insurance companies and banks to set aside a provision for the risks taken on their private equity investments. Since the current method of weighing assets by risk does not reflect the large exposure to liquidity risk, this might lead to very low provision levels.

Finally, for academics, this paper demonstrates that the liquidity risk factor identified in public equity is consistently related to the performance of private equity. This contributes to the recent literature showing the pervasiveness of liquidity risk across asset classes.

Links

• Franzoni, F., Nowak, E., and Phalippou, L. (2012), *Private equity performance and liquidity risk*, *Journal of Finance*, 67: 2341-2373; <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6261.2012.01788.x/full>

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Impressum

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