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## The Digital Revolution

Assessing the Financial Transaction Tax in France

Towards a Better Understanding:  
Price-to-Earnings Ratios of High-Growth Firms

Social Trading: Opportunity or Threat  
for the Classical Asset Manager?



Deutsche Bank



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ESOT  
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Interactive Data



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## Editorial

# The Digital Revolution

Katharina Herrmann

The world has changed. And banks that do not recognize that as a fact will disappear. Google, comparison platforms, and smartphones have revolutionized the way our customers look for information, decide, and interact. It has empowered them and raised their expectations. Better live up to it!

It is no longer enough to keep on doing what banks have been doing for decades. It is no longer enough to translate offline offers into online ones.

Let`s look at the facts.

Ten years ago, banks` new business mainly depended on advertising campaigns and their actual offer. Direct mails were a successful tool to attract customers. Rates have been the most important criterion to open an account. Customer contacted banks by sending back a response voucher, by calling, or by going directly to the website or the branch.

Now 25% of banks` prospective customers are using Google and comparison engines and look for customer ratings before they contact the bank. This trend is rapidly increasing. Even if

people are looking for banks with Google, they will not only find a link to the homepages, but they will also see consumer ratings of platforms like dooyoo or alternative offers from comparison engines. Friends and family members are the most trusted source of information. Not followed by the information that banks provide, but followed by information provided by other people – who they do not even know – on online platforms. Banks are controlling less and less of the information people learn about. So what does that mean for us? How can we still influence consumer opinions positively?

The solution is quite simple but hard to achieve: outstanding quality of service. If your customers are not only content but truly happy with your service, they will recommend you positively and they will defend you. It is important to acknowledge that in our digital world, the definition of outstanding quality of service has also been changed. There are more Germans using online banking than branches already. By 2014, more people will contact banks via mobiles than their PCs at home or work. Especially younger people are always online and they expect services when they need it via the device they are currently using – and those will be of a great variety. It is



**Katharina Herrmann**  
Member of the Executive Board  
ING-DiBa

not enough to scale down the website to make it fitting on a small screen, but you have to design starting from small screens! Going from “click” to “touch and swipe” is a trend banks better start dealing with!

All this might sound scary and costly. For direct banks like ING-DiBa, it is like a dream come true. We are already one of the biggest retail banks in Germany – serving 7.5 million customers. Our Net Promoter Score is the highest because our customers appreciate our 24/7 online service as well as the personal service of the call center. We achieved that by constantly investing in our service and dealing with consumer trends while ensuring to remain cost-conscious. Efficient processes and excellent service are not a contradiction but go along well. If you ensure that every process is as easy and fast as possible for the customer and your products are simple, then your banking processes will be simple and efficient as well.

Fewer and fewer people buy products they do not understand just because their bank advisor told them so. They are not willing to spend a lot of time on their finances. They are looking for easy, comfortable solutions. Ten simple, easy-

to-understand products that cover their basic financial needs are all they are looking for. Plus an easy-to-use website that is best in its class.

Let`s try to look at the future. Non-banks are entering banking businesses. Will there be a Facebook bank? I do not think so. At least Germans want to be sure that their data is as safe as their money.

Today, 75% of our clients use a minimum of one – on average even more than two – social media platforms. Right now, only 10% of social media users are expecting financial institutions to have a presence on Facebook. Financial business is low-interest. And in social media, only high-interest and entertaining businesses flourish. However, this expectation might change. If more and more users are using Facebook as their main platform, it might be smart to offer a web care service that answers their questions raised on Facebook.

Furthermore, social media is much more than Facebook. We have to explore those new and fascinating possibilities! Let`s ensure that you have the right people and resources on board to do so!

# Research Report

## Assessing the Financial Transaction Tax in France

THE FINANCIAL TRANSACTION TAX (FTT) IMPLEMENTATION IN FRANCE IN MID 2012 IS CONSIDERED A LANDMARK DEVELOPMENT WITHIN SECURITIES MARKETS REGULATION. HOWEVER, UNTIL TODAY, THE CONTROVERSY ABOUT POSSIBLE DRAWBACKS AND PRACTICAL APPLICABILITY HAS NOT REACHED A CONCLUSION AND CONSEQUENCES FOR MARKET QUALITY ARE YET TO BE THOROUGHLY ASSESSED. IN THIS LIGHT, A RIGOROUS EVALUATION OF THE FTT'S EFFECT ON MARKET QUALITY IS HIGHLY DESIRABLE.

Martin Haferkorn

Kai Zimmermann

### Introduction

The concept of the financial transaction tax (FTT) has been one of the most controversially discussed topics in financial markets regulation throughout the last four decades. Although theoretical research is considered widespread and advanced, only some empirical studies are available, which not only give a limited view on side-effects but also contradict theoretical literature. For example, Kupiec (1996) shows on the basis of a theoretical model a decrease of volatility after the introduction of an FTT, while Pomeranets and Weaver (2012) empirically observe an increasing (decreasing) effect on volatility after a tax increase (decrease).

In particular, detailed results on the effects on market quality are not only very limited, but are also challenged in their applicability in today's market landscape as market conditions in recent

years have changed drastically. In Europe, the ongoing fragmentation process induced by the Markets in Financial Instruments Directive (MiFID) intensified competition among trading venues, fostered new technologies (e.g., high frequency trading, smart order routing) and innovative pricing regimes (e.g., maker-taker pricing), thereby adding even more layers of complexity. In the light of a still ongoing controversy, contradicting research results and the ongoing plans for an FTT in many European countries, research on market quality changes will support politicians, regulators and academics in this debate.

On August 1<sup>st</sup>, 2012, France introduced an FTT providing a very recent case to draw empirical conclusions on this important matter. Subject to taxation are financial transactions that involve the acquisition of French equity or equity-like securities. The tax rate is 0.2% based on

the acquisition value if the respective share was issued by a company registered in France that exhibited a market capitalization larger than 1 billion EUR as of January 1<sup>st</sup> of the tax year. The French concept is excluding any forms of professional liquidity provision from taxation to protect market making activities and avoid cascading effects on transaction cost levels due to decreased liquidity.

Within the scope of this report, we will analyze changes in liquidity supply and demand on the NYSE Euronext Paris – the most relevant market in terms of volumes – after the introduction of the FTT. In the light of the highly fragmented nature of today's European market landscape, we add another dimension of market quality analysis, i.e., information transmission. Information transmission between dispersed markets is a major characteristic for price coordination, thus ensuring price homogeneity. By investigating prices between the two taxed markets BATS Chi-X and NYSE Euronext Paris, we give a preliminary insight how price dispersion is affected by the FTT.

### Dataset & Methodology

We rely on the constituents of the French blue chip index. The CAC 40 represents the 40 biggest stocks in terms of free-float adjusted market capitalization and turnover. Since four of these constituents do not fall into the scope of the FTT, 36 constituents are left to our analysis. We collected market quality as well as order book indicators 40 days before and after the event day (August 1<sup>st</sup>, 2012), aggregated on a daily basis.

We apply Difference-in-Differences (DiD) regression. Therefore, the development of the stocks exposed to the FTT treatment is benchmarked by comparable stocks not affected by the FTT. We choose the constituents of the German blue chip index DAX 30 as benchmark. Both indices share strong similarities concerning market price levels as well as trading volumes, industry coverage and most important, the European macroeconomic dependency due to the close proximity.

To further improve the robustness of our analysis, we perform the DiD estimation applying a symmetrical range of 40 days before and after the FTT event. Additionally, we cluster for specific stock price and market capitalization (C1, i.e., highest tercile to C3, i.e., lowest tercile) to increase comparability within the subsamples. Being aware that the idiosyncrasies of the control group could bias the results, we additionally present the mere French pre- and post-event analysis (no\_contr).

### Results

Within the investigated CAC 40, our findings indicate that the number of trades within 40 days after the event decreased by an average of 16% after controlling for the development of the German DAX, respective 27% in the mere French pre- and post-event view.

Most interestingly, market liquidity, measured in relative spread (cost of immediacy) and Depth (10) (order book volume denoted in Euro 10 basis points around the midpoint), has decreased sharply after the introduction of

the FTT. Results are robust in the single French evaluation (no\_contr), as well as compared to the German DAX (contr - cf. Table 1). Therefore, not only liquidity demand, i.e., number of trades, decreases after the introduction; even more alerting, liquidity supply is deteriorating as traders quit quoting and leave the market.

A fragmented market system, like in Europe, is linked by information transmission between markets through a constantly maintained and renewed price equilibrium as shown by Harris et al. (1995). In order to investigate whether this deterioration is also affecting inter-market information transmission, we apply time-series co-integration methodology as proposed by Engle and Granger (1987). We estimated the quality of price coordination between NYSE Euronext and BATS Chi-X by determining the speed of stock prices adjustment of respective stocks after a disequilibrium situation before and after the FTT. For robustness we apply the same for the DAX 30 constituents traded on Xetra and BATS Chi-X.

We find price coordination between NYSE Euronext Paris and BATS Chi-X significantly decreased. Further, the equilibrium correction mechanism, i.e., the reversion to the long-term price equilibrium, has been weakened persistently, where the benchmark stocks show no effect.

### Conclusion

Our results indicate that market participants are not only burdened by the tax itself, but

		Relative Spread		Depth (10)	
		no_contr	contr	no_contr	contr
<b>Market Capitalization Cluster</b>					
Change C1	abs.	0.0001 ***	0.0001 ***	-149,399 ***	-170,867 ***
	rel.	13%	11%	-19%	-22%
Change C2	abs.	0.0001 **	0.0001 *	-98,522 **	-127,968 **
	rel.	14%	7%	-23%	-29%
Change C3	abs.	0.0002 *	0.0002 ***	-24,657 *	-94,194 ***
	rel.	18%	16%	-10%	-40%
<b>Price Cluster</b>					
Change C1	abs.	0.0001 **	0.0001 **	-187,683 ***	-129,146 ***
	rel.	18%	9%	-28%	-20%
Change C2	abs.	0.0001 ***	0.0001 ***	-94,008 **	-131,405 ***
	rel.	15%	15%	-20%	-28%
Change C3	abs.	0.0001 **	0.0001 *	-41,258 ***	-103,512 ***
	rel.	15%	15%	-13%	-32%

Results per price and market capitalization tercile over the French (no\_contr) and the benchmarked (contr) sample within 40 day after the introduction. [\*p <0.1; \*\*p <0.05; \*\*\*p <0.01]

**Table 1: Changes in Market Liquidity after the FTT**

additionally by an average 15% (benchmarked 12%) wider relative spread as well as an 18% (benchmarked 28%) thinner order book volume (Haferkorn and Zimmermann, 2013). These results exemplarily indicate the traversing effect on overall transaction costs triggered by a rise in the explicit transaction costs, as argued by Habermeier and Kirilenko (2001). Higher explicit fees will not only affect liquidity demand, but also impede and disperse liquidity supply, additionally amplifying the overall cost of trading. Most interestingly, considering the various exemptions for professional liquid-

ity provision, market liquidity levels could not be maintained by these market participants alone. Considering liquidity demand, number of trades likewise dropped by an average 27% (benchmarked 16%), indicating that German stocks experienced a more shallow decline in number of trades. With the absence of liquidity supply and demand, inter-market information transmission decreases. We observe a dwindling effect on price coordination between taxed markets leading to a situation where price comparability and therefore market integrity is significantly deteriorated.

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## Research Report

# Towards a Better Understanding: Price-to-Earnings Ratios of High-Growth Firms

THE PRICE-TO-EARNINGS (P/E) RATIO IS ONE OF THE MOST IMPORTANT METRICS FOR VALUING FIRMS. UNFORTUNATELY, INTERPRETATIONS OF HIGH-GROWTH FIRMS' P/E RATIOS CAN BE CHALLENGING, BECAUSE THEY FREQUENTLY EXHIBIT EITHER EXTREMELY HIGH OR NEGATIVE VALUES. WE SHOW THAT THE USE OF CUSTOMER METRICS ALLOWS FOR BETTER INTERPRETING THESE P/E RATIOS, THAT IMPROVEMENTS IN CUSTOMER METRICS HAVE NON-INTUITIVE AND SURPRISING EFFECTS ON THE P/E RATIO, AND THAT OUR NEW MODEL BETTER PREDICTS FUTURE P/E RATIOS THAN EXISTING MODELS.

Emanuel Bayer

Bernd Skiera

### Introduction

Fundamental comparative analyses of firms often use the price-to-earnings ratio as a key financial metric (Damodaran, 2006). This ratio focuses on the price, also known as market capitalization or equity value of the firm and on earnings. Thus, it describes how many units of a firm's earnings represent the firm's valuation. The primary purpose of the price-to-earnings ratio is to assess firms' different growth prospects: Whereas high price-to-earnings ratios are associated with strong earnings growth, low ratios imply lower growth prospects (Penman, 1996). The price-to-earnings ratio is used in various merger and acquisition (M&A) situations, initial public offerings (IPO), restructurings, and investment decisions (Rosenbaum and Pearl, 2009). Compared to discounted cash-flow models, comparative analyses with price-

to-earnings ratios are considered more relevant than intrinsic valuation analyses in many cases, since the price-to-earnings ratio is designed to reflect "current" valuation based on prevailing market conditions and sentiment.

Especially, comparative analyses of high-growth firms, such as start-ups, are very important because investments in them usually entail substantial risks. Unfortunately, interpretations of their price-to-earnings ratios can be challenging, because they frequently exhibit either extremely high or negative values (Gupta et al., 2004). With our current research, however, we show that linking customer metrics, such as the retention rate or acquisition costs, to the price-to-earnings ratio allows for interpreting these highly positive and even negative ratios. Specifically, linking customer metrics to

the price-to-earnings ratio provides answers to three important research questions:

- How do improvements in customer metrics affect the price-to-earnings ratio?
- How do price-to-earnings ratios of high-growth firms develop over time?
- Can customer metrics help to make better predictions of future price-to-earnings ratios?

### Model

Our model describes price and earnings as functions of several customer metrics: the retention rate, acquisition costs, profit per customer, number of acquired customers, and the discount rate. The ratios of the respective functions for price and earnings then reveal the price-to-earnings ratio. Decomposing the resulting function leads to four multipliers: the margin multiplier (MM), the future multiplier (FM), the acquisition multiplier (AM), and the

leverage multiplier. The margin multiplier relates a customer's long-term value to a customer's short-term value. The future multiplier describes the relative importance of the value of the future customers. The acquisition multiplier captures the size of the acquisition costs for customers, and the leverage multiplier accounts for the firm's financial structure.

### Impact of Customer Metrics on Price-to-Earnings Ratio

Our decomposed form of the price-to-earnings ratio allows for analyzing how improvements in customer metrics affect the four multipliers and the price-to-earnings ratio in total.

As we detail in Table 1, our analysis reveals some surprising effects. In particular, improvements in our model metrics – that is, any changes in our model metrics that lead to higher prices of the firm – do not have homogenous effects on the

Improvement in		Effect on	MM	FM	AM	P/E
Customer Metrics	Retention rate		▲		▲	▲
	Margin				▼	▼
	Acquisition costs				▼	▼
	Number of future customers			▲	▲	▲
	Discount rate		▲	▲	▲	▲

Table 1: Impact of Customer Metrics on Price-to-Earnings Ratio

magnitude of price-to-earnings ratios. For example, improving the retention rate increases the price-to-earnings ratio, but improvements to the acquisition costs lead to its decrease. Higher price-to-earnings ratios are associated with better growth prospects, so the conventional wisdom would predict increasing price-to-earnings ratios with improvements in both metrics.

The reason for these effects is that improvements in customer metrics do not necessarily yield higher growth rates of earnings, which might seem surprising. Improvements in customer metrics can yield higher and lower growth rates, because the respective metrics influence both price and earnings. If they affect (current) earnings more strongly than price (i.e., discounted future earnings), the result is a lower growth rate for future earnings.

On the one hand, improvements in margin and acquisition costs result in lower earnings growth rates, because improvements in these metrics increase the earnings of growth firms more strongly than the price, resulting in lower price-to-earnings ratios.

On the other hand, a higher retention rate, more customers expected for the future, and a lower discount rate, increase the price of a firm more strongly than its current earnings, resulting in higher price-to-earnings ratios.

In summary, "good news" (i.e., positive developments of metrics) does not necessarily lead

to increases in price-to-earnings ratios, nor does "bad news" (i.e., negative developments of metrics) necessarily lead to falling ratios.

#### Development over Time

We explore in more detail the kinds of developments that price-to-earnings ratios of newly founded, high-growth firms can take over time and propose a new non-linear model to capture various possible shapes that price-to-earnings ratios can take over time. The beauty of this model is that it just uses time as the independent variable and captures the jump of price-to-earnings ratios from very negative to very positive values.

The model is able to capture the five different shapes summarized in Figure 1. Because of their characteristic looks, we describe the shapes as single and double boomerang shaped, plateau shaped, inverse double boomerang shaped, and as steady state.

The double boomerang and the inverse double boomerang shape are characterized by phases of negative price-to-earnings ratios. Currently, negative price-to-earnings ratios are labeled "N/A" by convention and considered undefined, even though they can be calculated just as easily as positive price-to-earnings ratios. However, interpreting negative price-to-earnings ratios is both feasible and insightful.

For example, the double boomerang shape is characterized by a phase of negative price-to-

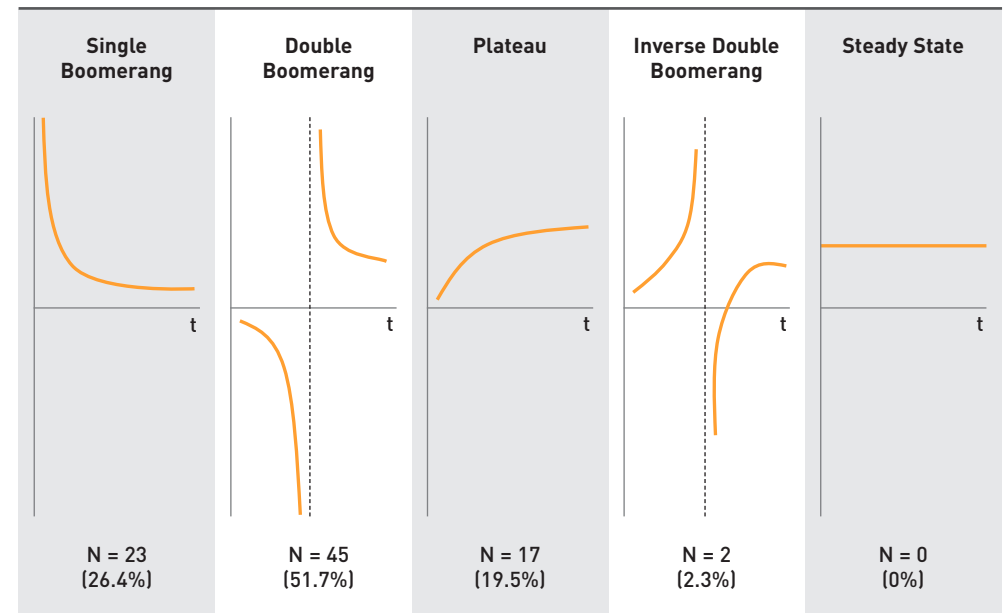


Figure 1: Shapes and Frequencies of Price-to-Earnings Ratios over Time

earnings ratios, followed by a phase of positive price-to-earnings ratios. Knowledge of the double boomerang shape leads to the conclusion that firms with slightly negative price-to-earnings ratios are still early in their lifecycle, compared to firms with highly negative price-to-earnings ratios. Hence, when comparing high-growth firms according to their price-to-earnings ratios, it is important to consider their respective development stages. Furthermore, the steep slope of the curve suggests that large differences in the magnitude of high-growth firm's price-to-earnings ratios do not necessarily make a statement about their dissimilarity.

Figure 1 also summarizes the results of the empirical study by displaying the distribution of the development of the price-to-earnings ratios of NASDAQ 100 firms immediately after their IPO across the five shapes. The IPO is the earliest point in time at which we can observe both firms' prices and earnings. Also, it is common for firms to go public when they are still relatively young and in their growth phase.

Almost 80% of all firms can be assigned to either the single or the double boomerang shape. Almost two-thirds of them exhibit a double boomerang shape. This result illustrates that including negative price-to-earnings ratio in the analysis is

essential. The analysis shows that firms with extremely negative and extremely positive price-to-earnings ratios are likely to be similar, more so than, for example, firms with slightly negative and very negative price-to-earnings ratios.

### Predictions of Price-to-Earnings Ratios

Traditional models that predict future price-to-earnings ratios rely on historical or forecasted earnings growth rates and risk proxies as independent variables (e.g., Zarowin, 1990; Cho, 1994). Our new model just uses time as an independent variable. Thus, it does not require collecting additional data to predict future price-to-earnings ratios. Despite the use of fewer variables, our model allows for better predictions than traditional models, as Table 2 illustrates. Again, the analyses were conducted with data of the NASDAQ 100 firms.

Table 2 shows that our new model predicts future price-to-earnings ratios more precisely, i.e., with smaller forecast errors, than any tra-

ditional model. The hit rates of our new model versus traditional models are between 55% and 65%. This result means that our model beats each of the traditional models in the majority of cases.

Interestingly, the model using the historical long-term growth rate as independent variable produces the best results among the traditional models. This result is surprising, since price-to-earnings ratios reflect the market's expectations about firms' future growth prospects. Therefore, we expected models using analysts' forecasts of earnings growth rates to perform better than models using historical growth rates.

### Conclusion

The price-to-earnings ratio is a key metric underlying comparative fundamental analysis. Despite the importance of any such fundamental analysis of high-growth firms, the interpretation of price-to-earnings ratios is challeng-

ing, because high-growth firms frequently exhibit either extremely high positive or negative values.

We find that changes in customer metrics have non-intuitive effects on price-to-earnings ratios of high-growth firms. The underlying rationale is that improvements in customer metrics do not necessarily yield higher growth rates of earnings because changes in customer metrics can affect earnings more strongly than firms' prices. Thus, the interpretation of price-to-earnings ratios is not as simple as it often might appear.

Furthermore, our research shows that customer metrics allow for interpreting very high and even negative price-to-earnings ratios. We find that the single and the double boomerang shape represent typical developments of high-growth firms' price-to-earnings ratios over time. Knowledge of these shapes allows for making inferences about a firm's development stage and correctly comparing high-growth firms according to their price-to-earnings ratios.

Finally, we derive a new model that beats traditional models when it comes to predicting a firm's future price-to-earnings ratios. We show that our model is more precise in predicting these future price-to-earnings ratios than any of the traditional models that use historical or forecasted earnings growth rates and risk proxies as independent variables.

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Traditional Models		Hit Rate New Model
Historical Earnings Growth	short-term (1 Year)	63.64%
	long-term (3 Years)	54.55%
Forecasted Earnings Growth	short-term (1 Year)	65.28%
	long-term (5 Years)	62.30%

Table 2: Hit Rates of New Model versus Traditional Models



## Insideview

# Social Trading: Opportunity or Threat for the Classical Asset Manager?

INTERVIEW WITH ANDREAS KERN, WIKIFOLIO.COM



Andreas Kern  
CEO  
wikifolio.com

**The new opportunities of social networks for customer interaction also change the trading and asset management industry. In this context, Social Trading has frequently been discussed in the media during the last months. What is the exact meaning of the term?**

Social Trading means the transfer of proven concepts of successful Web 2.0 companies like Wikipedia, Facebook, Twitter, or Spotify into the financial services industry. The basic idea is quite simple: Everyone can easily follow the trades of another user or successful trader with real money. The actual realizations of this concept are differing immensely on the market.

**Who are the best known players on the Social Trading market and how successful are they?**

In my view, there are two outstanding concepts: eToro and wikifolio.com. eToro is a Social Trading network focusing on foreign exchange trading with more than one million registered

users. It enables the fully automatic mirroring of other users' trades in your eToro-account. wikifolio.com, on the contrary, creates a fully-fledged financial product – wikifolio – from the published trading strategies of our users with an ISIN number, which is listed at the Stuttgart stock exchange and, in result, can be traded at all banks and financial institutions in Germany and Austria. In the first six months, wikifolio has already generated a trading volume of 300 Million EUR. Mainly shares and ETFs can be traded within a wikifolio.

**Are the traders mostly private individuals, who let others benefit from their trading strategies?**

Yes, currently our offer targets private individuals. At eToro, the gaming aspect of trading is certainly predominant; at wikifolio.com, you will find a wide spectrum of traders, and many of them have a professional background. Currently wikifolio is already offering a huge variety of strategies: you will find day trading as well as long-term portfolio strategies.

**Are these platforms competing with the established financial service providers like online brokers, fund managers or financial advisors?**

There is no definite answer to this question. eToro has its own broker, so there is certainly an ongoing competition. wikifolio.com, on the other hand, is an open platform. We strongly support partnerships with banks, finance information sites and online brokers to stimulate trading. wikifolio.com is not exclusively committed to one broker due to its business model. We generate sales in form of transactions for all brokers and banks. Based on our open business model and the vast amount of user-generated contents like actual trades, comments, and blogs of our users, we were able to close extensive media partnerships. Currently, we cooperate with OnVista, Finanzen100, Handelsblatt, Wallstreet Online, and many more. Together with our strong focus on social media integration, these partnerships are becoming more and more cornerstones of our emerging wikifolio ecosystem.

**How do you see the future of the classical asset manager?**

I do not think that finance 3.0 will completely substitute asset management for private households in the coming years as iTunes did with the CD. But there will be a significant change in the financial product landscape. So far, ETFs were seen as the main competition for active asset management but in the future, more dynamic competitors will arise. And here are also the chances for asset managers and financial service providers to be found. Those who are able to accept and adapt to the new rules established in the Web 2.0, like transparency, fairness and openness, will find sustainable competitive advantages by engaging themselves on these platforms. The demographic change will even emphasize this development. For the digital natives who are growing up with Twitter and Facebook, the still not transparent black box of a common investment fund in terms of fees and performance will look like an old relict of long gone investment times.

**Thank you for this interesting interview.**

# Infopool

## News

### Successful Disputation

Dipl.-Wirtsch.-Inform. Immanuel Pahlke (layer 1) has received his doctoral degree on January 30<sup>th</sup>, 2013 with his dissertation on "IS-Enabled Operational Agility". Congratulations!

### New Colleagues

Sonia Dribek joined the team of Prof. Dr. Andreas Hackethal (layer 3) in February as an external doctoral candidate. Sonia finished her studies at the University for Applied Sciences Wiesbaden and the University of Frankfurt before working for an international consulting and auditing firm in Luxemburg.

Dr. Olga Lebedeva joined the team of Prof. Dr. Peter Gomber (layer 2) in February 2013 as a postdoctoral research fellow. Olga was a doctoral student at the University of Mannheim where she obtained her Dr. rer. pol. in Finance in December 2012.

### Prestigious award for Young Marketing Researcher

Dr. Nadia Nabout won the prestigious dissertation award of the EHI Retail Institute & GS1 Germany (<http://www.wissenschaftspreis.org/>), which recognizes research that is of particular relevance to practice. The award ceremony took place in February in Düsseldorf and was attended by more than 300 leading managers and academics. Her dissertation was supervised by Prof. Dr. Bernd Skiera (layer 3).

### Course Notification

*PhD Course: Complex Systems Thinking and Systems of Systems Management in IS*

From April 11<sup>th</sup> to April 13<sup>th</sup>, Prof. König and Prof. Beck (layer 1) will hold a PhD seminar in collaboration with Prof. John L. King (University of Michigan, USA), Prof. Kalle Lyytinen (University of Jyväskylä, Finland), and Prof. Vlad Formin (Vytautas-Magnus-University, Lithuania) on the field of complex systems. As the complexity of social, technological, and organizational environments as well as their interrelations continuously increase, complex thinking is emerging as a grand challenge in IS research. The E-Finance Lab strives to be the forefront of this development.

*Philosophy of Science and Research Methods in Information Systems*

This summer, Prof. Beck (layer 1) invited high-ranking IS researchers like Prof. Dr. Shirley Gregor (ANU in Canberra, Australia) and Prof. Dr. Dr. hc. Rudy Hirschheim (LSU Louisiana, USA) to his annual PHIL course supporting PhD candidates. The primary focus of the course is on the current research methods in Information Systems and the philosophical assumptions that underlie them. Thereby, students learn how to identify different research orientations and build an informed opinion on critical research issues. Registration is open for external PhD students.

## Selected E-Finance Lab publications

### Fremdt, S.; Beck, R.; Weber, S.:

Does Cloud Computing Matter? An Analysis of the Cloud Model Software-as-a-Service and its Impact on Operational Agility.  
In: Proceedings of the 46<sup>th</sup> Hawaii International Conference on System Sciences, Maui, USA, 2013.

### Gomber, P.; Zimmermann, K.:

Wertpapierhandel im Kontext des technologischen Wandels - der algorithmische Handel.  
In: Eveling, O.; Lempka, R. (eds.): Finanzdienstleister der nächsten Generation - Die neue digitale Macht der Kunden, pp. 363-383, Frankfurt School Verlag, Frankfurt, 2013.

### Haferkorn, M.; Zimmermann, K.:

Securities Transaction Tax and Market Quality - The Case of France.  
Forthcoming in: European Financial Management Association Annual Meetings, Reading, United Kingdom, 2013.

### Lampe, U.; Miede, A.; Lusa, T.; Schulte, S.; Steinmetz, R.; Dustdar, S.:

An Analysis of Anonymity Side Effects in the Internet of Services.  
In: Proceedings of the Networked Systems 2013, Stuttgart, Germany, 2013.

### Rabhi, F.; Gomber, P.:

Enterprise Applications and Services in the Finance Industry.  
In: Lecture Notes in Business Information Processing (LNBIP), 135 (2013).

### Siering, M.; Pahlke, I.:

Employee Empowerment with Computer Based Learning: An Empirical Investigation.  
In: Proceedings of the 11<sup>th</sup> International Conference on Wirtschaftsinformatik, Leipzig, Germany 2013.

### Slamka, C.; Jank, W.; Skiera, B.:

Second-Generation Prediction Markets for Information Aggregation: A Comparison of Payoff Mechanisms.  
In: Journal of Forecasting, 31 (2012) 2, pp. 469-489.

For a comprehensive list of all E-Finance Lab publications see

<http://www.efinancelab.com/publications>

## Infopool

### RESEARCH PAPER: DO INVESTORS BUY WHAT THEY KNOW? PRODUCT MARKET CHOICES AND INVESTMENT DECISIONS

This study shows that the decision to invest into a company's stock is influenced by the consumption of the very same company's products. Using microdata from the brokerage and automotive industries, the authors find a strong positive relation between owning a specific car brand and owning stocks of that car manufacturer. Investors are also more likely to purchase and less likely to sell shares of companies they frequent as customers. These effects are stronger for individuals with longer customer relationships. Keloharju et al. also find evidence of causality in the other direction: inheritances and gifts have an effect on individuals' patronage decisions. A setup in which customer-investors regard stocks as consumption goods, not just as investments, seems to best explain their results.

Keloharju, M.; Knüpfer, S.; Linnainmaa, J.

In: *The Review of Financial Studies*, 25 (2012) 10, pp. 2921-2958.

### RESEARCH PAPER: KNOWLEDGE COLLABORATION IN ONLINE COMMUNITIES

Through the dynamic flow of knowledge collaboration, others' contributions are iteratively integrated and recombined in complex ways. This makes fluidity a fundamental characteristic of online communities in enabling knowledge collaboration in web-based settings. However, dynamic changes in organizational resources (such as time, identity, social disembodiment of ideas, and temporary convergence) can cause tensions that fluctuate with changes in the resource. In order to provide an opportunity for knowledge collaboration, a community needs to respond to these tensions in ways that encourage interactions to be generative (like engendering roles in the moment, channeling participation, dynamically changing boundaries, or evolving technology affordances) rather than constrained.

Faraj, S.; Jarvenpaa, S.L.; Majchrzak, A.

In: *Organization Science*, 22 (2011) 5, pp. 1224-1239.

## Electronic newsletter

The E-Finance Lab conducts two kinds of newsletters which both appear quarterly so that each six weeks the audience is supplied by new research results and information about research in progress. The focus of the printed newsletter is the description of two research results on a managerial level – complemented by an editorial, an interview, and some short news. For subscription, please send an e-mail to [eflquarterly@efinancelab.com](mailto:eflquarterly@efinancelab.com) or mail your business card with the note "please printed newsletter" to

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The Internet-type newsletter uses short teaser texts complemented by hyperlinks to further information resources in the Internet. To subscribe, please send an e-mail to

**[newsletter@efinancelab.com](mailto:newsletter@efinancelab.com).**

**Further information about the E-Finance Lab is available at [www.efinancelab.com](http://www.efinancelab.com).**



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For more information about the House of Finance, please visit [www.hof.uni-frankfurt.de](http://www.hof.uni-frankfurt.de).

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