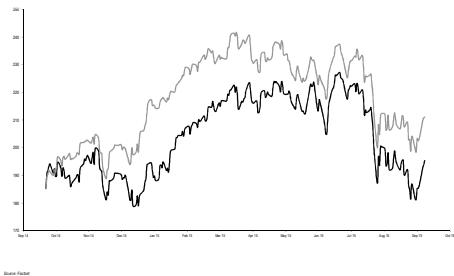


9th October 2015

Sector Top Picks TP – FV

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Fintech – threat or opportunity?

Fintechs as the hot topic in the industry

Fintechs are currently the hot topic in the financial industry, new start-ups come to the market almost on a weekly basis and offer their innovative services to the customers. Fintechs are basically technologically driven companies which offer financial services to retail/commercial clients. Unlike their traditional peers Fintechs focus more on customer needs and offer innovative easy-to-use products.

Fintechs should be able to win further market share

Key question is in our view whether the Fintechs will win significant market shares in the coming years and ultimately crowd-out the established banks. At least in the German market most of the Fintechs are still relatively small companies with well below 100 employees. The listed players we focus on have already reacted to the new competitors and have started to invest into digitalization and are offering state-of-the-art mobile/online banking services. Nevertheless the new competitors should put the established players under pressure and win customers from them; we expect the Fintechs to be able to win an aggregate market share of up to 5% by 2020. We see those financial service companies most in danger of losing market share that have not yet reacted to the new competition and are behind the curve regarding technology.

Fintechs focus on vast range of banking products

Fintechs in Germany focus mainly on investment, banking, credit and payment solutions. Most of the new players focus on investment and banking products, the new services range from innovative deposit / investment solutions over various banking apps to new mobile bank offerings. So far the new offerings in the insurance sector are relatively limited, we expect here more players to come to the market in the coming years.

Reaction of the established players

Clearly, not all financial service companies we cover are impacted to the same extent by Fintechs. Some like the reinsurers or commercial real estate finance companies should be not impacted at all, while those financial service companies focusing on retail customers should be impacted most.

The companies we cover have already or will invest massively into digitalization. Deutsche Bank and Commerzbank have announced plans to invest massively into digitalization over the coming years, for Allianz digitalization is high on the agenda as well. Other companies like MLP should be impacted by new competitors but seem to have already reacted, while online bank comdirect has to be partly seen as a Fintech anyway. The only pure Fintech we cover, Ferratum, should continue winning market share and grow its earnings by further cross selling new products to its customers and develop to a full-fledged mobile bank. GFT Technologies, which is covered by equinet as well, can be partly seen as a Fintech company as well, even if the company's focus is mainly on compliance-related software for the banking industry.

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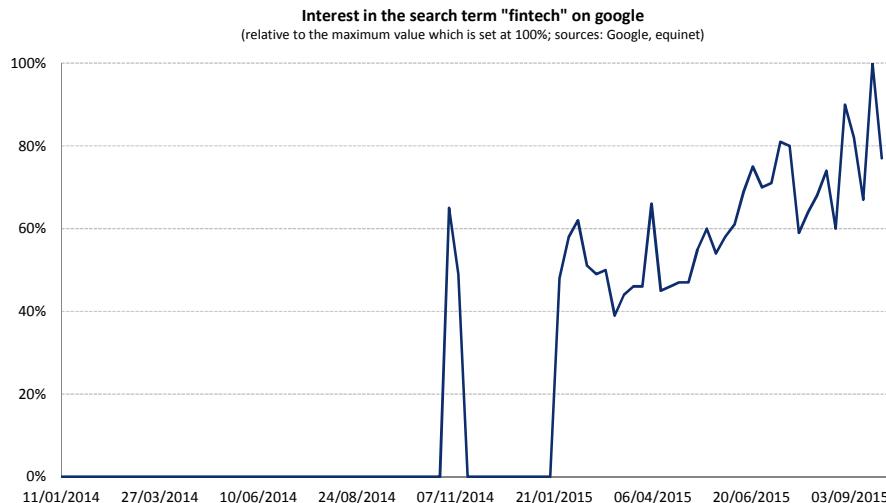
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Fintech – introduction and overview

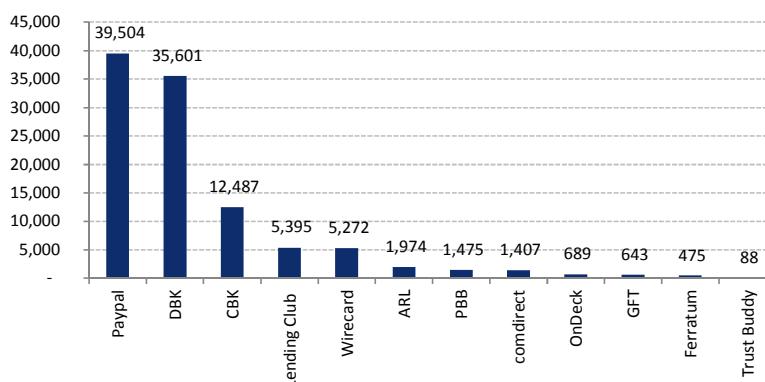
What's all the fuzz about fintech companies?

During the last two to three years Fintech companies have become the hot topic in the Financial industry, not only in Germany but much more in the US and UK.



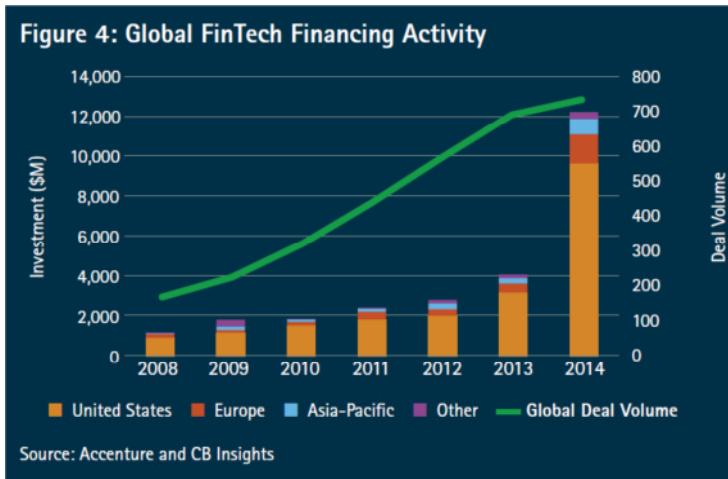
Worldwide there are around 1,000 Fintechs and c. US\$ 13bn has been invested into the sector with around 90% having been invested in the US/UK. Some of the large US players are already billion dollar companies (like Paypal or Lending club), around 30% of all unicorns (one billion US \$ tech start-ups) are Fintechs. In Germany the largest listed Fintech, Wirecard, which is providing technologies/services to Fintechs, has a market cap of around EUR 4bn. Finnish Ferratum Group, which is listed on the German stock exchange since February 2015, has a market cap of close to EUR 500m. The acquisition of FX trading platform 360T for EUR 725m by Deutsche Boerse 15 years after its foundation is another example of a successful fintech company.

Market Capitalizations of selected banks / Fintechs
(sources: Factset, equinett)



During the last two years fintech companies have been founded almost on a weekly basis and currently there are around 300 fintech companies active in Germany. Many of these start-up companies are still loss-making and have less than 20 employees. Nevertheless investors are keen on supporting those start-ups as can be seen from the fact that the liquidity that has flown into this sector has grown sharply in recent years. Hence, we expect

the success story of the Fintechs to continue in the coming years even if we do not expect them to crowd-out the established players; they should however be able to win market share from the established players and put them under pressure to adjust their business cases.



Definition

Currently there are many different definitions of “fintech” circulating. In our view fintech companies are characterized by the following points:

- 1) focus on a specific part of the value chain of banks/insurance companies i.e. fintechs normally do not offer the full range of banking/insurance products,
- 2) high focus on customer needs, i.e. offered solutions/products are very customer friendly and easy to understand and
- 3) high degree of automatization / high usage of state-of-the-art technologies. Currently fintech companies focus more on the banking / financial services sector than on the insurance sector.

Focus on a specific part of the value chain of banks/insurance companies: Established banks/insurance companies in general offer its customers a relatively broad product range, which comprises in retail banking amongst others deposit, loan, checking accounts. Fintechs on the other side do in general not offer the full product range but pursue a cherry picking strategy i.e. focus on single products or at least a product category like consumer loans or deposit products.

High focus on customer needs: Fintech companies focus much more on meeting customers' needs particularly by using modern technologies. Therefore fintech products are normally much easier to use and better meet customers' needs. Microloan companies like Ferratum offer e.g. their customers to pay out the loans within 15 minutes after the loan application; at normal banks this may take days.

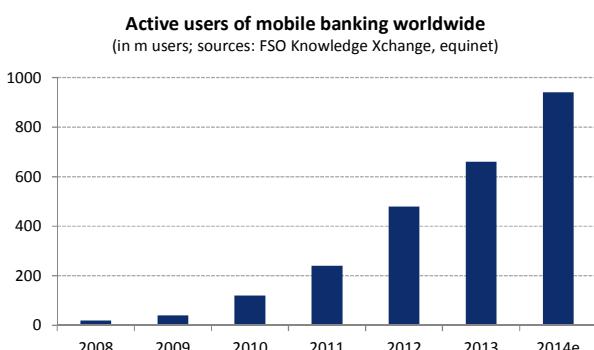
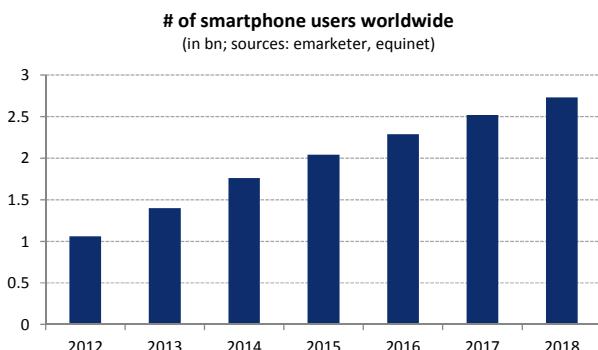
High degree of automatization / high usage of state-of-the-art technologies: Fintech companies are in general much more technologically driven companies. The high usage of state-of-the-art technologies and the high focus on customer needs make the products easier to use and better understandable. Fintechs that address the B2C customers use in general mobile/online channels for communication.

Market environment

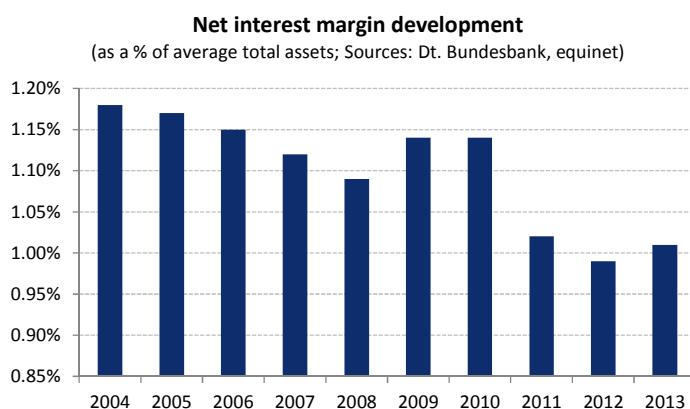
We see at the moment two key factors impacting the retail banking environment: 1) increasing penetration of smartphones, 2) low interest rate environment.

1) Increasing penetration of smartphones: In recent years penetration of mobile phones / smartphones has increased significantly and is expected to further rise in the coming years. Based upon a forecast by GSMA Intelligence the number of smartphone connections will grow three-fold over the next six years to 6bn, which would be equivalent to two-thirds of total mobile connections in 2020.

Therefore we expect online/mobile channels to gain further in importance for retail banks. According to Juniper Research over 1bn people will use mobile banking by 2017 (2013: around 590m), i.e. growth rates should remain high for the mobile banking market. In the UK Lloyds Banking Group's weekly app use has risen from 2.1m uses in 2012, to 4.7m in 2013 and 6.6m in 2014. Around 167,000 RBS customers use their banking mobile banking app between 7am and 8am on their morning commute. More than GBP 1.7bn is transferred a week (at Lloyds Banking Group) using mobile phones or tablets, an increase of 40% yoy.



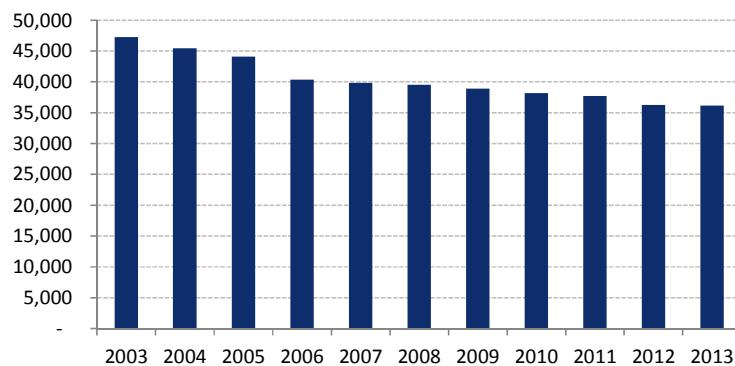
2) Low interest rate environment: A normal retail bank normally generates up to 80% of its total revenues from net interest income which is a function of the loan/deposit volume and the locked-in interest margin. Due to the low interest rate environment with short term rates being at around 0% and an only recently steepened yield curve deposit margins have come under pressure for banks, particularly for those banks with a high volume of interest free deposits. Even if short term rates were to rise in the coming months margins should only increase with a time lag as maturing assets will continue to have yields above the current rates. Unfortunately the reduced net interest income more or less has a direct negative impact on the banks' profitability.



Those two trends, a growing importance of mobile/online banking and a declining net interest income, have a negative earnings impact for the banks. As it is difficult for banks to find alternative revenue sources to offset the reduction in net interest income costs are an important lever. This means that the retail banks have to particularly focus on reducing costs to at least partly offset the negative revenue impact. One key lever to reduce costs is for retail banks, apart from cutting the workforce, the closure of branches. In Germany the number of bank branches has fallen by more than 11,000 (-23%) during the last ten years. This is comparable with the development in other sectors like retail or travel agencies. 40% of the department store branches and 29% of the travel agency branches have been closed since 2004 (source: Roland Berger).

Development of bank branches in Germany

(Sources: Bundesbank, equinet)



We expect this trend in retail banking to continue in the coming years. While this will have definitely a positive cost impact the branch-based retail banks lose one important competitive advantage, the local presence close to their customers. If customers do not have anymore a branch close to their home/workplace one important reason to remain a customer of a branch based retail bank falls away. However we do not expect bank branches to disappear as 65% of customers still prefer to be advised in a branch or at home if the products are complex (sources: Roland Berger) and only 27% use the internet to get information. At the same time the majority of customers use online channels for simple products/services like cash wirings or checking account statements (source: Roland Berger).

Fintech – threat or opportunity?

Globally Fintech companies have been quite successful in winning customers as they either offer new products/services (e.g. microloans, more attractive deposits, new apps etc.) and/or offer existing/new products/services in a new look and feel by making use of mobile/online technologies. Thus the products/services offered by fintech companies are normally better tailored to the customer needs and thus easier to use. An important factor plays in this respect the fact that particularly younger customers are attracted by these new products/services. Unlike older retail customers they are more open to new players when looking for banking services/products and go not automatically to branch based retail banks.

Key question for the traditional banks/insurance companies is in our view whether the new incumbents are a threat to their business model or rather an opportunity for them. Generally we do not think that fintechs are a threat for the established players in that sense that they will force them out of business. The established players like the savings banks or the large private banks like Deutsche Bank are too big to be threatened by fintech companies, particularly as these focus on single products and do not offer the full product range. In our view the fintechs will however put the established players under pressure and will take customers away from them and will thus erode their revenues further. The only real threat for the established players may arise if a player with a large customer base, outstanding technology know-how and a strong brand like Apple or Google tries to attack the banks with new products. According to a scenario analysis from A.T. Kearney fintechs will account for 4% of total revenues in German retail banking in 2020 if they continue growing with the same rates like between 2009 and 2014. In case they key manage to grow with the same rate like in 2014, they will stand for 34% of total revenues in the German retail banking market by 2020. The truth will probably be somewhere in the middle of the two scenarios.

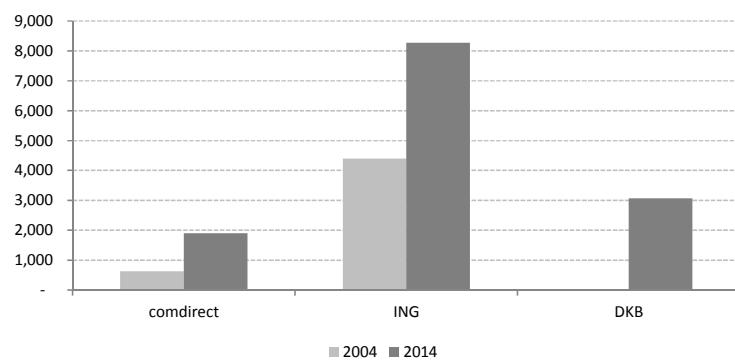


To get an idea of how quickly new players gain market share from established players we have looked at growth rates of online banks in Germany during the last 10 years. While the

first online banks like Consors or comdirect were already founded in the mid-90s and focused on retail brokerage in the beginning, they started to broaden their business models from mid 2000 onwards. Additionally new players like DKB Bank entered the market. As can be seen from the graph below the leading three online banks in Germany have won more than 8m customers between 2004 and 2014 and have now an aggregate customers base of 13m which is equivalent to a market share of around 10%. The online banks have thus clearly achieved an impressive growth during the last ten years but with a market share of 10% they are still not a threat for the established players and should not become this in the short to mid-term. We expect a similar development for Fintechs, i.e. they will increase their market share in the coming years but should not become a threat for the established players. We see a market share in Germany of up to 5% by 2020 as realistic for the Fintechs.

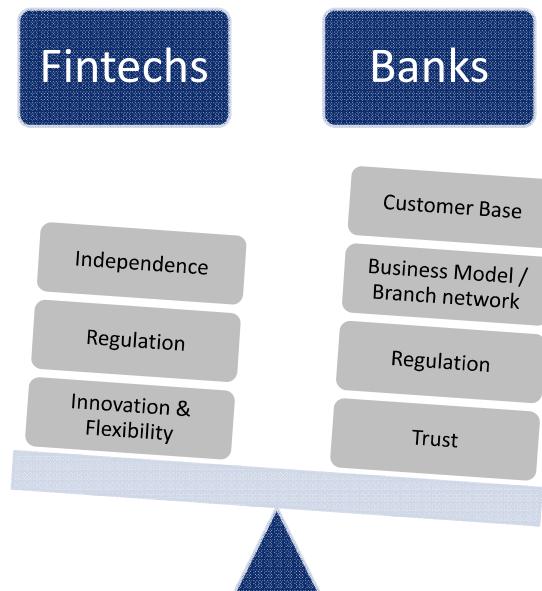
Customer growth of leading 3 German Online Banks

(Sources: Banks, equinet)

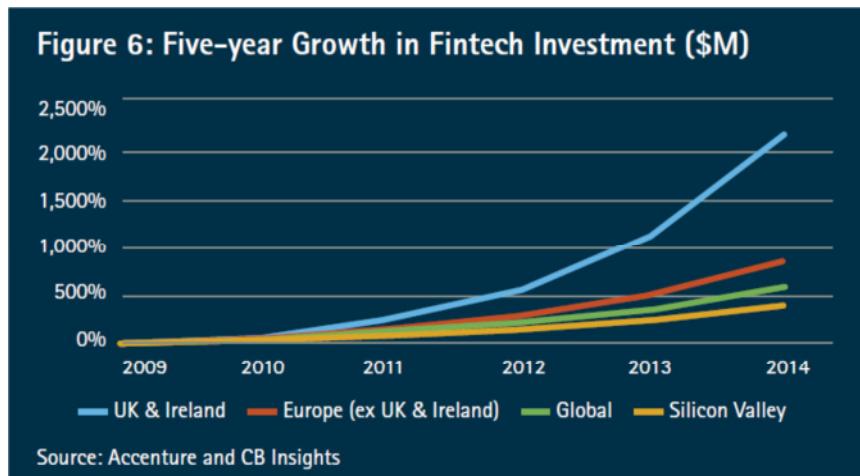


In order to better assess the market opportunities of the fintech companies we look below more in detail what competitive advantages the new players in comparison with the established players (and vice versa) have.

Fintechs vs. Banks



Customer Base: The established players have large customer bases, many banks have several millions of customers while the fintechs are start-up companies which have in some cases only a few thousand customers. On the one hand this is clearly an advantage for the established players as they do not have to win new customers but rather keep the existing ones. Fintechs on the other hand have to win customers for their new products/services which costs a lot of money. Furthermore the established players have significantly higher revenues (stemming from their large customer base) which they can use to invest into new technologies / products. Even if funding does not seem to play a role for fintech companies these players clearly have the problem of not having yet large cash flow which they can use to invest into further developing the companies.



On the other hand the established players are not free in where to invest the money as they have to protect their existing business, i.e. cannibalization plays an important role. The best example are branch based retail banks which have to consider the profitability of their branches if they push aggressively their online banking services, particularly if online banking services are offered at lower prices. At the same time fintech companies do not have this problem as they are normally small and independent companies which focus on profitable niches and offer products/services at attractive prices. Hence, Fintechs can compete much more aggressively than the established players and can put them under pressure by offering products at more attractive prices.

Business Model: The established players have business models that have proven that they function and are normally profitable. The business models of the fintechs are in most cases very young and not yet profitable. Hence, time will tell whether all the business models will work in the end and will win enough customers to reach a sufficient profitability. In our view the consolidation level among the fintech companies will increase in the coming years as many pursue similar business models and only the strongest will survive. Additionally we question the mid-term profitability of many Fintechs as we doubt that sufficient customers will be willing to pay for the offered services.

Moat: In value investing the existence of a moat plays an important role to determine whether a company has a competitive advantage that cannot be easily copied/duplicated. Looking at the established players in the banking sector the moats seem to be quite wide at first glance as for example a branch network cannot be easily and quickly built up and the process to receive a banking license is a cumbersome process as well. Due to the technological progress new players do however not need a branch network anymore to serve customers as they can use mobile/online channels i.e. the importance of the branches is rapidly declining as can be seen by the decline in the number of retail bank branches in recent years. The offering of deposit accounts or consumer loans has e.g. become much easier with the risen penetration of mobile phones / tablet computers and the arrival of new

technologies which make online-identification possible or enable banks to easier assess loan applicants credibility (via the usage of big data). Furthermore new players focus on special products for which e.g. moats do not exist or are at least not wide like e.g. for online investment tools like Wikifolio.

Regulation: Banking and Insurance are among the most regulated sectors and at least in the banking sector regulatory requirements have further increased in recent years. While some of the new fintech companies like Ferratum have a banking license and thus operate on a level playing field compared with the branch based retail banks most of the incumbents do not have a banking license as they either focus on such products which do not require a banking license or have cooperations with banks. Weltsparen.de is e.g. brokering deposits and receives a fee for this service instead of taking deposits on the own balance sheet which would require a banking license (note that Weltsparen.de cooperates with Frankfurt based MHB-Bank which serves as a custodian bank for the deposits as long as they are not invested with the foreign banks; others like CASHBOARD or easyfolio cooperate with comdirect's subsidiary ebbase). Another example is Numbrs which offers customers through a banking App an aggregated account overview, i.e. checking, brokerage, deposits accounts of different banks are shown in one overview. Additionally different analysis tools are offered. As Numbrs does not offer any banking services it does not need a banking license. On the one hand the fact that the established banks have a banking license and have extensive experience of how to work with regulators is clearly an important competitive advantage in our view as it means that they can offer all banking services/products which require a banking license. On the other hand this means higher costs for the regulated banks and somewhat lower flexibility as they can only act within the regulatory boundaries. Depending on the Fintech's business models they should be normally able to solve the regulatory challenges through cooperation with banks.

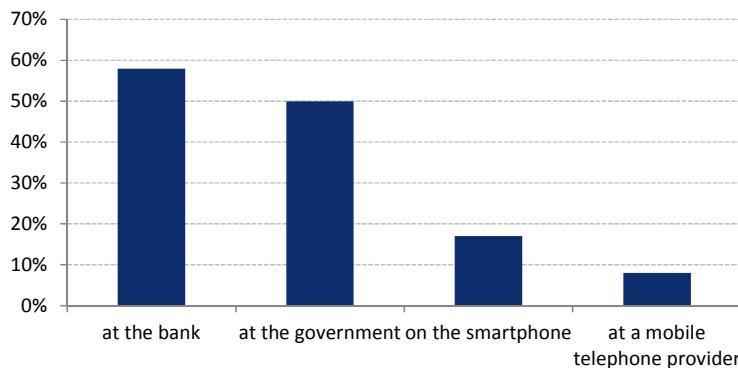
Innovation & Flexibility: The established players are clearly not characterized by a high level of innovation even if most of the banks have started initiatives to invest into the digitalization of their business in recent months. Compared to the fintechs they are however clearly lagging behind. The fintech companies are clearly the first movers regarding the use of new technologies and the offering of new products / services. Concepts like peer-to-peer lending, use of big data, innovative banking apps and algorithm based asset management services have in most cases first been offered by fintech companies and not by the established players. It has however to be noted that some established players like comdirect or ING DiBa are innovative in offering services like online identification process which is not yet offered by fintechs like auxmoney or Weltsparen.de. This shows once again that some of the established players have already reacted to the growing success of fintech companies.

Independence: One of the key competitive advantages of the fintechs is in our view that they are independent players that do not have to care about possible cannibalization effects. Established players like e.g. savings banks will not start peer-to-peer lending or deposit brokerage so easily as they will always worry about cannibalizing their existing business. The same is true for new mobile banking solutions at lower prices – a savings bank would never be as aggressive as a fintech with such a product offering as it would fear to lose the users of its classical banking products to the new products which would have a negative margin impact. At the same time fintechs do not have to worry about cannibalization as they offer only one or two products, hence they can act much more aggressively than the established players. Furthermore comdirect or ING DiBa are not afraid of cooperation with Fintechs (e.g. Gini).

Trust: Established banks have another important key competitive advantage versus fintech start-ups: trust. Despite the financial crisis banks are still trusted by customers. Trust does not come easily, normally it takes some time for companies to win customers' trust, particularly if money is involved. Banking products/services are based on a special customer relationship for which trust is the foundation. Normally banking customers do not

change their banking relations often. One reason is clearly convenience but the other reason is also trust. Hence, when looking for mobile/online banking solutions the established players should be in pole position, if they have a state-of-the-art product offering and are not lagging behind the fintech companies.

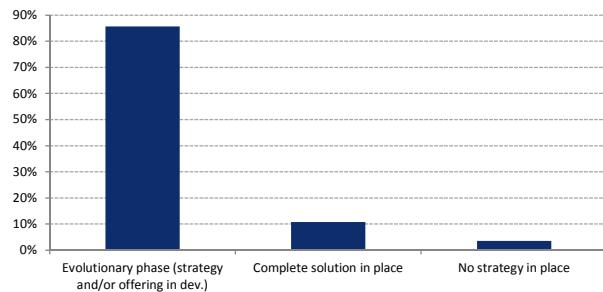
Where would you be willing to store your biometric data for authentication purposes? (Sources: Roland Berger, equinett)



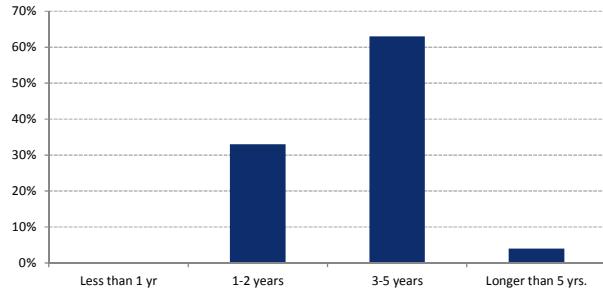
Generally we do not see Fintechs as a threat for the “old” Financial Industry if they react to the new players by adjusting their business models, i.e. making better use of new technologies, focusing more on customer needs which implies easier use of products, higher efficiency, digitalization of all processes (incl. backend processes). Only those players who are not willing to adjust their business models (or are too slow) and continue to do business the way they did during the last 20 years will lose more and more revenues to the new competitors and lose market share. Clearly, the speed of adjustment will play a role, i.e. the faster the traditional banks can adjust the better.

The only real threat for the established players may arise if a player with a large customer base, outstanding technology know-how and a strong brand tries to attack the banks with new products. If for example Apple, Facebook, Amazon or Google started offering checking accounts or investment products to their customers, the traditional players would come much more under pressure as particularly younger customers should be open for these new products.

What is the current status of your digital banking strategy/offering? (Sources: GFT, equinett)



How long do you think it will take to fully implement your digital banking strategy? (Sources: GFT, equinett)

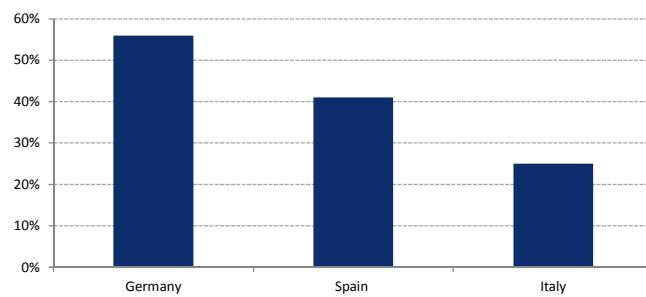


All in all we expect the fintech companies to further increase the pressure on the established players to invest in IT and products and lower prices to not to lose too many customers to the new competitors. Generally co-operations with Fintechs should be an attractive option for the banks to benefit from the technological know-how of the new players and thus not fall behind. According to a GFT survey among banks in Germany, Italy and

In Spain the German banks focus to a larger extent on cooperations with Fintechs than the banks in the other countries. DBK and comdirect are e.g. cooperating with Gini, a Fintech, which has developed a software for conveniently paying invoices by just taking a picture of them.

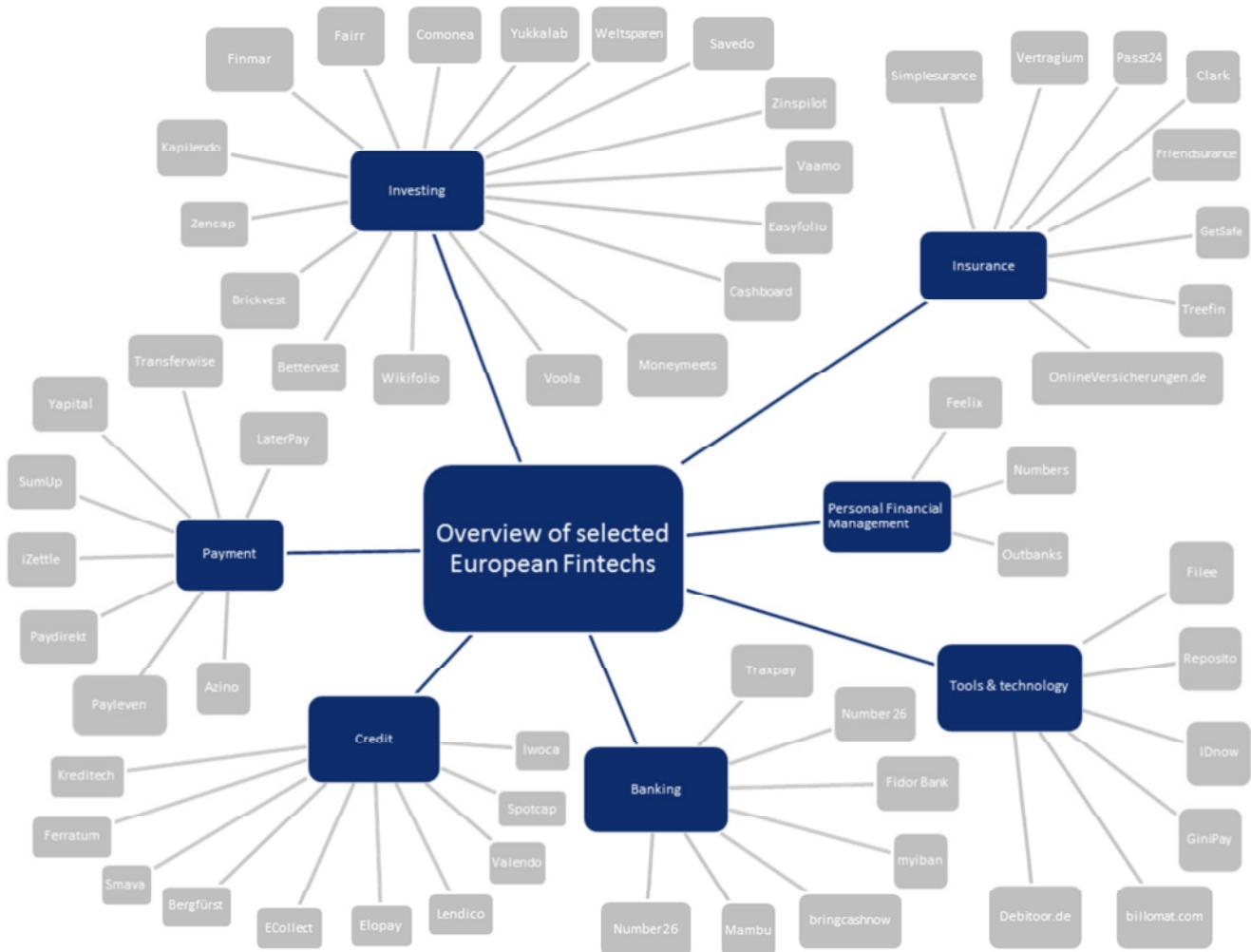
To what extent is your digitalization strategy based upon cooperation with FinTechs or complementary providers

(Sources: GFT, equinett)



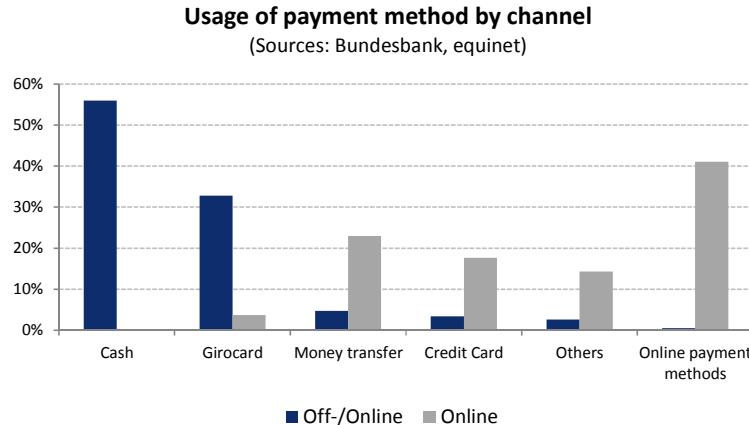
Fintech companies – an overview

Before looking in more detail at how the different listed established companies (that we cover) have reacted to the new competition from fintech companies we want to give an overview of selected fintech companies. We focus on Germany and on B2C providers in retail banking / wealth management but have also included selected European fintech companies. We have categorized the companies into 7 categories which range from payment processing to insurance services. We give a short description of the business models and provide some key business data where available.



Payment

With the growing popularity of ecommerce new payment methods are gaining traction. While customers primarily use cash to pay for offline purchase, online payment methods and credit card are still the main payment methods for online purchases.



The payment sector tries primarily to provide firms with mobile payment system via smartphone or tablet or provide online payment solutions. Most prominent example is **Paypal** which is leading player in ecommerce payments with a market share of around 80% in Germany (source: datanyze).

Payment	
iZettle	Payment solution for stores
Pyeleven	Provider of mobile payment solutions
SumUp	Payment solution for online shops
LaterPay	Online payment solution for B2C customers
SOFORT	Payment solution for online shops
Azimo	International money transfers
Transferwise	International money transfers
Pydirekt	Online payment offering, founded by Germany banking industry
Yapital	Provider of online/offline payment solution

iZettle offers stores a free card reader that can be linked to a computer, such as a smartphone. The stores can then generate bills and statistics that can provide valuable information about the sold items. Depending on the monthly sales volume the stores have to pay a commission fee of between 1.50% and 2.75% to iZettle. Other platforms offer alternative ways to pay, for example one can pay by tweeting about the product by using paywithatweet.com. The payment sector of the fintech industry even branched out into the encashment sector, e.g. **ecollect.de**. **Payleven** (see Appendix XIII), which was founded in 2012, is a mobile-payment-provider that is headquartered in London and Berlin. Payleven allows businesses to accept debit and credit payments via smartphone or tablet through the payleven app. The company is now active in 10 European countries: Germany, UK, Poland, France, Belgium, Ireland, Italy, Austria, Spain and the Netherlands and has recently expanded into Brazil. Payleven belongs to 56% to Rocket Internet AG but besides the aggressive cross country expansion, the firm made a loss of EUR 5.6 million (2012). Other examples include **SumUp** (founded in 2011 and in Germany operative since August 2012; being active in 13 countries the company has 100 employees), which offers a payment solutions for shops, or **LaterPay** which makes online shopping more convenient by offering aggregate payments when a certain volume is reached – this is particularly interesting for online micro payments like e.g. for newspaper articles. **SOFORT** (a subsidiary of Scandinavian Klarna Group) is offering an ecommerce payment service. Klarna claims to have an e-commerce market share of 10% in Northern Europe. It handles 250,000 transactions per day.

Azimo or **Transferwise** offer customers international money transfers at fair prices. For transferring for example EUR 100 from Germany to Sri Lanka the customer pays only EUR

2.99 which compares to prices ranging from EUR 14.50 to EUR 26.50 at traditional competitors.

Another interesting project is the planned offering of a new online payment solution, **Paydirekt**, which will be directly competing with Paypal. Paydirekt plans to offer an online/mobile payment solution for the end of 2015, a point-of-sale payment solution is planned to be offered in a second step. The interesting aspect of this project is that it is a joint initiative of the savings banks, mutual and private banks. **Yapital** (a subsidiary of Otto Group) is offering online/offline payment solutions and money transfers among Yapital users. Yapital has close to 100,000 users at the moment

The digital currency sector offers all the services of the fintech industry but uses a digital currency, such as **bitcoin** or **dogecoin**. Digital currency is an internet based medium of exchange and is often known as 'decentralized digital currency', that means that there are no central point of control over the money supply. For example with **coinzone.com**, one can pay via bitcoin for goods and services.

The e-commerce sector offers various services, from paying with smartphones and cashier system to invoicing and financial reporting.

A major factor for the usage and distribution of a digital currency is the legal stance on it. Without legal backing the currency loses the value to the end consumer. The response to this new technology has been mixed among regulators globally since true understanding of the benefits and opportunities as well as the disadvantages and consequences is not yet given.

Credit

Credit - selected players in the German market (Sources: equinet Research, companies)	
Classical lending business	
Vexcash	B2C provider of consumer loans
Ferratum	B2C provider of consumer loans
Kreditech	B2C provider of consumer loans
Iwoca	Offering of SME loans
Spotcap	Offering of SME loans
Valendo	Online pawnshop
P2P lending	
Lendico	P2P lending
Auxmoney	P2P lending
Other lending services	
Smava	Loan comparison website
compeon	Loan comparison/application website for SME customers
cflx	global market for working capital between buyers & suppliers
Pagido.de	Factoring for small companies

The credit business can be separated into three different subcategories: the classical lending business, P2P lending and other services around the loan business. We have not included crowd lending here but under investment.

Many fintech companies are active in the classical lending business segment, offering loans either to retail or corporate clients. **Vexcash**, a payday loan firm, offers short-term loans, typically 7-30 days, with a comparably high interest rate. Other competitors are **Ferratum** (see on page 49 for more details) or **KrediTech** (see App. XI). Particularly Ferratum is a success story with a loan portfolio of EUR 106m by the end of 2014 and an achieved net profit of EUR 6m. Another Scandinavian Fintech, which has recently cancelled its planned IPO, is **TF Bank**, which offers an ecommerce payment solution and consumer loans. **Iwoca** (see App. X) is offering corporate loans to small- and mid-sized companies with a loan

German Financials

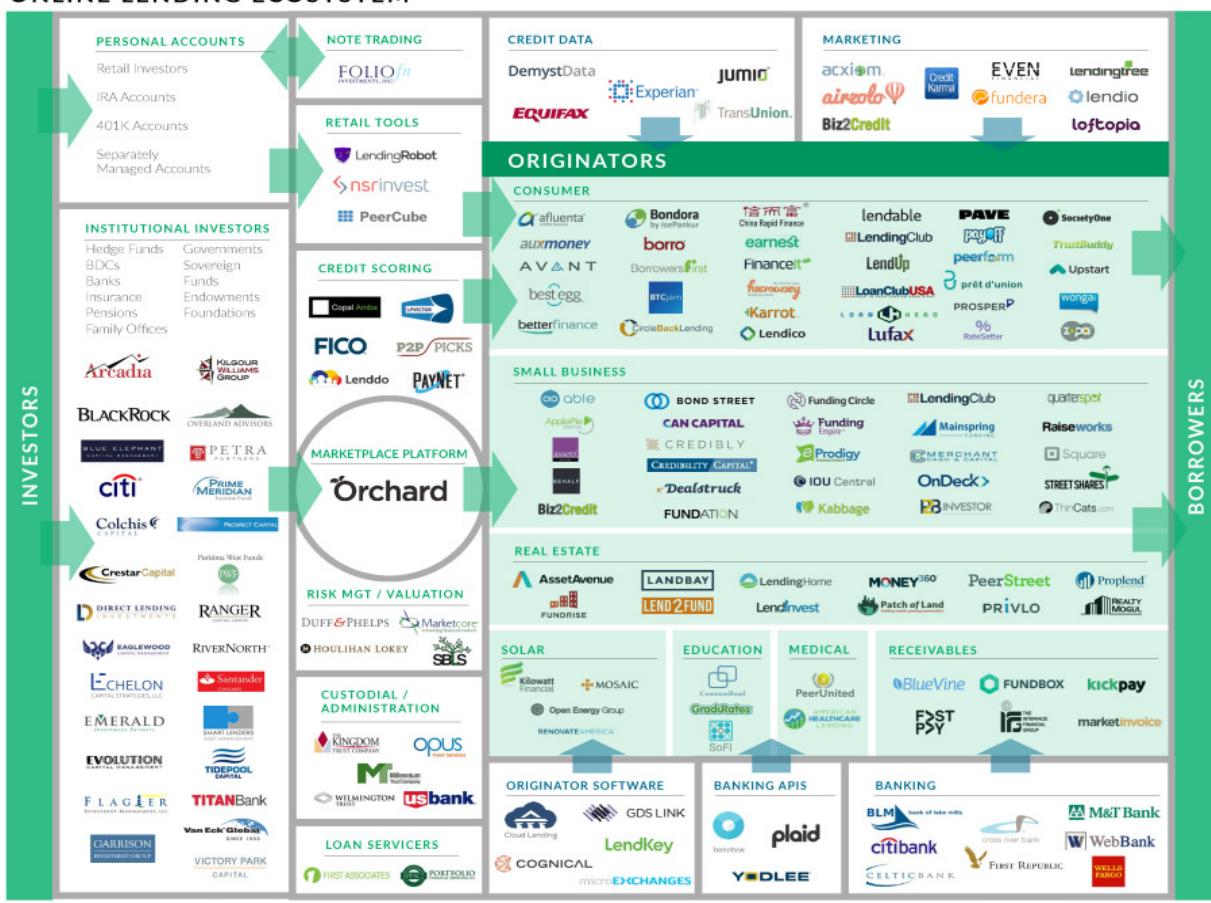


volume of up to EUR 50,000. Iwoca was founded in London in March 2012, end of July 2015 CBK announced that it had invested USD 20m together with other partners into the company. Rocket Internet company **Spotcap**, which is active since September 2014, is offering SME loans (up to EUR 100,000) focusing on internet shops in Spain and the Netherlands. Lastly, Fintech pawnshops, such as **Valendo**, expanded their business to the internet.

Another subsector is Peer-to-peer (P2P) lending which offers direct lending among the customers without the usage of banks' balance sheets. This allows customers to borrow, collect, prepay or split bills easily. Most prominent example is US based Lending Club at the moment which has issued more than EUR 11bn of loans since inception.

Lendico operates a peer-to-peer lending platform and was founded by Rocket Internet. The company operates in Germany, Spain, Poland, Austria, South Africa and the Netherlands. Lendico offers both retail and corporate loans. Another P2P lender is **auxmoney**, which has brokered already a loan volume of more than 328m (equivalent to 55,050 loans, i.e. average loan equivalent to around EUR 6,000), since its foundation in 2007. According to the ECB, there are about 1.6 million firms in Germany with annual revenues of between EUR 100,000 and EUR 5,000,000. Assuming that these companies are not the banks' core customer, particularly those at the lower end, these firms could all be potential new customers for Fintechs focusing on SME loans.

ONLINE LENDING ECOSYSTEM



The U.S. Peer-to-Peer lending space has a range of players and is expanding. While not comprehensive, the above is intended to serve as a simplified illustration of what Orchard believes are typical interactions between some of the categories of industry parties. The illustration should not be interpreted to imply a relationship (or lack thereof) between Orchard and any named company and is not an endorsement by Orchard of any named company.

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Other services around the lending business include credit comparison firms such as **Smava** which simply compare loans of different financial institutes and therefore add transparency to the loan market. Swiss based **ECollect** is not a lender but helps companies to collect outstanding debt, i.e. it offers an internet-based debt collection solution in Austria, Switzerland and Germany.

A business can sell its accounts receivable to a third party (called a factor) at a discount, this financial transaction is called factoring and the fintech industry offers this service, too. In this regard, **Pagido.de** targets especially app developers and freelancers to sell their invoices. Factoring has not really been an option for small companies or freelancers. The required effort stood in no contrast to the return. The fintech industry tries to join this untapped market. For example **compeon** offers a wide range of services, including factoring. Compeon, which is offering its services since June 2013, works as an intermediary and is connected with over 100 banks. Compeon does however not only broker loans between banks and corporate clients it also offers deposits accounts (as a broker). Another B2B Fintech company is Hamburg based **cflox** which is a global market for working capital directly between buyers and suppliers through early payments of approved invoices while at the same time eliminating counterparty risk.

Banking

Banking	
Mambu	B2B provider of banking software/technology
Number26	Checking account offering
Fidor Bank	Accounts for B2C/B2B customers; social banking platform
myiban	Offerings of customized IBANs
bringcashnow	cash delivery

Under Banking we have included B2B and B2C services which are related to the classical banking product, the checking account. While B2B companies offer technological services to online/mobile banks the B2C companies are online/mobile banks focusing on checking accounts and related services.

For example **Mambu** (see App. IX) provides its B2B customers with the essential banking IT/Technology services necessary to offer private clients mobile banking solutions. Since 2011 Mambu has offered its services to more than 100 financial institutions in almost 30 countries, customers include Ferratum, JN Small Business Loans Limited, Banco Macro or Opportunity International. Another example is **Traxpay** (see App. VIII) that offers online banking services for corporate clients in a more dynamic and automated way, i.e. 24/7/365.

Number26 (see App. VII) offers a bank account in combination with a MasterCard® and is tailored to fit most modern mobile app and online banking interfaces. Number26 only accepts German and Austrian customers for now, 8,500 people have already signed up and 15,000 others are waiting for an invite (Apr 2015). In addition to that, Number26 actually has features that includes a better fraud management system than traditional banks by comparing the geolocation of the smartphone and the geolocation of the transaction in real time. With Number26 one can open an account in under six minutes, either online or by phone. The identity is verified by videoconference. All transactions are instantaneously on the Smartphone. The transactions are categorized automatically and illustrated in clear statistics. Individual security settings allow full control over the account and the card. Also, one can easily send money to friends via the phone book.

Fidor Bank, which was founded by former DAB bank CEO Matthias Kröner is offering accounts for retail and corporate customers, the key differentiation of Fidor Bank compared to other online banks is the online Fidor community it has set up for its customer. Via the Fidor community the bank's customers can communicate with each other but also with the bank. They can e.g. make suggestions for new products or can receive small bonus payments for actively participating in the community by asking money related questions. At the end of 2014 the bank had total assets of EUR 300m and had achieved a net profit of EUR 1.4m in 2014. The number of retail customers stood at 70,667 at 31.12.2014.

Other examples are **myiban** that offer customized IBANs for retail/corporate clients or **bringcashnow** which offers cash deliveries in case customers have run out of cash and need urgently cash.

Elopay offers an app for transferring money between friends. Thus users can e.g. collect money among friends for a birthday present or lend each other money. **Lendstar** provides a similar app, which customers can use to do financial transaction with other peers and use to chat among friends.

Tools/Technology

Tools / Technology - selected players in the German market (Sources: equinet Research, companies)	
GiniPay	B2B provider of different banking technology/software solutions
Reposito	App with which customers can store/file away invoices
Filee	App with which customers can store/file away all kinds of different documents
Datameer	Provider of big data analytics
Bancalis	Software company with focus on regulatory issues
IDnow	Technology for customer identification

The Fintech tools segment focusses on organizing and digitization of bills and expenses but also include other services like online identification. Customers can scan or take pictures of invoices, which are then automatically digitized and processed. The tools often also offer statistics and reporting tools that facilitate and consolidate expenses.

For example, **GiniPay** (see App. III; Deutsche Telekom and Commerzbank's main incubator are holding stakes) offers as a B2B provider a Scanner app with a built-in connection to online banking and access to around 3,000 banks. One could describe it as scanner with direct access to the bank transfer. GiniPay processes photos from transfer forms or invoices directly on the smartphone. The data is extracted from the picture and entered into a digital transfer form. Thus invoices can be paid without having to enter manually all the important data or customers are reminded automatically of important deadlines. Other players in this segment are **Reposito** or **Filee** (see App. VI) – they focus more on the pure data filing of e.g. invoices (Reposito) or documents in general (Filee).

Online-identification services, such as **IDnow**, which is headquartered in Munich, can scan identification cards via webcam and automatically process them. This technology allows customers to be securely identified. This service is helpful for most of the other Fintech companies or retail banks in general. IDnow targets all financial institutions, this includes in particular direct banks, modern retail banks, credit and finance providers, credit card providers. IDnow already attracted more than 40 companies in Europe, including Commerzbank, various cooperative banks, such as the GLS Bank, VTB, VR and PSD banks, and many young companies of fintech industry, for instance Number26 and Vaamo.

Enterprise resource planning (ERP) is business management software, which a firm can use to collect, manage, store, and interpret data from many business activities, such as product planning or inventory management. The fintech industry offers companies automatic billing systems (**billomat.com**) as well as accounting software (**debitoor.de**).

German/US company **Datameer** is offering big data analysis to companies; just recently the company has received additional USD 40m funding. Frankfurt based **Bancalis** is offering a software for banks with which they can better manage regulatory requirements.

Personal financial management

Personal Financial Management	
Feelix	Service to better manage personal finances
Numbrs	Banking app which provides an aggregate overview of the customers' different accounts
Outbank	Banking app which provides an aggregate overview of the customers' different accounts

Personal financial management (PFM) services automatically analyse the data from online bank accounts. This offers the customer statistics about the personal spending habits.

Feeelix is a German fintech start-up from Berlin that offers the management of the personal finances. Consumers can manage insurance contracts, investments and credit agreements on their smartphone, tablet and desktop for free. Users can upload their contracts by taking a photo or uploading a PDF to the app. Feeelix does not only offer the management of the customers' different finance contracts but also analyses the customers' contracts and thus advises the customers on their contracts. Feeelix offers online advice through its different experts. Feeelix generates revenues by receiving the normal service fee from the insurer/asset manager. Currently Feeelix cooperates with 130 different banks and insurance companies and offers more than 10,000 financial products from its partners.

Swiss based **Numbrs** offers customers through a banking App an aggregated account overview, i.e. checking, brokerage, deposits accounts of different banks are shown in one overview. **Outbank** is another banking app which is on the market. A number of banks offer such apps which provide a more or less comprehensive overview of customers' financials.

Investing

Investing	
Deposit business	
Weltparen	Offering of high-yielding deposit from foreign banks
Savedo	Offering of high-yielding deposit from foreign banks
Zinspilot	Offering of high-yielding deposit from foreign banks
Comonea	B2B provider of deposit solutions
Asset Management / Investment Services	
Wikifolio	Social trading platform
Vaamo	Robo Advisor
Easyfolio	Robo Advisor
Ginmon	Robo Advisor
Quirion	Robo Advisor
CASHBOARD	Robo Advisor
Scalable Capital	Robo Advisor
Moneymeets	Social trading platform / brokerage of funds/insurance policies
Bergfürst	Crowdfunding
Companisto	Crowdfunding
Bettervest	Crowdfunding with focus on "green" projects
Kapilendo	Crowdlending
Zencap	Crowdlending
finmar	Crowdlending
Fairr	ETF based "Riester Rente" (state subsidized old-age provision prod.)
Information search related to investments	
Voola	Search engine for investment products
Yukkalab	Analysis of financial sentiment for B2B customers

The investment segment is the most popular one in the Fintech market and has mainly three subsectors: the deposit business, asset/wealth management business and search engines focusing on investment/asset management.

One large subsector is the deposit business. Firms like **Weltparen** (see App. II) or **Savedo** offer investors higher yielding deposit accounts from European banks. Thus, investors benefit from higher interest rates offered by banks outside of Germany (current top offer at Weltparen is a one-year term deposit at 1.70% from the Norwegian BN Bank), while the

deposits are protected by the EU deposit insurance. Weltsparen, which was founded in and is located in Berlin, has already won more than 20,000 accounts. **Zinspilot** is offering a slightly different service as the banks do not have to open accounts with the banks that are offering higher deposits rates but only have to open once an account with one of Zinspilot's current two partnerbanks which are transferring in a second step the money to higher yielding deposit accounts at selected banks.

Pan-European investment platforms, such as **Comonea** offer full-service solutions for banks to gather cross-border retail deposits directly onto their home balance sheet. Deposit offers from product banks can be listed on Comonea and marketed to savers in their respective local markets through a network of local client banks.

The other large subsector comprises companies that offer more sophisticated investment services, i.e. they are giving concrete investment advice or are acting as portfolio managers. An interesting example is Vienna based **Wikifolio**, which is becoming more and more popular, that is active in social trading. Through Wikifolio investors can follow other investors' investment strategies. Thus, they can either find interesting investment ideas or replicate other investors' portfolio. Selected Wikifolio portfolios are even offered as certificates by e.g. Lang & Schwarz, a German securities firm. One of the few fintechs headquartered in Frankfurt is **Ginmon** (operative since May 2015) which offers customers different investment portfolios, depending on the customers' selected risk preference, i.e. after a short online questionnaire Vaamo suggests the customers an investment portfolio which is based upon ETFs; thus costs for the investors are kept low. Ginmon particularly focuses on choosing the best ETFs for its customer with relation to costs and/or risks (e.g. no SWAP based ETFs are used) trying to invest into the global equity universe. Ginmon cooperates with DAB Bank and does not have a BaFin licence; it operates as a "broker" of investment funds according to § 34 Gewerbeordnung. Munich based **easyfolio** is another example of a robo-advisor. It offers three different investment funds depending on the customers' risk preference. As of June 2015 easyfolio was managing EUR 10m – in H1 the company had monthly net inflows of EUR 1m. **Vaamo** (see App. I) or **Quirion** (which was founded by the Consors founder Karl Matthäus Schmidt) are active as robo-advisors as well. Ginmon, which is active since May 2015, clin the UK/US similar players like **Nutmeg**, **Betterment** or **Wealthfront** have already been offering a similar service and are already managing assets of well above US\$ 100m. Another relatively young company in this subsector is **CASHBOARD** (active since 2014, today 15 employees) which offers diversified wealth management starting from EUR 1,000, i.e. customers' assets are invested depending on the selected risk profiles. CASHBOARD offers a minimum yield of 2% and receives 10% of any extra return; additionally it receives commissions from its product partners. Accounts are held at its partners ebase and/or Augsburger Aktienbank. Last but not least **Scalable Capital** is another fintech company, which is supervised by BaFin, offering asset management services.

Cologne based **Moneymeets** offers on the one hand investors an overview over their different accounts / insurance policies and to invest without loading fees into funds or insurance policies. On the other hand investors can exchange their investment strategies on moneymeets' website and thus follow other people's investment strategies.

Bergfürst, which was founded in December 2011 and has today 20 employees, offers crowd-funding, which means funding of a project or a venture company by raising monetary contributions from a large number of people, typically via the internet. In July Bergfürst offered for example an investment into residential/commercial real estate property in Hamburg, into the watch company C.H. Wolf or into URBANAR Home AG, an online shop for home accessories. Another example is **Companisto** which is an equity-based crowdfunding platform which has already invested more than EUR 17m in 39 funding campaigns so far. **Bettervest** has focused on a niche within investment as it is the first crowd investing platform where individuals can invest in environmentally friendly energy efficiency projects from companies, communities, associations and other institutions. In

return, they will benefit financially from the achieved savings. The savings are forecasted for each project by a certified energy advisor. London based **Brickvest** brings together (qualified acc. to MIFID) investors and real estate investors. Thus investors get the opportunity to directly invest into real estate property with relatively low minimum investment volumes (EUR 1,000). Unlike US players **Fundrise** or **RealtyMogul** (which are more pure onlike brokers of real estate) Brickvest offers investors a full range of investment management services (like ongoing risk management and/or asset rating to thorough due diligence etc.) to help possible investors to make informed decisions.

Kapilendo, another Berlin based Fintech, brings together SMEs and investors as a so-called crowd lender, i.e. investors can give loans to selected small to medium sized companies (which at the same time can apply for loans via Kapilendo). Another player in the crowdlending segment is the Rocket Internet company **Zencap** which is also active in Spain and the Netherlands or the Hamburg based **finmar**. US based **Kickstarter** has found a niche by offering investment opportunities into creative projects.

Fairr is active in the old-age provision market and offers a low cost Riester Rente (state subsidized private old age provision product) by investing the customers' monthly payments into ETFs. The investment process is highly automated with a high proportion of equity ETFs when the savers are still young and the closer the retirement age comes the equity ETFs are more and more replaced by fixed income ETFs.

The last subsector includes companies providing help with the information search on the internet. One example of an innovative fintech company in this segment includes **Voola** (live since 03 2015) which offers a search engine for investment products. One can enter for example a certain company name including an investment target (e.g. Adidas short next 12 months) and receive a list of different certificates and options to invest in. The difference to other financial websites like onvista or comdirect is the easier usability of Voola, i.e. Voola has a higher user friendliness and is thus more interesting for people with less capital market know how.

Other firms, such as **Yukkalab**, use complex algorithms to analyse the mood of the financial markets and offer various products to mainly B2B customers based upon its sentiment analysis.

Insurance

Insurance	
Simplesurance	Brokerage of insurance policies
OnlineVersicherung.de	Brokerage of insurance policies
Friensurance	Insurance policies are offered from a cooperative insurance comp.
Getsafe	App with overview of existing contracts and recommendations how to improve insurance coverage
treefin	App with overview of existing contracts and recommendations how to improve insurance coverage
Vertragium	App with overview of existing contracts and recommendations how to improve insurance coverage
Clark	Brokerage of insurance policies
Passt24	Brokerage of insurance policies

At the moment there are not yet that many Fintechs active in the insurance sector. The reason for this relative under penetration of the insurance sector by Fintechs is probably the higher complexity of insurance products which cannot be so easily broken up, i.e. it is more difficult for Fintechs to focus on specific parts of the value chain.

Examples include **simplesurance** GmbH (see App. IV), founded in 2012, which is offering its services via the brands Schutzklick (in Germany) and Klikzeker (in the Netherlands). Schutzklick is offering insurance policies from insurance partners for smartphones, tablets, other electronic devices like TV sets or dish washers but also bicycles and cars. **OnlineVersicherung.de** is another online insurance broker offering a vast range of insurance policies. **Friendsurance**, which is basically a cooperative insurance, creates

insurance pools of a certain amount of customers and if no insurance is claimed in the pool, then the pool gets part of its money back. The company is located in Berlin, has 50 employees and is offering its service since around six years. Currently Friendsinsurance offers insurance policies for smartphones, laptops and more generally personal liability, household and legal expense insurance. **Getsafe** creates an overview of all the insurances policies that a user has and helps thus the customer to manage its insurance contracts. The offered App does however not only manage the customers' insurance policy portfolio but also advises him how to further improve the insurance coverage, either by recommending better insurance policies or by detecting gaps in the insurance coverage. This can enhance transparency, improve the customers' insurance coverage and save customers' money. The apps **treefin** (see App. V; 10 employees, founded in December 2014) or the website **Vertragium** offer a comparable service. A relatively young company in the insurance segment is **Clark**, which was founded in June 2015 and has currently 10 employees. Clark is basically an online insurance broker which wants to help its customer to save on insurance contracts by significantly increasing transparency and paying back commissions it receives from the insurance companies to its customers (which is legally not allowed at the moment). **Passt24** brings together customers who look for an insurance policy and insurance agents.

Listed Fintech companies in Germany

Unfortunately only very few of the German fintech companies are listed at the moment, i.e. investors have only limited possibility to directly invest into fintech companies in Germany. This is clearly different in Europe and the U.S. with companies like Trust Buddy, OnDeck, Paypal and Lending Club to name only a few. Below we want to give a short overview of the listed German Fintechs – except for Ferratum and GFT we do however not cover any of these companies.

Valuation overview of selected Fintechs in Germany

Company	Share Price (EUR)	MC (EUR m)	PER 2015e	PER 2016e	EV/EBITDA 2015e	EV/EBITDA 2016e	EV/Sales 2015e	EV/Sales 2016e	Yield 2015e	1M Perf	12M Perf
Ferratum	22.00	475	43.9x	21.6x	28.5x	16.3x	4.2x	2.6x	0.5%	-5%	na
Finlab	7.25	33	na	na	na	na	na	na	2%	2%	128%
FinTech Group AG	13.00	211	20.6x	7.9x	16.5x	5.1x	2.0x	1.4x	0.0%	-4%	35%
GFT Technologies	24.41	643	26.9x	20.6x	14.9x	11.7x	1.8x	1.5x	1.2%	17%	154%
Wirecard	42.69	5,272	34.1x	27.2x	21.1x	16.7x	6.2x	5.1x	0.4%	16%	46%
Share Price		PER 2015e	PER 2016e	EV/EBITDA 2015e	EV/EBITDA 2016e	EV/Sales 2015e	EV/Sales 2016e	Yield 2015e		1M Perf	12M Perf
Average		30.5x	16.7x	20.0x	11.0x	2.6x	1.8x	0.5%		3%	106%

Source: Factset

Ferratum: We include Ferratum in this overview although it is a Finnish company with only very little revenue generation in Germany. It is however listed in Germany since February 2015 following its successful IPO. Ferratum is an online/mobile microlender, which is active in 23 countries, and currently expands fast with new credit products, a SME loan offer and its mobile bank. We cover this company – see for more details in the company section.

Fintech Group: Fintech, unlike the name implies, is above all a classical online broker and less a pure fintech company. Fintech (former flatex) used to be a pure online broker with around 140,000 brokerage accounts, but has added some fintech edge through the 51% takeover of XCom, which is a software/technology provider for the banking industry. XCOM, headquartered in Willich with seven offices in Germany, was founded in 1998 and is today a leading Fintech provider for ebanking, payment and trading solutions in Germany. With around 220 employees XCOM has achieved total revenues of EUR 30m in 2014. Currently FinTech holds 51% of the company, the remaining 49% are held by other shareholders.

XCOM has structured its software/IT solutions in the four business units Banking, eBanking, Payment, Trading and Consulting. Main subsidiary of XCOM around all banking/payment/ebanking related solutions is biw Bank (Bank for Investments and Wertpapiere AG). Biw Bank, headquartered in Willich, was founded in 2005 and has today 195,000 accounts and Assets under Management of around EUR 3.3bn. Its main customer is flatex.

Banking: Under Banking XCOM offers its customers modern Bank IT as a mass-customized service. XCOM pursues through biw Bank a broad white labelling approach within Business Process Outsourcing (BPO) for financial service companies. XCOM's product range comprises deposits, brokerage, payments, cards and loans. Additionally XCOM has a special service for FinTech Start-ups. It supports new business incumbents regarding regulatory issues (e.g. banking licence) and technical processes, i.e. start-ups can outsource certain processes within the banking value chain to XCOM.

eBanking: Within eBanking XCOM offers its customers technical solutions around ebanking. This comprises technical solutions for the customer-to-bank-relationship/interaction i.e. XCOM offers its customers the whole process chain from the customer frontend to the banking system. A modular set-up enables customers to choose only the services it really needs. XCOM also supports its customers in the bank-to-bank-interaction; this comprises e.g. efficient payment transactions with clearers or within the interbanking market. For corporate clients XCOM offers different banking / payment solutions.

Payment: XCOM offers payment solutions for corporate customers. The different solutions comprise processing of mass payment transactions or mobile payment off- or on-line and last but not least payments among friends with Fintech's innovative kesh. Furthermore XCOM offers cash logistics together with Prosegur and Post.Wertlogistik.

Trading: Within Trading XCOM offers solutions for banks and financial service companies for trading and settlement. XCOM offers e.g. with TradiX an odermanagement system with straight through processing from order acceptance to settlement and regulatory processes. Other systems offered by XCOM are among others SkontriX (market maker system for financial service companies), QuotaX (quoting system for market makers at German and foreign exchanges), xQuote (quoting system used for designated sponsoring) and L.O.X. (trading platform for OTC limit order with the issuers Deutsche Bank and Commerzbank). Additionally XCOM offers with benkTRADER+ and HTX trading front ends for active traders.

Consulting: Here XCOM offers different consulting services around banking and financial services. A particularly interesting service is offered by XCOM Africa which offers consulting services for financial players who want to enter the African market.

Finlab: Finlab (former Altira AG) is investing as an investment company into German fintech companies and plans to provide venture capital to Fintechs, predominantly in the US and Asia. As of 12 2014 FinLab had total assets of EUR 31m which consists mainly of cash and financial investments, main investment is the 47% stake in Heliad Equity partners, which holds a 19% stake in the above described Fintech. During 2015 Finlab has made the following investments:

- 50% stake in nextmarkets GmbH. Nextmarkets, which was founded in April 2014, is an online learning platform for retail investors. The idea is to teach newcomers how to invest in equities.
- 60% stake in Venturate, which was founded in August 2013. Venturate brings together investors and start-ups via its matchmaking platform. Following Finlab's investment venturate targets now to become the leading crowd financing platform in Germany.
- 100% in Patriarch Multi-Manager GmbH, which was founded in 2002 and is offering asset management services, focusing on fund-of-fund solutions.

Wirecard: Wirecard is a fast growing software and IT specialist for outsourcing and white label solutions for payment processing and issuing products. Total revenues have almost tripled during the last 5 years and have reached the EUR 600m level in 2014. Wirecard is not the classical start-up Fintech company with only a few employees and a high cash-burn rate. Nevertheless we see it as a Fintech company. With a market cap of more than EUR 4bn Wirecard is clearly by far the largest fintech company in Germany.

GFT Technologies: GFT Technologies is an expert provider of IT outsourcing for the financial sector, predominantly for European and American commercial and investment banks. The 3 largest clients of GFT are Deutsche Bank, HSBC and Barclays. GFT has a focus on adding extensions to classical core banking solutions provided by Avaloq or Temenos for example. GFT has built up a strong reputation for compliance-related software products which is a booming segment due to ongoing regulatory reforms. However, GFT is also a digitalization enabler for banks and offers respective solutions like the vendor-neutral mobile payment app Jiffy, which is very popular in Southern Europe. Recently GFT acquired the Spanish banking digitalization enabler Adesis in order to gain further momentum in the market. Furthermore, GFT supports the Code_N startup incubator. From a competitive perspective, GFT is on the side of the banks in the fintech/banks market clash.

Reaction of the listed traditional players

In the company section we want to show how the established listed players have reacted /plan to react to the new competition from the fintech companies. We focus on retail (insurance) / SME banking and financial service companies as this is where most of the new fintech companies are active in. Our overview includes **Commerzbank**, **Allianz**, **Deutsche Bank**, **comdirect**, **Grenkeleasing** and **MLP** as we think that these are the companies (within our coverage) which should be impacted most from the new competitors.

We have not included the following companies in our detailed analysis:

- **Munich Re:** majority of earnings is generated in reinsurance where Fintechs do not play a role,
- **Hannover Re:** majority of earnings is generated in reinsurance where Fintechs do not play a role,
- **Talanx:** majority of earnings is generated in reinsurance where Fintechs do not play a role,
- **Deutsche Boerse:** Fintechs like 360T have gained some market share but overall we do not expect Fintechs to have a large significant impact on DB, particularly as we consider DB to be a very innovative and leading company regarding technology.
- **Areal Bank:** Fintechs do not play a role in large ticket commercial real estate financing as of today; we do not expect this to change.
- **Patrizia:** Fintechs do not play a significant role in retail property asset management,
- **Grand City Properties:** With the focus on real estate property with a large vacancy ratio GCP has a very specialized business which should be not threatened by Fintechs,
- **OVB:** large proportion of revenues is generated in CEE where we think that Fintechs do not play yet a significant role.

Additionally we have included the listed Fintechs we cover to show investors how they can play the Fintech story. Currently we cover **Ferratum**, a classical Fintech, and **GFT Technologies** which can be at least partly seen as a Fintech.

German Financials



APPENDIX I: Vaamo (www.vaamo.de)

VAAMO - VORSTANDSTEAM

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WEN ADRESSIERT VAAMO?

Allein in Deutschland adressiert vaamo einen Markt von knapp 9 Millionen Haushalten mit einem liquiden Nettovermögen von rund 1 Billion Euro und einem jährlichen Sparvolumen von etwa 80 Milliarden Euro.

	20%	35%	45%
	Hausalte (ca. 9 Mio.)	Nettovermögen (ca. 1 Bio €)	Sparvolumen (ca. 80 Mrd €)

UNSER ANGEBOT

vaamo bietet Dir intuitive Zieldaten auf Basis eines wissenschaftlichen Anlagekonzepts in 3 Risikostufen.

Anleihen 40% Aktien 60%

NEUE VAAMO-WELT

Wie erreiche ich meine finanziellen Ziele?
Was ist das richtige Anlageprodukt für mich?
Wie viel bezahle ich für meine Geldanlage?

vaamo

- Fokus auf Deine persönlichen Sparziele
- einfache Zielüberwachung
- einfacher Anlageprozess
- wissenschaftliches Anlagekonzept
- günstiger Pauschalpreis

Traditionelle Banken-Welt

Bank

- Fokus auf komplizierte Bankprodukte
- Anlageberatung notwendig
- aufwändiger Anlageprozess
- hohe Mindestahlbetrag
- hohe, teils verdeckte Kosten

PROBLEM!

Du erreichst:
Deine finanziellen Ziele nicht.

???

NUTMEG

MARKT

Kunden > 30.000

Registrierte Nutzer > 35.000

Anlagevermögen N.v.

BETTERMENT

MARKT

USA Kunden > 30.000

Ahlagevermögen > \$ 500 Mio.

WEALTHFRONT

MARKT

USA Kunden > 6.000

Ahlagevermögen > \$ 110 Mio.

Mehr Infos unter: www.vaamo.de oder 069 3807 66 32

Diese Publikation ist eine Werbung im Sinne des Wertpapierhandelsgesetzes. Sie dient ausschließlich Informationszwecken und stellt weder eine individuelle Anlageempfehlung noch ein Angebot zum Kauf oder Verkauf von Wertpapieren oder sonstigen Finanzinstrumenten dar.

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APPENDIX II: Weltsparen (weltsparen.de)

WeltSparen

Startseite Festgeld-Angebote Zinsvorteil Sicherheit So funktioniert's

Einmal anmelden, aus allen Festgeld-Angeboten wählen

Angebot wählen

Wählen Sie aus unseren exklusiven Angeboten das passende Festgeld aus

Informieren Sie sich auf weltsparen.de über die Angebote unserer Partnerbanken und füllen Sie anschließend das Online-Formular zur Konto-Eröffnung aus.

Wenn Sie bereits Kunde bei WeltSparen sind, können Sie mit Ihren Login-Daten weitere Festgelder bequem im Onlinebanking ([Mein Konto](#)) abschließen.

[Alle Festgelder anzeigen](#)

Konto aktivieren

Aktivieren Sie Ihr gebührenfreies Verrechnungskonto für alle Ihre Festgelder

WeltSparen bieten Ihnen die Wahl zwischen zwei kostenlosen Verfahren zur Überprüfung Ihrer Identität: Postident oder Video-Ident.

Beim Postident-Verfahren erhalten Sie im Rahmen der Kontoeröffnung einen Coupon, mit dem Sie sich anschließend zusammen mit Ihrem gültigen Ausweis in einer beliebigen Postfiliale identifizieren. Alternativ können Sie sich per Video-Ident bequem an Ihrem Computer mit Webcam bzw. über Ihr Tablet/Smartphone identifizieren - in weniger als fünf Minuten.

Clever sparen

Überweisen Sie den gewünschten Anlagebetrag

Ihre Kontodaten für das Verrechnungskonto und die Zugangsdaten für das Onlinebanking erhalten Sie per E-Mail und Brief wenige Tage nach der erfolgreichen Identifizierung.

Mit den Kontodaten können Sie den gewählten Anlagebetrag überweisen. Mit den Zugangsdaten können Sie im Onlinebanking Festgelder unserer Partnerbanken abschließen - die Festgelderöffnung bei unseren Partnerbanken dauert in der Regel maximal eine Woche.

Festgelder online verwalten

Sämtliche Informationen zu Ihren Festgeldern finden Sie im Onlinebanking unter „Meine Festgelder“. Kontounterlagen und Nachrichten erhalten Sie in Ihrer elektronischen Postbox.

Am Ende der Laufzeit erhalten Sie Ihren Anlagebetrag inklusive Zinsen (ggf. abzüglich Quellensteuer) wieder auf Ihrem Verrechnungskonto gutgeschrieben. Selbstverständlich können Sie Ihr Festgeld auch online verlängern oder ein anderes Angebot online auswählen.

[Zum Onlinebanking](#)

Sie sind bereits Kunde?

Wenn Sie bereits Kunde sind, müssen Sie sich weder nochmals registrieren noch erneut per Postident oder Video-Ident identifizieren. Loggen Sie sich einfach mit Ihren Zugangsdaten unter „Mein Konto“ ins Onlinebanking ein.

Dort finden Sie alle Festgelder im Menüpunkt „WeltSpar-Angebote“ und können diese direkt auswählen.

Früher informiert über neue Angebote.

Ihre E-Mail-Adresse Absenden

BankingCheck.de
4.6 von Kunden bewertet
★ 489

TÜV SÜD Gepflegter Datenschutz Beste Sicherheit Beste Zuverlässigkeit Norton SECURED powered by Symantec

APPENDIX III: Gini (Gini.net)

WHAT DOES THE GINI API DO?



Data is extracted and semantically interpreted from text documents.



This information is returned in a structured form.



The data can now be used for data analysis (and any use case).

ADVANTAGES FOR YOUR BUSINESS



Access to new users

An ecosystem for productivity apps - new users are just around the corner.



Strong retention

With document storage and actions, it's a one-stop shop for paperwork.



New revenue sources

Create previously unthinkable products to generate new market opportunities.



Innovation

Be two steps ahead of the competition.



All inclusive

Easy integration to excite product managers, developers and sales teams.



Adapted to your CI

Gini technology can be integrated seamlessly into your corporate identity.

JOIN THE PAPERLESS REVOLUTION AND AMAZE USERS WITH MAGICAL APPS

Gini provides the intelligence to understand and structure information within documents



An app for every task

Create apps for specific tasks. From accounting to taxes.



Gini's Technology

Gini takes care of everything. Information extraction, storage, backend, search etc.



Happy users

By joining forces we can free people from paperwork. Putting a smile on their faces.

Appendix IV: Simplesurance (www.simplesurance.de)



Technology experts meet insurance specialists.

Meet people from various countries, cultures and diverse backgrounds. We work in interdisciplinary teams to innovate and open fundamentally new ways to deliver product insurances.

60+
Pioneers

15
Nationalities

0
Business suits

Our mission:
To become the world's leading e-commerce provider for product insurances.

With our proprietary software solutions and scalable platform we explore new markets. Made in Berlin. We are partnering with a continuously growing network of online-shops across various countries.

Coming soon...

SCHUTZKLICK

KLIKZEKER

KLIKOCHEON

SCHUTZKLICK

CLICCASICURO

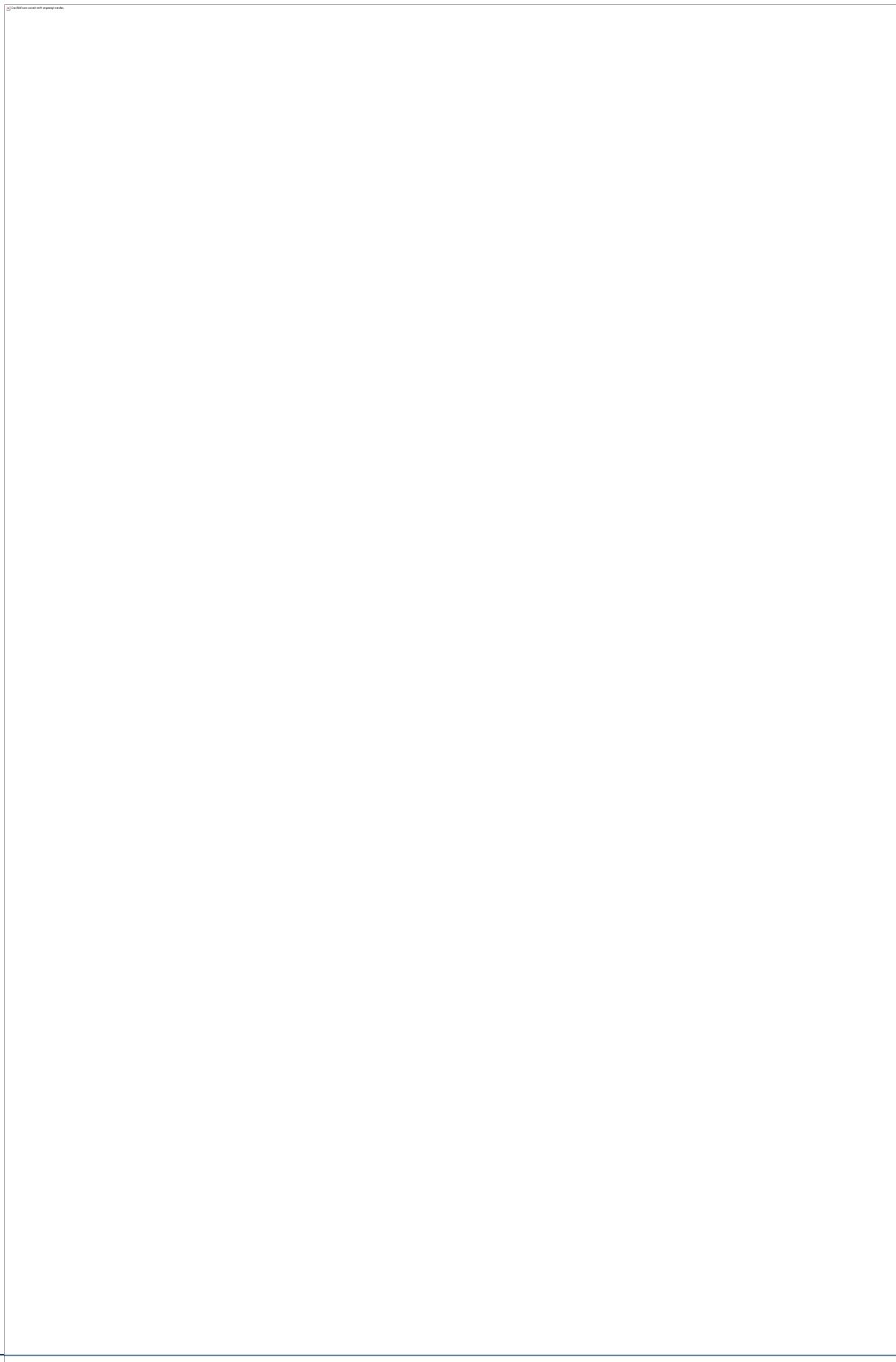
Our market

\$4,500 Billion
world insurance market

\$1,500 Billion
world e-commerce market

A world map showing the global reach of Simplesurance, with logos for SCHUTZKLICK, KLIKZEKER, KLIKOCHEON, SCHUTZKLICK, and CLICCASICURO placed over specific regions. A large blue circle at the bottom represents the 'Our market' section, containing the insurance and e-commerce market statistics.

Appendix V: treefin (www.treefin.com)



Appendix VI: Fileee (www.fileee.com)

VEREINFACHE DEIN LEBEN

fileee ist ein intelligenter, persönlicher Assistent für die automatische Verwaltung aller Papier- sowie digitalen Dokumente in einem System. Also der vollständige und komplett digitale Aktenschrank der Zukunft, inklusive persönlicher Assistenz, die die Strukturen und Informationen selbst erkennt.

Kostenlos anmelden

Download for **Android**  Download for **iOS** 



+ automatischer Import von  Mail &  Dropbox

Dokumente importieren

PDFs lassen sich ganz einfach per Drag & Drop in den Browser ziehen, während Dokumente in E-Mails und der Cloud sogar ganz automatisch von fileee importiert werden. Auf Papier vorliegende Dokumente werden durch eine Smartphone-App abfotografiert oder per Post an fileee geschickt und professionell eingescannt!

Automatisch & Intelligent

Sobald das Dokument hochgeladen ist wird es analysiert und automatisch alle Informationen extrahiert. Beispielsweise werden Adressen, Fristen und Kontonummern erkannt. fileee zeigt in einer Übersicht wichtige Informationen und Dokumente an, die der Nutzer sonst suchen müsste (Erinnerung bei Ablauf einer Zahlungsfrist und Anzeige der entsprechenden Rechnung).

* In Zukunft wird es noch mehr automatische Erkennungen geben

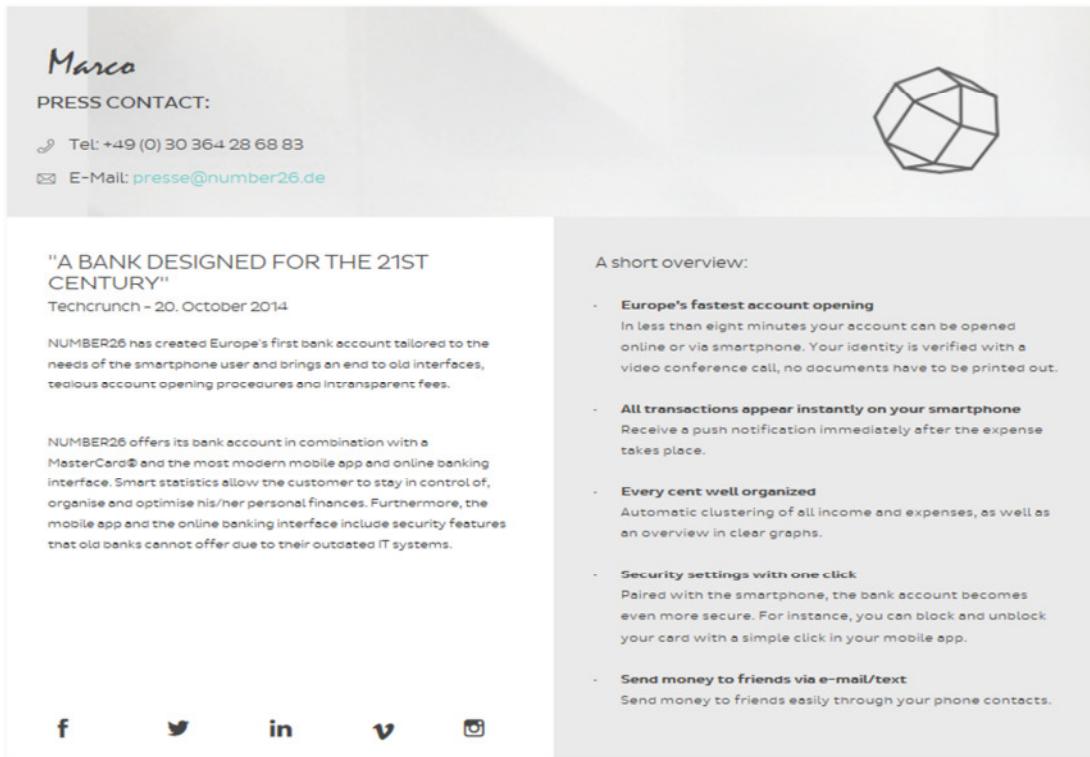


Klare Benefits

fileee hilft dem Nutzer dabei verschiedene dokumentenbezogene Aufgaben zu erledigen. Daraus fallen z.B.

- ☒ Sichere Verwahrung aller Unterlagen und nur für dich zugänglich
- ☒ Übersicht über Rechnungen, laufende Verträge, ...
- ☒ Freigeben von Dokumenten, z.B. für den Steuerberater zur schnelleren Bearbeitung
- ☒ Und vieles mehr: Entdecke die Einfachheit von fileee, Schluss mit Papierkrieg!

Appendix VII: Number26 (www.number26.de)



Marco

PRESS CONTACT:

✉ Tel: +49 (0) 30 364 28 68 83
✉ E-Mail: presse@number26.de

"A BANK DESIGNED FOR THE 21ST CENTURY"

Techcrunch - 20. October 2014

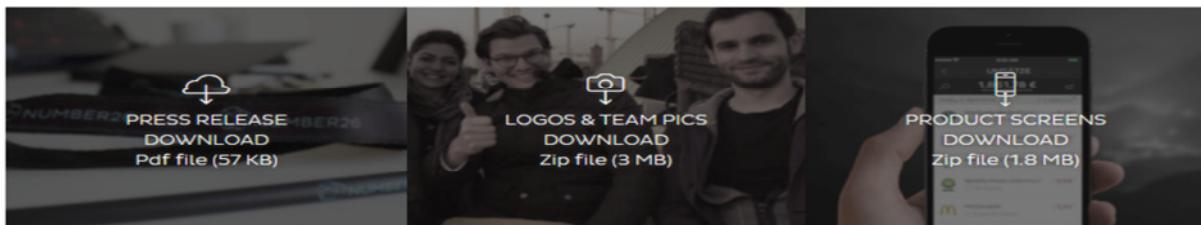
NUMBER26 has created Europe's first bank account tailored to the needs of the smartphone user and brings an end to old interfaces, tedious account opening procedures and intransparent fees.

NUMBER26 offers its bank account in combination with a MasterCard® and the most modern mobile app and online banking interface. Smart statistics allow the customer to stay in control of, organise and optimise his/her personal finances. Furthermore, the mobile app and the online banking interface include security features that old banks cannot offer due to their outdated IT systems.

A short overview:

- **Europe's fastest account opening**
In less than eight minutes your account can be opened online or via smartphone. Your identity is verified with a video conference call, no documents have to be printed out.
- **All transactions appear instantly on your smartphone**
Receive a push notification immediately after the expense takes place.
- **Every cent well organized**
Automatic clustering of all income and expenses, as well as an overview in clear graphs.
- **Security settings with one click**
Paired with the smartphone, the bank account becomes even more secure. For instance, you can block and unblock your card with a simple click in your mobile app.
- **Send money to friends via e-mail/text**
Send money to friends easily through your phone contacts.

f t in v i



<p>NUMBER26 IN THE PRESS Thank you for the numerous press references!</p>	<p>Medium</p> <p>The world's best bank accounts for international travelers and nomads</p> <p>"My favorite bank in Europe must be Number26."</p> <p>Zum Artikel</p>	<p>biallo.de Das Verbraucherportal für private Finanzen</p> <p>Neues Girokonto mit Trend-Charakter: Number26</p> <p>"Ausgaben im Griff mit Haushaltsbuchfunktion"</p> <p>Zum Artikel</p>
<p>INFORMILO Where Business Meets Innovation</p> <p>Number26: Germany's Mobile-First Bank Of The Future</p> <p>"Number26 has international ambitions [...]"</p> <p>Zum Artikel</p>	<p>BloombergView</p> <p>Why Big Banks Don't Want Your Money</p> <p>"With that kind of money, a venture like Number26 could probably take over the world."</p> <p>Zum Artikel</p>	<p>Forbes</p> <p>Bank Of The Future, Number26, Deposits €10M Check From Peter Thiel</p> <p>"Number26 is banking disruption writ large"</p> <p>Zum Artikel</p>

Appendix VIII: traxpay (www.traxpay.de)

TRAXPAY IS BRINGING B2B TRANSACTIONS UP TO SPEED



CORE BANKING SYSTEM FOR SECURE ACCOUNT MANAGEMENT AND PAYMENTS



DATA MANAGEMENT FOR AGGREGATING ALL DATA RELATED TO THE TRANSACTION



WORKFLOW INTEGRATION WITH EXISTING PROCESSES, KEEPING ALL SYSTEMS IN SYNC

TRAXPAY B2B DYNAMIC PAYMENTS PLATFORM

Modernize B2B financial transactions for today's global commerce.

 **B2B PAYMENTS 24/7/365**

Manage disbursements, collections, and accounts. Move funds in multiple ways, anytime, anywhere, anyhow, in **100+ currencies** and with finality. On-us, instantly, after-hours, on condition, ACH, SEPA, wires, cards, domestically, or cross-border.

 **RULES-BASED TRANSACTIONS**

When a payment must be split, combined, executed on milestones, extended, accelerated, rerouted, or otherwise changed, Traxpay makes it possible via real-time monitoring of the transaction – and related data and rules – to ensure predictable execution in the way that trading partners prefer.

 **DATA AT YOUR FINGERTIPS**

Whether it's data generation, aggregation, monitoring triggers, or archiving, Traxpay keeps payments and data connected at all times. Ready-access to ERP files, payment instructions, invoices, side-letters, business rules, and more, brings transparency to every transaction.

 **INTEGRATES INTO WORKFLOWS**

Traxpay works with what buyers and suppliers already use. Procurement, e-invoicing, ERP, e-Commerce, and more, while keeping parties informed of the transaction status, and all systems in sync.

 **SAFE AND SECURE**

Traxpay makes it simple for commerce networks and B2B digital marketplaces to authenticate buyers and suppliers quickly, and with full KYC/AML security, bank-grade electronic payments, and full transparency at every step, Traxpay enables buyers and suppliers to transact with confidence.

 **MODERN ARCHITECTURE**

Traxpay is a cloud-based solution, built on an extensible, flexible software architecture. With a robust library of APIs, Traxpay is always up-to-date, compliant, and integrates easily into any corporate or supply chain system.

HOW DOES TRAXPAY B2B DYNAMIC PAYMENTS PLATFORM STACK UP?

[ACCESS OUR FAQ](#)

- Connects banking, transaction data, and e-commerce into a single view
- Fits with existing corporate workflows and processes (ERP, P2P, O2C, etc.)
- Real-time, 24/7/365 payments and transactions
- Bank-grade security for all payments and data
- Full track-and-trace facilities, matching, and data archiving
- Configurable rules-based, event-driven payment features
- Bank agnostic – any bank to any bank transactions
- Data agnostic – handles structured and unstructured data of any kind and size
- Platform agnostic – works within existing supply chain software platforms
- Gateway to multiple financial services on-demand – including Supply Chain Financing, Dynamic Discounting, Factoring, and more
- Cloud-based – no software to maintain, and always on, and always up-to-date
- Flexible, robust API library and SDK for simple integration

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Appendix IX: mambu (www.mambu.com)

The Engine for Digital Banking

Mambu gives financial institutions a powerful competitive edge by allowing them rapidly create, launch and service any lending portfolio through a flexible SaaS platform

Powering Over 100 Financial Institutions

From loans to deposits, from England to China, Mambu is the all-in-one engine powering financial institutions offering consumer and business banking services



Enabling the FinTech Revolution



Mambu For Incumbents

A legacy technology infrastructure can be holding you back from giving the market the products it needs, catching up to the online and mobile customer expectations and making your staff as efficient and productive as possible. It can also be a major overlooked operational and security risk.

Stay innovative and launch new products into new markets in the cloud or transform your current operations to serve your customers, your staff and your shareholders better. Mambu provides the complete banking software and infrastructure needed to digitize and grow your business.



Mambu for Innovators

From online consumer lenders, business lenders, invoice financing or peer to peer lending, Mambu provides the infrastructure which will enable you to rapidly launch your services and move into markets.

Leverage our infrastructure and focus your engineering efforts on that which adds value to your business: credit scoring, process automation, customer experience and leveraging new channels while Mambu provides a lean infrastructure to service your portfolio with a powerful API layer for integrations.

Appendix X: Iwoca (www.iwoca.de)

Finanzielle Flexibilität als Wettbewerbsvorteil

Je nach Bedarf verschafft unsere revolvierende Kreditlinie dir Zugang zu bis zu 50.000 €



Faire Bewertungen

Unsere prämierte Technologie erlaubt uns Entscheidung basierend auf deiner tatsächlichen Geschäftsentwicklung zu treffen.



Blitzschnell

Nur wenige Minuten bis zum Antrag, nur ein paar Stunden bis zur Genehmigung. Wir arbeiten so schnell wie dein Unternehmen.



Einzigartige Flexibilität

Zahle jederzeit zurück oder beantrage eine Ausweitung ohne zusätzliche Kosten. Zinsen zahlst du nur für die Tage, an denen das Geld bei dir ist.



Herausragender Service

Knapp 40 Millionen € hat Iwoca bereits verliehen. Kunden bewerten uns dabei mit 9.7/10 Punkten auf [TrustPilot](#).

Unkompliziert und flexibel

1 Registriere dich kostenlos und ohne Verpflichtung

Du kannst dich in kurzer Zeit online registrieren. Wir brauchen nur ein paar Informationen um dein Unternehmen einschätzen zu können.

2 Deine Genehmigung erfolgt schnell

Kreditlimits werden anhand den deiner Unternehmensperformance festgelegt - typischerweise können wir Kredite bis zu einem Monatsumsatz vermitteln.

3 Das Geld steht dir zur Verfügung

Du entscheidest, wann und wie viel du in Anspruch nimmst. Die meisten Unternehmen nutzen Iwoca um Liquidität zu sichern, Lagerbestand aufzubauen oder Wachstum zu fördern.

4 Zahle zurück oder erneuere deinen Kredit

Die Kredite laufen bis zu 6 Monate. Du kannst jederzeit frühzeitig zurückzahlen um Zinsen zu sparen oder deinen Kredit erneuern bzw. erhöhen.

Erfahre mehr in unseren FAQs [FAQs](#)

The screenshot shows a tablet displaying the Iwoca mobile application. The screen is titled 'iwoca' and shows a user profile for 'Sarah Brown'. A message at the top says 'Congratulations: Your business is approved for up to £50,000. Loans are for up to 6 months but you are free to make early repayments at any point.' Below this, there's a section titled 'Draw down funds' with a table showing monthly repayments for a £50,000 loan over 6 months:

Repayment Date	Original Loan	Interest	Monthly total
Month 1	£5,000	£1,200	£6,200
Month 2	£5,000	£1,200	£6,200
Month 3	£5,000	£800	£5,800
Month 4	£5,000	£600	£5,600
Month 5	£5,000	£400	£5,400
Month 6	£5,000	£200	£5,200

Klare, transparente Kosten

Wir mögen's einfach. Zinsen werden täglich und nur auf den tatsächlich genutzten Betrag berechnet.

Es gibt keine weiteren Gebühren oder langfristigen Verpflichtungen. Die Zinsen sind fix bei 2 % monatlich.



German Financials

Appendix XI: Kreditech (www.kreditech.com)

Algorithmic Banking

Banking as we know it today is dead. Your banking branch won't exist 10 years from now, and neither will cost intensive, manual banking processes. We believe algorithms and automated processes are the way to customer-friendly banking. That's why we offer individual products at individual prices to customers via their smartphones.

 K	 Customer	Bank
anyone		27% with credit score
24/7 access	 Availability	9 to 5
35 seconds	 Credit Decision	5 to 7 days
15 minutes	 Payment	1 to 3 days

BIG DATA Scoring

Credit bureaus' processes are primitive. 73% of the world's population is not scored in credit bureaus. Those who are, are scored based on 5 factors which only take into account their repayment history e.g. their ability to pay phone and electricity bills.

100% of smartphone or computer owners generate data by anything they do with that device (be it social media, surfing, ecommerce purchases, financial transactions, etc.). Our proprietary algorithm factors in 20,000 data points, which are constantly changing based on newly identified patterns.

 K	 Number of Data Points	Bank
20,000		300
is different every second	 Score	stays the same for ages
updated every minute	 Data Flexibility	static
any device (online, mobile)	 Device	paper

Innovative Products

Kreditech started as an idea for an alternate credit bureau in 2012 with the purpose to sell better scoring data to banks. It has evolved to a lending business where the subsidiaries issue small loans for short durations. Why? Because banks didn't see the potential in that scoring approach back then. So instead of selling credit scores, the Kreditech Group started building a "bank" around the idea of a credit bureau. Based on 20,000 dynamic data points – including social networks, mobile usage, location, e-commerce data etc. – the technology today allows us to serve these customers within seconds, 24/7 through automated processes. The plan for the future ahead is to constantly create, launch, test and scale products that make it more affordable, easier, faster and more convenient to get access to a wide range of financial products.

- Q2 2012 Micro Loans**
- Q2 2013 Installments**
- Q4 2014 Virtual Credit Cards**
- Q4 2014 Physical Credit Cards**
- Q1 2015 Revolving Credit Line**

Appendix XII: Payleven (www.payleven.de)



Accept card payments
anytime, anywhere

[Get started](#)

How it works

Download the app on your smartphone or tablet and pair it with the Chip & PIN card reader via Bluetooth to accept credit & debit cards.

[Learn more](#)

Flexible pay-as-you-go pricing

No contractual lock-in

No fixed costs

Transaction fees as low as 1.50%

[Pricing](#)



NOTES



ESN Recommendation System

The ESN Recommendation System is **Absolute**. It means that each stock is rated on the basis of a **total return**, measured by the upside potential (including dividends and capital reimbursement) over a **12 month time horizon**.

SELL	REDUCE	NEUTRAL	ACCUMULATE	BUY
-15%	-5%	5%	15%	

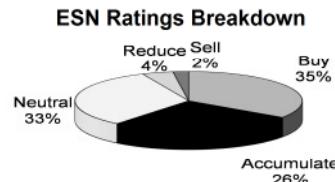
The ESN spectrum of recommendations (or ratings) for each stock comprises 5 categories: **Buy (B)**, **Accumulate (A)**, **Neutral (N)**, **Reduce (R)** and **Sell (S)**.

Furthermore, in specific cases and for a limited period of time, the analysts are allowed to rate the stocks as **Rating Suspended (RS)** or **Not Rated (NR)**, as explained below.

Meaning of each recommendation or rating:

- **Buy:** the stock is expected to generate total return of **over 15%** during the next 12 months time horizon
- **Accumulate:** the stock is expected to generate total return of **5% to 15%** during the next 12 months time horizon
- **Neutral:** the stock is expected to generate total return of **-5% to +5%** during the next 12 months time horizon
- **Reduce:** the stock is expected to generate total return of **-5% to -15%** during the next 12 months time horizon
- **Sell:** the stock is expected to generate total return **under -15%** during the next 12 months time horizon
- **Rating Suspended:** the rating is suspended due to a change of analyst covering the stock or a capital operation (take-over bid, SPO, ...) where the issuer of the document (a partner of ESN) or a related party of the issuer is or could be involved
- **Not Rated:** there is no rating for a company being floated (IPO) by the issuer of the document (a partner of ESN) or a related party of the issuer

Certain flexibility on the limits of total return bands is permitted especially during higher phases of volatility on the markets



History of ESN Recommendation System

Since 1 April 2015, the ESN Rec. System has been amended as follows:

- The term "Hold" has been replaced by the term "Neutral"
- Recommendations Total Return Range changed as showed in the picture at the start of the page

Since 4 August 2008 until 30 March 2015, the previous ESN Rec. System was amended as follow.

- Time horizon changed to 12 months (previously it was 6 months)
- Recommendations Total Return Range changed (see below):

SELL	REDUCE	HOLD	ACCUMULATE	BUY
-10%	0%	10%	20%	

Since 18 October 2004, the Members of ESN are using an Absolute Recommendation System (before was a Relative Rec. System) to rate any single stock under coverage.

SELL	REDUCE	HOLD	ACCUMULATE	BUY
-15%	0%	5%	15%	

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- www.cmciics.com regulated by the AMF - Autorité des marchés financiers
- www.equinet-ag.de regulated by the BaFin - Bundesanstalt für Finanzdienstleistungsaufsicht
- www.ibg.gr regulated by the HCMC - Hellenic Capital Market Commission
- www.pohjola.com regulated by the Financial Supervision Authority
- www.snssecurities.nl regulated by the AFM - Autoriteit Financiële Markten

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Cedex 09

France

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