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FINTECH RESEARCH, MAIN TRENDS AND ANALYTICS FOR 1H 2016



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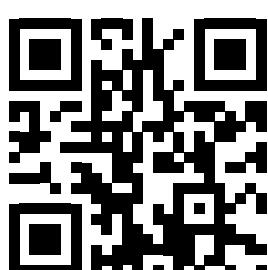
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20 FACTS YOU SHOULD KNOW ABOUT FINTECH IN 2016

**VLADISLAV SOLODKIY
LIFE.SREDA, MANAGING PARTNER**

The past six months were record-high in fintech investments; however, it is trivial. Such headlines as "Last month \ quarter \ six months were record-high in fintech investments" are suitable only for media. From the market perspective, fintech (like any other new and fast growing industry) is growing at the exact rate it should be. But if it stops doubling every year and slows down its growth or starts to grow 4 times faster, then it's worth to be written about. Here are a number of fintech trends and developments that I would like to emphasize.

I. THE MARKET DOUBLES EVERY YEAR. IT IS NEITHER GOOD NOR BAD - IT IS NORMAL.

I deliberately removed the volume of transactions for the past six months in fiscal and quantitative terms because it is only interesting to journalists; in reality it will sound like "The mass of the Moon is 81 times less than the mass of the Earth: the market experts are concerned". Yes, it's less, so what? **At the moment, I would single out three much more important fintech issues**, rather than "record volume of deals":

- Scaling — as little as 30 companies worldwide show that they are able to quickly export their products and services to other countries. All this amid 50 unicorns and more than 5,000 fintech startups all around

the world. The problem is not only in their desire and ability: most markets are lacking BaaS (bank-as-a-service) platforms for scaling, local partner banks are lacking (either desire or) APIs for integration, and local regulatory policy does not allow to quickly and cheaply license independently.

- "Round B problem" — both dry statistics and my personal experience evidence that medium-sized companies face the future funding problem. Such companies are already successful in one market and "burn" a lot of money, but in most cases, they are still loss making, and further need either geographical expansion or extension of their product range. This year this issue will become especially critical.

- The third problem derived from the first two is the growth of companies through mergers and acquisitions. At this stage, neither "cash exit" for founders of acquired services nor acquisition of a ready-made business is applicable. Here arises the need to merge through the exchange of shares. However, at what price, what will be the role of CEOs and how to keep the team and corporate culture? The startups and their founders are not always mentally prepared for such changes or do not see the whole picture. The final buyers and strategic investors do not want to engage in this and find it easier to hire a "wrapper", which is reasonable. While "wrappers" face the need for extra funds for "transitional period" and, at the same time, exorbitant risks (because everything can fall apart, so that even initial small

but successful companies will not survive).

P2B-lending, crowdfunding and crowdinvesting, online trading,

just an electric motor inside an old well-known car brand or other services like charging stations, with(out) dealer service and 24-hour customer support based on big data provided by an old market player.



II. THIS AND THE NEXT YEAR THE MAJOR FOCUS WILL BE ON MERGERS OF FINTECH STARTUPS:

- They started integrating by themselves on the partnership terms;
- So far we have seen quite a few M&A deals but I have no doubt that soon there will be more and more of them;
- There are a few BaaS-platforms (in most countries of the world none at all), and only a small number of companies in the market have open APIs - but it is already clear that the market has matured, that without solving these infrastructure problems further fintech growth will be very limited;
- Most importantly, the market starts talking about fintech-bank – please, do not confuse this fundamental concept with online banks! In principle, online banks provide an interface for opening and managing accounts and deposits, as well as issuing bankcards. However, the financial services spectrum is huge: transfers, micro-P2P-

personal financial management, etc. In the short term, no player can deliver 10 and more major products in a set for retail and SME clients. Every startup has its pieces of puzzle and "market pie". Most exit strategies in the market look like "to be acquired by a major bank, telecom or Internet giant", which by the way have a profitable core business (with other elements). Just imagine how many products (customers, turnover, etc.) will have a fintech-bank built by combining 6-8-10 successful fintech-services! It would be very convenient for customers, simplifying the problem of choice and improving the services combined together. Moreover, it would solve many problems of these fintech-startups: their market share and "Leadership Award", a variety of monetization methods, improved cross-sales, increased margins and profitability, integration of services based on new technological platforms (rather than old bank IT infrastructures!). It's like introduction of Tesla: a qualitatively new ecosystem of modern services created for a new consumer experience! But it's not

III. BOOMING FINTECH TRENDS:

1. ONLINE-REMITTANCES

- Almost all major players successfully raised new funding rounds in the past six months: WorldRemit - \$45M (total - \$192,7M), Transferwise - \$26M (total - \$117M), Remitly - \$38.5M (total - \$61M), Azimo - \$15M (previous round - \$20M).
- I will repeat myself that also in this sphere the players should consider mergers. Venmo is actively expanding its audience and gaining momentum led by PayPal. While traditional players such as Western Union are not going to give up their positions. Secondly, customer acquisition is quite expensive in the sphere of remittances, while the margin is low and no player develops the product range.
- Only one of the abovementioned companies draws attention – Azimo. The reasons are: 1. The new investment round was made by the Japanese giant Rakuten (owner of Viber messenger), 2. Of all the competitors actively fighting for the US market and millennials only Azimo has targeted its further development on Asia and unbanked customers.
- As for social-based remittances, none of the messengers (except WeChat) shows any outstanding performance in terms of turnover and number of clients. WeChat is popular only in China and is experiencing major problems (as well as all popular Chinese services) with scaling to other countries. Chat bots are opening interesting perspectives for remittances, but it's too early to make any forecasts. The next six months we will watch: whether Telegram finally

launches blockchain-based remittances; how will Line's IPO go; whether Snapchat adds PFM like LearnVest and online trading like Robinhood. The Asian remittances market is particularly interesting due to a large number of popular local messengers, unbanked clients, and high penetration of smartphones. The rapid growth of the business messenger Slack emphasizes how undervalued business solutions are. Everyone is focused on p2p-transfers, whereas remittances for micro and small businesses have great potential, much higher average check and low competition.

\$1.2 billion onto them. That's more than First Commonwealth Financial Corp. and Charles Schwab have in deposits.

- PayPal (as well as its services Venmo and Bettermint) showed excellent financial results for 2015 - ahead of eBay in terms of capitalization. The first quarter of 2016 also proved the reasonableness of separation of these companies. PayPal is not going to become a classic bank, but the success of new products such as lending to merchants and final retail clients shopping online evidence that the company eventually intends
- Pay is present in the US and the UK, where it totally connects 1.5 million users each months, and is going to launch in Singapore and Australia soon.
- A large potential threat to e-wallet expansion comes from mobile phone manufacturers with Xiaomi and Huawei joining this race. (In addition to the development of its e-wallet, Xiaomi has invested \$115M for the 29.5% stake in Sichuan Hope Bank, which is going to lend to millennials and SMEs.) As opposed to their potential expansion Samsung and AliPay have announced partnership.
- The most rapidly growing e-wallet markets are China and India: the countries with a large number of unbanked customers and high level of smartphone penetration. The main problem for the solutions developed in these countries is that they are not popular abroad and do not scale well. Despite the huge domestic potential, the competition in these countries intensifies quarterly.



2. THERE WILL BE MORE THAN 4.8 BILLION INDIVIDUALS USING A MOBILE PHONE BY THE END OF 2016, CONSEQUENTLY, E-WALLETS KEEP GROWING AT A FASTER RATE.

- At the end of March, 148 million customers of PayPal held more than \$13B in accounts - compared with bank deposit, the figure would put the company just behind TD Bank or Capital One. Starbucks doesn't offer bank accounts too, but 12 million members of the company's loyalty rewards program app loaded total

to provide most of the financial services.

- The rest of e-wallets are mostly concerned about geographic expansion, rather than extension of the product line: after entering the markets in South Korea (5 million customers and \$1B in transactions) and US, Samsung Pay has expanded to Spain and Australia; Apple Pay connects 1 million users per week, is present in 6 countries (USA, Canada, UK, Australia, China and Singapore) and is expanding to Switzerland, France and Hong Kong this summer; Android
- AliPay raised a record \$4.5B round at a valuation of up to \$60B (which is about \$10B above PayPal's capitalization and AliPay's client base of 450 million users is twice the size of PayPal's customer base). MyBank, a subsidiary bank for SME lending, has already disbursed 20 million loans. The company claims it will soon expand to new spheres: insur-



ance and wealth management with the target audience of 140 million customers. Company's development abroad is challenged by the new Chinese legislation stipulating that starting from July, 1st customers are not eligible to keep money in the accounts of such services if they don't have a Chinese bank card. Therefore, overseas users can use AliPay only for online purchases at Alibaba sites.



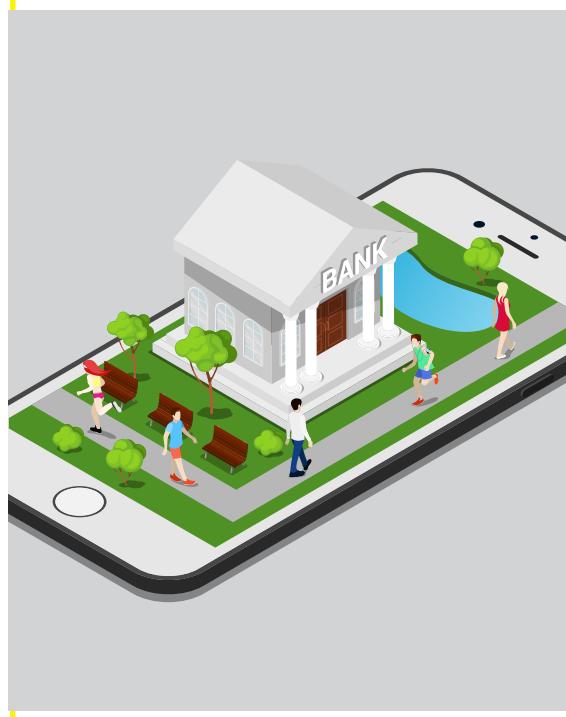
- At the end of last year and early this year Alipay acquired the controlling stake in Paytm, the largest Indian e-wallet, by two tranches of \$600M and \$680M. In August 2016 Paytm plans to launch its payment bank. In addition to payments and remittances, the service is going to provide such services as insurance, wealth management and lending (based on integration with other banks, the payment bank itself is not eligible to lend). Another Indian e-wallet MobiKwik has raised \$50M (\$80M in aggregate). It currently has 30 million retail customers and 75 thousand SME-clients. The company targets to increase these numbers up to 150 million and 500 thousand, respectively, with \$5B turnover. The company recently launched a campaign: 6% on account balance (the market rate in India is 4%). Another player,

FreeCharge, raised last year \$113M in investments and was later acquired by the largest e-commerce company Snapdeal for \$400M. The largest Indian taxi service Ola announced the development of its e-wallet OlaMoney. There are over 5 popular e-wallets, including Oxigen, already in the market.

3. NEO-AND CHALLENGER BANKS HAVE GOT SECOND WIND AND A NEW GROWTH PHASE WITH THE SUPPORT OF THE BRITISH REGULATOR.

- German Number26 with a 200,000 customer base raised \$40 million in Round B. Another Germany-based Fidor with 300 thousand customers continues to grow in UK, where Wired named it top online bank. British Tandem, Mondo and Loot raised £20M, £5M and £1.5M, respectively, in Round A. British Mondo and Starlink announced to be raising another £15M and £70M, respectively. Swedish Tink raised \$10M in Round B.
- It is worth noting that Tandem and Mondo raised £1M each in these rounds through crowdfunding services. This is a positive development, as, firstly, it shows initial demand for your service (both banks are in beta), and, secondly, it brings in more of your first customers and, thirdly, "one million from customers" is more essential for investors than "one million from other investors".
- Neat mobile bank was launched in Hong Kong. Vietnam launched Timo and Momo. Momo raised \$28M in Round B. Nubank, Brazil, raised record-high (for the country and the vertical) \$52M with a \$500M valuation.
- Goldman Sachs announced launching GS bank, its own digital bank; however, it has released no new good news about the project since then. DBS Bank, Singapore, made a similar statement about its project in India.

- However, these are solutions only for retail customers. I think "Simple banks for SMEs" seem much more interesting. Earlier this year, BBVA, a Spanish financial group, which had acquired Simple, USA, and invested in UK's Atom, acquired for an unnamed amount Holvi, a Finnish online bank operating in Finland, Austria and Germany. A similar bank Anna will be launched soon in the UK. I wonder, when such solutions arrive to Asia, where the majority of population is involved in small and medium business and the borderlines between retail customers and micro and small business are blurred.



4. BOTH PREVIOUS FRENZY ABOUT EXPLOSIVE GROWTH OF ONLINE- AND P2P-LOANS AND TODAY'S HYSTERIA ABOUT THEIR PLUNGES IN THE USA ARE RELATED TO CHINA.

- Initially, China launched 2,000 of such platforms within two years, and they began raising astronomical investment rounds. This time, the reason lies with a series of bankruptcies and frauds in China (note that none of the top services got involved and they all have successfully attracted new rounds during this half-year) aggravated

by spiteful and envious banking lobby, which is jealous about the industry growth rates, made global investors nervous. Anyway, the blunt seek to invest at the peak and the wise prefer the takeoff and the wisest keep looking at the bottom for rebounds.

control of this sector by keeping its growth down (under the pretense of taking care of customers, no doubt). LendingClub showed much better financial performance than many banks. While LendingClub expands its product line by offering new credit prod-

Kreditech raised \$103M in investments, of which \$11M provided by IFC, in aggregate the platform has attracted \$150M in investments. German Finanzcheck and Mambu raised €33M and €8M, respectively. US Payoff received \$46.7M. UK's Zopa has been successfully handling its image crisis (unreasonably blown-up, in my opinion) and integrated with Metro bank to take up joint lending to SME. Mintos, a Latvian p2p, attracted €2M.

- Student loans are still popular only in the USA – no other countries have attained such scope and growth rates. Affirm attracted \$100 in round D. The company is trying to withdraw from this niche by acquisition of Sweep PFM service and take up some other types of lending, for example, by partnering Expedia and Eventbrite in issuing loans for travel and event tickets. Public company SoFi launched Don't Bank, a sensational federal campaign, to create its own fund for investors in SoFi's credit portfolios and other online players. Earnest has successfully sold its \$112M credit portfolio and attracted a \$150M new facility from Goldman Sachs. CommonBond raised 275M in working capital. FutureFinance, Dublin's platform operating in the UK and Germany, did the same by raising €100M in working capital and €19M in investments. New players arrive to the scene: US's ClimbCredit (\$2M in investments) and LendEDU (a marketplace for student loans) and India's Buddy (\$0.5M in pre-A round)..

5/ THE BORDERLINES BETWEEN P2B, SME LOANS AND CROWDINVESTING BECOME GRADUALLY ERASED AND PROVIDE A HUGE AND FAST-GROWING FIELD OF ALTERNATIVE SME FINANCING.

- While online lending was primarily focused on retail customers previously, today, the maximum number of new players are thinking in terms of small and medium business loans: their cheques are

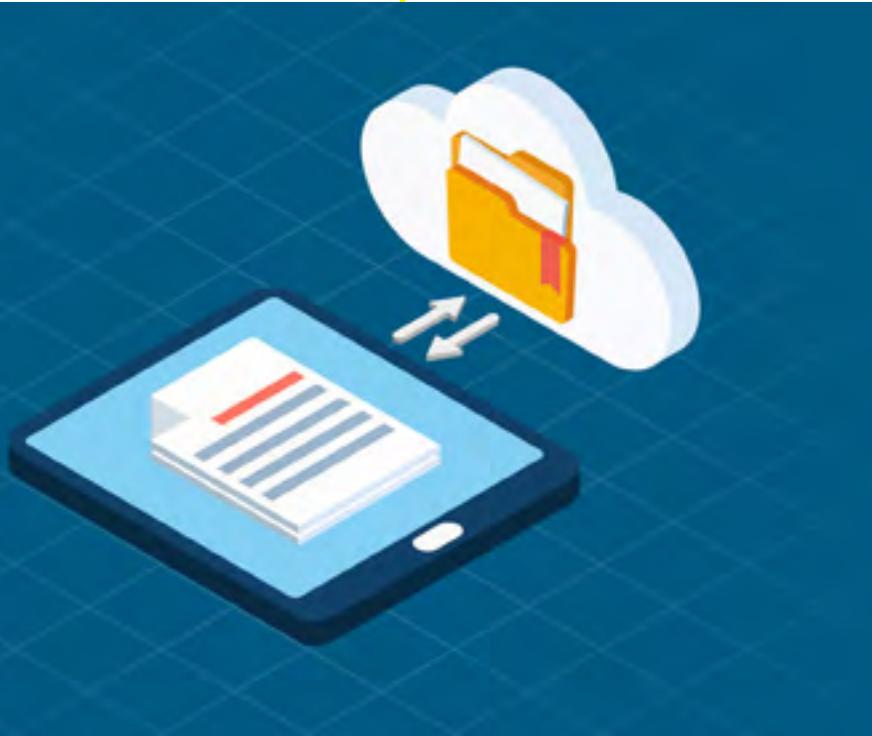
- However, frauds, poor risk management and defaults will provide for China's platforms bad image for quite a long time. Real property owners started to decline to rent premises to such businesses. Two platforms – Ezubo and esuDai – went bankrupt. Chinatou.com offered its customers alcohol instead of money. Jiedaibao's agents took nude photos of student girls as a security. Alibaba filed a claim against this platform to stop it from using its brand and the name of Jack Ma in their advertising, as they are neither affiliates, no partners. Neither of these developments prevented the platform from attracting \$380M with a \$7.8B valuation.

- As mentioned above, claims against US LendingClub and the line are inspired more by fears caused by China's hysteria and increasing banks' pressure on the regulator to make it tighten

ucts in other categories, its direct competitor Prosper took up PFM.

- Fenqile, China's online lending service, attracted \$235M in new investments (its competitor Qufenqi has raised about \$0.5B in aggregate). Two China's p2p platforms followed the same way: Junrongdou, Weijinsuo (\$46M) and Duanrong (\$59M). Hong Kong's WeLab raised \$160M at a valuation of \$1B. E-commerce growth in India and SEA brought about new lending platforms for online purchases, such as Indonesian FinAccel and Indian CashCare. PawnHero, a Philippine's online pawnshop, also raised a new round.

- US LendUp raised \$150M–\$100M in working capital and \$50M in equity. Greg Lisiewski, formerly of BillMeLater (was acquired by PayPal for \$1B in 2008), launched Blispay – the company just received \$12.75M in seed funding. German



higher, risks are lower and competition with banks and other players has been not too strong so far. However, large platforms, which were focused on retail clients, (such as LendingClub and Zopa) are beginning to look at the SME market as well.

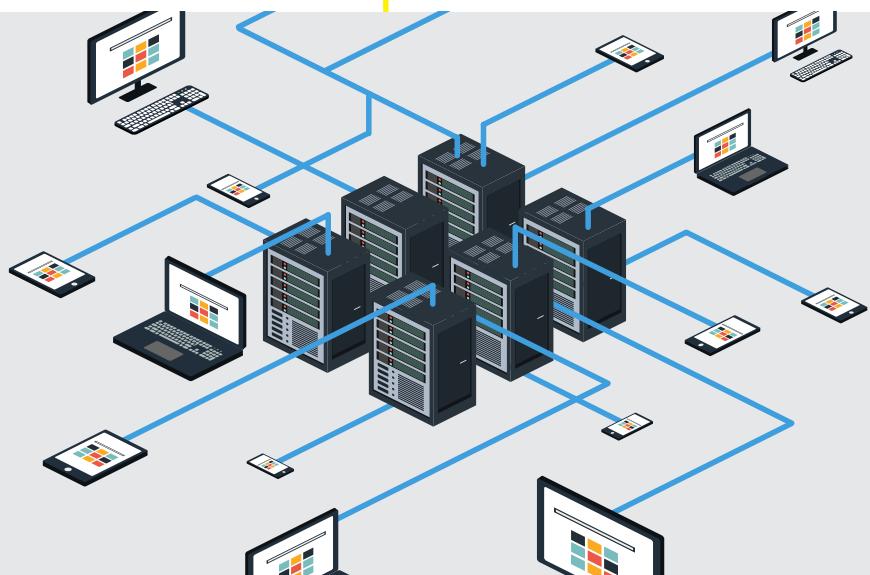
- Despite a large number of new players, there are only three large businesses present in this vertical – OnDeck, US public company, Kabbage, USA, and FundingCircle. Real estate investments are fast growing (in the USA and UK) through crowdinvesting platforms.
- China has a large number of p2b and p2p platforms as well. The largest player Lufax raised \$1.2B at a valuation of \$18.5B. WeBank affiliated with Tescient, the owner of world's largest messenger and remittances service WeChat, attracted \$1B in new investments with a \$5B estimate. JDFinance (world's second-largest e-commerce giant JD) raised the same amount with \$7.1B valuation. Their competitor MyBank, a subsidiary of AliPay for SMB lending, has issued 20 million loans.
- This year, many new platforms appeared in SEA and India (FundHere, Crowdoo, Crowdfunder, CapBridge, CrowdPlus, FundingSocieties, MoolahSense, Loanzen, CapitalFloat, KredX, etc.); they are still small-sized, but they have enormous prospects with a view to SME share in the region's economy and capital availability for such customers. The main issue for Asia is whether regulators are going to give such platforms an opportunity to take capital in some markets and invest it in other ones or will prevent them from doing that by all means. Some markets – Singapore, South Korea and Japan – have surplus capital and low deposit rates for retail customers. Other markets – Indonesia, Malaysia, Philippines, India, Myanmar, and Thailand – show an enormous demand for capital for SME lending and are willing to pay high interest

rates. Banks impose a strict control on such capital flows. Whether or not regulators prevent customers from taking risks and investing money in other markets at higher interest rates, I believe this year will show.

- Impressive results and an interesting model for risk distribution and assessment in SME lending are shown by such players as Square and PayPal (jointed by iZettle and Shopify). In my opinion, one of the most promising sectors in the coming two years is lending based on the existing (and newly established) fintech companies owning extensive customer bases and data.

mostly lossmaking (being low-margin), but it successfully (and at low cost) wins SME customers and generates extensive data on them (improving opportunities for cross-sales of new products and mitigating credit risks), making this sector very attractive as a marketing tool and a core to build a great product range and high-margin business for SME.

- Despite accusations of overpriced capitalization and loss making, Square showed great statements in 2015, high growth rates (it is impossible to bring in new customers and increase their rate of return at the same time), and successful lending to its SME customers based on acquiring turnover data.



6. BIG DATA AND ONLINE SCORING ARE GROWING FASTEST IN THE UNBANKED MARKETS.

Such companies as Lenddo and others aggregate multiple data on user behavior and estimate their credit risks in countries with low penetration of financial services and absence of credit histories, but with high rate of smartphone and social media distribution. Along using these data for lending, the companies analyse them for monitoring frauds in online purchases and mass employment. For example, India's p2p platform i-Lend used Lenddo's technology to analyse Indian customers.

7. MPOS-ACQUIRING

shows that while this business is

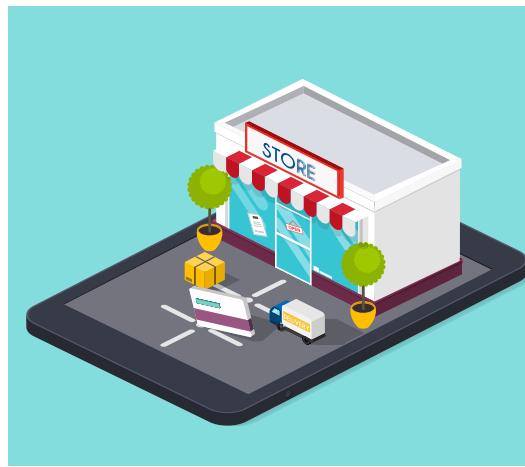
It is still uncertain whether or not Square.Cash is able to compete with Venmo, but I see a great potential in SME transfers rather than p2p transfers (but it takes to expand to the new countries aggressively). The company has tapped its third market in Australia (Square failed to take over any significant market share in Japan). It is important that Square has finally took up international expansion and that it has entered this market together with other players (like Xero) offering packaged solutions. The company is flirting with online acquiring (Square Online Store is very similar to Shopify) and the army of external independent developers (by providing them with

API for offline and online acquiring). The company is aggressively integrating with external complementary services, which make its positioning highly competitive to, say, Poynt proposal (monetization from app store for SME customers). Although both developments may fail, the general trend shows that Square always has tried something new thinking ahead and looking for new niches (they have always implemented their ideas in non-standard ways), and their quantity will transfer into quality sooner or later. I believe that all claims to Square are groundless, as we saw a promising schoolchild to grow into a brilliant graduate of high-profile university and it is no way to require him to be wise and reasonable as a 40-year-old man. As for the growth potential, I bet on the "brilliant graduate." No development announced by the company has shown any material results, including: building the market's best POS management system (Square Dashboard is quite simple, and the market has many more better solutions), online-remittances (both for SMEs and retail), APIs for third-party developers. Will be interesting to see development of the online-banking solutions for entrepreneurs (like Holvi) and their clients (with PFM also – like Moven).

establish a company with 1 million customers and 20 coverage markets. Cutting R&D costs, brand strengthening, leadership bonus – wisdom of both teams deserves credit. The merged company has everything Square lacked – new market coverage with reasonable and fair capitalization to make the company attractive for mergers. Square in its turn knows how to experiment with product ranges and achieve high margins (such as Square Capital product) and has a high public status (making stock exchange a liquid instrument for shareholders' withdrawal).

- As mentioned above, mPOS companies started to aggressively integrate with external complementary services; the Square example may be added with Germany's SumUp (integration with Fidor online bank), India's Ezatap (integration with e-wallets Paytm and FreeCharge).
- To add to Square and PayPal success in SME lending based on platform transaction turnovers, iZettle and Shopify offered similar products in the market.
- The industry would benefit in terms of technology, if regulators and payment systems allowed to record mPOS transaction

card details on your smartphone or tablet apps, which makes the borderlines almost non-existent), which would simplify service scaling across the countries, etc. But here, customers' convenience and reasonable ideas of entrepreneurs run against the wall of bureaucratic systems, which "take care of customer safety and convenience of entrepreneurs", and tons of their paper rules.



8. ONLINE ACQUIRING IS THE SAME LOW-MARGIN SPHERE AS mPOS, ALTHOUGH WITH A HIGHER PROFIT FORM LOWER INVESTMENTS DUE TO NO NEED TO INVEST IN PURCHASE OF DEVICES AND THE ARMY OF SALES FORCE.

• On the negative side, this market is too much exposed to the "critical mass" effects, as such largest players as PayPal, Braintree (a PayPal member, \$50B turnover), Stripe (\$5B capitalization, 23 countries, 380 employees, \$25B turnover, \$480M income) and Klarna (\$2.2B capitalization, \$331M income, 18 markets primarily in EU) enjoy much better price terms and take up a disproportionately large market share. However, they have no time to relax, as such giants as Amazon with 225 million accounts is going to deliver them a battle by promoting "Pay with Amazon" button service for ultimate customers on e-commerce platforms operating through AWS.

• On the positive side are such markets as Asia (world's largest by the number of smartphones and



- SupUp and Payeven set a great example to the fintech industry by merging under SumUp brand to

as online acquiring (both purchasing through mPOS and on websites, you have to enter your

e-commerce growth rates), Africa, Middle East, and Latin America, which require more localization on the giants' side; therefore, local players are growing quite successfully – Australia's PromiseSay raised \$10M recently, Israel's Zooz – \$24M, India's TranServ – \$15M, UK's GoCardless – \$13M, Singapore's 2C2P – \$10M and China's Ping+ – \$10M. Amazon, which has shown outstanding performance in India, is aggressively investing here in online acquiring services (such as Emvantage) to deliver a battle in world's largest market.



- One more negative side is that online acquiring is a b2b service to a much greater extent than mPOS and has no brand strength with the customers. This category players themselves are not much interested in complimentary product scaling, and they are wrong, as even e-commerce in India and SEA depends not only on online acquiring, but also on cash-on-delivery purchases for more than 50%, which could be turned (as Snapdeal did) into card-on-delivery, if the services could offer mPOS along with online acquiring. SME lending secured by turnover (PayPal Working Capital, Kabbage, Ezbob) and their customers' consumer lending for online shop-

ping (see online lending in online shops), as the minimum; and Wish lists and personal financial planning as the maximum.

known. There were rumors of its expansion to Australia, but the company chose to expand in China (in partnership with Baidu). Its



9. ONLINE TRADING AND WEALTH-MANAGEMENT ARE OFTEN BROUGHT DOWN TO ROBO-ADVISORY SERVICES, ALTHOUGH THIS IS NOT THE CASE AS THE INDUSTRY IS MUCH MORE VERSATILE AND INTERESTING.

- Sure, robo-advisory services, such as Wealthfront, Betterment and more, have aggregated the largest number of clients and their money compared with other spheres. Betterment raised \$100M in new investments with a \$700M valuation and intends to take up PFM. Wealthfront is going even further, along with PFM the company intends to take up transfers and lending to build up a full-scale financial holding company.
- There are really great diversification opportunities; surely, the customers approached the platforms to invest money in their shares. But money may be as well invested as investments on p2p\p2b\SME platforms through crowdlending in companies or real estate. This is a favourable environment to expand the product range.
- An interesting sphere is trading for millennials and younger clients, of which Robinhood is the best

followers are successfully raising rounds worldwide: SinFig – \$40M, Acorns – \$30M (total \$62M), 8Securities – \$9M, Bux – \$6.9M, FeeX – \$12M, SprinkleBit – \$10M, Vestly – \$4M, Moneybox - \$3M, AlgoMerchant – \$0.9M and many more. Ellevest has a unique positioning of women's investments and attracted \$10M in the first round. The participant number and fundraising speed show that the market is far from saturation.

IV. NEW PROSPECTIVE SPHERES:

10. WHILE FINTECH OFFERED SOLUTIONS ONLY FOR HIPSTERS AND GEEKS BEFORE, NOW AN INCREASING NUMBER OF PLAYERS BET ON "FINTECH FOR UNBANKED" SOLUTIONS. THIS SPHERE IS INTERESTING, BOTH IN TERMS OF MARKET POTENTIAL AND ITS EFFECTS ON IMPROVING GLOBAL WELLBEING.

- Bill and Melinda Gates Foundation, World Bank and IFC played the ultimate role in promotion of this development. Success of two e-wallets MPesa and BCash showed that remarkable performance is possible both financially and socially in the poorest markets.

- A lot of activity is happening in Vietnam (with aggressive IFC), India (where the government is making outstanding efforts to leap from the cash-based society into fintech), Kenya (increasingly launches new projects, such as Mkopo Rahisi), Peru (the government intends to build the national payment system), Malaysia (activities in Islamic banking), Nigeria (transfer blockchain services Oradian and Stellar and Interswitch IPO), and Myanmar (growing Red Dot Network and ConnectNPay, and new banking licenses).



- Zoonia, a project launched in Zambia and Malawi, hit the mark of \$1B transactions, daily services 1 million clients and is integrated with 1,500 POS agents. US's Branch.co (by Kiva.org, the founder of a well-known unbanked-fintech project) raised \$9.2M in the first round for lending in Africa. Singapore's Nearex intends to develop public transport payments in India, Africa, Thailand, and Latin America. PayPal launched a program to support startups for unbanked countries.
- Blockchain will play a crucial role for fintech development in unbanked countries.

11. IOT, O2O, BIG DATA, CHAT-BOTS

- While giants are actively experimenting with artificial intelligence (such as Siri), Amazon used its

online assistant Alex to demonstrate how this could be applied in the financial sector by integrating it with Capital One online bank (however, it allows users to do only simple transactions on their accounts so far).

- Evolution in retail in general, related to online trade development and requiring to transform offline POS in showrooms integrated with online sales, have strong impacts on communication across devices (through BLE, beacons, WiFi), aggregation and fast processing

of various customer data, data sharing on previous behavior in different conditions and customer device data and prospective customer data in a particular POS.

- In this context, Facebook released an interesting solution The Offline Conversions API, which allows outside developers to integrate data on prospective customers and their offline behavior with their location at a particular merchant.
- Increasing ranges of wearable devices, their sales growth and amount of data generated on human health and behavior show that such device integration, their data and analysis will affect both new offline trade solutions (sorry, O2O), smart homes, robot and drone control and will have even stronger effects on such indus-

tries as health care and Insurtech: related to health insurance, auto insurance, etc.

- Chat bots, which appeared late last year, only gave rise to unnecessary bustle about this development, while a potential inherent in integration of this technology and fintech services is titanic: money transfers, financial advice, online trading and much more. Huge number of developments actually contains a number of repeating functions that may be automated and, if combined with artificial intelligence analysis, will allow users to process increasingly complex tasks and store in memory and develop together with users.
- Notwithstanding a huge potential of all these developments, no breakthrough is likely here and now: these services will be developing for years and, what is most important, we will have to teach them. Sure, we, users, will have to share with them the growing amounts of data about ourselves, ask questions, let them make mistakes, correct them and teach them how to understand us and be able to predict us at some point in time. This teaching process will hinge on our willingness and amount of time and efforts we spend on them. It takes not only developers.



12. AVAILABILITY OF OPEN APIs TO BANKS AND BAAS-PLATFORMS.

Is critical for fintech startups, both for the start and further international expansion. Today, there are several platforms of the kind available: Bancorp (US), Fidor (Germany, UK), BBVA (Spain, US), Wirecard (Germany). Germany's FinLeap has recently launched SolarisBank, a BaaS-startup. Today, the market demands platforms with 40 or more APIs licensed in several markets. It is too costly and time-consuming for the banks to build such platforms independently. It is much more reasonable to join the existing ones by leasing their licenses and infrastructure. Availability of such platforms, especially in Asia will be equal in effect to AWS (Amazon Web Services) for Amazon, which generated new revenues for Amazon itself (over 60 % of today's profit) and acceleration for new market players. This platform is critical for unbanked markets, such as Africa, Myanmar, Vietnam, Laos, Cambodia and Latin America; fintech startups will be ready to focus on such markets only in 3 to 5 years, or if there will be available a platform that will make their entry into these markets much more easier.

13. IMPLEMENTATION OF THE BLOCKCHAIN TECHNOLOGY AS REAL BUSINESS IS CURBED BY THE VERY BLOCKCHAIN BENEFIT: THE TECHNOLOGY IS DEVELOPED FOR MASS USE AND HAS NO USE WITHOUT IT.

- Most projects (a range of wallets and money transfers has appeared over the last half-year) are in their experimental and product adjustment stage and have a long way to go to influence the market. There are some projects (such as Everledger), which could show fast scaling, but they are too few.
- The main bustle now is caused by theoretical assumptions of how blockchain can change one industry after another and news related to bitcoin, the result of scaling of R3 and Digital Asset Holdings; however, the large players have failed to build anything of essence

in the venture industry by a top-down agreement. I will be happy, if they do. The Ripple (RippleLab) commotion has calmed down, although I think they made more success in what CR3 and DAH are trying to do now.

- Practical developments include a dynamic growth of Ethereum, which improved the initial blockchain technology and allowed using smart contracts to handle complex tasks of various industries, along with payments and money transfers. Most developers have immediately appreciated it and took it up to build their new services.

- One thing is for sure, if it is too early to invest today (as the sector is at the stage of "angel period"), it will become too late soon. Thus, this is my advice: start investing in the industry now, but not for the sake of income or fast profits, rather for the sake of learning the first insights. There will be no time for that later on, and you may miss your train.

14. INSURANCE IS THE INDUSTRY SO OLD-FASHIONED, NON-TRANSPARENT AND FULL OF HUGE NUMBER OF AGENTS, THAT IT MAKES ME WONDER WHY IT TOOK SO LONG FOR YOUNG STARTUPS



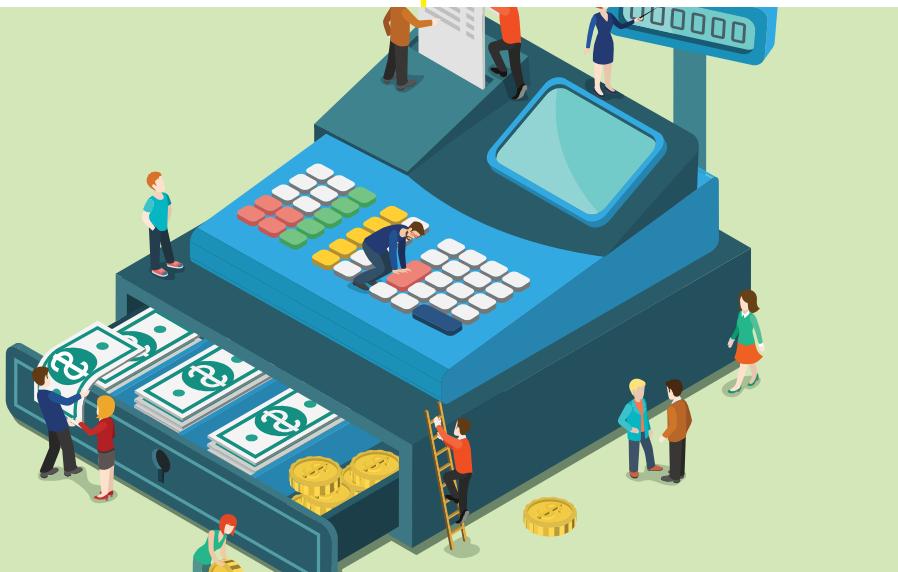
- Ethereum developers built their own investment fund The DAO, which has attracted about \$150M in investments from crowdfund investing to become a twice-unique case. Still, it was attacked by an intruder who managed to steal \$50M from the fund without breaking its rules or codes, i.e. it's theft from human morale standpoint, and no theft from legal and code protection position. This case deserves a book or a film, as it poses more moral than economic questions to us: how far will we go in our trust to the code logic and what shall we do, if the code rules and human morale interpret the event in different ways?

TO DECIDE TO DISRUPT IT WHILE INSURTECH IS A RELATIVELY NEW DEVELOPMENT, IT HAS BROUGHT TOGETHER MORE THAN 150 STARTUPS.

- There are still many websites that are far from fintech and more focused on advertising and built on price-comparison or blocker models, but in the nearest future, the main areas for growth will include risk insurance in agriculture and SME relying on databases generated by communication of IoT and cyber security devices.
- US-based Lemonade is the best known of those who rushed to build new marketplaces in the

fashion of "Uber/Airbnb/Kaya for", but other platforms also successfully win investments (and customers): US's Zebra (\$17M in round A) and PolicyGenious (\$15M), India's Coverfox and Swiss FinanceFox (\$5.5M). But the main breakthrough is expected not in the lead-generation model, but in the analysis of data generated by devices sharing information about lifestyles and health and integration with online consultations.

- German Fiendssurance, which raised \$15.3M in a new round, launched an interesting p2p model. Zendrive (\$13.5M in round A), Moov and Prevent analyse your driving style and offer the best option for auto insurance.



- It is hard to define the borderline between Insurtech and healthtech as both sectors are intertwined in their growth. For example, DocPlanner, Poland, operates in 23 countries, enables its 8M customers to book their visits to doctors, raised \$20M in round C (total, \$34M) and merged with Spanish Doctoralia (9 million clients in 20 countries) – is this an Insurtech or healthtech service? Similarly, we are often asked a question why we include Zenefits (a platform to manage HR and payroll plans) in Insurtech (because monetization happens from insurance integration and sales).

- Ping An Health Cloud, a similar service merged with online consulting (Ping An's POS), which raised \$500M with a \$3B valuation, serves 77 million customers in China (250,000 consultations daily).
- Online service development boosts the development of both cyber security and employees involved (Slice labs provides insurance to Uber and Airbnb employees).

V. NICHE DEVELOPMENTS:

15. IT IS STILL UNCLEAR WHY MPOS COMPANIES FAIL TO DEVELOP SUCCESSFUL SOLUTIONS IN POS MANAGEMENT SYSTEMS

reasonable step than an attempt to build them independently. A large number of such projects is launched in the USA (most of them have reached medium size) and Asia – Mobikon, Moka, StoreHub, Tableapp, TabSquare, Zomato Base, TableHero, iChef, etc. (here they are still small businesses).

- It is still unclear what will happen to Poynt, a project that generated buzz in mass media and at such conferences as Money2020 and received 500,000 preliminary orders from clients even before its launch, but has not been released in the USA (due to certification problems) and nothing is known about its success in Brazil.

GO

AND TABLET-BASED CASH-REGISTERS, THESE SECTORS ARE SO CLOSE THAT THEY ARE BOUND TO MERGE EVENTUALLY:

- Fortunately for Square and other mPOS giants, the figures (e.g. E la Carte reportedly has sold 85,000 of its Presto Tablets to 1,700 restaurants and their Presto Smart Dining System has processed \$600M in transactions over the year) and investment amounts (e.g. new \$30M in Toast) for similar startups are relatively small, but their products and outcomes are much better than those produced by giants, which make their merger a much more logical and

16. CROWDFUNDING WILL GROW INTO A HUGE INDUSTRY, UNLESS IT STAYS ONLY A NEW VERSION OF CHARITY.

- In this context, IndieGoGo's move to innovation looks very interesting – the platform is consistently integrating with those who are able to make promo websites for inventors and maker places who help them to develop prototypes, and factories in China and India that have the capacity to manufacture things, and distribution channel and logistics companies that are able to sell things. The fast growth of robotics, 3D printing and other new opportunities for inventors will bring about a new

de-centralized wave of companies that will invent and create almost anything, from devices to furniture and clothes, and IndieGoGo is trying to give inventors a chance to make a creative part of the job, taking up responsibility to arrange all other processes for them. Another sphere is enterprise crowdfunding, where large companies use the resource to test their ideas and estimate future demand.

- IndieGoGo also intends to take up crowdinvesting, i.e. not only give users an opportunity to buy future new developments, but also invest in them.



17. PERSONAL FINANCIAL MANAGEMENT (PFM)

Has developed as an independent sector only by a small number of companies, such as Mint and LearnVest. However, the service itself found a broad market almost everywhere, including mobile banks (Moven), online trading (Betterment and Wealthfront), online lending (Affirm) and more.

- No new stars have appeared on this horizon after selling LearnVest. Digit raised \$22.5M (total, \$36M), Penny – \$1.2M, Seedly and MoneySmart are developing in Singapore and MoneyTree in Ja-

pan. Swedish Capital got a second wind after moving to the USA – it attracted new investments late last year and release a new Android app.

- Wish lists are complimentary to PFM, such as Wish service, which has recently attracted \$600M. Gamification logic and its integration with e-commerce and travel (not only with financial services) allow winning more clients.

18. PRICE-COMPARISON AND BROKER-MODEL SITES

Is a gradually dying-out model, despite that some companies keep



successfully developing and attracting new rounds. Firstly, this is adtech rather than fintech, which is exposed to all challenges of the advertising market. Secondly, such services are popular only when the market is not filled with new players offering completely new solutions, as they grow for 2 or 3 years to die fast afterwards. Many countries have seen this happen.

19. AS NOTED ABOVE, FINTECH FOR SMEs IS QUITE AN UNDERRATED SECTOR:

Online banks (Holvi and Anna), payroll (Zenefits and Gusto), accounting (Xero), e-invoicing (Tradeshift), and

more, they have a huge potential, but only a few projects. However, some of them managed to grow into unicorns and face the "problems of growing too fast".

20. THE TECHNOLOGY AND BANKING SECTORS HAVE ALWAYS HAD A MASCULINE IMAGE.

Following this logic, fintech faces a double blow. FemTech&Diversity, a movement in the USA started a year ago, has yielded multiple positive fruits. I would like to see more women as fund partners, CEOs and co-founders of fintech startups and their employees.



VII. BANKS IN FINTECH AND FINTECH HUBS: DANCES WITH DRUMS

- There are so many innovation labs and too few innovations. I regularly meet with bankers worldwide and the first phrase I hear from those who decided to invest in fintech (there are few of them so far, and we should be grateful to them) is, "We want to invest only in those startups that will be synergic with our current business." In other words, "we want to invest only in those alternative power sectors that would keep oil prices high and our oil business profitable." Ok. There is a huge difference

between Simple mobile bank and even the world's cutest mobile bank, which you may open only after you visit the bank and sign all documents. Clayton M. Christensen in *The Innovator's Dilemma* and other authors addressing the development of large and successful corporations able to innovate (read, for example, Jony Ive on Apple by Leander Kahney), note: first, you have to separate the team that makes a new business for you, their office and KPIs from your core business. Then join your old business (if able to integrate) to the new one, no other way round.

Dubai and will soon open a new one in Singapore, where it plans to develop its Fidor OS BaaS platform.

- The same is true for fintech hubs worldwide. In fact, their developers prove to be "advocates of traditional banks", rather than those of "fintech startups". In other words, their KPIs are not focused on bringing about more new startups and making them more and more successful, they are aimed at preventing them from causing a disturbance (God forbid!) to peace and success of existing banks. I should say, banks

opportunity to operate without banks? Where are hundreds of transactions and dozens outputs? I don't mean articles and accelerators here, I mean real business, where is it? In fact, the explosive growth in Asia accounts for only a few China's giants, take them away and there is no growth in Asia. It is impossible to build fintech in a single country (unless you are the USA, China or India), as all entrepreneurs may live any place, they move around easily and intend to build international businesses, rather than local ones. Expansion to Asia, Africa and Middle East is curbed by the fact that they have no BaaS platforms and banks have no open APIs.

- The US market, which is still the largest one, gives rise to two concerns: increasingly frequent discussions of easing migration laws for startups (it has never been easy anyway, but lately more and more concerns are voiced that aliens have difficulties to come to America to work) and increasing regulator's intent to govern fintech more tightly (against the background of banking lobby's voice-over). The p2p lending market is under fire currently, but I am sure we will soon see other precedents. If you remember Gandhi's words "First they ignore you, then they laugh at you, then they fight you, then you win," fintech has grown to reach the prefinishing stage.

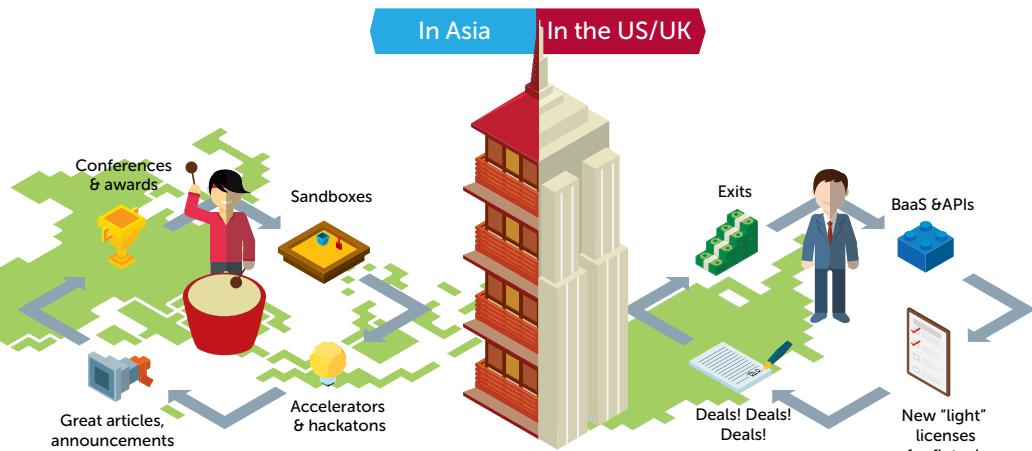
- Venture Debt does not belong to fintech; however, this product (not too popular so far) may play a positive role in engaging banks and governments in fintech development. SVB is a leader in the USA (now it is bringing this product to the UK). Innoven, a former subsidiary of SVB and now a subsidiary of Temasek, plays the lead in India to expand across SEA. Three Singapore's largest banks - DBS, OCBC and UOB – said they were going to pursue this product. It is a good initiative, just have a look at the results in the coming half-year. ●

Fintech hubs and their main goals:

to support traditional banks
to work with fintech

or

to support startups (&funds)
to create value for customers



- I will not list here all accelerators and hackathons built by banks recently, simply because they failed to create even a single star and generated no transactions or following rounds.
- As I mentioned above, set up, launching and further scaling of fintech startups in most countries is restricted by the absence of BaaS platforms, and banks lack open APIs. In the context of this infrastructure gap, which makes startups in Asia, Africa and Middle East to spend 80% of their resources and at least a year to launch (rather than spending the time and money on winning customers and developments), German Fidor Bank opened Fidor Tech office in

set up no startups and make no investments in them (historically). Startups are, therefore, put in some kinds of "cages" to have their digital revolution under control and prevent them from disturbing the "big guys". Putting aside the number of released articles, set-up hackathons, accelerators and bonuses, only the UK can boast any real achievements. Historically, the USA can too. Many countries have joined the rush for fintech development this year, in Europe (France, Switzerland, etc.), Asia (Singapore, Hong Kong, South Korea, Japan, Thailand, India and Taiwan), Australia and Canada; the only question is: where are simplified licenses for fintech startups to give them an

Financial technology market analysis, H1 2016

Investment in Financial technologies, Quarterly (\$B)



Investment traction in Financial technologies, Quarterly (\$B)

Funding

Total fintech funding including activity by angels, corporates, PE firms, mutual funds and hedge funds hit 1288 with 41% raised by e-commerce startups deals vs 1053 with 48% raised in e-commerce during the same period last year.

April had the **record single funding of \$4.5B** (Ant Financial) - **\$125M was debt**

Corporates get more active in local fintech deals.

Corporate participation in European fintech deals rose to almost a quarter in H1'16 from just 8% in Q4'15.

Insurance Tech takes 3 of 10 largest US fintech financings in the H1'2016. **Lending** takes 5 of 7 largest Asian fintech financings in the H1'2016

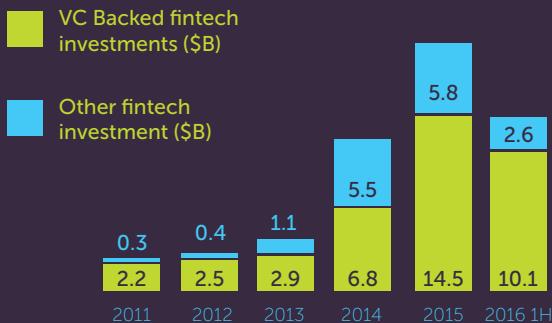
Asian share of companies in top financing is growing steadily

Corporates pursue fewer deals in Asian fintech in Q1'16.

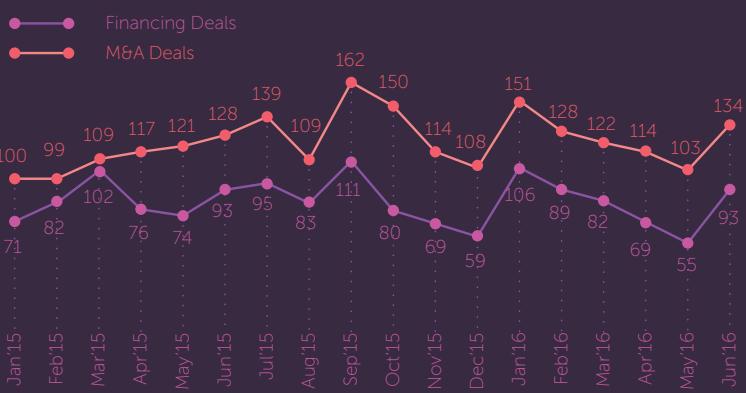
Corporate participation in Asian VC-backed fintech deals fell to 31% in Q1'16, a 5-quarter low.

The global investment in **blockchain** has exceeded USD 1 billion in over a thousand start-ups and is expected to increase four-fold by 2019, growing at a CAGR of 250 per cent

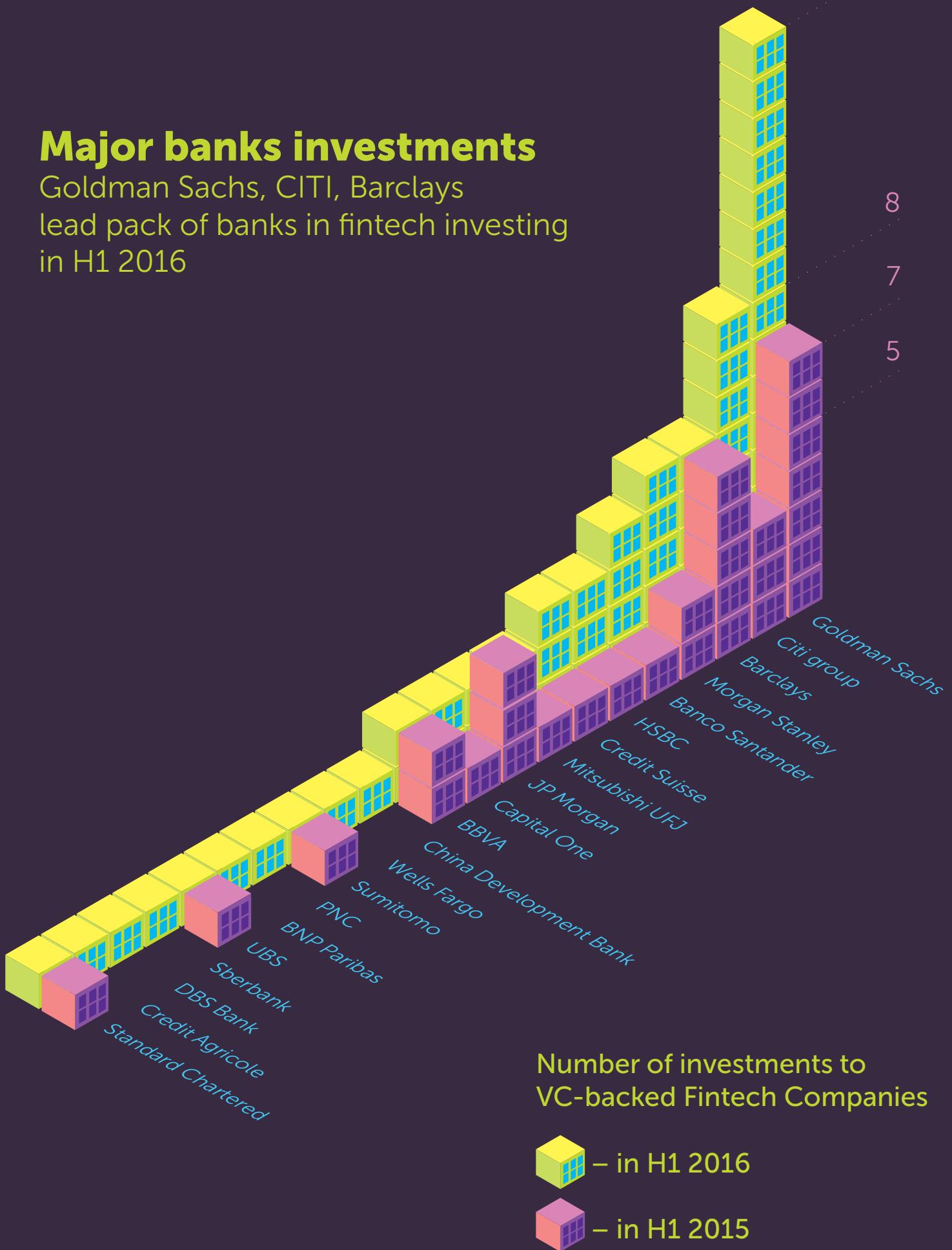
Investments in fintech Annually (\$B)



Amount of financing deals & M&A deals (#)



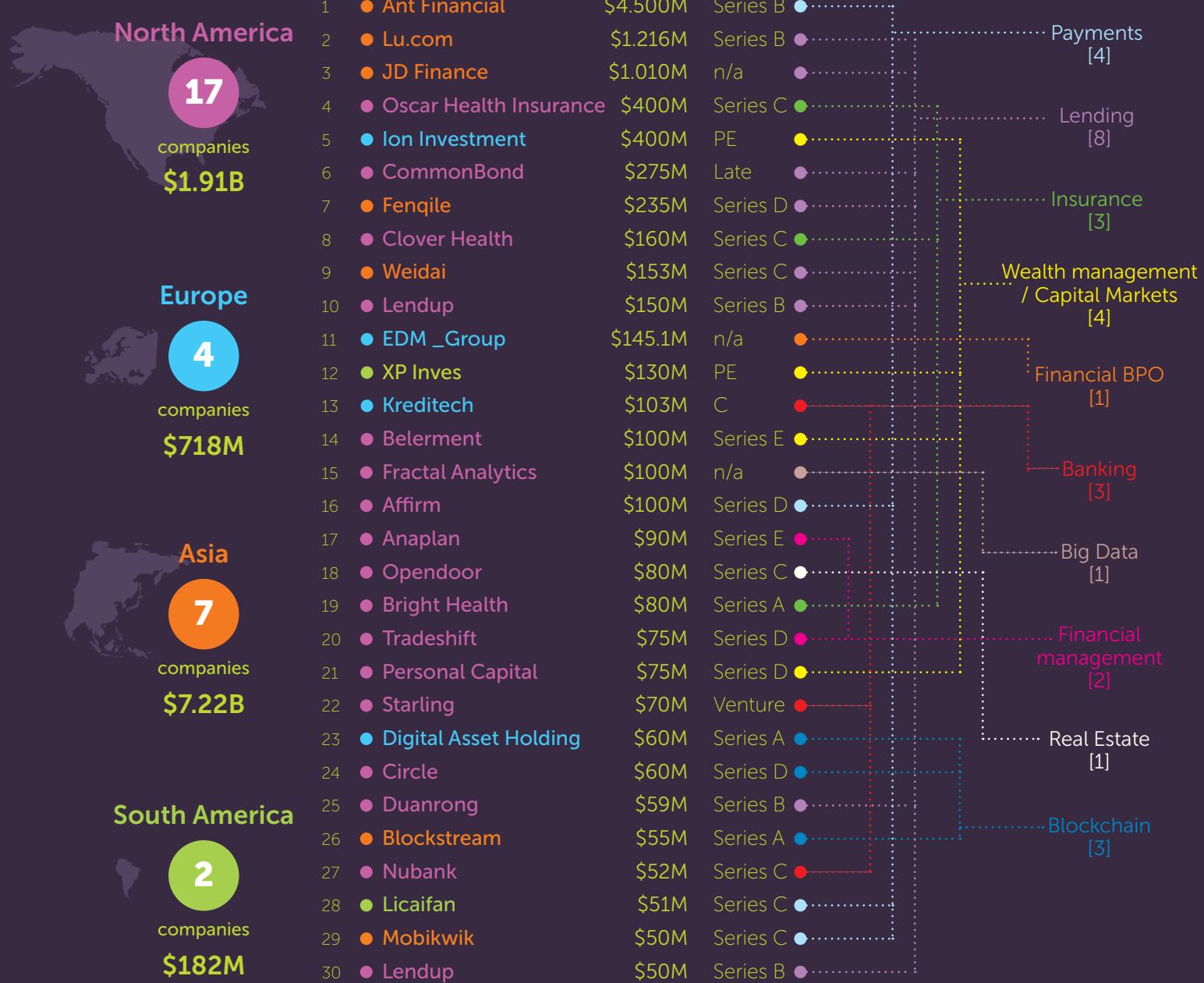
Note/source: Source: Capital IQ, FT Partners, Pitchbook, The Pulse of Fintech, Q1 2016, Global Analysis of Fintech Venture Funding, KPMG International and CB Insights (data provided by CB Insights) May 25th, 2016.



30 largest fintech deals of H1 2016 received a financing of \$13.31B

Key observations H1 2016

- **Insurtech** takes **3 of 10** largest US fintech financings
- **Lending** takes **4 of 5** largest Asian fintech financings
- **Blockchain & bitcoin** for the first time presents 2 companies in top financing
- **Asian share** of companies in top financing is growing steadily



Deal structure & sector traction

H1 2016

Funds raised

29%
Banking
Lending

25%

Payments
Loyalty
e-commerce

17%
Securities
Wealth management

15%
Financial
healthcare
tech

10%
Financial
Management
solutions

2%
Insurtech

2%

Financial BPO

2%

Sector traction

\$270M
(31 deals)

-52.59%
\$128M
(30 deals)

+45.312%
\$186M
(26 deals)

1H 2015

2H 2015

1H 2016

Blockchain

+183.01%
\$5.980B
(154 deals)

+192.41%
\$1.310B
(62 deals)

+185.35%

\$448M

(43 deals)

\$157M
(30 deals)

1H 2015

2H 2015

1H 2016

Insurance

\$106M
(52 deals)

+144.33%

\$259M

(43 deals)

-29.72%

\$182M

(42 deals)

1H 2015

2H 2015

1H 2016

**Crowdfunding
Crowdinvesting**

\$431.8M

+22.6%

\$530M

+6.5%

\$564M

+192.92%

\$2.03B

(41 deals)

-19.5%

\$1.633B

(39 deals)

\$1.390B

(133 deals)

+52.014%

\$2.113B

(152 deals)

1H 2015

2H 2015

1H 2016

**Banking / Scoring
/ e-Wallets**

Lending

Payments

Note/source: Source: MaPermark, Life SREDA VC analysis

Top financing transactions during 1H 2016



CEO: **Jack Ma**
Headquarters: Hangzhou, China
Founded: 2014
Funding: **\$4.5B**

Ant Financial

- 25/04/2016, completed its Series B, which weighs in at a staggering \$4.5 billion
- Last year's undisclosed Series A valued the firm at \$45-50 billion.
- Ant Financial & Alibaba has invested \$680 million in Paytm, acquiring 40% stake in the venture

Traction

- 450 million users
- Ant Financial is tipped to go public in the not-too-distant future
- 58% of all online transactions happening in China is done via Alipay

Products

- Alipay - China's most popular online payment service
- Micro-loans program and Alibaba's digital bank, MyBank.
- Sesame credit scoring system



CEO: **Ji Kuisheng**
Headquarters: Shanghai, China
Founded: 2012
Funding: **\$1.2B**

Lufax

- 18/01/2016, Lufax announced it had raised \$1.2 billion in Series B round
- ValuaPon is \$18.5B, 10B higher than previous round
- Ping an Assurance will remain the largest investors in the Company

Traction

- Plans to announce its potential initial public offering later this year, which could raise as much as \$5B in proceeds for the Company

Products

- Lu: Wealth management soluPons
- Lfex: Financial advisory services
- Also offers financial consulPng, desing services, financial application development and market research, data analysis



CEO: **Shengqiang Chen**
Headquarters: Beijing, China
Founded: 2013
Funding: **\$1B**

JD Finance

- 16/01/2016, JD.com announced that its subsidiary had raised \$1B
- The round was led by Sequoia Capital, China Harvest
- Company is valued at \$7.1B

Traction

- JD.Com is a major stake
- A partnership with West finance allows to offer credit scores to lenders

Products

- JD Coffers: Wealth management plarom
- JD Wallet: Electronic payment services and transacPon security soluPons
- JD IOUS: Purchase financing soluPons to customers shopping at JD.com



CEO: **Josh Kushner**
Headquarters: New York
Founded: 2013
Funding: **\$400M**

Oscar Insurance

- 22/02/2016, "Oscar" announced it raised **\$400m** in a financing round led by Fidelity Investments
- Company valuation is \$2.7b, previous investors – Google, Khosla, General catalyst
- Total funding – \$740m. Plans to expand operations, new geographies

Traction

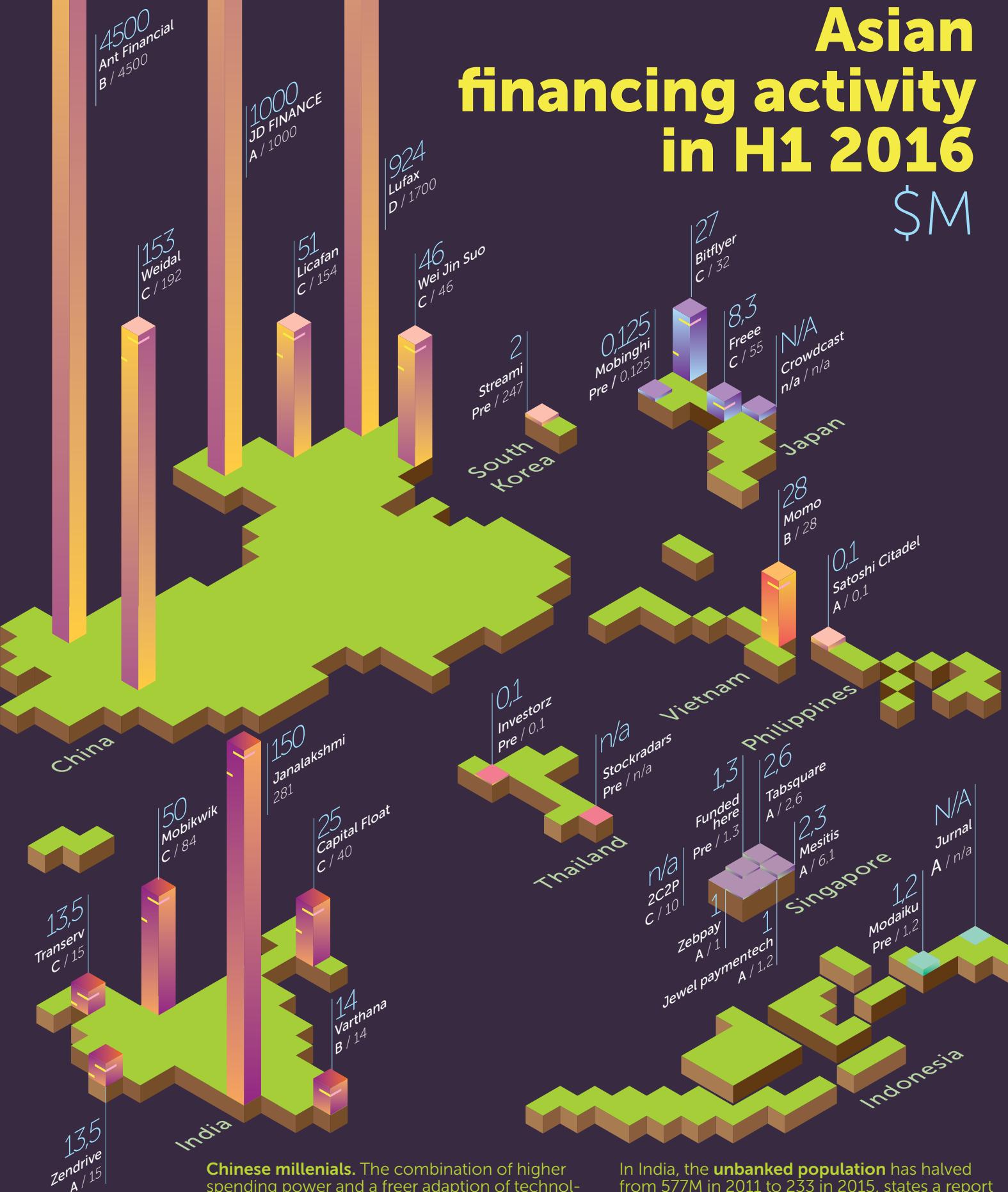
- Processed \$25.8 Billion in gross merchandise volume
- Currently serves to about 150 million monthly active users
- 10 million orders each day

Products

- Processed \$25.8 Billion in gross merchandise volume
- Currently serves to about 150 million monthly active users
- 10 million orders each day

Asian financing activity in H1 2016

\$M



Chinese millennials. The combination of higher spending power and a freer adaption of technology adoption means that fintech has an entire market of willing and able customers.

China has 380M people **shopping online via phones**, nearly 200M people using their **phones as a wallet** for in-store payments.

According to the World Bank, APAC's **unbanked** stood at about 2B adults. Companies in Singapore and India are building **digital solutions** to reach these individuals.

In India, the **unbanked population** has halved from 577M in 2011 to 233 in 2015, states a report by PWC.

Asia has the potential to gain from blockchain tech being used because of its unique social structure. The Asian remittances market is particularly interesting due to a large number of popular local messengers, unbanked clients, and high penetration of smartphones.

CHAPTER #2

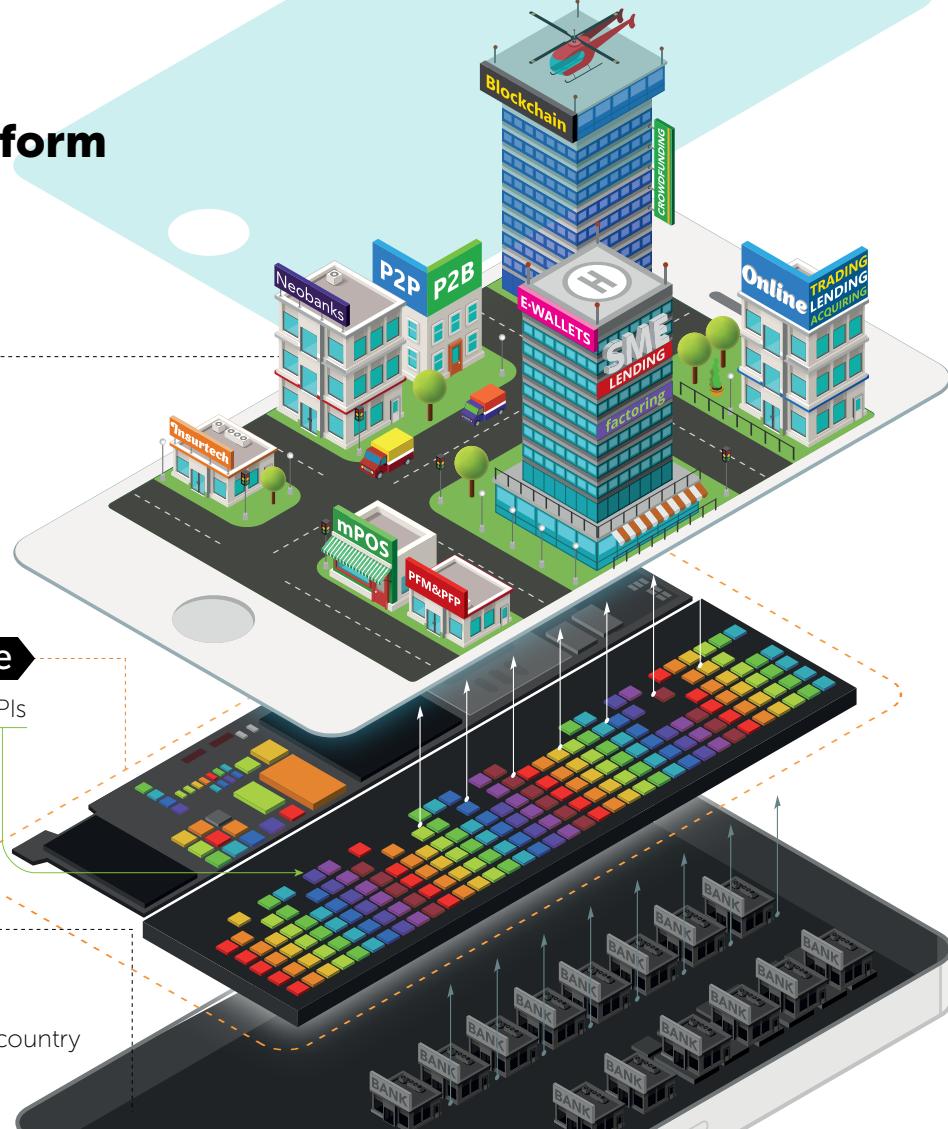
From FinTech to the BaaS

Layers of BaaS-platform



Ecosystem

100+ fintech-startups



Fintech-startups do not need to spend time, money and human resources to be integrated in each Asian country

From BaaS to the Fintech-bank Fintech is currently undergoing a natural evolution stage. Previous three years were a «toothbrush» era: when you perform just one function, but better than anyone, and when you are irreplaceable and used every day. The long-awaited turning point came in 2015 when all services started merging with each other in some way. And it's understandable — if the first advanced customers were ready to bake a cake with disparate ingredients themselves, the mass customer wants to get a comfortable ecosystem of services with seamless integration allowing the customer to easily use data from one service inside the other and enjoy the benefits from their joint use.

FINTECH-MERGERS ARE RESHAPING NASCENT SECTOR

Fintech companies around the world have now reached the potential of substituting almost any service

from the banking value chain¹. The legitimate question to be raised then is: if there is a startup for each service a bank provides, do we really need banks? And recently fintech-startups started to collaborate and unite...

US-EXPERIENCE

In March 2016 US-based robo-advisor **Wealthfront** launched a new version of its wealth management service. It integrated with tools like **Venmo** and **Redfin** to get an even more complete picture of its customers' financial holdings.

NY-based mobile bank **Moven**, **Payoff** (which offers tools to help individuals pay down credit card debt) and **CommonBond** (which offers student loan refinancing tools) partnered to deliver digital financial innovation. The partnership offers an interesting mix of services designed to appeal to customers who prefer to bank primarily through their mobile device and have credit card or student loan debt. The incentives

offered show that the partners recognize the need to motivate customers to use new services.

Square has started to think beyond what it can do in the commerce space — their new App Marketplace, build with Square complements the company's wide array of existing offerings, like Intuit QuickBooks, Xero, IFTTT, Stitch Labs, Bigcommerce, and Weebly.

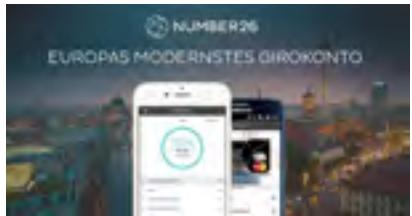
Prosper, the marketplace lender focused on refinancing and credit rehabilitation, has re-launched its **BillGuard** PFM-app (acquired in September 2015 for \$30M) under its own brand as Prosper Daily. The move brings offering one-stop windows into a user's total financial history. Prosper's views the mobile app as a way to engage with potential customers even if those people can't receive Prosper loans.

EU-EXPERIENCE

German online-bank **Fidor** launched mPOS-acquiring with «European

Square» **SumUp**. Fidor offers in one frontexnd-solution with unique user experience 25 different products from third-party providers, including brokerage services, precious metals trading facilities, crowdfunding offers and even peer-to-peer loans, where customers can post on the online community that they want to borrow money, which other customers can offer to lend to them. Matthias Kröner described the approach as «a marketplace, shielded by a banking license».

Zopa, the world's first person to person (P2P) lender, recently signed a deal with **Metro bank**, a challenger bank in London started by Vernon Hill, who created Commerce Bank in the U.S. Metro. «This will allow the bank to lend its funds on our platform, a first of its kind in the UK», wrote Zopa's CEO Mat Gazeley. The alliance between Zopa and Metro will provide the lender with the funds it needs and attractive returns for Metro.



Also **Number26**, a Peter Thiel-backed German startup that's setting out to create the bank account of the future, has announced a tie-up with London-based peer-to-peer money-transfer firm **TransferWise**. The partnership will give Number26 customers in-app access to a cheap international money-transfer service. «Our goal is to leverage the best banking products from around the world and make them accessible to customers with one tap, creating a fintech hub inside the Number26 app,» — the company said.

ASIA-PACIFIC EXPERIENCE

In October 2015 Bangalore-based mPOS-startup **EzetaP** launched with largest wallet providers in the country (**Paytm, MobiKwik and FreeCharge**) universal mobile wallet

acceptance facility which aims to offer merchants a unified one-stop solution for all payment acceptance.

Australian-based Tyro Payments chief executive Jost Stollmann wants to see the emergence of a new financial services economy run by innovative companies that create services that work with each other. He wants fintech entrepreneurs to work together against the large banks, which he believes will use their investments in start-ups to slow innovation. Instead of hoping their businesses will be bought and adopted by big banks, he said they should aim to take the banks' customers and revenue. «**I call this the ecosystem**», he said.

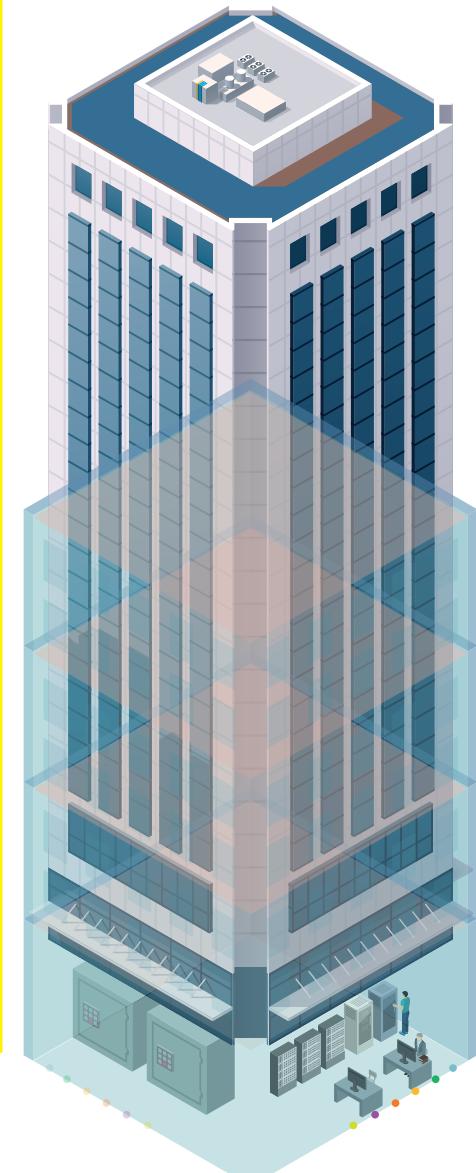
WHAT MUST OTHERS DO TO SURVIVE?

Less than half (40%) of companies that raised a Seed or Seed VC round in 2009-2010 raised a second round of funding. 225 (22%) of companies that raised a Seed in 2009-2010 exited through M&A or IPO within 6 rounds of funding (1 exited after the 6th round of funding, for a total of 226 companies). 9 companies (0.9%) that raised a Seed round in 2009-2010 reached a value of \$1B+ (either via exit or funding round). 77% of companies are either dead. 56% of companies that raise a follow-on round after their Seed are then able to raise a second follow-on round after that. In other words, **it's easier to raise a second post-Seed financing than the first post-Seed financing** (as noted, only 40% of companies are able to raise a post-Seed round). In the later follow-on rounds, the gap between the average amount raised and median amount raised becomes much higher, indicating the presence of mega-rounds.

Series B is hard for a simple reason: suspension of disbelief fades and is replaced by an increasingly cold, hard look at milestones and progress. Series B is the round where the rubber meets the road, where the promise has to be met with numbers and projections. Series B is the round where hard nosed investors drive ownership up before your company

really starts to scale. Series B is the unloved valley of slow progress that precedes scaling. It's the no-man's land of the startup build phase. Series B is raised on mostly one thing: your ability to instill confidence. When you to go raise your Series B, you've driven burn up as you needed to fully staff engineering (these damned «enterprise» features...), start hiring a commercial team that takes its time scaling, get a few hires wrong usually to top it off and have hired a full layer of VP's to show that you have the basis for scale. This makes the company particularly fragile.

Whether the sector can continue to thrive throughout 2016 is open to debate. Speaking recently to Inc. magazine, fintech enthusiast Max Levchin (ex-PayPal, now — Affirm) cast a cloud over funding prospects heading in to the next year. «My general view of the world is that **raising money for series B will be**



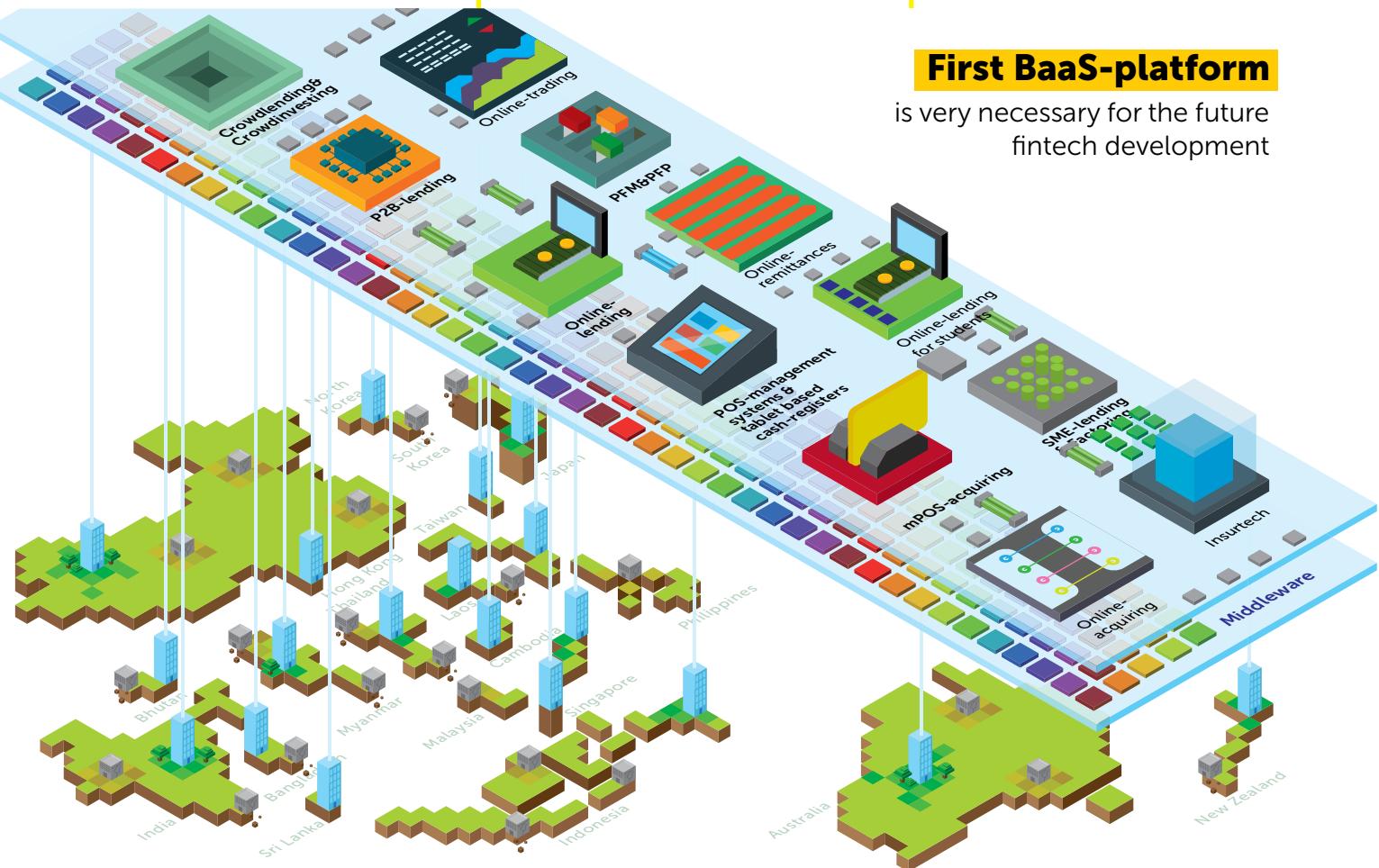
harder in 2016 than it was in 2015 in fintech», he told the mag. «There's a perception of oversaturation or at least significant overinvestment in too many small bets being taken by venture capital». «My guess is that you will see a lot of M&A and failure activity».

interest in the region», he adds. Anh-Minh Do wrote in his article «The one lesson every Southeast Asian company should learn from Didi Dache and Kuaidi Dache»: «This will only continue as multinational well-financed startups come in to grab marketshare where local

hensive financial services². Any bank nowadays can serve any financial need for the eligible population. The word 'eligible' plays a vital role here. One of the core differences in approach to financial services between banks and fintech lies in democratization. While banks have always been looking to

First BaaS-platform

is very necessary for the future fintech development



Singapore-based VC firm Golden Gate Ventures predicted in a report that mergers and **acquisitions (M&As) will dominate future exits in the SEA-region**, with a minimum of 250 M&As occurring each year beginning 2020. That's a whopping 500 percent increase from the 2015 figure. «In the United States, a successful exit involves going public. The financial returns generated from listing on NASDAQ or the LSE usually mean that both investors and entrepreneurs alike have generated a pretty healthy return on their investment», explains Vincent Lauria, managing partner at Golden Gate. «In Southeast Asia, it's the opposite: a trade sale will often result in larger financial returns than going public, especially if the acquirer has a strong strategic

Southeast Asian companies are lackadaisical». «If we are to believe the common assumption that what happens in China precedes Southeast Asia by 5 to 15 years (depending on the country), then the region better watch out». «The lesson here is clear. **Southeast Asian companies should start thinking or planning for market consolidation**». «Merge or wither away, pick your poison. But either way, lose the ego».

II. FINTECH OUTSIDE US\UK CAN'T GROW WITHOUT BANK-AS-A-SERVICE PLATFORMS

The banking industry has been and is a massive machine providing compre-

control the financial services industry, with the rise of fintech, the situation has changed drastically. Now banks are looking to collaborate with fintech so as to not to lose the links in the value chains that make them so powerful.

Square has started to think beyond what it can do in the commerce space. CEO Jack Dorsey acknowledged that his company wouldn't be able to build everything, «so we opened up a bunch of APIs, and in that marketplace, for third-parties to actually build functionality and services that extend our ecosystem».

German online-bank **Fidor** — derived from the Latin word for trust — launched in Germany in 2009 and

has offices in Berlin and Munich, as well as five staff in London (Fidor launched in September 2015 the UK). In its home market, Fidor offers 25 different products from third-party providers, including brokerage services, precious metals trading facilities, crowdfunding offers and even peer-to-peer loans, where customers can post on the online community that they want to borrow money, which other customers can offer to lend to them. Fidor's CEO Matthias Kröner described the approach as «a marketplace, shielded by a banking license».

Chris Skinner, one of TOP5 fintech-influencers and predictors, author of bestsellers «Digital Bank» and «ValueWeb», managing partner of Life.SREDA BB Fund in London, predicted this trend in 2009: «you're probably all familiar with SaaS – it's basically paying for applications as you use them, rather than buying them. These services used to cost you a fortune, but are now free or near enough. That's where banking

is going. Banking becomes plug and play apps you stitch together to suit your business or lifestyle. There's no logical reason why Banking shouldn't be delivered as SaaS». «What I'm really getting at here is that the old model of banking, where everything is packaged together around a deposit account with a cheque book, is bust. That's why some banks are starting to white label and break apart their traditional services so that corporates can just buy-in the bits they like and want». «This is the future bank, and old banks will need to reconsider their services to compete with this zero margin model».

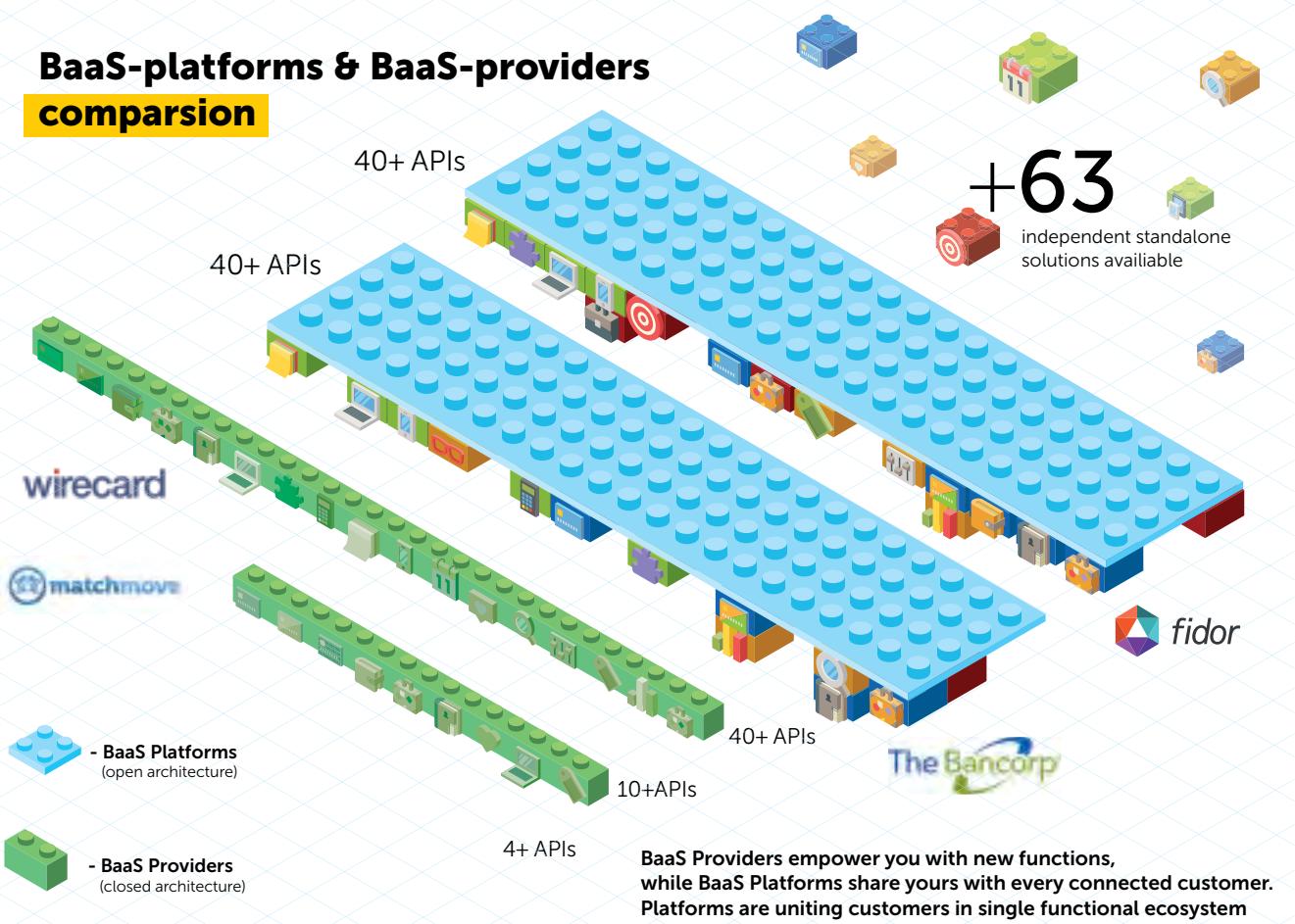
One of the best examples of BaaS is **The Bancorp** (75,000,000+ pre-paid cards in U.S. distribution, 100+ private-label non-bank partners, including Simple, \$232 billion combined annual processing volume). «From the start, we've spent most of our time and efforts behind the scenes, putting the companies who work with us — and their goals — first. We've remained in the

background, offering them the guidance, innovative thinking, and operational support they need to succeed». «Today we've grown far from our roots as a branchless commercial bank to become a true financial services leader, offering private-label banking and technology solutions to non-bank companies ranging from entrepreneurial start-ups to those on the Fortune 500».

This concept was put into practice also by **Open Bank Project**. The UK government promotes the use of open data and open API in the banking and supports the exchange of information between financial institutions. Within the framework of the state initiative, the first private company will be able to create a service that combines customer data from different banks.

In March 2016 offering what it calls Banking-as-a-Platform, FinLeap, the German fintech 'startup factory', has hatched its latest venture. This time the Berlin-based company builder

BaaS-platforms & BaaS-providers comparision





Infographic prepared by Let's Talk Payments

(to use the preferred terminology) is investing and betting on the underlying regulatory and financial technology infrastructure — the picks 'n' shovels, if you will — in the form of **solarisBank**, a fully licensed digital bank designed to power an array of fintech services. Born out of the frustration experienced by FinLeap's own startups when faced with the need to piggybank an existing banking license and technology in order to be able to offer various financial services, solarisBank has developed what is described as a modular-based banking toolkit, including, and crucially, various modern banking APIs.

One of key development of 2015 has been the open sourcing of bank services. Chris Skinner wrote: «I've talked for a while now about 'banking as a service' (BaaS) — first blog entry almost seven years ago — and this forecast that anyone in the near future would be able to **build their own bank through apps, APIs and analytics**. The core of this view was based on banking processes becoming open sourced through APIs, and in 2015 it's finally happening. It hasn't happened yet — this is an ongoing process — but it's definitely happen-

ing and is taking place in three forms: voluntarily, customer demand and regulatory action». Key protagonists of open sourcing the bank include also **Anna bank** from the UK and **BBVA** in Spain and US.

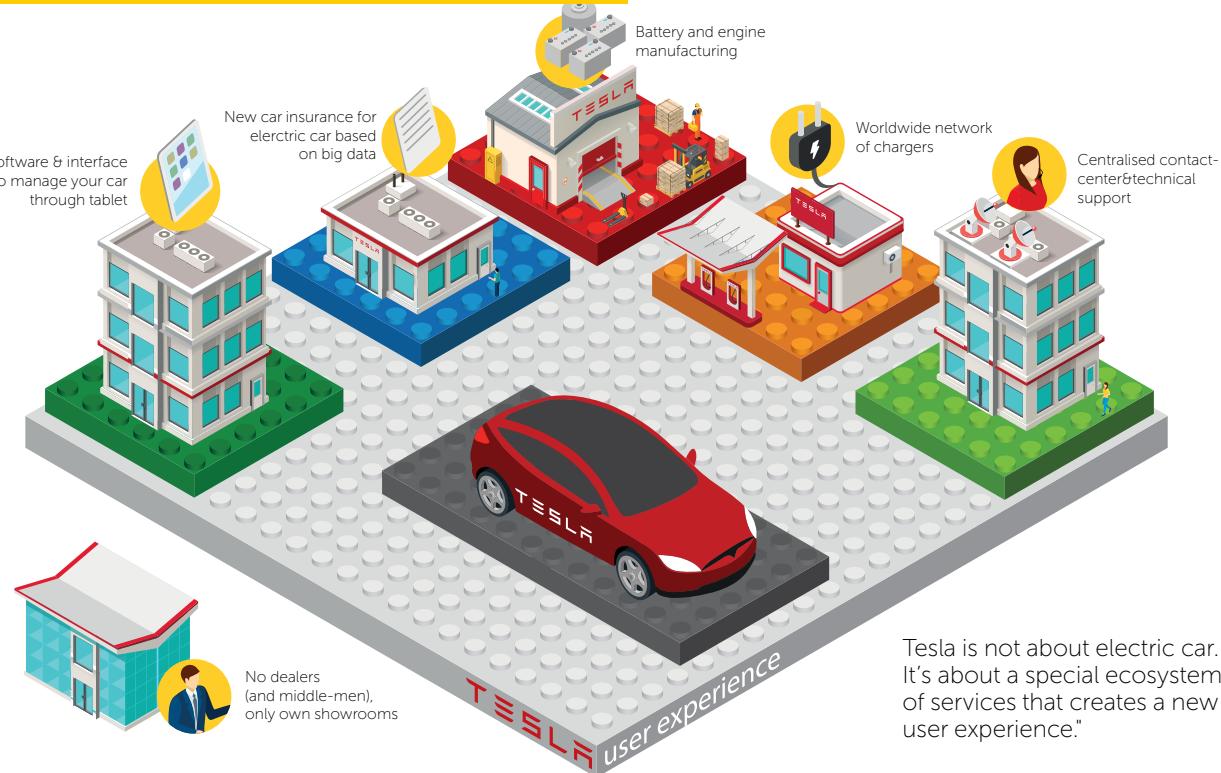
In December 2015 LetsTalkPayments.com counted **63 insanely useful APIs from fintech-startups across 12 segments** «to supercharge your product». APIs are the infrastructure that developers use to build applications to access content and other services. As Fintech startups continue to disrupt traditional financial services, banks are also waking up to the fact that offering an open API—where developers can latch on and create very specific customized app solutions—is the way to engage and retain their customers in the future. David Brear, Chief Thinker at Think Different Group and partner of Life. SREDA BB Fund, and Pascal Bouvier, Venture Partner at Santander Inno-Ventures, thought, that the integration and delivery of financial services is changing as new channels, products and partnerships are being explored, and **Banking as a Platform** (BaaP) is one of the alternatives. There are three main reasons why financial services industry incumbent

did not organize as platforms. Current Business Models — Banking and insurance company business models do not currently lend themselves to network effects. Up until recently, banks and insurers were the perfect intermediaries. They were the best positioned to make credit or underwriting decisions. Why create a platform with partners when no one else knows how to lend or insure better than the current players? Third one: «We 'own' the customer». It is clear that any success in developing a platform strategy for banking (BaaP) will be largely dependent on wholesale cultural and technology mindset changes.

In Asia I met with many fintech-startups — most of them, especially at early stages, **spend 80% of their resources for integration and how to be licensed**. It is illogic. Their successful older friends from the US and Europe spent 80% of their resources for their products, because BaaS-players provided them fast, cheap and easy integration to launch new products.

Also, BaaS-companies can help fintech-startups with expansion to other countries. Unlike startups in

Based on BaaS-platform it would be possible to create a Fintech Bank with Tesla-like UX



Tesla is not about electric car. It's about a special ecosystem of services that creates a new user experience."

other fields such as taxi aggregators (think Uber) or productivity apps that expanded very quickly across the globe, it is difficult for fintech companies to do the same. Since technological advancements allow companies to operate globally even while being physically located in one country, it presents a great opportunity to grow revenues through global expansion. As the barriers are higher for global expansion, only 25 fintech-startups (in comparison with 50 fintech-unicorns and 5000+ fintech-startups) have successfully managed to expand globally. Factors that contribute to or decide the success of global expansion for a fintech startup include regulations, market opportunity, professional network, success in the home country, working with local industry bodies, local ecosystem, competition and flexibility of business models.

Out of all these factors, regulations play a very critical role. For example, there are almost 30 new banks starting up in the UK – they might thank Chancellor of the Exchequer George Osborne. He's overseen the regulatory revamp that's made

it easier for startup banks to get off the ground. Osborne said he wanted to make London the «fintech capital of the world». In March 2015, he said the Bank of England should grant at least 15 new licenses in the next five years. «Osborne is a real tech geek», says Rohan Silva, a former technology adviser at 10 Downing Street, pointing out that the chancellor learned to code as a teenager. «Investors and entrepreneurs haven't started new banks in this country because they knew the regulators wouldn't let them», he says. Under BOE and FCA rules, a new entrant can hold as little as £1 million in capital initially. An applicant needs common equity Tier 1 capital of 4.5 percent of risk-weighted assets, significantly less than the 9.5 percent required under the old rules that still apply to existing banks. To become a UK bank you need at least £20 million of funding just to get through the gate with a license. The Bank of England says it will use its discretion to give startups more time than before to build the additional capital required under Basel III.

III. FINTECH-BANK:

FROM UBER'S TO TESLA'S USER EXPERIENCE

If we were to decompose a bank, there would be a fintech company that can substitute each service the bank provides³. However, a single 'problem' remains – banks are still holding our accounts. So we still need a bank, but not for the reasons we needed it ten years ago. Over time banks may become sort of 'warehouses' bringing together fintech startups to serve each particular need of a customer.

SECOND WAVE OF FINTECH: WHAT «FINTECH BANK» IS?

Philippe Gelis, CEO at online-remittance startup KANTOX, told about year ago: «The second wave of fintech, to come in two to five years' time, will be ... a type of bank based on five simple elements»: 1, A core banking platform built from scratch; 2, An API layer to connect to third parties; 3, A compliance/KYC infrastructure and processes; 4, A banking license, to be independent from other banks and the ability to hold client funds without

restrictions; 5, A customer base/CRM, meaning that the fintech bank will have the customers, and a customer support team.

The products directly offered by the «**fintech bank**» **will be limited to «funds holding»**, comprised of: bank accounts (multi-currency); credit and debit cards (multi-currency); eWallet (multi-currency). All **other services** (investing, trading & brokerage; wealth management; loans, credit & mortgages; crowd-funding (equity and social); insurance; crypto-currencies; payments; remittances & FX; this list is not exhaustive) **will be provided by third parties** through the API, including old-school banks, financial institutions and fintech companies.

Imagine that you are a client of this «fintech bank» and that you need a loan. You do not really care if the loan is provided to you by Lending Club or Bank of America, what you look for is a quick and frictionless process to get your loan, and the lowest interest rate possible. «It is a simple mix between an access fee to the «marketplace bank» and a revenue sharing model with the third parties providing additional services».

Here we have a completely different approach regarding the relationship with incumbents. Fintech banks, thanks to their banking licence, will not rely any more on any bank to be and stay in business, and so will not be at the mercy of incumbents. What is even more powerful, through the marketplace, incumbents will become «clients» of fintech banks, so the system will be completely reversed.

The beauty of «fintech banking» is that it competes directly with banks on core banking services without the need to build all the products. Most bankers are not already worried enough by fintech to react to its coming second wave. This creates a fantastic «window» for us fintech entrepreneurs, to build it, and once it's done, it will be too late for them to react

NEO- AND CHALLENGER BANKS WANTS TO INTERFACES FOR «FINTECH-BANKS»

German **Number26** plans to systematically «rebundle» and create tight-knit integrations with other startups that focus on one specific vertical. What this could effectively mean is that through your Number26 bank account, you could access TransferWise's cost-cutting currency exchange service, or perhaps even a Robin Hood-style stock investment service.

British **Tandem's** founder Ricky Knox said the aim is to differentiate the bank from the rest of the market by using customers' data to offer good deals on the money they spend, such as utility bills as well as on financial products.

British Mondo has an open API from the get-go, part of a wider differentiator that's seeing it build a «full-stack» bank with its own in-house banking tech in order to offer features that legacy banks struggle with as they are reliant on outdated software and infrastructure.

Matthias Kroener, German Fidor's chief executive, says that in its home market, Fidor offers 25 different third-party products, including brokerage services, precious metals trading facilities, crowdfunding offers and even peer-to-peer loans, where customers can post on the online community that they want to borrow money, which other customers can offer to lend to them. Mat-

thias Kröner described the approach as «a marketplace, shielded by a banking licence».

FROM FINTECH-STARTUPS TO FINTECH-BANK

Enough has been written about who the possible super aggregators could be and quite a bit has been written about the potential 'Uberization' of banking. The banking response could have more to do with Tesla than Uber.

Tesla is the world's most famous electric car, but it's actually more than that. It's a stylish, environment friendly mobility platform, charging infrastructure, new type of insurance, online-customer support, dealerless distribution model. The real experience of Tesla includes the value it's trying to provide to the customer — of being connected. This value is delivered at the individual car and driver level, and the collective learning from all cars that Tesla sells. It is at once a platform that iteratively adds value to the core product while learning what it is that it can learn from the use of its vehicles.

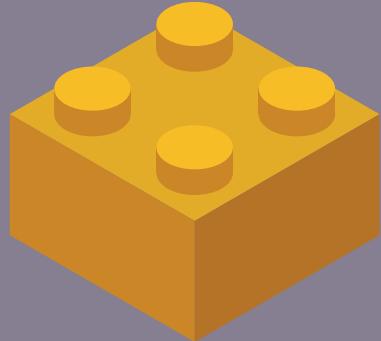
«Fintech bank» is a value ecosystem. It's not feasible or viable (and perhaps even necessary) for a bank to provision every product or service that a customer may need, but it can very well be the channel through which the product is provisioned by another party. Platforms will be about 'coopetition' as much as they are about competition. ●

I believe, that the next step (and this step will be not about more money, but about real evolution of fintech-movement to ecosystem) in fintech will belongs to new generation of «fintech-banks» (maybe, they will be totally separated from traditional banks), which will have:

- Bank-as-service platform as back-end — to host these standalone independent fintech-startups on their main market and to expend faster&cheaper to other markets;
- Investment arm\fund to invest in several fintech-startups to build strong relationships with them;
- Neobank(s) as front-end(s) — to tailor all these services for final end-users in unique user experience.

WELCOME TO THE VALUEWEB

and the
New Age of Finance



Chris Skinner

Chairman of the Financial Services Club and best-selling
author of Digital Bank and ValueWeb

Money originated as a control mechanism for governments of Ancient Sumer to control farmers, based upon shared beliefs. It was then structured during the Industrial Revolution into government backed institutions, banks, who could issue paper notes and checks that would be as acceptable as gold or coinage, based upon these shared beliefs. We share a belief in banks, because governments say they can be trusted and governments use the banks as a control mechanism which manages the economy. So now we come to bitcoin and the internet age, and some of these fundamentals are being challenged. Before we get into that though, let's just take a step back and talk about how the internet age came around.

Some might claim it dates back Alan Turing, the Enigma machine and the Turing Test, or even further back to the 1930s when the Polish Cipher Bureau were the first to decode German military texts on the Enigma machine. Enigma certainly was the machine that led to the invention of

modern computing, as British cryptographers created a programmable, electronic, digital computer called Colossus to crack the codes held in the German messages.

Colossus was designed by the engineer Tommy Flowers, not Alan Turing — he designed a different machine — and was operational at Bletchley Park from February 1944, two years before the American computer ENIAC appeared. ENIAC, short for Electronic Numerical Integrator and Computer, was the first electronic general purpose computer. It had been designed by the US Military for meteorological purposes — weather forecasting — and delivered in 1946.

When ENIAC launched, the media called it The Giant Brain, with a speed a thousand times faster than any electro mechanical machines of its time. ENIAC weighed over 30 tons and took up 1800 square feet of space. It could process about 385 instructions per second. Compare that with an iPhone6 that can process around 3.5 billion instructions

per second, and this was rudimentary technology, but we are talking about 70 years ago, and Moore's Law hadn't even kicked in yet.

The key is that Colossus and the ENIAC laid the groundwork for all modern computing, and became a boom industry in the 1950s. You may think that surprising when, back in 1943, the then President of IBM, Thomas Watson, predicted that there would be a worldwide market for maybe five computers. Bearing in mind the size and weight of these darned machines, you could see why he thought that way but my, how things have changed today.

However, we are still in the early days of the network revolution and I'm not going to linger over the history of computers here. The reason for talking about ENIAC and Colossus was more to put our current state of change in perspective. We are 70 years into the transformations that computing is giving to our world. Considering it was 330 years from the emergence of steam power to the last steam power patent, that

implies there's a long way to go in our transformation. However, we can already see that a new age of money is being created in the internet age. I call this the ValueWeb, connecting everyone on the planet to talk, socialise, communicate and trade globally, in real-time for almost free. I can make a Skype call for almost no cost to anyone on the planet and, thanks to the rapidly diminishing costs of technology. For example, the cheapest smartphone in the world costs just \$34. In other words, what is happening in our revolution is that we can provide a computer far more powerful than anything before, and put it in the hands of everyone on the planet so that everyone on the planet is on the network. Once on the network, you have the network effect which creates exponential possibilities as everyone can now trade, transact, talk and target one-to-one, peer-to-peer.

As we connect one-to-one in real-time, it will create massive new flows of trade for markets that were underserved or overlooked. Just look at Africa. African mobile subscribers take to mobile wallets like ducks to water. A quarter of all Africans who have a mobile phone have a mobile wallet, rising to pretty much every citizen in more economically vibrant communities like Kenya, Uganda and Nigeria. This is because these citizens never had access to a network before; they had no value exchange mechanism, except a physical one that was open to fraud and crime. Africa is leap-frogging other markets by delivering mobile financial inclusion almost overnight.

The same is true in China, India, Indonesia, the Philippines, Brazil and many other under-served markets. So the first massive change in the network effect of financial inclusion is that the 5 billion people who previously had zero access to digital services are now on the network.

A second big change is then the nature of digital currencies, cryptocurrencies, bitcoin and shared ledgers. This is the part that is building the new rails and pipes for the fourth

generation of finance, and we are yet to see how this rebuilding works out. Will all the banks be based on an R3 blockchain? Will all clearing and settlement be via Hyperledger? What role will bitcoin play in the new financial ecosystem?

This new layer of value exchange is therefore nothing like what we have seen before and, for what was there before, it will supplement the old system and diminish it. Give it half a century and we will probably look back at banking today as we cur-



We don't know the answers to those questions yet, but what we will see is a new ecosystem that diminishes the role of historical banks, and the challenge for historical banks is whether they can rise to the challenge of the new system.

This new age of finance, the ValueWeb, is a digital networked value structure that is real-time, global, connected, digital and near free. It is based upon everything being connected from the seven billion humans communicating and trading in real-time globally to their billions of machines and devices, which all have intelligence inside. This new structure obviously cannot work on a system built for paper with buildings and humans, and is most likely to be a new layer on top of that old structure.

A new layer of digital inclusion, that overcomes the deficiencies of the old structure. A new layer that will see billions of transactions and value transferred at light speed in tiny amounts. In other words, the new age is one where everything can transfer value, immediately and for an amount that starts at a billionth of a dollar if necessary.

rently look back at cash and barter. They are old methods of transacting for the old historical structures of physical trade. These have now been replaced by a new method of transacting in the digital age.

In conclusion, I don't expect banks to disappear, but I do expect a new system to evolve that may include some banks, but will also include new operators who are truly digital. Maybe it is the Google's, Baidu's, Alibaba's and Facebook's; or maybe it is the Prosper's, Lending Club's, Zopa's and SoFi's. We don't know the answer yet and if I were a betting man, I would say it's a hybrid mix of all, as all evolve to a new age of financial structures. The hybrid is one where banks are part of a new value system that incorporates digital currencies, financial inclusion, micropayments and peer-to-peer exchange, because that is what the networked age needs. It needs the ability for everything with a chip inside to transact in real-time for near-free. We're not there yet but this revolution is in early days. It's just 70 years since the first computer was built. The Industrial Revolution took three centuries to play out. Give this revolution another few decades and then we will know exactly what we built. ●



MAS AND ABS INVITE ENTRIES TO THE INAUGURAL FINTECH AWARDS



Singapore, 1 August 2016... The Monetary Authority of Singapore (MAS) and the Association of Banks in Singapore (ABS) announced today that the submission of entries for the FinTech Awards will be open from now till 31 August 2016.

The FinTech Awards, comprising the MAS FinTech Awards and ABS Global FinTech Award, will be part of the inaugural Singapore FinTech Festival that will be held during 14 – 18 November 2016. The Awards recognise innovative FinTech solutions that have been implemented by FinTech companies, financial institutions, and technology companies. To qualify, the projects must have been implemented before 30 June 2016.

Entries could fall under any of the following categories:

- a. **MAS FinTech Awards (Singapore Founder):** Singapore-based SMEs¹ with at least one Singaporean founder
- b. **MAS FinTech Awards (Singapore SME):** Singapore-based SMEs
- c. **MAS FinTech Awards (Singapore Open):** Singapore-based companies of any size
- d. **ABS Global FinTech Award:** FinTech project implemented in any part of the world

A panel of judges representing a cross-section of experts from the private and public sector (such as venture capital, accelerators, consultancies, industry associations, and government) will evaluate entries based on the following parameters:

- Impact:** Considerations will include productivity, profitability, user experience, risk management, knowledge-transfer, and applicability beyond the financial sector
- Practicality:** Examples include ease of implementation, scalability, and cost-effectiveness
- Interoperability:** Ability for the solution to interface with other systems
- Uniqueness & Creativity:** Extent to which the solution differs from the status quo. One possible dimension could be through the approaches/technologies used to address specific problem(s).
- **For the MAS FinTech Awards,** up to 9 recipients will each receive between S\$50,000 and \$250,000. The total quantum for the MAS FinTech Awards will be up to S\$1 million.
- **For the ABS Global FinTech Award,** at most one recipient will receive S\$150,000.

The winners of the MAS FinTech Awards and ABS Global FinTech Award will receive their prizes at an event in the evening of 17 November 2016, during the inaugural Singapore FinTech Festival.

Mr Sopnendu Mohanty, Chief FinTech Officer of MAS, said “The MAS FinTech Awards and ABS Global FinTech Award represent the industry’s highest accolade for FinTech innovation. These awards celebrate the spirit of innovation in the financial sector by providing recognition to innovative FinTech projects that have been implemented in Singapore. It is our belief that such recognition will help foster a culture of innovation within the financial sector.”

¹ SMEs are companies with annual sales turnover of not more than S\$100mil or employment size of not more than 200 workers.



ABS Director Mrs Ong-Ang Ai Boon added, "Innovation is at the heart of the technological revolution and our members know that engaging with external solution providers is the way forward for the industry to generate new ideas and meet their customers' needs in the digital age. ABS hopes that our Global FinTech award will spur more innovation and collaboration between FinTech companies and our members so that Singapore can remain at the vanguard of change and maintain its role as an international financial hub."

For more information on the entry submission for the MAS FinTech Awards and ABS Global FinTech Award, please visit <http://www.fintechfestival.sg/fintech-awards/>.

For more information on the Singapore FinTech Festival, please visit www.FinTechFestival.sg.

FAQ

Can I submit multiple entries? What category would my project fall under?

You may submit multiple entries as long as they relate to different projects. There is no need to indicate which category you are applying to, as the evaluation team will decide on the best category fit for a given entry.

My project was implemented on [Date]. Does this fall under the qualifying period?

Projects, including betas and proofs of concept, will be eligible for consideration if the date of completion falls before 30 Jun 2016.

What is the relative weightage of each assessment parameter?

The weightage is distributed equally. Applicants will be scored on a 40-point scale, with each parameter accounting for 10 points.

How many winners will there be across the categories?

What is the prize breakdown across the categories?

There is no predetermined number of winners across the categories. MAS and ABS have made provisions for up to SGD\$1.15M for up to 10 winners across 4 categories, and reserve the right to revise the figure depending on the number and quality of eligible entries. For the ABS Global FinTech Award, there is a maximum of one winner.

5. How are SMEs defined? What is the difference between the categories?

SMEs (Small-Medium Enterprises), as defined by SPRING, are enterprises with an annual sales turnover of not more than SGD\$100 million OR an employment size of not more than 200 workers. Enterprises qualify as SMEs as long as they satisfy at least one of the two parameters above.

- a. **MAS FinTech Awards (Singapore Founder):** Singapore-based SMEs with at least one Singaporean founder. The term 'founder' is defined as an individual who was instrumental in setting up the SME. There is no need for majority share-ownership.
 - i. The SME must have a physical office registered in Singapore
 - ii. The solution must have been implemented in Singapore
- b. **MAS FinTech Awards (Singapore SME):** Singapore-based SMEs
 - i. The SME must have a physical office registered in Singapore
 - ii. The solution must have been implemented in Singapore
- c. **MAS FinTech Awards (Singapore Open):** Singapore-based companies of any size
 - i. The company must have a physical office registered in Singapore
 - ii. The solution must have been implemented in Singapore
- d. **ABS Global FinTech Award:** FinTech project implemented in any part of the world by any company



OPPORTUNITIES IN FINTECH

CHAPTER #3

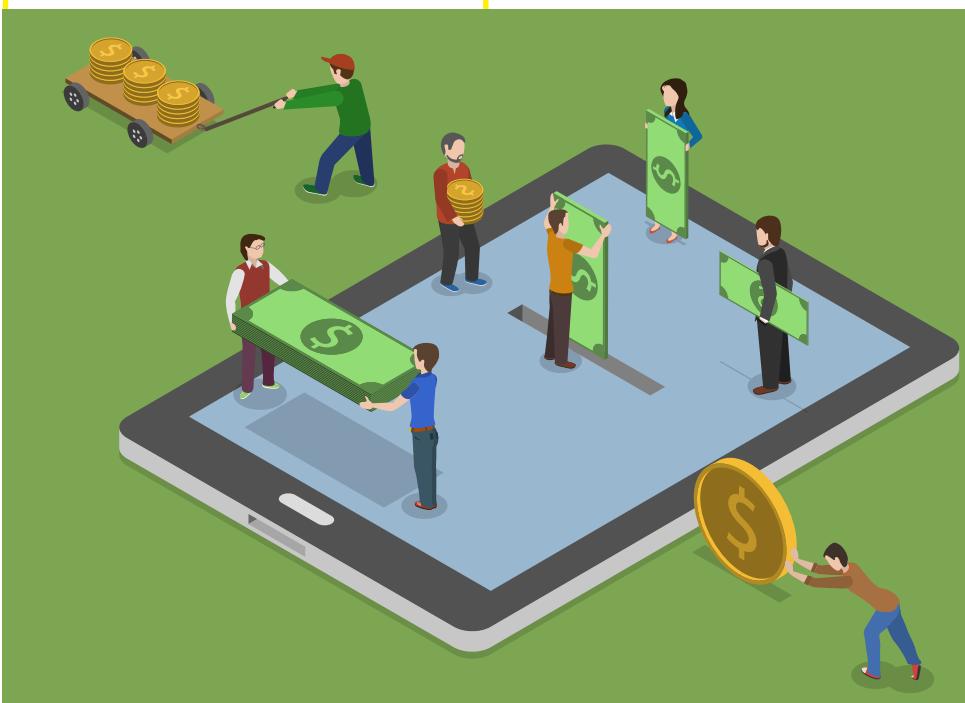
Fintech will be high on the agenda at this year's World Economic Forum jamboree in Davos, as senior bankers take to the stage to discuss the digital convulsion hitting their industry, and smaller startups stalk the halls.

Fintech, in fact, has been around for more than a decade and over the years has seen a modest amount of venture investments. However, since 2014, fintech venture investment has grown x3, driven by a new wave of virtualization of financial services by technology companies. At the same time, we have seen a decline of consumer confidence in the traditional providers following the financial crisis. The new fintech technology startups are now mostly selling their solutions directly to consumers and businesses instead of selling to the traditional FI channel. The size of the market is simply massive. In the not-so-distant future, seeing consumers going to online P2P marketplace platforms for their credit needs and leveraging robo-advisor software for investment advice might become the norm instead of visiting a local branch.

acquirers in 2015 had topped \$2 trillion for the first time ever. In today's M&A zeitgeist, we see yet another primary consideration: corporate pragmatism. It's what you might call a reluctant boom. Deals are happening largely because of deflationary forces that practically demand consolidation. In fintech especially.

International and CB Insights⁴.

According to the report, 218 deals worth a total of US\$4.9 billion were closed across the globe between **January and March** — more than double the US\$1.9 billion that was invested into fintech startups during the previous quarter. China-based Lu.com and JD Finance both inked



This year we will see many M&A deals in fintech. We're wrapping up a record year for mergers and acquisitions. By mid-December 2015 the total value of deals involving U.S.

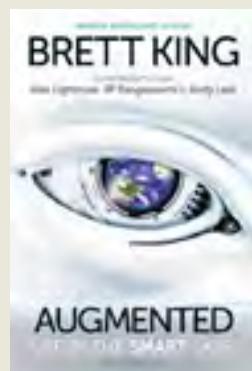
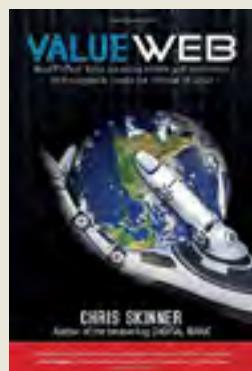
The fintech-sector will **exceed last year's total by 36 percent** if companies continue to raise money at the same rate as in the first quarter, according to a new report from **KPMG**

deals worth \$1 billion or above, while Oscar Health Insurance's \$400 million and robo-advisor Betterment LLC's \$100 million funding round helped push the tally higher following what proved to be a tough end to 2015. KPMG's report suggests that corporations looking to leverage such technology, rather than build it themselves, will stoke interest in robo-advisors. «**Fintech had a very strong start to the year**, and with the recent multibillion dollar investment in Ant Financial in April, we are starting to see fintech move into the mega-deal space», Warren Mead, global co-leader of fintech at KPMG International said in the report. The funding comes at a difficult time for the broader startups space. North America hosted the biggest number of deals, with 128, but the value of those transactions was dwarfed by Asian fintech companies that raised \$2.6 billion, making each worth an average of five times as much as their equivalents in the U.S.

In total, Asia witnessed 36 deals across its shores⁵ — which is only a sixth of the total that took place across the globe. Nine deals were struck in China, and 15 in India, which seems to be trying out a different strategy altogether. Singapore brought in a few small deals.

According to Finovate⁶, «the month ended on busy note as 29 companies raised \$427 million in the final week (ending April 29)». That brought the total raised in April to \$7.3 billion, which would have been a record year anytime before 2014. ●

2 NEW FINTECH-BOOKS YOU HAVE TO BUY RIGHT NOW



Chris Skinner «ValueWeb»

<http://amzn.to/1UraCpb>

Brett King «Augmented»

<http://amzn.to/1X3wxn4>

NEW REPORTS



Accenture: «The Future of Fintech and Banking: Digitally disrupted or reimagined?»

<https://www.accenture.com/us-en/insight-future-fintech-banking>



Accenture: Fintech and the evolving landscape: landing points for the industry

http://www.fintechinnovationlablondon.co.uk/pdf/Fintech_Evolving_Landscape_2016.pdf



Citi GPS's «Digital Disruption: How Fintech is Forcing Banking to a Tipping Point»

<https://www.citivelocity.com/citigps/ReportSeries.action?recordId=51&src=Home>



Business Insider: The Fintech Ecosystem Report

http://www.businessinsider.com/intelligence/research-store?IR=T&utm_source=facebook&utm_medium=cpm&utm_term=paid_post&utm_content=Report_Store&utm_campaign=FB_Paid_Post_Report_Store_BII_Website_Visitors_Target#/!The-Fintech-Ecosystem-Report/p/58825410



PwC «Blurred lines: How FinTech is shaping Financial Services», Global FinTech Report, March 2016

<http://www.pwc.com/gx/en/advisory-services/FinTech/PwC%20FinTech%20Global%20Report.pdf>

FAST COMPANY'S THE WORLD'S 50 MOST INNOVATIVE COMPANIES 2016⁷

Nº11. Robinhood

Robinhood is an American app-based stock brokerage that offers commission-free trading. It was founded in Palo Alto in 2014 by two former Stanford roommates, Baiju Bhatt and Vlad Tenev. Robinhood is currently available in the U.S. and is accepting users to its waitlist for an upcoming launch in Australia, where fees for a single trade can run up \$65 USD. The various fees attached to trading stocks often deters young people from entering the market, but by eliminating fees and streamlining the process, Robinhood hopes to open up trading to a new demographic. The tool is the fastest-growing brokerage in history, with hundreds of thousands of customers and more than \$2 billion in transactions. In 2015 it raised \$50 million in funding and won an Apple Design Award--the first finance app to do so. Now the company is letting developers build its functionality into already existing products like StockTwits and Quantopian, which could revolutionize trading. The company is eyeing international expansion and already has 20,000 people in Australia waiting to get in. The company's competitive advantage in 2016: it's free and mobile-first; a lower overhead cost with no branches or ads; ahead of competitors with regulatory roadblocks.

Nº41. Affirm

Affirm is an American financial technology company based in San Francisco founded by PayPal founder Max Levchin. Affirm lets users take out microloans at the point of sale with participating vendors and aims to provide a quick, transparent, and more inclusive lending alternative to credit cards. Customers enter their basic information and know within seconds (as opposed to weeks) if they're approved. Affirm looks at more than a FICO score, evaluating other things like social media activity to gauge financial responsibility. Lower interest rates and increased transparency make Affirm appealing

to millennials, and merchants like that Affirm assumes all the lending risks. Plus, retail partners see bigger purchases. Levchin doesn't want Affirm to make money from customers' debt. Instead, Affirm gets a small cut of sales, plus revenue from interest on loans. In 2015, the company raised \$275 million in debt and equity financing, joined forces with point of sale system Clover to infiltrate checkout counters at brick-and-mortar stores, and also partnered with a handful of coding bootcamps like General Assembly to help students pay for school. The company's competitive advantage in 2016: millennials are backing away from credit cards.

Nº42. Earnest

Earnest is an American financial services company based in San Francisco that touts a merit-based lending policy. Primarily a tech company, Earnest aims to help make a dent in America's \$1.2 trillion student loan epidemic with its software that analyzes data like employment history and income to find financially responsible borrowers for its products. In early 2015, the consumer finance company--which was already offering consumer loans--began offering graduates the chance to refinance their student loans at incredibly low rates: as low as 1.90%. Fewer overhead costs and human labor make the process cheaper, which trickles down to the customer in the form of cheaper payments. Earnest CEO Louis Beryl says the average borrower saves \$17,936. The loans are also refreshingly simple and flexible, meaning students can adjust how often they're paying based on their personal needs and know what it will cost them in interest. Since expanding into student loans, Earnest has made 50 times as many loans as in 2014. Near the close of 2015, Earnest raised a round of \$275 million in the form of debt and equity--further proof that fintech's attempts to overhaul our financial status quo might be a lasting development. The company's competitive advantage in 2016: low payments and flexible platform.

Nº43. Aspiration

Aspiration is an American financial services company that specializes in investment tools for the middle class and touts a commitment to trust between its clients and investment team. The company, which launched in Los Angeles in 2014, offers three products: a mutual fund that invests in companies that employ sustainable practices; a long-term growth strategy mutual fund; and a high-yield checking account that comes with a 1% annual percentage yield and free ATM access worldwide. Aspiration also offers a pay-as-you-wish model that lets customers pay the Aspiration team whatever fee they deem fair. The company promises to donate 10% of its revenue to charity. The «Do Well, Do Good» motto seems to be working: More than 90% of the company's tens of thousands of clients opt to pay Aspiration to manage their money (rather than go for the \$0 fee). In return, the company deploys investment savvy on its clients' behalf that it says was once only available to the wealthiest Americans. In 2015, the company raised \$15.5 million in funding. Next up, it will try to take on the big investment firms with its do-good model. The company's competitive advantage in 2016: its buzzed-about model.

TOP 10 IN FINANCE⁸:

1. Robinhood. For removing the barriers to stock trading
2. Affirm. For selling millennials consumer loans
3. Earnest. For trying to fix the long-broken student-loan system
4. Aspiration. For letting customers name their own price for mutual-fund fees
5. Motif Investing. For expanding its theme-based trading
6. Digit. For helping people save effortlessly
7. SoFi. For upending retail banking with ease
8. InVenture. For creating a more inclusive credit score
9. Coinbase. For making bitcoin user-friendly
10. Kuiale Shidai (Qufenqi). For building a financial system for China's upwardly mobile college kids

WALLETS

CHAPTER #4

It's anticipated that there will be more than **4.8 billion individuals using a mobile phone by the end of 2016**⁹. A recent report noted that 39 percent of all mobile users in the U.S. had made a mobile payment in 2015. This is up from 14 percent in 2014 and will in the 70 percent range by 2017. Because of this enormous growth — and potential growth that mobile devices present — we can expect to see the mobile payments industry and startups in the space evolve to meet the growing demands of users. Mobile payments have been quickly evolving, with more recognizable brands stepping into the industry to advance technology and offer what consumers and businesses want in terms of apps and services that allow them to pay with their phones. To understand how big this industry is going to be, you need to understand the history of mobile payments and their evolution over time. Don't think that mobile payments will be limited to your smartphone or tablet. Expect to be able to make purchases via BLE\NFC with wearables like the Jawbone UP4, bPay band and the Lyle & Scott bPay jacket.

vision of the future of money. For PayPal, «new money» isn't derogatory. It's a phrase to be embraced. The payments company is making its Super Bowl debut this Sunday with an ad titled «There's a 'New Money' in Town» that promotes its vision of the future of money, while taking aim at traditional financial systems.

At the end of March, **customers of PayPal held more than \$13 billion in accounts** at the online-commerce company¹⁰. Compared with the most similar type of bank deposit, the figure would put PayPal just behind TD Bank, or Capital One. Under U.S. law, PayPal isn't a bank, and those funds aren't deposits, but cash that sits without earning interest for consumers, ready to spend. The San Jose, Calif., company doesn't offer deposit insurance to customers who keep money in their accounts. It doesn't enjoy the powers, or have the regulatory costs, of being a bank. And it mostly earns revenue when money moves, not when it is held. PayPal lets customers use the money in accounts to buy things on the web or transfer money. In addition to linking to a credit or debit card or bank

Schulman said his firm doesn't want to supplant banks and hopes it can provide products that also bring revenue to lenders. «What we mean to do is to extend traditional consumer financial services», he said, adding that his target market is the two-billion-plus people who are outside the traditional banking system. «Apple didn't have to become a cellular carrier to launch the iPhone», said Bill Ready, global head of product and engineering at PayPal. «A bank is the carrier behind a lot of the services we provide, and when we deliver value to our customers, we bring volume to banks». On average, PayPal's account balances are small. Its \$13 billion in customer money globally—up 23% since 2014—is spread across 184 million active customer accounts, or about \$70 an account. By contrast, banks generally seek to have fewer but larger accounts. PayPal earns much of its revenue from merchants, who range from one-person eBay vendors to retailers such as Home Depot Inc.

In April 2016 PayPal posted revenues of \$2.544 billion with non-GAAP earnings per share of \$0.37, rising 19% and 28% respectively on a year ago and both beating analysts' projections of \$2.5 billion and \$0.35 EPS¹¹. «Our first quarter results continue to demonstrate the power of our global payments platform to attract and engage consumers, increasing our global scale and in turn attracting new merchants and partners to PayPal», said Dan Schulman, President and CEO of PayPal, in a statement. «Our focus on payments and ability to innovate for merchants and consumers continues to differentiate PayPal and drive our growth in a dynamic and competitive environment». The company says it has **184 million customers now**, up by 4.5 million, with 1.4 billion transactions in the quarter up 26% on a year ago. Services like **Venmo** and the company's expansion into credit and other services has given the company a life on average transactions per customer, which were up 12% to 28 payments per user, and \$81 billion in total payment volume. That \$81



US AND EU

PAYPAL

Super Bowl spot marks launch of PayPal's first major marketing campaign since spinoff from eBay's first-ever Super Bowl ad aims to promote the payments company's

account, there are 66,000 partner stores in which you can go and put cash into your PayPal account. It offers loans and credit cards with partner banks, and has explored tools that could help consumers manage a personal budget or make investments. PayPal Chief Executive Dan

billion in TPV, it said, «was faster than the growth rate of e-commerce». On the merchant side, there are now **14 million active accounts**. The company only completes 26% of transactions on mobile devices today, versus 22% a year ago.



STARBUCKS

Starbucks doesn't offer bank accounts, but people are storing more of their money with the coffee chain than they are at some banks, according to a new analysis¹². As more customers join the company's loyalty rewards program—it now has **12 million members**—they are paying for their coffee using the Starbucks cards or its mobile app, which now have a total **\$1.2 billion loaded** onto them for future lattes or snack purchases. That's more than many banks have in deposits, including First Commonwealth Financial Corp. and Charles Schwab. But the money banked at Starbucks appears to be growing rapidly, with the current \$1.2 billion nearly double the \$621 million the company had in 2014. That growth has been fueled by the company's popular app: Starbucks has «one of the most successful mobile wallets», Leena Rao writes in the new issue of Fortune. In March, Starbucks announced that it will launch a prepaid Visa card later this year.

Starbucks rolls out a more personalized mobile app along with a revamped Rewards program¹³.

Starbucks announced the overall of its mobile application, now used by 17 million people, in an effort to create a more personalized experience for its customers. The changes rolled out alongside an overhaul of the company's popular customer loyalty

program, Starbucks Rewards, which is now doling out stars based on dollars spent in stores, rather than how often customers make purchases. The changes to the rewards program are already receiving some backlash from consumers who are complaining about how much harder it is to earn free rewards. Customers now earn two stars for every dollar spent, instead of one star per visit. That means they have to earn 125 stars (~\$63) to reach a free reward, when before it just took 12. It also will require more spending to level up in between the different reward program tiers, which have been reduced from three to two: Green and Gold. Now, customers will need to earn 300 stars to move from Green to Gold, for example.

APPLE PAY

Apple finally announced that Apple Pay is coming to the web this fall¹⁴. Mac users will be able to pay online in Safari using a «Pay with Apple Pay» button, and authenticate their purchase using Touch ID on their phone or watch. While retail partners will need to integrate Apple Pay into their checkout flow, Apple said it has already signed up tons of merchants to

the payment platform. These include companies like Target, Expedia, United Airlines, and more. The move also means Apple is firmly setting its sights on PayPal, the current king of payments on the web. **Apple also announced Apple Pay will launch in Switzerland, France, and Hong Kong this summer**.

Apple Pay may only be available in six countries right now, but the iPhone maker is keen to extend the footprint of the digital payment service worldwide. That's according to Jennifer Bailey, VP of Apple Pay, who spoke to TechCrunch as the service expanded its **presence in Singapore**¹⁵, where it now supports five major banks that cover over 80 percent of cards, following an initial launch in April. Apple Pay is also live in the **U.S., Canada, the UK, Australia and China**, but there are plans to do a lot more. «We're working rapidly in Asia and also in Europe, our goal is to have Apple Pay in every significant market Apple is in», Bailey told us.



Apple says that its **ApplePay is gaining a million users a week**¹⁶, but admits that this is still not resulting in any meaningful revenues. CEO Tim Cook said that transaction volumes are five times higher than a year ago. After months of negotiations, the fourth largest bank in **Australia**, ANZ, is set to start letting its five million customers use Apple's service. ANZ Chief Executive Officer Shayne Elliott, CEO, ANZ, says: «I'm proud we're the first major Australian bank to offer Apple Pay and we are confident the convenience, security and privacy will be well received by our customers». Meanwhile, Apple Pay is set to arrive on more countries —

including Spain and Brazil — this year but it faces competition from fellow tech firms such as Google and Samsung, as well as banks and retailers. **All major UK banks also now support Apple Pay as Barclays finally goes live¹⁷**. Barclays was conspicuously absent from the initial list of partners, which included the likes of Natwest, Lloyds, HSBC and American Express. Barclays then promised a rollout by March 27, a schedule that it missed by a week. There's no word on why it took the bank so long to follow suit with its peers.

At the beginning of the year Apple Pay has launched in China¹⁸. Apple CEO Tim Cook took to Weibo this morning to herald the rollout of the service, which will work in stores and on some websites. The service had been tipped to go live in China since December 2015 — further hints were dropped February 2016 — and now Apple has delivered in the country, which is its second largest market behind only the U.S. based on revenue. Apple Pay initially supports credit and debit cards from UnionPay, which counts 260 million users. That means Apple Pay works with most China-issued debit and credit cards, and will be accepted at any store or restaurant that has installed the new breed of NFC-enabled PIN input dongles issued by UnionPay. UnionPay isn't just relying on Apple though, it secured a similar partnership with Samsung last year and also already offers its QuickPass contactless payment technology. It is playing catchup in China, where it must compete with services like Alibaba's Alipay, which has over 400 million registered users, and Tencent's WePay, which is available through blockbuster Chinese messaging app WeChat. Both are already widely used for online, offline and mobile-based purchases. Interestingly, Tim Cook is reported to have met with Alibaba founder and chairman Jack Ma last year to discuss integrating Apple Pay with Alipay. A deal didn't materialize, however. According to Yicai, after the service finally went live Thursday morning, it was seeing rates of up to 80,000

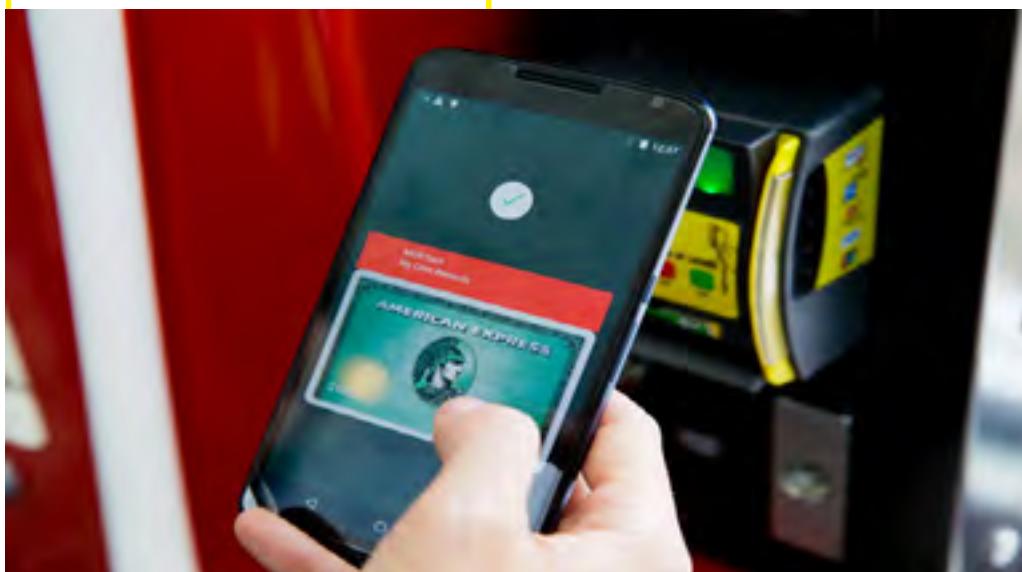
cards added each minute in China. **5 (possible) reasons Apple Pay won't succeed in China**: 1. Not all stores ready for NFC; 2. You sometimes need to input your PIN; 3. No discounts; 4. iOS Wallet app is too basic; 5. Less visibility.

You can now use **Apple Pay to buy gas** at 6,000 ExxonMobil locations across the U.S. The transactions can be made through the free Speedpass app, meaning that customers won't have to get out of the car to fill their tank, if they're at a full-service station. Even if you have to leave your vehicle to use the pump, ExxonMobil suggests that this will reduce your time outside in unsafe locations and inclement weather. The easy-to-use app also stores and emails receipts. It can also be used to purchase car washes.

Both Bank Of America and Wells Fargo are working on integrating Apple Pay into their ATMs, according to a source familiar with the teams on the projects. Bank Of America and Wells Fargo competitor **Chase** recently announced it will be rolling out cardless ATMs this year.

at any retailer that accepted MasterCard. It also let you withdraw money from ATMs. In an email sent to Wallet Card owners, Google says it wants «to focus on making it easier than ever to send and receive money with the Google Wallet app». That makes sense, as Android Pay has become the company's new platform for mobile in-store and in-app purchases. So a world where a debit card can be preloaded with cash from your computer no longer makes all that much sense.

The mobile **wallet for Android-powered smartphones is opening for business in the UK¹⁹** — its first market outside the U.S. (where it launched in September 2015) — starting out on NFC-enabled Android devices running KitKat 4.4 or later. Android Pay will let you make purchases of £30 (about \$43) and under with a single tap after you upload a Visa- or MasterCard-based credit or debit card from one of the banks supporting the service. No need to unlock the phone unless the price is higher. Google also said it will soon be turning on Android Pay in Singapore and Australia.

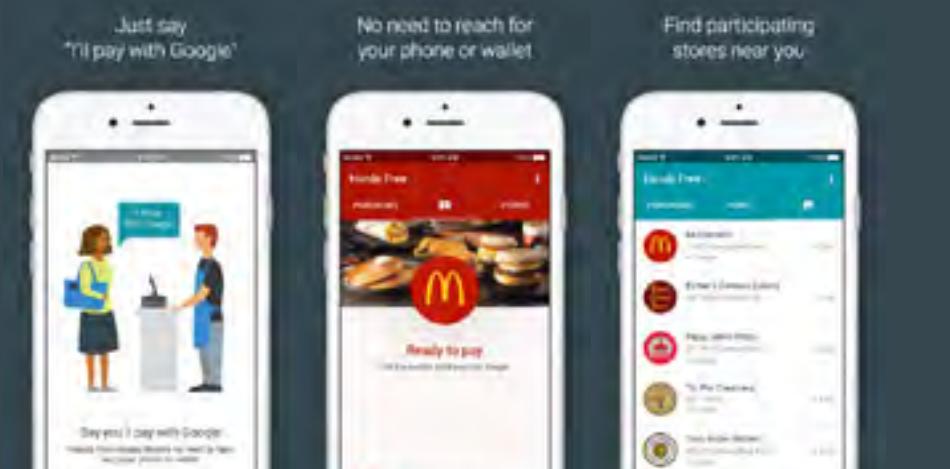


ANDROID PAY / GOOGLE WALLET

Google announced it would **no longer support its Wallet Card** starting June 30th. The prepaid debit card, which launched back in November 2013, let you pay for things in person and online using your Wallet balance

After announcing the expansion of Android Pay in the U.K., Google also made a few additional announcements around its mobile payments service: **one and a half million users in the U.S. now set up Android Pay on their phones every month²⁰**. For users, maybe the most interesting

update is that **Android Pay will now work at some ATMs**. For now, the company is only working with Bank of America on this project, but others will likely follow in the future. Thanks to this, you will soon be able to roll up to a Bank of America ATM, tap your phone and make a withdrawal. For developers, Google worked with partners like Stripe, Braintree and others to integrate Android Pay into their payment services.



Google is rolling out a pilot program that introduces a new way to pay cashiers — and it involves leaving your phone in your pocket. It's called **Hands Free**²¹, and it's a way to basically connect your phone with a point of sales system using the sensors on your phone. The end result is that a point of sale device is already aware of your phone's presence, and when you want to pay for something, you can do so through Hands Free. The service is launching in a pilot in the Southern San Francisco Bay Area. «When you think about a user, in a bunch of situations, the experience is quite crummy right now, it's quite clunky», Google senior director of product management Pali Bhat said. «You don't want your phone in the way, your wallet in the way, you don't want your cash in the way. These are inconveniences that happen multiple times a day». Users basically walk up to a cashier, which can detect that the phone is in the area and gives the point of sale system the ability to charge the user's card that's tied to Hands Free. The user tells the cashier that they will «pay with Google», and

gives their initials to the cashier, who then inputs that and the transaction is closed. Cashiers also have a way to detect what the person looks like and whether it's the same person in the photo tied to a Google profile. The goal here is to reduce friction in the payments process. That was the main attempt of tools like Android and Apple Pay: being able to pay for products with just your phone and not having to take out your wallet

shape — it is early in a long game. MCX's owner-members remain committed to our future».

Amazon announced a plan to spread adoption of its payments service, Amazon Payments, to more third-party websites²³. With the launch of its Amazon Payments Global Partner Program, the retailer will help e-commerce platform providers and other developers integrate with Amazon Payments so their own merchants can offer the option to «Pay with Amazon» at checkout. The idea here is that merchants could tap into Amazon's already sizable user base, and then eliminate the need for these customers to create a separate username and password on the merchant's website. And by making checkout quicker, merchants could increase conversions and boost sales. With the new Global Partner program, however, the goal is to offer an expanded set of services to e-commerce platform providers themselves, instead of just individuals merchants. At launch, a number of partners have agreed to integrate with Amazon Payments, and then offer that option to their own merchants and sellers, including PrestaShop, Shopify, and Future Shop, for example. The company has 285 million account holders, and some 23 million-plus have now used their accounts on non-Amazon websites.

and pay with a credit card.

Direct competitor of Android Pay — Merchant Customer Exchange (**MCX**) — announced it would postpone a nationwide rollout of **CurrentC**²², a smartphone payment initiative originally conceived as a mobile wallet rival to smartphone-led services like Apple Pay and Android Pay. As a result, MCX said it would lay off 30 people as it shifted its focus to working with financial institutions. A statement from MCX CEO Brian Mooney noted that the company would forge ahead instead on partnerships with banks like Chase: «Utilizing unique feedback from the marketplace and our Columbus pilot, MCX has made a decision to concentrate more heavily in the immediate term on other aspects of our business including working with financial institutions, like our partnership with Chase, to enable and scale mobile payment solutions. As part of this transition, MCX will postpone a nationwide rollout of its CurrentC application. As MCX has said many times, the mobile payments space is just beginning to take



ASIA

ALIPAY

The Alibaba Group of China has become a colossus in the global Internet world, with a market value

of nearly \$200 billion. The affiliate, known as the **Ant Financial Services Group**, said that it had **raised \$4.5 billion** from investors²⁴. The private financing round suggests that the company is now **valued at about \$60 billion** — or more than \$10 billion over the market value of PayPal Holdings, its closest analogue. It is one of the biggest electronic payment companies in the world by virtue of Alipay, a payment service that is commonly used in China. It is also one of the most prominent symbols of strength in China's private sector, particularly in the field of online payments. Slow-moving state-run banks and an initial absence of regulation have allowed privately run companies to weave themselves into everyday life. Ant Financial now encompasses not only online payments, but also low-risk money market funds and a wallet app that enables easy payment from smartphones around China. Alipay has more than **450 million users**, or more than double the number PayPal has. Ant Financial said it would use the money it had raised to support its global expansion and would also continue its work to connect people in rural China with its payment, loan and banking services. This round is the largest investment in a tech company to date, surpassing the \$3 billion that Didi Kuaidi²⁵, China's homegrown rival to Uber. Ant Financial says its «payment, insurance and wealth management services» reach **140 million people** in rural China, while MyBank has dished out **20 million loans to SMEs** and entrepreneurs. Beyond China, Ant Financial has moved into India via its investment in Paytm, an e-commerce and payments player that Alibaba has also invested in. Ant Financial said that at the turn of 2016, Paytm had 122 million users and was processing 52 million transactions a month, a number that has grown 230 percent year-on-year. Ant Financial is tipped to go public in the not-too-distant future.

Alipay, the payment app run by Alibaba's affiliate Ant Financial, **is launching in Europe to allow Chinese tourists to pay for things abroad**,

in its biggest push out of Asia yet²⁶. The app will recognize where the Chinese Alipay user is in Europe and send notifications about where to eat, shopping offers and places to see. There are also user reviews on the app. When a user attempts to pay, a barcode will be shown on a person's device which the merchant can scan. Chinese consumers will be able to use Alipay in the U.K., Germany, France and Italy to begin with starting in the summer.

and has told clients to clear their balances to avoid the risk of funds being frozen. The People's Bank of China is implementing rules that require real-name registration for all non-bank payment accounts such as Alipay. The regulations could impact Alipay's expansion pace in China and overseas, as customers are forced to hand over more information and face caps on the amount they can transfer or deposit. Overseas users will still be allowed to use other pay-



It looks like **Alibaba is in the mood for more acquisitions**²⁷. The company's recent investment spree — which includes the ongoing \$3.5 billion purchase of Youku Tudou and stakes in Groupon, PayTM, Snapdeal and Snapchat — is about to get fresh ammunition after it confirmed that it has closed a \$3 billion loan. Alibaba also invested in Snapdeal and, this year, it was in negotiations to buy a stake in arch rival Flipkart. It'll be interesting to see if this new cash goes towards Flipkart, since that would leave Alibaba backing the three biggest companies that rival Amazon in India.

Alipay's customers who don't have a mainland China bank card won't be able to keep money in accounts from July 1²⁸, according to a statement from parent Zhejiang Ant Small & Micro Financial Services Group. Alipay, which has 450 million users, didn't specify how many customers would be affected

ment methods, such as credit cards, to shop on Alibaba websites such as Taobao and Tmall.com. Users in China will be classified into three categories depending on how much information they are willing to hand in, which will affect how much can be put into accounts or transacted.

Uber expanded its partnership with Alipay²⁹. The partnership will allow Chinese travelers to pay their Uber fares using Alipay in any of the 68 countries where Uber does business, and allow riders to hail Uber cars directly from the Alipay app. Grab, the billion-dollar company rivaling Uber in Southeast Asia, just made³⁰ a move to tap into Chinese tourism after it added support for Alipay, China's largest digital payment service. Grab only began accepting credit card and digital payments this year — it started out resolutely cash only — so it makes sense that it is now moving quickly to tap Alipay,

particularly since Uber added Alipay worldwide in May. Visitors from China made Southeast Asia the world's fastest growing tourism region, and Grab's move mirrors the efforts of Alibaba and other Chinese consumer companies who want to follow the money into Southeast Asia.

UBER

At the beginning of the year Alibaba and its mobile wallet app **Alipay gave away US\$120 million** to viewers of the Chinese New Year TV extravaganza in China on February 7³¹. Uber is hoping to squeeze more money from users in China after it announced a tie-in with Alibaba's Alipay that will enable Uber China customers to pay their fare using the payments service when they are overseas. Alipay and Uber China first partnered to cover domestic rides in 2014, but now the duo is tapping into the huge market for Chinese tourism and business travel. Initially the partnership goes live in Hong Kong, Macau, and Taiwan — three hotspots for travel during the upcoming Chinese New Year — but Uber China said the agreement «will be extended to more regions around the world during the year».

Ant Financial has released a bunch of interesting data on Alipay, Alibaba's online payment platform, throughout 2015. The biggest headline: a full 65 percent of the money exchanged on Alipay in 2015 was sent via mobile. The developed eastern cities couldn't be outdone on one metric though: total spending. The award for that went to Shanghai's Alipay users, who spent a whopping RMB 104,155 (US\$15,839) per capita. Ordering delivery from O2O food providers became a major trend this year, and Alipay users spend an average of RMB 30 (US\$4.56) for the delivery meals they ordered. Exchanging the virtual cash-envelopes has become

a major trend in recent years, and if you're looking to make a haul this year, here's a hint: make friends with people in Zhangzhou and Hangzhou. Those two smaller cities had the highest per capita giving numbers (US\$224 and US\$218 respectively) of any cities in China last year.



Ant Financial published China's first online consumption index³². The data is primarily taken from Alipay. The index, growing 12.1 times from January of 2011 to April of 2016, shows that the contribution of online shopping to China's GDP in 2015 is twice that of its contribution in 2012. The focus of online shopping in China is shifting from goods to services. Additionally, luxury needs, rather than basic needs are now driving this transformation in online shopping patterns. Chinese consumers' discretionary spending, focused in areas like cosmetics, jewelry and sports products, are feeding markets that are outgrowing the online markets for basic consumer commodities and foodstuffs in many cities and provinces. The top five regions for online spending are Beijing, Shanghai, Zhejiang, Jiangsu, and Guangdong.

SAMSUNG PAY

Samsung Pay has launched in Spain, its first European country³³. This gives the mobile payment service a head start over competitors Apple Pay and Android Pay, since the two haven't landed in Europe yet. In Spain, Samsung Pay is currently partnered with banks CaixaBank and imaginBank, and will also be available for customers of Abanca and Banco Sabadell soon.

Samsung Pay has also expanded its reach in the Asia-Pacific region with yet another country launch — **Australia**³⁴. Its launch Down Under—where tap-and-go credit cards are already popular—comes the day before Samsung Pay is set to debut in Singapore. The service is already available in South Korea, the United States, China, and Spain. Samsung Pay global vice president Elle Kim said, «In the first six months of launching in Korea and in the U.S., Samsung Pay has surpassed more than **five million registered users and today has processed more than \$1 billion of transactions in South Korea alone**». 53 percent of Australians have made a transaction with a contactless payment method. For Square, its Australian launch in March 2016 marked the company's first new country in three years.

Before Australia and Spain, five weeks after Apple Pay rolled out in



China, Samsung launched its own mobile payments system in the country. Samsung Pay allows owners of certain Samsung phones to pay for things in-store after tying a bank card to the app. Samsung's system works at most stores and restaurants in the country due to the Korean firm tying up with China UnionPay, the nation's main card network. Shoppers hold their phone near the UnionPay dongle that most cash registers in China have, and then authenticate the payment by scanning their fingerprint on the phone's «home» button. Samsung will be up against not just Apple Pay but also homegrown mobile payment services from WeChat, the nation's top messaging app, and Alipay, the Alibaba-backed mobile wallet app. But the biggest challenge for Samsung Pay is Samsung's growing irrelevance in the Chinese market. Samsung was China's top smartphone maker in 2012 and 2013, but then Xiaomi took the throne in 2014 as well as last year. Samsung's shrinking customer base in China will limit the revenue it can get from Samsung Pay as well as its potential visibility in stores. And not all Samsung phones support cashless payments in China yet.



Samsung announced that it has cemented a deal that will make Alipay³⁵, China's largest online payments platform, available through Samsung Pay. The partnership, made between Samsung Electronics and Ant Financial, the Alibaba financial tech affiliate that owns Alipay, is important because Alipay is one of the

most formidable rivals mobile payments like Samsung Pay and Apple Pay face as they tackle the Chinese market. Samsung Pay expanded into China at the end of March, about six weeks after Apple Pay's debut there. Apple has reportedly been trying to strike a similar agreement with Alibaba since last year. The deal hasn't been announced yet, but the popularity of iPhones in China—they still hold about a 14.6 percent market share, despite competition from Android rivals like Huawei and Xiaomi—means it would not be surprising if one was announced soon, too. Samsung Pay users can now link their Alipay accounts and make payments with the service's NFC and MST technology to checkout at retail stores. They can also access Alipay's QR codes through the Samsung Pay. The advantage of tying up with Alipay are obvious for Samsung Pay. Alipay also benefits, however, because Samsung Pay's technology will allow it to expand into more offline businesses.

NEW PLAYERS: XIAOMI AND HUAWEI

On 21th April, China Union Pay has officially announced that they are co-operating and working together with **Xiaomi to introduce a brand new payment service³⁶**. It is a mobile payment and digital wallet service by Xiaomi that allow users to make payment by using Mi devices. With this service, the shopping experience would be greatly enhanced and the method of payment will be simplify and much more convenient. With Mi Pay, you can now outing with your friends and family without carrying a lot of cash in your wallet.

In addition to the four tech giants Alibaba, Tencent, Baidu and JD.com, who are splitting the market, **Xiaomi is also getting a slice of the pie by buying a 65% stake in an Inner Mongolia-based third-party payment institution, Ruifutong Corp.** Ruifutong Corp. acquired the license issued by China's central bank to provide payment services in August 2011, and is now the only institution in Inner Mongolia that is authorized

to operate in the internet and mobile payment business. China's real estate giant Wanda Group also bought a controlling stake in leading third-party payment institution Kuaiqian Payment in late 2014. E-commerce giant JD.com acquired an online payment operation license by acquiring Beijing-based payment institution Chinabank Payments.

Recently **Xiaomi has thrown US\$115 million in capital into founding a new bank that will offer online financial services to young people and small businesses³⁷**. The private bank has just been granted regulatory approval. The bank will provisionally be called «Sichuan Hope Bank», as an English name has not been finalized. Xiaomi will be the second-largest investor with a 29.5 percent stake, while Chinese conglomerate New Hope Group will own a 30 percent stake and Chengdu Hongqi Chain will own a 15 percent. «The Sichuan Hope Bank will become the first mobile internet bank in central western China», said a spokesman for the bank in a statement. The new bank has a total registered capital of US\$455.8 million. The move comes some time after other Chinese web giants, such as Alibaba and Tencent, opened their own private, online-only banks. Alibaba's MyBank debuted in mid-2015, while Tencent's WeBank, tied to its popular WeChat messaging app, popped up earlier last year.



Huawei announced the launch of its mobile payment service in China, called **Huawei Pay**³⁸. It will be entering a dog-eat-dog world in which foreign brands are working hard to take a chunk out of the locally dominant companies WeChat and Alipay. The product will come pre-installed in new Huawei phones and wearables — an effort to seemingly dissuade people to buy a Huawei device only to upload a service like WeChat. Huawei's has only inked the support of its lone local bank, the Bank of China — one of the 'Big Five' state-owned banks in China. BOC card holders will be able to integrate Huawei Pay with their accounts. In October 2015, the phone company passed Xiaomi as the most popular Chinese mobile brand, so preloading the service onto its phone means a lot of eyes will be seeing the app. The company became the fourth company after Apple, Samsung and Nokia to ship 108 million phones in a year. Chinese media has reported on rumors that not only Huawei and Xiaomi, but also Lenovo and ZTE are developing plans for their own mobile payment systems.

INDIA: BLUE OR RED OCEAN?

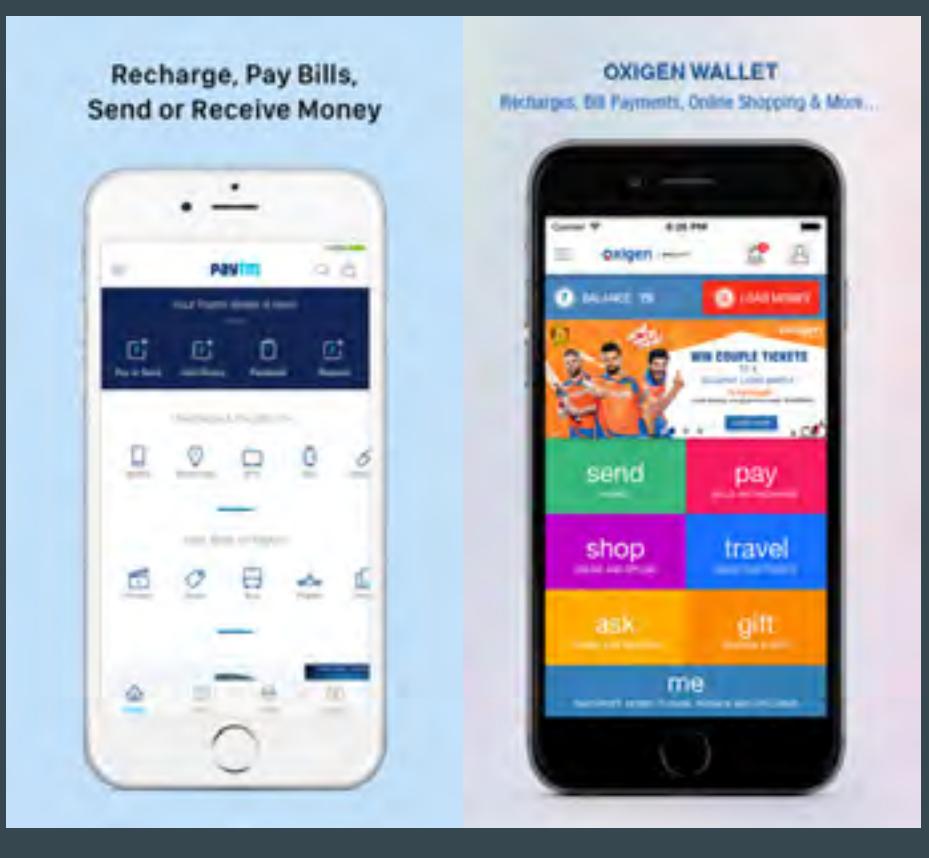
What you need to know about the mobile wallet war in India. Basically every major telecom service provider in India has a mobile wallet as part of its product portfolio. It is a natural transition for banks and financial institutions to adapt their services to the changing needs of their customers. At the beginning of the year, **Paytm** and **Oxigen** wallet spent millions of dollars in marketing campaigns along with **Mobikwik** and **FreCharge**, which ceased their marketing activities sometime before Diwali. The players are currently subsidising the user while burning VC cash, with the whole industry **hoping that they reach the critical mass before running out of funds**, and move on to the next stage of improving revenue per user.

Alibaba-backed Paytm, one of the bigger e-commerce startups competing against Amazon in India, is raising money again, just months after a reported **\$680 million round**. Sources close to the company say that Paytm is now looking to raise **\$400 million** by June to help with

the launch of Paytm's new payments business, **Paytm Payment Bank**. The new payments business will be 51% owned by Sharma himself, with the remaining 49% by the company³⁹.

Vijay Shekhar Sharma was not in a hurry to appoint the head of the payments bank business. He didn't want to make any decision in haste, after all payments bank is Sharma's trump card. «We will bring wealth and money management on to the mobile», the CEO and founder of **Paytm**, had told⁴⁰. After dozens of meetings with more than 15 odd candidates Sharma chose **Shinjini Kumar** (her friends call her Shin), director — tax and regulatory services at PwC, to head the payment banks business. What is more interesting is Kumar worked with RBI for about 16 years, and quit at the deputy GM to join Bank of America where she worked as a compliance head for nearly three years. Sharma has already charted the course of the payment banks, Kumar will have to execute. «The wallet will become a bank account».

Mobile payments and commerce platform **Paytm** plans to launch a series of new products, including insurance, wealth management services and loans through its **new payment bank** that aims to open for business in August 2016⁴¹. Amongst other services, the bank will offer customers the option to invest as little as Re 1 in a money market fund, buy daily insurance to underwrite movie tickets or buy travel tickets at nominal costs said founder Vijay Shekhar Sharma. At the backend there will be **tie-ups with other banks** and financial institutions. Sharma said the bank will retain the Paytm brand name and identity when it is launched after receiving final regulatory approval. Last year, the Reserve Bank of India granted «in-principle» approvals to 11 applicants including Paytm, Reliance Industries, Bharti Airtel, and Vodafone among others to set up payment banks. These ventures can accept deposits, convey remittances and dispense payments and



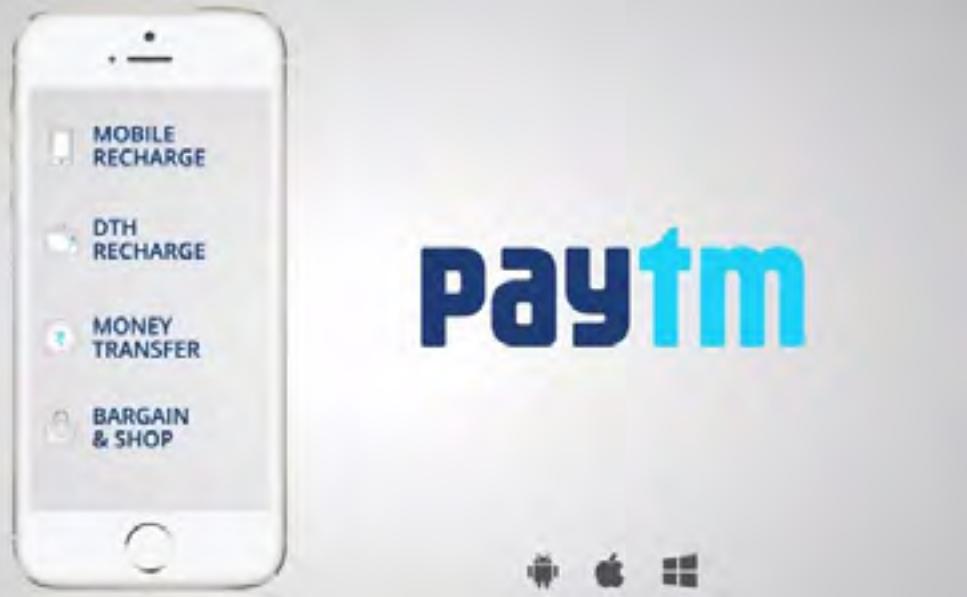
financial services with a focus on the unbanked segments including migrant workers. They cannot lend to their customers, though. Paytm's approach will mark a «fundamental shift» as the core of its business is keeping active users in the lower income group. «With payment banks, deposits can't be used to lend money, and that idea itself is why people are having a little bit of cold feet. (This) is because they have a business model approach which is built on credit and lending. I believe payment banks offer an incredible new opportunity of building a business model based on lower cost of distribution and that is the differentiation». «We have to build a massive O2O (online to offline) structure. We (have a) target of (reaching) a million merchants offline. Second, building distribution of the bank and third, seamlessness between the three entities marketplace, the payment system and the bank. To do that, the marketplace is now gearing up to offer financial services so that our interest will move from being just a brand store to a long-tail merchant (more) than even mom and pop shops».

over 350 million internet users, has just 21 million credit card users. But now **Paytm wallet users can hail an Uber cab** and pay with the online wallet at any of the 400-odd cities Uber runs in⁴². Paytm has tied up with Uber for this.

Paytm has had a unique approach to ecommerce in India⁴³. Originally launched as a site for mobile phone top-ups in 2010, the name is an abbreviation for «pay through mobile». It soon pivoted to become an online wallet and, four years later, it launched an ecommerce site. In August 2015, it was one of eleven companies to receive permission to act as a «payment bank». This means that customers can use it to do everything that a conventional bank can, including holding money, transferring between accounts, and withdrawing cash. However, it's not allowed to give out loans, issue credit cards, or hold more than US\$1,472 in a single account. Still, Paytm is the largest mobile wallet in the country, it has over 120 million users.

Mobile wallet-turned ecommerce site **Paytm made it free for customers to pay merchants offline**

hardware that supports cards, so most merchants end up demanding cash instead. Offline transactions were launched by Paytm three months ago, with a pre-printed QR code that customers have to scan in order to charge their wallet.



Till now, if you were an Uber user in India who wanted to hail a cab anywhere outside the country, you would have had to mandatorily register a credit card on your account. But most Indian internet users don't have a credit card. India, with its

through its app. This makes Paytm an attractive alternative to using credit and debit cards at small and medium businesses, because banks usually charge a fee anywhere between 0.5 to 2.5 percent per transaction. It's also expensive to buy

«The biggest advantage of working with Alibaba is the fact that it's grown huge and solved a lot of problems», explains Sudhanshu Gupta, associate vice president at the Paytm marketplace. «That's something that we can pick up and incorporate. It helps us solve problems of everything from payments to marketplace fraud». A few months after Alibaba's initial investment, Paytm announced the integration of a million Chinese sellers from AliExpress onto its platform. In the past month, Paytm and Alibaba launched a partnership that would allow Chinese merchants to use Alipay while selling through Paytm. In return, Paytm got access to Alibaba's cloud computing arm, Alicloud (also known as Aliyun). The company could now work with Alibaba's massive merchant base. «We've also observed how Alibaba works with brands», Sudhanshu explains. «They don't just list products to sell. They go so far as to handle

online marketing and establish a digital presence for them, which means now they can work with greater insight and data». The amount of data that comes with a figure like that is immense. «We have so much data from our payments wallet that the transition to ecommerce was natural».

second half of 2015, it purchased local services platform Near.in and put money into transportation app Jugnoo and Little, a platform that helps users find deals at nearby businesses.

The increase of smartphone ownership in India is fueling the rise of

tailers in the future — although those lofty goals will take some time to hit.

MobiKwik has announced⁴⁵ also that it will offer a **6% «annual profit»** (a higher ‘interest’ than the 4% savings account interest that most banks offer in India) to its customers who maintain a monthly balance of at least Rs.5,000 in their mobile wallets. This is effectively like an interest payment, although the company is at pains to not call it that for fear of attracting the regulator’s ire. To be sure, the Reserve Bank of India is kept in the loop by all mobile wallet companies regarding their new products, and given that it has not objected to the «annual profit» sharing, it is likely the regulator doesn’t have a problem with MobiKwik. With wallet companies such as MobiKwik, the money that customers have in their wallets is actually stored in an escrow account with a commercial bank. This money cannot be accessed by anyone except the customer when paying for something. So the wallet company does not have direct access to the funds. This means that MobiKwik isn’t paying its customers out of earnings from their money. Given the way the new economy works, the money probably comes out of a venture capitalist’s coffers.



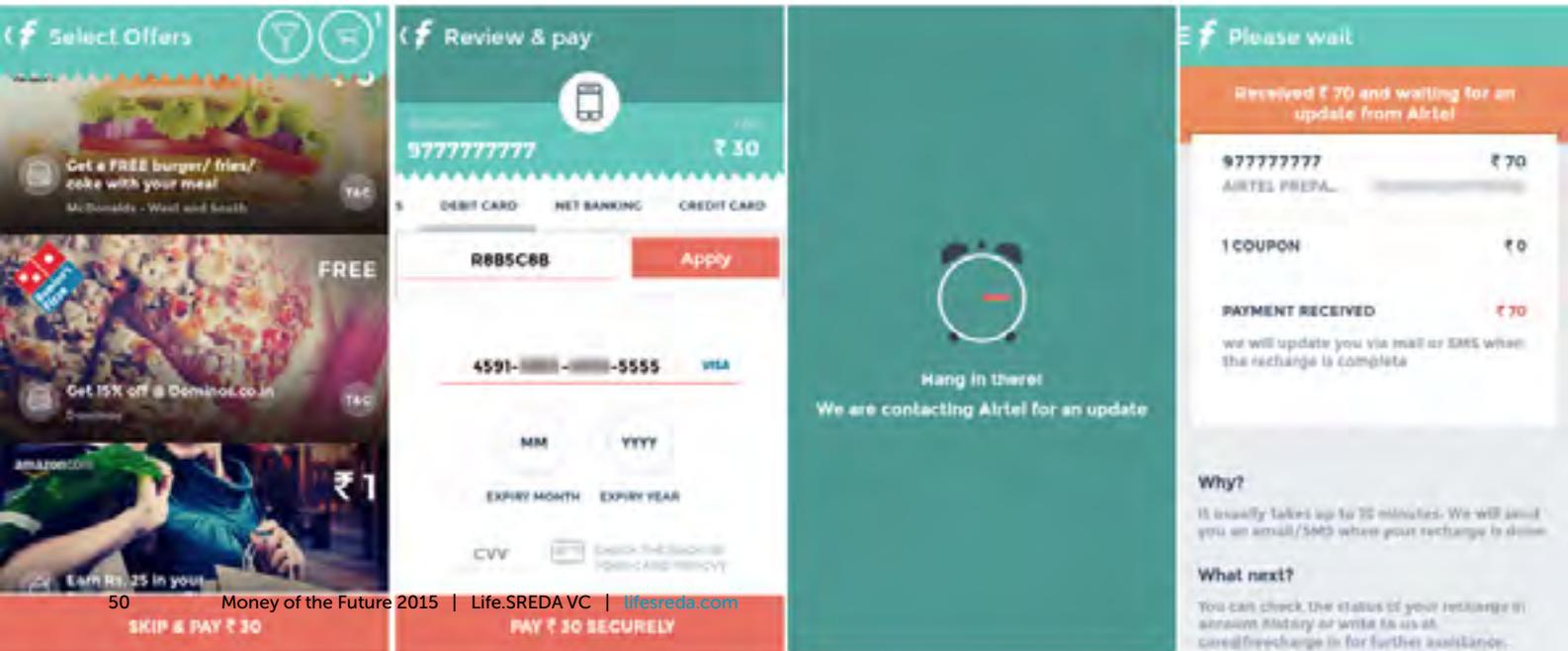
With plenty of funding in its own wallet, **Paytm has its eyes on expansion. It announced plans to invest US\$150-\$200 million in Indian tech startups over the next few years**. It's pioneering a voice detection payment service «**Soundpay**» that will pick up on sound bytes in the vicinity of a merchant-customer interaction in order to verify that they're both present and that the transaction is authentic. Furthermore, it also has the potential to make an entrance into India's still nascent world of chat commerce. It acquired **messaging app Plustxt** in early 2013, providing customers with the capability to directly interact with their sellers before processing payments. Paytm, the Indian mobile commerce company backed by Alibaba, announced today that it has acquired Shifu, a personal assistant app for smartphones. The value of the deal was not disclosed, but it is close to the \$8 million. In the

mobile wallets in the country. One company leading the charge, **MobiKwik**, has topped up its own funds with a **\$50 million Series C round** announced⁴⁴. Primarily a mobile wallet, MobiKwik's range of services include online recharge (topping up mobile phone credit), bill payments, money transfers, coupons and ticketing. The startup claims to have over 30 million users and support for more than 75,000 retailers. The funding was led by two interesting strategic investors: GMO, a publicly listed Japanese internet company involved in payments among other things, and semiconductor firm Mediatek. Existing investors including Sequoia and Treeline Asia also took part in the round, which takes MobiKwik to more than \$80 million in money raised to date. The company is aiming to reach 150 million users, annual GMV of \$5 billion and 500,000 re-



Mobile wallets were big fans of the new regime. Some, like Paytm, got their own licenses, while others like rival **FreeCharge** didn't and instead chose to partner with those who had⁴⁶. Govind Rajan, COO of e-wallet FreeCharge and CSO of ecommerce site Snapdeal (which acquired FreeCharge last year), said: «We're definitely not competing with banks». «Banks are there to manage people's cash. That's their main focus, and they make money off of doing that». FreeCharge has raised over **US\$113 million** of funding in five rounds from the likes of Sequoia Capital and Belgium-based Sofina. It was bought out by Snapdeal in 2015 for an estimated **US\$400 million**. FreeCharge's focus on design is apparent when you walk into its office. The walls are colorful and covered in quotes. As one employee puts it, it's designed for open collaboration and «flowing energy». FreeCharge has partnered with Mastercard to give every account holder a 16-digit card number. In order to access the card, users have to enter a pin number that changes each time you use the card. The FreeCharge Go card just crossed 1,000,000 users. «There are 250,000 cards issued in a month in India. In a span of three months, less than 5 percent of cards get used at a point of sale». It will launch a «chat and pay» feature, where users can chat with local merchants and pay them through the FreeCharge wallet. This too is super fast — transactions can start within a minute after creating a FreeCharge account.

After launching a standalone app for win November last year, Indian transportation app Ola has made an acquisition to double down on its mobile wallet and payments business: the company has **acquired Qarth**, a startup that has developed a mobile payments app called X-Pay. Financial terms of the deal have not been disclosed. This is the third acquisition announced by Ola, and the first to build out an aspect of its business beyond basic transportation. «With acquisitions like Qarth, we are investing in building seamless digital payment solutions», Anand Subramanian, Senior Director, Marketing Communications at Ola, said. «As we work towards our mission of building mobility for a billion people, we will continue to build for a best in class payment experience for our users». Qarth's X-Pay app (Android-only) integrates with some 26 banks in India, providing those who have accounts at these banks to use the app to make «one-touch» mobile payments or money transfers. Since going live in December 2014, X-Pay has had between 10,000 and 50,000 installs. ●





NEOBANKS AND CHALLENGER BANKS

CHAPTER #5

Since its rise in 2008, fintech has been touted as a major threat to the traditional banking processes, and **one of the disruptive tech's pioneers has been Fidor**. Fidor Bank with more than 350000 clients is a digital bank founded in Germany in 2009. It was revolutionary at launch because it focused on letting its customers actively participate in the bank's decision-making. It made its foray into the UK market in 2015. Speaking at the WIRED Money conference in London⁴⁷, Fidor Bank's CEO Kröner quipped his firm is the «world's oldest fintech bank». It acts as a «holistic financial service marketplace» and mixes fintech solutions with «more traditional solutions», to make it «far more accessible for the customer». «Our key mission is integration in whatever way possible», said Kröner. «Collaboration, co-management...it's open and it's efficient». Disruption must be «mass market relevant», he continued, and Fintech is not disruptive because it's not used by a mass market today.



The bank's mission is fourfold — creating, better banking, digital and «world». This involves «customer centric banking», «driving innovation as an entrepreneur», focusing on speed, data and mobile offerings, as

well as ensuring its services are borderless and have «no geographical restrictions».

Fidor has a German license that also applies across Europe, and treats its community of users as «co-managers».



«If you treat your customer as a co-manager, they act as a co-manager», says Kröner. «We always speak to our community before we change any of our products. We need to improve our interest rates — we ask them what we do. We ask them what the product should contain, what we should call it». Because of this, Fidor says it has fewer customer enquiries because of peer-to-peer sharing, fewer costs, higher loyalty and is able to educate its customers on finance. «Innovation means acceptance by the customer. There is no innovation without acceptance by the customer».

UK-based Tandem has raised £1m in just 20 minutes through crowdfunding platform Seedrs⁴⁸.

The high demand from pre-registered investors led to a «momentary glitch» on the Seedrs site. Tandem has already given away 5,000 single shares to so-called cofounders who it wants to help shape the bank by giving feedback on how it should work. Investors in Tandem's crowdfunding will be able to buy-in at the same valuation and price as its VC backers and can invest from as little as £15. The raise follows huge interest in fellow digital challenger bank Mondo, which last month hit its £1m target on CrowdCube in just 96 seconds, and experienced its own technical issues due to the surge in interest. Before this **Tandem has raised £22 million at a £65 million valuation⁴⁹**. London-headquartered Tandem, which has no branches and will operate simply through an app, raised the cash from investors including eBay founder Pierre Omidyar's Omidyar Network. Tandem founder Ricky Knox told: «Pierre Omidyar has a pretty awesome fund that's trying to improve people's lives. It's a philanthropic impact fund. They're investing in us because we're pretty serious about our mission of making people actually better off rather than worse off as their bank». Tandem got its banking license last year but is yet to launch. It plans to have a data-heavy approach to banking that can ensure customer are getting the best deals.

Berlin-based startup **Number26** with **200000 clients** just raised a **\$40 million Series B** round led by Hong Kong based Horizons Ventures⁵⁰. Battery Ventures, Robert Gentz, David Schneider and Rubin Ritter also participated in today's round. Existing investors Peter Thiel's Valar Ventures, Earlybird Ventures and

Sopnendu Mohanty (MAS), Brett King (Moven), Matthias Kröner (Fidor) and Ricky Knox (Tandem) at MAS event organized by Life.SREDA.



Redalpine Ventures re-invested as well. At heart, Number26 provides a free current account with a MasterCard. But compared to traditional brick-and-mortar banks, Number26 has a few nifty features⁵¹. For instance, the mobile app is a well-designed native app. When it comes to the card, you can customize it to your needs. For instance, you can receive a push notification for every transaction above a certain amount. Or you can temporarily disable online purchases, ATM withdrawals or foreign transactions. You can re-enable everything later. The startup has partnered with Wirecard for the back end. Wirecard has a banking license and actually manages your money. Number26 sits on top of Wirecard and handles all the consumer-facing features. Technically, Number26 isn't a bank per se — or not yet, at least. The company has expanded to six other European countries (France, Greece, Ireland, Italy, Slovakia and Spain) and partnered with TransferWise for international transfers in foreign currencies.



UK-based startup quasi-bank **Loot** has raised **£1.5 million** (\$2.2 million)⁵² from Austrian early stage fund Speedinvest and is relaunching its app as a broader, millennial-focused banking product pitched at «Generation Snapchat». The startup is a pre-paid card linked to a money man-

agement app that lets people track spending and gives them insight into what they are spending their money on. Loot, founded by 22-year-old recent graduate Ollie Purdue, was originally pitched at overseas students because of its quick account opening time. It launched its service last September to coincide with the new university year. But Loot is now launching a new version of its app targeted at millennials more generally, not just students. The new app has features tailored to travel, shopping, and money management, meant to appeal to young people. Purdue says: «We are focusing our travel features on people who love impulse trips. You don't have to worry about cash, you don't have to worry about a spending card, you just take your bank account abroad with you». «And we focus our money management on people who just want to know more about where their money is going. Maybe they keep checking their bank balance and it's surprising or they don't know what's going on so they just want to know a bit more about where it's going». Purdue says Loot currently has 5,000 customers but is hoping to reach 50,000 by the end of the year after broadening out its service.



Sweden's **Tink**, a mobile banking app, has raised **\$10 million** in Series **B** funding⁵³ in a round led by Swedish

investment firm Creades, and SEB Venture Capital, the venture arm of Swedish bank SEB. The new capital will be used to help the startup expand internationally and, by taking advantage of new European banking technical standards, evolve its product beyond a «read only» personal finance app to something Tink CEO Daniel Kjellén is calling a virtual bank. Launched in Sweden in 2013, and available for iOS and Android, the first version of Tink's mobile app lets you keep a handle on your personal finances, by linking the app to banks accounts and credit cards. From this 'read only' data it presents insights into spending habits via a news-feed style stream in a bid to make it fun and useful. Broadly speaking it might be compared to Mint and Level Money in the U.S., and Numbrs, Bankin' and Money Dashboard in Europe. «Today we're live in Sweden with 300,000 users on Tink 1.0 and are currently running beta tests in 10 additional European markets for international expansion later this year», adds Kjellén.

The New York firm Warburg Pincus is leading an investment round of more than **\$27 million** in San Francisco-based **Varo Money Inc.**,

a startup that may one day take the rare step of seeking its own bank charter⁵⁴. Led by Colin Walsh,

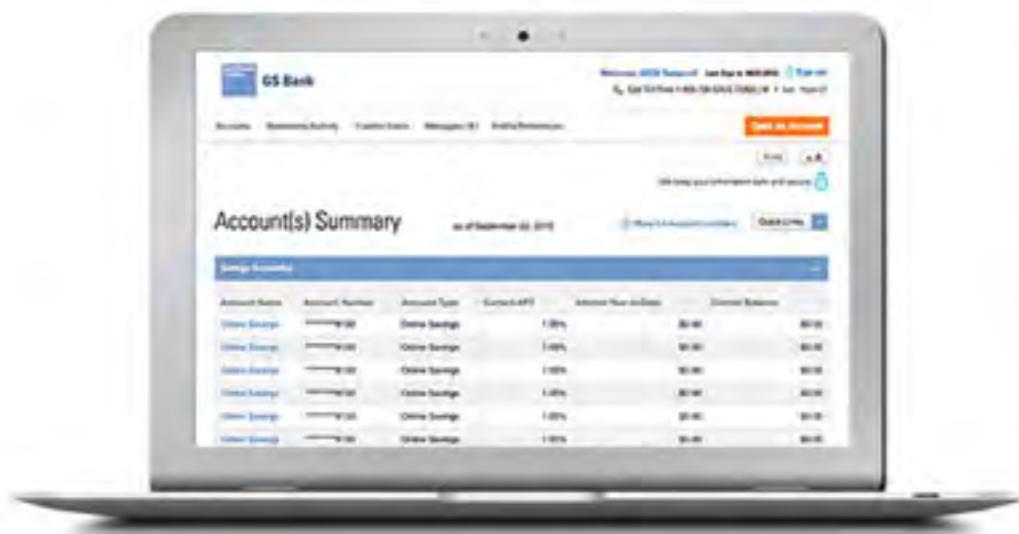
a veteran of American Express Co. and Wells Fargo & Co., Varo is developing a mobile-banking app offering deposit accounts connected to budgeting tools and other digital financial services. It is also seeking to partner with a bank to provide accounts. Varo plans at first to rely on the banking partner to back the accounts to which its software will provide access. But what sets the company apart is its willingness to even consider seeking its own bank charter so it can offer the deposits itself. That would be a shift within the financial-technology industry, which

banking with its heavy regulations.

GE Capital Bank is a move by Goldman to diversify revenue streams and strengthen liquidity in a market where traditional investment banking isn't doing as well as it has in the past. Currently, GS Bank has total deposits of around \$114 billion, which pales in comparison to the total deposits of large consumer banks like Wells Fargo and Bank of America. The downsides to Goldman's particular offering are considerable⁵⁶ — they don't have a checking account and there's no ATM access, so this couldn't actually replace a traditional bank — but

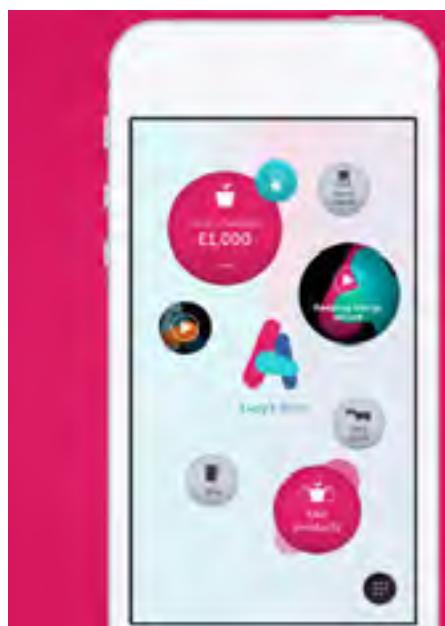
tors have a more robust set of products, and

Hong Kong-based Neat to launch banking app that tells how much you can spend today⁵⁷. The startup partners with banks and uses both cards and a smartphone app. Users only need 10 minutes to set up a bank account, with secure finger print scans and facial recognition. Users can use the app for money transfers, checking account balances and topping up their account. The app can be used for offline and online purchases. Moreover, Neat can also help users save money by making a budget. It even sends out notifications each time they spend, showing them how much they can spend each day. Neat also uses artificial intelligence and machine learning to gain deeper understanding of its users. While the app is certainly open for anyone to use, the company is specifically targeting university students and young professionals. Not only do they tend to be early adopters, the company's market research also revealed that university students tend to need more help with budgeting.



Goldman Sachs launches GS Bank, an Internet bank with a \$1 minimum deposit⁵⁵. Goldman is opening its doors to the masses with the launch of GS Bank, an FDIC-insured, Internet-based savings bank. GS Bank's interest rates will be high, giving customers an annual yield of 1.05 percent. This rate trumps the average U.S. savings bank yield of .06 percent APY, but is relatively in line with other online rival banks like Ally, which offers 1 percent APY. The bank was born out of Goldman's acquisition of GE Capital Bank, the online retail bank previously run by General Electric's capital arm. The launch of GS Bank and acquisition of

Goldman can of course expand over time. What Goldman Sachs has that other online banks don't is a widely recognized brand name built on excellence in other dimensions of financial services that could help further push internet banking beyond the early adopter demographic.



Atom Bank, which is backed by Spanish banking giant BBVA, has made its iOS app available to users who pre-registered their interest⁵⁸. However, this is still a very limited launch, restricted to a single product: a fixed term savings account offering an albeit fairly competitive interest rate. In other words, let's not carried away just yet. Atom says that by

«the end of 2016» it will add current accounts, overdrafts, debit and credit cards, instant access savings and residential mortgages to the list of financial products, all serviced via the app. An Android version is planned too. Also Atom Bank announced its **first acquisition: Grasp**⁵⁹, a design and development house based out of the north of England. Terms of the deal are not being disclosed. Grasp had already been working with Atom as an outside agency, creating the «shop window» for Atom. So this is partly about bringing more of that relationship in-house to work on deeper projects. As part of the deal, the head of Grasp, Brian Jobling, will become Atom's business development director. In Atom's view, that includes creating mobile apps as the primary form of communications between the bank and customers; but also by incorporating gamification, 3-D visualizations and other features to get customers to use its services more.



One more UK-based startup **Mondo must raise at least £15 million** (\$22 million) later this year to gain its full banking licence⁶⁰. Mondo, which crowdfunded £1 million in just 96 seconds earlier this year, is in the process of applying for its full license and hopes to have a «restricted licence» within two or three months. Blomfield says the new funding round values the startup at **£30 million**. This is a sort of probationary licence that allows Mondo to prove to regulators it is ready for

a full licence. CEO Tom Blomfield told Business Insider: «The restricted licence is a way of signalling to the market that they are [the Bank of England and regulator Financial Conduct Authority] minded to approve you, so you can then go out and raise the capital you need to launch. It is sort of a test phase». «We will need around £15-20 million to get those restrictions lifted. We are having one or two conversations now but we will leave the real fundraising towards the end of the year».

Before this Mondo, the yet-to-launch U.K. banking startup that is creating quite a lot of buzz amongst the London tech scene and beyond, **opened its Beta to the public**⁶¹ — albeit one limited in functionality while the company seeks a full banking license. Mondo offers a pre-paid MasterCard and a rather nifty iPhone app that features the ability to track your spending in realtime, view geolocation-marked transactions on a map,

people who want to get involved early to help build the kind of bank that they'd be proud to call their own. At this stage, you're joining a mission to improve the state of banking». Mondo also recently **bolstered its funding in anticipation of attaining regulatory approval as a fully fledged bank**, which I gather is hopefully on track for later this Summer. Passion Capital followed on with a further £5 million last month, adding to the £2 million already invested by the London VC, and an additional £1 million was recently raised via equity crowdfunding. «At the same time, we're planning to rollout in other European countries, integrate Apple Pay and implement tonnes more useful features like bill splitting», adds Blomfield. Mondo has an open API from the get-go, part of a wider differentiator that's seeing it build a «full-stack» bank with its own in-house banking tech in order to offer features that legacy banks struggle with as they are reliant on outdated software and infrastructure. «We've had hundreds of people attend our hackathons and they're now some of our biggest supporters. It's also great for recruitment!» Blomfield says.

Starling Bank has recruited a former regulator and a number of industry heavyweights for its board while raising \$70m to spearhead its attempt to move into the UK banking market⁶². The new digital bank, founded by Anne Boden, the former chief operating officer of Allied Irish Bank, is aiming to lure mobile-focused customers and provide a superior current account service to those offered by the incumbent high street banks. The emergence of Starling follows in the footsteps of Atom Bank and Tandem, two digitally-based challengers that received regulatory approval for launch last year, and heralds a new generation of tech-savvy banks. They are among a host of new lenders trying to break into a market not only dominated by four big names in Lloyds, Barclays, HSBC and Royal Bank of Scotland, but also one with longstanding customer apathy to switching accounts. Investors are drawn to new challeng-

view spending by category, and get a graphical timeline of your overall expenditure. There's also the option to send other Mondo members money (ie peer-to-peer payments). The startup will begin sending out 1,000 cards to people at the front of its 52,000-strong waiting list, with many thousands more being issued over the next few weeks. «I feel like we've delivered about 20% of the functionality we'll offer when we're a full bank», Mondo co-founder Tom Blomfield tells. «We're targeting peo-

ers for their high growth prospects and their freedom from the burden of old systems. Starling has secured \$70m of investment from Harald McPike, the founder of QuantRes, a Bahamas-based quantitative investment manager.

Founders Fund, the San Francisco-based venture capital firm Mr. Thiel co-founded, has led a new **\$52 million financing round in Nubank**⁶³, a financial technology start-up based in São Paulo. The new investment values Nubank at approximately \$500 million significant for a company less than three years old. Nubank, which was founded by a former Sequoia Capital partner, David Velez, and provides a digital credit card for smartphones, is trying to take customers away from Brazil's highly profitable banks, which have long seemed untouchable. More than one million Brazilians have applied for the card and approximately 300,000 are on a waiting list while their credit history is examined.



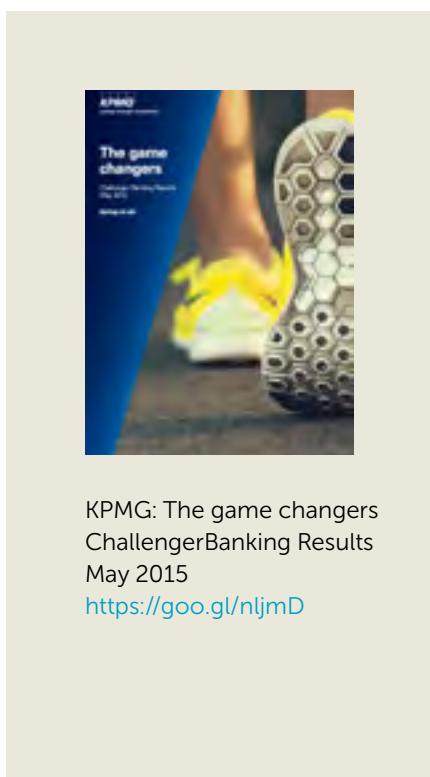
The CEO of Vietnam's first Digital Bank **Timo**, Claude Spiese, tells that his mobile only bank is targeting 50 Millions Vietnamese and claims to be sexy and secure⁶⁴. «Timo is a digital bank platform just like Moven and Simple – but Timo takes it one step further. Like Simple and Moven, Timo is a digital front end with a licensed banking partner backend. But, whereas Moven and

Simple are limited to one financial product (the current account), Timo serves as a digital platform for a full range of banking products, and even non-banking financial products such as investments and insurance. This model allows Timo to focus on the front end and to deliver an exceptional customer experience while the partner financial institutions focus on the back-end and licenses».

Their competitor, Vietnam-based fintech startup **Momo announced it obtained US\$28 million** in series B funding from Standard Chartered Private Equity and global investment bank Goldman Sachs⁶⁵, which is an existing backer. It has over **2.5 million users in Vietnam**. Launched in 2014, Momo is an ewallet and payments app that allows users to pay online and transfer money to each other digitally. At selected stores, the app can be used for cashless payments. The company also has a physical network of over **4,000 over-the-counter agents** where people can remit money and avail of other financial services through Momo. CEO Pham Thanh Duc says the startup will use the fresh investment to «accelerate Momo's growth by continuing to invest in the launching of new products and services, expanding bank and merchant connectivity, and extending the nationwide installation of Momo **point-of-sale terminals** at retail outlets». **Goldman Sachs** previously invested US\$5.75 million in Momo. **Standard Chartered**, for its part, teamed up with Momo to provide the «Straight2Bank» wallet payments for the bank's corporate clients in Vietnam. The service enables corporations and government organizations to make payments directly to their beneficiaries via the Momo wallet.

There are **several unique selling points offered by new banking players**, and it presents many amazing opportunities: Mobile first; Cross-sell and up-sell; Virtual financial advisor; Data driven. **It is a great opportunity for investors especially Asia** to be in touch with innovative

solutions in mobile banking. This can be seen as Life.SREDA VC have achieved prior successes through exits in our first fund — Simple, Moven, Rocketbank. Developing markets like Southeast Asia fit the prerequisites for this to kick off, given their large amount of underbanked and unbanked consumers who have access to smartphones as well as low rates of home broadband and urbanization that make traditional methods inaccessible to them. Beside Singapore in the region, the digital banking penetration is depressingly low, ranging from 13-44 percent in 2014 – even though consumers in their 20s are 50 percent more willing than their parents to try mobile banking. If banks are unable to continue to rapidly innovate and create new, user-friendly and differentiated mobile offerings and effectively advertise and distribute on these platforms, they could lose market share to existing competitors or new entrants, and their future growth and bottom line could adversely take a hit. In other words, banks have to start disrupting themselves by acquiring new technologies and/or partnering with technopreneurs before they become a part of history. The winners will be the ones that put consumers' digitalized lifestyles as the core strategy. ●



KPMG: The game changers
ChallengerBanking Results
May 2015

<https://goo.gl/nljmD>

MPOS- ACQUIRING

CHAPTER #6

One of the biggest buzzwords in commerce today is **omnichannel**. In the simplest terms, omnichannel means that no matter which channel is the touch point of the moment to the consumer — a payment terminal in a store, an online storefront, or a retailer's app on a mobile device — their experience should be seamless, streamlined, secure and optimised for the needs of each channel. But more often than not a **very important piece of the omnichannel puzzle is left out: a mobile point of sale (mPOS) solution⁶⁶**. More and more retailers are employing mPOS solutions both inside and outside stores on top of their existing payment solutions, and they need to consider how to tie those mobile solutions in with their existing POS infrastructure — otherwise, it's impossible to provide a true omnichannel experience. The ability to accept payments through a handheld device has not been the key driver of the success of mPOS. The true innovation has been in its underlying business model: significantly easier merchant enrolment, clearer pricing structures, no lock-in contracts, and more rapid payment settlement. Acquirers that have launched mPOS dongles using traditional merchant enrolment procedures and pricing report that they are struggling to gain traction with micro-merchants and SMEs, particularly as the market becomes more crowded.

The easier merchant enrolment model has helped to grow the base for payments acquiring, but the model also means providers' risk levels are high, and with the lack of contract means the low-frequency, low-value transactions are having a strong impact on mPOS provider margins. As competition in mPOS heats up, achieving the economies of scale required to make mPOS a success is becoming more difficult, as the **basic dongle-type service rapidly becomes commoditised**. To remain competitive, mPOS providers are increasingly developing wider payments platforms. By adding front-end and back-office functionality and targeting merchants higher

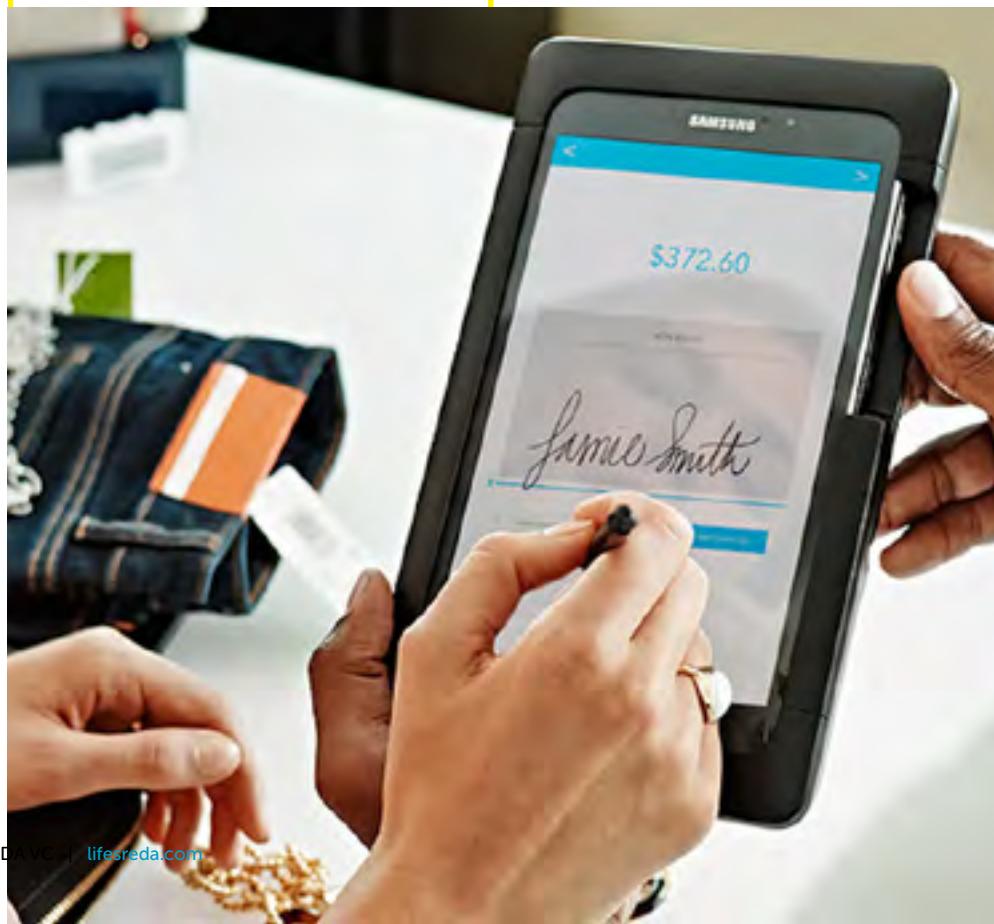
up the value chain, mPOS is becoming more attractive to merchants of any scale. This functionality includes a range of additional peripherals and new software features such as inventory management, loyalty programs, and even online payment services. Many of these platforms are now capable of handling a variety of payment types through the dongle beyond cards, and are more adaptable to future payment innovation. As a result, mPOS provides merchants of all sizes with a truly agile environment, allowing them to experiment and innovate with omnichannel strategies.



Square beat revenue estimates and saw its shares pop slightly after it reported its fourth-quarter earnings⁶⁷. This was Square's first time reporting quarterly earnings as a public company, and it looks like the results weren't that bad, aside from a miss on earnings expectations. The company reported \$299 million in transaction revenue in the fourth quarter of 2015, up 47 percent year-over-year. Gross

payment volume, another monitored stat for the company, increased 47 percent year-over-year to \$10.2 billion. There are two million active sellers on Square's platform. The company said at the end of the fourth quarter it received 350,000 pre-orders for its new card reader, as well. **While Square continues to grow, it's still losing money**. Recently, investors have been thoroughly rewarding profitability over growth, but it seems that the rate at which Square is growing is enough to keep investors happy. The theory, it would seem, is if Square decided to pull back and focus on profitability it would be able to build a strong business.

Jack Dorsey wants Square to be synonymous with mobile payments and believes the current EMV shift in the U.S. will help the seven-year old company accomplish the CEO's ambitious goal⁶⁸. «We're taking full advantage of the [EMV] shift», Dorsey said during the earnings call. «We want to associate our logo with the ability to pay with your phone». «We're still teaching sellers and buyers about paying with and accepting chip and contactless [payments]», Dorsey said. «We have to educate and we're seeing some positive returns from



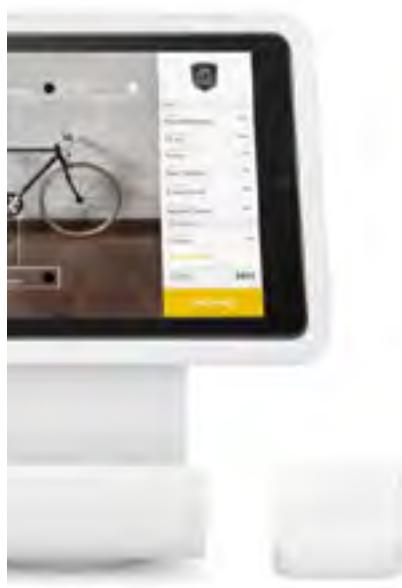
that [effort].» «The core itself is a strong, healthy business», Sarah Friar, Square's CFO, said during the earning call. «Add-on products give us the ability to upsell [to merchants] and gives us the path to profitability». Square still has plenty of opportunities to grow its business inside and outside the U.S. Square also addressed the status of its ancillary services such as:

- **Square Capital:** The company extended over \$400 million through more than 70,000 advances in 2015, with nearly \$150 million advanced in the fourth quarter.
- **Instant Deposits:** Square has the ability to send funds from a sale immediately to a seller's bank account at any time. Since the company launched the service in August, it has helped over 58,000 merchants complete nearly 600,000 deposits instantly. Square charges 1 percent of the dollar amount deposited as a fee.
- **Square Invoices:** This service enables businesses to create custom digital invoices and collect payments online. Since its launch a year and a half ago, approximately 100,000 active sellers used Square Invoices to process their payments as of the end of the fourth quarter.
- **Caviar:** This is Square's restaurant delivery service, which is now active in 17 markets nationwide. The company said the number of orders through Caviar in the fourth quarter grew by 4.5 times year over year.

Jack Dorsey loves Square Cash, the company's free, digital money-transfer service. But three years after launching it, **Square Cash still isn't a business**⁶⁹. Square Cash isn't alone in that aspect among its free-to-use competitors. Venmo, which is much larger than Square Cash, hasn't figured out the business angle yet, either. But earlier this year it launched a way to pay in some apps using your Venmo credentials instead of card information, and it is charging app

makers a transaction fee to accept those payments. At some point you would think these services need to help generate real revenue. They are both free-to-use for consumers, but each transaction costs Square and Venmo money to process. One idea Square could be working on? Letting Square Cash users utilize the app to pay for products or services they buy in physical stores. That would essentially be an attempt to revitalize Square Wallet, which failed once.

unified solution with a unified backend. All your sales are automatically going to show up on Square's dashboard. This isn't the first time Square is building stuff for e-commerce customers. With Square Market (now called Online Store), the company lets you create an online shop with a drag and drop interface. With the new Square e-commerce API, anyone can use Square for checkout, from Joe's Bike Shop to Walmart. You don't need to squeeze your catalog



Register API.

With our Register API, you can build your own app for powering the store or mobile payments, no matter how big or small your business may be.

Best-in-class hardware

Square's hardware is at the leading edge of speed, security, and affordability.

Easy integration for in-person payments

With less than ten lines of code, you'll be ready to seamlessly integrate Square into your checkout process.

PCI compliance

Your app doesn't have to handle any payments information, which makes PCI compliance a non-issue.

[View the Register API](#)

Recently **Square launched new APIs** for offline and online acquiring⁷⁰. But the bigger news is that e-commerce merchants can now process credit card payments using a simple form. Behind the scene, Square processes the payment. Like Stripe, you don't need to sign up to an e-wallet. You can enter your credit card info right on the checkout screen. Like Stripe, it's easy to integrate payments with a few lines of codes as Square is also betting on an API strategy and native integrations into existing checkout screens. Like Stripe, online checkout costs 2.9 percent + 30 cents per transaction. Square has one clear advantage compared to Stripe — **it works online and offline**. If you're an existing Square user in your stores, leveraging the e-commerce API on the web makes sense. It's a

into Square's e-commerce website creation tool. Also, the company introduced a **new Register API** for offline customers. With this API, any iOS point of sale app can integrate Square for the payment brick. And of course, it works with Square's card readers. So if you have very specific needs, there will soon be multiple register apps that work with your Square readers — and not just the official Square app.

It's rare for any startup to have as symbiotic a relationship with a single hardware device as **Square has had with its credit-card reader**⁷¹. The original version, which debuted in 2009, democratized credit-card acceptance by building a magnetic-stripe reader into a tiny square gizmo that plugged into a smartphone's headphone jack. Combined

with Square's app and payment-processing service, which charged a flat rate per transaction, the reader let even the smallest of small businesses easily take plastic for the first time. The company released a version that was both thinner and more robust in 2013. The next year, it introduced a dual-slot redesign that let you both swipe old-school cards and dip the new, more fraud-resistant ones that are equipped with embedded security chips. And then it showed off yet another new reader at Apple's WWDC keynote last June, in an exceedingly rare instance of a non-Apple hardware product being announced at an Apple event. Unlike previous evolutions of the reader, this one was a striking departure—a much larger, 2.6» square slab of a gadget which connected to phones via Bluetooth, not the headphone jack, allowing customers to interact with it themselves rather than handing their cards to a merchant. The new standalone design was prompted in part by yet another new way to pay for stuff: mobile payment services such as Apple Pay and Google's Android Pay.

The company began taking pre-orders in November, and is now fully ramped up and selling readers for immediate shipment. Even with cards in wallets, the transition has been messy. Last month, a research firm reported that almost two-thirds of U.S. retailers still aren't equipped

for EMV transactions. Another study said that 80% of the retailers who do have EMV-capable readers aren't using them for EMV transactions. «There are dozens of places where you can buy EMV software stacks, but we don't want to do any of that, because we wanted to have end-to-end control of the system.» By writing its own code, Square was able to manage power consumption in a way that isn't an issue with conventional payment terminals that don't run off batteries. It was also able to offload some computation tasks into its iOS and Android apps, reducing the need for round-trip communication between reader and mobile device and thereby conserving battery juice.

Square is acquiring the team behind Framed Data⁷², a predictive analytics service, and will be deploying the team of data scientists to its Square Capital team. Square tracks merchants' transaction history through its services in order to better determine their eligibility for loans through Square Capital. There are certainly a lot of requirements around the analytics part of the service — Square has to do a detailed risk analysis for each customer and determine at what rate they are going to be paying back their loans. Square is not acquiring Framed Data's technology as part of the arrangement. The Framed Data product will be shut down at the end of the month.

Prior to being acquired, Framed Data served as an analytics engine that helped its customers understand user behavior. It would basically look at what users are doing and then make predictions — such as how many interactions are required in an app before a user makes their first in-app purchase. Framed Data previously raised \$2 million in seed financing. Square Capital is still an increasingly important point of reference for the company, such as its callouts in its most recent earnings reports. The company said it extended **\$400 million through more than 70,000 advances** last year, with \$150 million of that coming in the fourth quarter.

The launch of the **Square card reader in Australia⁷³** is expected to fast track the transition to cloud-based point-of-sale systems, with SaaS accounting vendors Intuit and Xero both announcing partnerships with the company. Earlier Square announced the local release of its card reader, which accepts Visa, MasterCard and American Express debit and credit payments with a 1.9 percent

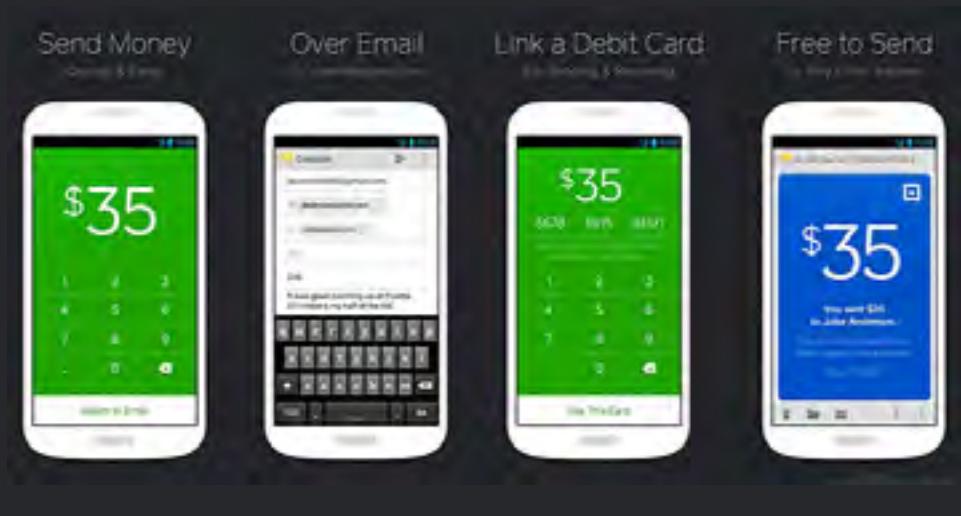


charge per transaction. Cloud integrators told that they expect the Australian growth of Square to accelerate the adoption of cloud-based systems and mobility in the retail

market, though the upside for IT providers is largely around the knock-on effects of growing the market — rather than concrete opportunities. For example, Queensland cloud integrator Rype Group, partners with Xero, Vend and Kounta, and the company said «it will be interesting» to see how Square impacts these players. Xero announced that customers can connect the Square Register app and Square Reader to its accounting system in less than five minutes. Square launched its Australian operation in May 2015, though had already been offering the free Square app for tablets with the POS system since the end of 2014.

marketed itself as the faster alternative to services like PayPal. It focused on the fact that it was both simpler and speedier, and wasn't bogged down with extraneous features like a full-service digital payments platform would be. The introduction of a Cash Drawer option changes that a bit. However, the company has been moving to cater more to its business users in recent months, as with the launch of Cashtags early last year when the company opened up its platform to business customers — the first to also see transaction fees on the service. The Cash Drawer could encourage other small-time merchants to give the app a shot, as

accessories to make debit and credit card transactions — have announced that **they are merging**, creating a business with 1 million customers in 15 countries⁷⁴. The two companies — both founded by Berliners and both based out of London — are not putting a price on the deal of any kind, in keeping with how both have declined to talk about valuations and sometimes the size of funding rounds in years past. The deal is being described as a merger by the two, but actually SumUp is getting the upper position in the deal: Daniel Klein, a founder of SumUp who was its CEO, will become CEO of the collective company, which will keep the SumUp brand. The merger comes at a key time for the mobile payments space. In that context, two of the startups in this space coming together makes some sense: it gives them more economies of scale on the thinner margin business, for starters. «Even though we are similar in the business that we offer, we have complementary strengths», Klein said. «SumUp is stronger in tech, which Payleven brings Rocket-style customer acquisition power that is unparalleled». Tellingly, a Payleven founder will take the job of CMO.



Square Cash, the peer-to-peer payments app that aims to replace cash by offering instant deposits, rolled out another feature that better positions the app to challenge competitors like PayPal and Venmo: **the ability to maintain a cash balance**. That is, users can now choose to switch on an optional «Cash Drawer» to hold onto money in the app, similar to other digital wallets. The addition will make the app more useful to merchants who prefer to maintain a cash balance in their accounts, as they would on PayPal or elsewhere. But the addition is also a bit of an odd one for Square Cash, which has

they'll be able to use Square Cash like they could PayPal or Venmo.



Life.SREDA- and BBVA-backed **Su-mUp** and Rocket Internet's **Payleven** — two of the several European startups that cropped up in the wake of Square with their own smartphone



Before this Payleven, a mobile payments startup originally incubated

in 2012 at Berlin's Rocket Internet, says it has **raised a \$10 million** growth on Series D round from a selection of existing investors⁷⁵ — Holtzbrinck Ventures, ru-Net, B Cinque, New Enterprise Associates (NEA) and MePay — as well as new backer Seiventure Partners. Today's round brings the total raised to date by Payleven to \$51 million, with no valuation being disclosed. As a point of comparison, another European rival, iZettle, has raised nearly \$245 million; Square before it went public disclosed nearly \$600 million in funding. To date, the company has built its business around point-of-sale hardware that works with iOS or Android smartphones and tablets (with two hardware options covering contactless and chip-and-pin at £59 and £79 in the UK and equivalent currencies elsewhere), with some accounting software around the transaction data. Unlike Square, Payleven has from the start tried to build itself out as an international business, and currently, it's live in 11 markets in Europe as well as Brazil. In 2015, Payleven was rolled into a joint venture with the Philippines Long Distance Telephone company to create mobile payments services for emerging markets. There is another interesting piece of business development that could push Payleven's growth. It seems that the company quietly became the point-of-sale provider for customers of Adyen just this month, with Adyen — itself a payment processing powerhouse valued at \$2.3 billion — apparently shuttering its own Shuttle mobile point of sale system for small businesses and referring customers over to Payleven.



goswiff

Singapore-based mobile payment startup **GoSwift announced the appointment of Mark Patrick as its new CEO**⁷⁶, replacing Simone Ranucci Brandimarte, who has stepped down after two years in the role. According to an official statement, in his new role Patrick will focus on developing and launching «new and unique» payment solutions and services, leveraging the «latest advancements in mobile technologies». «Now that GoSwift has successfully gained recognition and established a foothold in the mobile payments industry, it is the ideal time for a new leadership team with a strong operational focus and experience in building advanced payment solutions to step in and take the business to new levels», said GoSwift Chairman Maurice A. Amon. Incorporated in 2010, GoSwift claims to have operations in 25 markets around the world. Prior to this appointment, Patrick was the Managing Director Asia Pacific for Ingenico ePayments, online and mobile commerce division of Ingenico Group.

freecharge

FreeCharge, the digital payments platform, has inked a partnership with **Ezetap**, the Bangalore-based pioneer in mobile payments, allowing the entire base of FreeCharge users to immediately **start using their wallets to make payments at thousands of Ezetap service points** consisting of small and mid-sized retailers across India⁷⁷. The partnership draws FreeCharge closer its vision of creating an ecosystem where organised and unorganised merchant networks can come together and accept electronic payments. Ezetap's Universal Mobile Wallet Acceptance is India's first universal solution that allows merchants to accept customer payments from any mobile wallet through their existing Ezetap mobile



point of sale (mPoS) application. To encourage adoption of digital payments, FreeCharge will also run year-long offers with individual Ezetap merchants that come on board with Ezetap. Commenting on the partnership, Govind Rajan, Chief Operating Officer FreeCharge said: «Our aim is to create the ecosystem for digital payments and help consumers move from cash to digital. We are excited to announce this strategic partnership with Ezetap which will further enable millions of FreeCharge customers to transact at over 40,000 POS terminals in the swiftest and safest manner possible. FreeCharge believes partnerships are critical to scale acceptance and build habit of digital payments». ●

CHAPTER #7

TABLET-BASED CASH-REGISTERS POS-MANAGEMENT SYSTEMS

IOT
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Area	Low-Tech Options	Established	New Tech
Website & Mobile	Phone, yellow pages, newspaper	SQUARESPACE WORDPRESS	BAYDOCK TABLE Nerd CARDFREE ChowNow
Discovery & Marketing	Physical signs, newspaper, yellow pages	OpenTable TimeOut yelp	FOURSQUARE ChowNow Social High Rise
Reservations	Phone, email, walk-in	OpenTable yelp	RESERVE TOCK VELOCITY TABLE8
Diner CRM & Loyalty	Pen, Paper, Spreadsheets	fishbowl yelp OpenTable	TABLE8 PosIQ Social High Rise FIVESTARS belly SALIDO ChowNow CARDFREE Upserve Thinx Wisely LevelUp REVERSE Upserve Thinx Wisely LevelUp DIME CAKE Breadcrumb TableSafe Tabbedout Velocity CARDFREE COVER
Point of Sale System	Cash Register, Drawer, Imprinter, Spreadsheets	Aloha ORACLE micros Square POSERA squirrel systems	Revel clover DIME Breadcrumb CAKE TABLE8 TableSafe REVERSE Tabbedout Velocity CARDFREE COVER
Pay at the table / Mobile Payments	Cash	Fiosk laCarte	Breadcrumb Upserve
Payment Processing	None	Heartland First Data. vantiv integrated payments Square	Upserve Wisely Servy Social High Rise BENBRIA
Feedback & Communication	Email, phone, letter	yelp OpenTable facebook Google	Upserve Wisely Servy Social High Rise BENBRIA
Online Ordering	Phone, fax	EATIN seamless grubhub	sprig DOORDASH ChowNow OrderAhead MAPLE caviar POSTHORN olo VIVERE LATE Upserve Ovenga Prism SALIDO Euclid Peachworks Servy
Diner Analytics	Spreadsheets	OpenTable	Upserve Ovenga Prism SALIDO Euclid Peachworks Servy

consumer experiences».

Restaurants are working hard to upgrade their tech options in order to increase satisfaction, diner acquisition and retention, as well as optimize margins. Diner experiences and front of house.

Restaurant tech most heavily geared toward diners' experience.

Kitchen and back of house. Products and tech focused on producing and delivering great food.

Staffing and staff management.

One more example of future innovation that's needed is that we need personalized recommendations. Big POS terminals are the boss; tablets are coming. Tablets are everywhere, but they're not quite ready to replace every POS system, printer or terminal out there. The biggest benefit of this is that it significantly reduces upfront costs and footprint. A key example is the Square POS that offers no choice in other payment processors but has a marketplace of integrations, whereas Micros and Aloha support many payment processors but have few external product integrations. All-in-one packages and lack of integrations build walled gardens. It's hard to compare labor costs with SaaS products. Restaurant owners

There are 18 million POS-terminals in the U.S. and 120 million worldwide. But now cash-registers and terminals became more than plastic and payments. Now it is OS (operational system) of your small business. As Chris Caliz wrote on TechCrunch⁷⁸, «just like the operating system for your computer, a restaurant needs a logical set of systems that allow it to do business efficiently. Well-known examples include OpenTable for reservations, NCR Aloha POS for check management and kitchen notification and Shiftboard to manage staff schedules. There are many operational requirements to run a restaurant; here we'll highlight a few of the tech options that are vying to improve restaurant operations and

Area	Low-Tech Options	Established	New Tech
Hiring	Word of mouth, newspapers	craigslist	PEOPLEMATTER Pared livel INSTAWORK clothbound Proven. POACHED INDUSTRY
Scheduling	Paper & Spreadsheets	Alpha ORACLE micros HotSchedules Square shiftboard	homebase BIZIMPLY View Peachworks schedulely PEOPLEMATTER Jolt SALIDO
HR Management & Payroll	Paper, Spreadsheets, forms, traditional timeclock	SUREPAYROLL ADP QuickBooks Payroll	GUSTO ZENEFITS
Onboarding & Education	One on one, books, video	HotSchedules	PEOPLEMATTER
Staff Analytics	Intuition & Spreadsheets	HotSchedules	homebase SALIDO PEOPLEMATTER

Area	Low-Tech Options	Established	New Tech
Food Creation & Automation	Production line	Production line	MOMENTUM MACHINES BISTROBOT teabOT CASABOTS
Sourcing & Ordering	Phone, friends, spreadsheets	Phone, friends, spreadsheets	sourcery BlueCart ORDERLY RESTAURANT CHEETAH SOUS PlateIQ DINE MARKET
Prep & Task Lists	Paper, Whiteboard, Spreadsheets	Paper, Whiteboard, Spreadsheets	Peachworks crew Squadle Jolt
Inventory	Pen, Paper, Spreadsheets	CLINQTIME	ORDERLY Peachworks SALIDO
Sensors & Equipment	Traditional Thermometers	Thermoworks TempTraq	a caia HARIO Squadle Jolt HotSchedules
Waste Management	Waste Bins	FOOD RUNNERS	COPIA compology MintStraps SPOILER ALERT
Kitchen & Predictive Analytics	Spreadsheets	Spreadsheets	Peachworks FOOD GENIUS Squadle
Restaurant BI	Spreadsheets	Spreadsheets	venga Upserve SALIDO Peachworks
Fleet & Delivery Management	Phone, Spreadsheets, GPS, Maps	Phone, Spreadsheets, GPS, Maps	onfleet caviar DOORDASH Trackin

or managers who don't have a great staffing and payroll analytics package have a hard time quantifying human labor versus tech products. They want to reduce labor costs, but also aim to improve their margins overall. If you're working on a new product for the restaurant business — you should have a few things in mind to help you succeed:

1. First, please have a good grasp of the user journey of the decision-makers and the users.
2. A product must have a thoroughly considered user journey so that business decision makers and users' needs are completely covered.
3. Next, be mindful that not everyone in a restaurant will speak the same language or share the same level of tech savvy.

4. Finally, always keep in mind that restaurants are in the hospitality and service business. Anybody who approaches a restaurant without that mindset is likely to be rejected — this is all about relationships and how you support the industry.

Recently **Facebook has found the Holy Grail of advertising in a set of new partnerships with point-of-sale systems like Square**⁷⁹ and Marketo that will prove who bought what after seeing Facebook's ads. Even if you don't buy something, Facebook will also now know you visited a store based on a new feature that matches GPS, beacons, WiFi, radio signals, and cell towers with brick-and-mortar coordinates. This data could get advertisers to spend a lot more on Facebook because it will be able to demonstrate exactly how ad views led to in-store purchases and foot traffic. Ninety percent of sales

still happen in physical retail stores, not online. Facebook is pushing to evolve the industry past flimsy metrics like ad views and clicks, towards measuring when ads actually inspired purchases anywhere. **The Offline Conversions API could help Facebook compete** with Google for ad dollars. Google has had store visit metrics for AdWords since 2014 and recently launched ads that show maps of nearby locations. Facebook will have to point to its deep data set regarding who people are and what they're interested in, plus all the ad inventory in its popular News Feed to lure away advertisers. This new Offline Conversions API lets Facebook jack directly into cash registers and ecommerce sales software to pull real-time results about transactions both in-store and online, plus demographic insights to improve future ad campaigns. Facebook also has a new Store Locator ad unit. It can show a business' nearby brick-and-mortar locations at the end of an ad carousel and let people «Get Directions».

US



Toast said it has raised **\$30 million** in a round led by Bessemer Venture Partners, with Google Ventures participating. CEO says the company has more than 1,000 customers, growing from «hundreds» to «thousands» in the past year or so. The service operates on Android tablets, but of course that means it's going to compete with other point-of-sales services. That could include other providers like Square and Shopkeep. But the pitch for Toast is that it'll provide more than just point-of-sale, making it easier for restaurant owners to choose other additional services. Both of those are capital-intensive because they require increasing headcount at the company — which already has more than 170 employees.



Shopify gets into chatbots with acquisition of Kit CRM⁸⁰. Shopify, the makers of a popular platform used by over 243,000 businesses, from smaller online merchants to big names like Tesla and Budweiser, announced it's buying a startup called Kit CRM. The company helps businesses interact with their customers over text messages — yes, «conversational commerce». That term refers to how a number of online businesses, and in particular, e-commerce sites, are now developing automated tools that will allow them to chat, support and answer customer questions about products, shipping, and more via SMS or one of the many popular messaging platforms. The plan for now is for Kit to continue working on its product under Shopify's umbrella, while the gradual integration process is underway. A growing number of e-commerce businesses today are assisting their customers over SMS and mobile messaging. There are even SMS-based services, like Magic, Operator, GoButler, and others targeting the emerging «conversational shopping» market. Now, e-commerce platform **Shopify** is aiming to help its merchants better serve their customers via mobile messaging with the launch of a dedicated iOS keyboard app called **Shopkey** that offers instant access to their product catalog.



Osama Bedier explored point-of-sale ideas at AT&T Wireless a lifetime ago, guided a thriving e-commerce business for a PC maker called, and became a senior product executive at PayPal in its formative years. He also helped launch Google Wallet. He said his goal with his new company, **Poynt**, is «to bring commerce out of the Dark Ages». He aims to do that by selling a brand-new, software-enabled point-of-sale device—the hardware that merchants use to accept credit and debit cards. He thinks his device is worlds better than inadequate tools that work on smartphones (the low end) and antiquated machines sold by market leaders Verifone and Ingenico. He says, Poynt has taken **preorders on 500,000 units**, an enviable start. Like smartphones and tablets, Poynt has an **app store** so that the restaurant, ice cream shop or wine store can add the software most relevant to its business without purchasing a separate system. «We don't want the merchant to wonder whether they bought the right solution», Bedier said in an interview. «We have a device that works with every emerging payment technology». To get its terminal into the market, Poynt is partnering with banks that have existing relationships with merchants. The company has already announced deals with Chase Paymentech, a unit of JPMorgan,

and Vantiv. Preorders started in late 2014 for \$299. Poynt has no intention of making money from the hardware, which Bedier said will be commoditized over time and face a long list of «copy cats». Rather, the company is mimicking the consumer app store model and taking 20 percent of the revenue when a merchant buys a piece of software for the device. That model faces some pretty hefty risks, says Rick Oglesby, a partner at Double Diamond Payments Research: Poynt has to be seen as a popular enough product for developers to devote resources to it. **Without a vibrant app ecosystem, there's no way for Poynt to generate profit.** The other half of the equation is that merchants must be amenable to downloading apps. Poynt's bet is that technology buyers want the same type of experience at work that they have in their personal lives, and that apps are now the way we consume software. «It has huge potential because it's unique and a very smart and intelligent way to get distribution for terminals», said Oglesby. «But they could put millions out there and not make any money. If the software play doesn't take off, the business is out of luck».



Buy.
Earn.
Redeem.

The customer loyalty gurus at **AppCard** announced that they have closed their Series B funding round with US\$20 million in new financing. The round was led by Alexander Rittweger who formerly led PAYBACK, and PLDT Capital, the investment branch of the Philippines Long Distance Telephone company. AppCard was launched in 2011 by co-founders CEO Yair Goldfinger of ICQ fame and CTO Amichay Oren. In 2012, the company initially raised a US\$6.2 million Series A from prolific tech figures Peter Thiel through his Founders Fund, Jerry Yang of Yahoo, and Eric Schmidt's Innovation En-



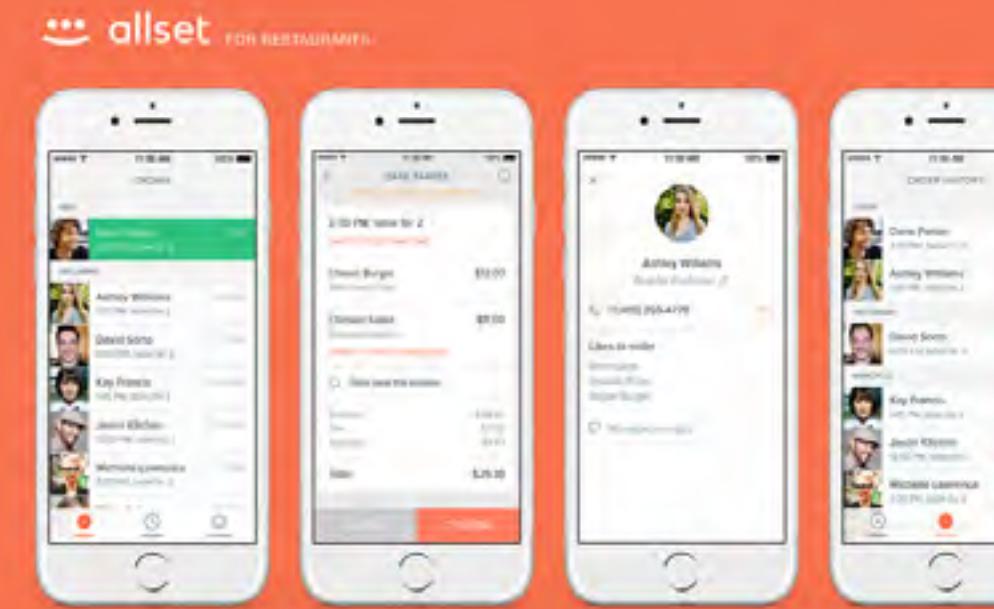
deavors. All of them also participated in this most recent round. Smarter use of customer data in exchange for rewards is becoming more prevalent throughout the industry.



E la Carte, the creators of the **Presto™ Smart Dining System** for restaurants, announced that it has **deployed more than 85,000 Presto tablets throughout its network of restaurant customers** across the United States. The Presto Smart Dining System has already processed **more than \$600 million in consumer payment transactions** and is on pace to process well over one billion dollars in 2016. These revolutionary guest-facing tablets are deployed and operational in more than **1,700 restaurants** throughout the nation. The Presto Smart Dining System now enjoys a 40 percent market share in the rapidly growing guest facing restaurant technology sector and serves more than 1 million guests per day. E la Carte has partnered with several large restaurant chains to bring this state-of-the-art e-commerce system to casual dining across the U.S., including Applebee's Grill and Bar. With more than 2,000 locations globally, Applebee's serves more than 300 million guests per year and is one of the world's largest restaurant brands. E la Carte has also successfully deployed its Presto Smart Dining System™ to restaurant brands in other major categories such as steakhouses, sports bars, sushi restaurants, and gourmet burger stores. E la Carte has also signed agreements to deploy its category-leading solution internationally.

RESERVE

Restaurant reservation startup **Reserve announced that it has acquired Dash⁸¹**. When you make a reservation through Reserve, the app already handles payment (including



splitting the bill), but by acquiring Dash, it will be able to integrate with point-of-sale systems like Micros and Aloha. «For our diners, the Dash acquisition will also help Reserve provide better guidance on where and what to eat, bring simpler checkouts and make those pesky expense reports a lot easier», Reserve says. The financial terms of the deal were not disclosed. According to Crunchbase, Dash raised about \$7 million in funding from investors, including Caerus Ventures, Great Oaks Venture Capital and New York Angels. Reserve is also announcing that it has raised an undisclosed amount of strategic funding from Diageo Technology Ventures — that's the investment arm of Diageo, whose brands include Johnnie Walker, Smirnoff and Guinness.



Allset is taking a different approach, by making the sit-down lunch process more efficient⁸². You can make a reservation, place your order and even pay directly from the app. Then when you get to the restaurant, you just tell them your name, and you should get seated and served in short order. There are other services tackling reservations, payments or both, but I haven't seen them combined with food ordering in this way, with the goal creating a faster dining experience. In fact, Allset says it can shave up to 40 minutes

from your meal time. The service launched in San Francisco last year, and the company says it's serving 1,000 orders each month across 50 restaurants. Now, **Allset is also available in Manhattan**. Apparently it's a good deal for the restaurants, too, since it allows them to serve more customers in a given period of time, and potentially to reach diners who might otherwise think they're too busy. Les Clos in San Francisco says it has actually seen a 25 percent increase in lunch sales since partnering with Allset.

EUROPE



Orderbird, which claims to be the leading iPad point of sale (POS) solution in German speaking markets, announced⁸³ that it's closed **€20 million in Series C** funding. Leading the round is Digital+ Partners, along with strategic investor Metro Group, who have put in a combined €16.5 million. Previous backer, the European payment-provider Concardis, has also participated again this time around but via a secondary listing. Orderbird says it plans to use the new capital for product development and further expansion in Europe. This will include entering the French market this year. «This investment in orderbird is an important step to help

our customers take further advantage of digital solutions», says Olaf Koch, CEO of Metro, in a statement. «Our industry knowledge as well as our access to customers is what we bring to the table». To that end, Metro Cash & Carry is said to be present in 25 countries worldwide and has access to 21 million active wholesale customers.

ASIA-PACIFIC



SaaS-based POS-management system **Mobikon** has announced the **acquisition of MassBlurb**, an automated online marketing platform for restaurants⁸⁴. The transaction details remain undisclosed. Mobikon is present in Singapore, the Philippines,

social leads, converting likes and followers to business. Mobikon will also be able to offer website automation and cloud telephony integrated with CRM and automation in social media management. MassBlurb Co-founders Sanket Shah and Pankit Chheda will be taking up key roles at Mobikon, with the former managing the key accounts and partnerships across the company, and latter working closely with Mobikon's CTO for new product initiatives. The MassBlurb team will also join Mobikon. Samir Khadepaun, Founder and CEO of Mobikon, said, «This is a strategic acquisition in line with our vision to be the single marketing and customer experience platform for restaurants. Coming together we now have a significant market share with over 650 brands across India and Southeast Asia. We are planning to reach 800-plus leading restaurant brands by the end of this year».

the round are Convergence Ventures, Fenox VC, Northstar Group and Wavemaker Partners. The Jakarta-based startup plans to use the fresh funds to accelerate growth and step up product development. The company also plans to establish sales team in Bandung, Bali, and Surabaya. «There are 60 million SMEs in Indonesia, majority of which are still run manually using pen and paper... We are excited to work with our new round of investors to scale the business», said Moka CEO and co-founder Haryanto Tanjo. Moka replaces traditional cash registers with a cloud-based POS (point-of-sale) system that runs on iOS and Android devices. It provides solutions for ringing up transactions, accepting payments, and creating reports. Moka also enables small businesses to accept credit card payments without going through the long application process at the banks. Its merchants are spread across all sectors, from food and beverages, retail, to service. Moka charges a monthly subscription fee of Rp250,000 per outlet. Since its launch in early 2015, the firm has acquired over 1,000 stores, all of which are paying. Business owners can access the POS app on iPads and Android smartphones and tablets. A web portal can also be accessed to help owners view sales reports and manage inventory across multiple outlets. In December, Moka signed an agreement with state-owned lender PT Bank Mandiri Tbk (BMRI) as the acquiring bank. In addition to that, the company has also partnered Telkomsel — Indonesia's largest telecom company — that will offer the bundle of the mPOS and Telkomsel data package as a business solution for users.



Manila, Dubai, Macau and Kuala Lumpur, besides India.

In October last year, Mobikon secured an undisclosed amount in funding from Life.SREDA, a Singapore-based fintech VC firm. The acquisition will enable Mobikon to offer customer engagement solutions on social networking platforms, allowing restaurants to generate

moka

Indonesian mobile point-of-sale startup **Moka announced that it has raised \$ 1.9 million series A** in a funding round led by East Ventures⁸⁵. Other investors who participated in





Malaysia-based startup **StoreHub** has raised US\$850,000 from 500 Startups, as well as undisclosed investors in China, Singapore and Malaysia⁸⁶. It will use the newly-raised capital to accelerate its regional expansion plans. Launched in 2014, StoreHub offers SMEs including retailers, boutiques, grocery stores and cafes a cloud-based iPad point-of-sale (POS) system, intelligent inventory management, CRM and business analytics – all on one platform. Subscription fees start from US\$39 per month. StoreHub's solutions is currently deployed in over 850 stores in Malaysia, Philippines, Indonesia and Thailand.

sian Ringgit seven-digit round of Series A funding, led by Sea Unicorn with participation from 500 Startups, in October 2015. TABLEAPP raised a seed round of MYR360,000 from Singapore-based venture firms Kathrein Ventures and Crystal Horse Investment, as well as Malaysian angel investor Hanson Toh in August 2014. TABLEAPP is operating largely in the Klang Valley, with over 380 restaurant clients under its belt. It also has more than 100 clients in Bangkok, Thailand.

T TABSQUARE

Singapore-based **TabSquare announced it has raised its series A round worth US\$2.6 million**⁸⁷. The round is led by Walden International

product can be integrated with what the startup calls «the leading point-of-sale systems in Southeast Asia». The company claims to count over 60 food and beverage (F&B) brands and more than 150 stores among its customers, including Far East Hospitality, Food Theory Group, and Japan Foods Holding.



As part of its plans to venture beyond the food listings/discovery space, **Zomato launched an Android point of sale system for restauranteurs**.

Called Zomato Base⁸⁸, the cloud-based system is built on top of MaplePOS, which Zomato acquired last year as part of its plans to expand into new verticals. Zomato Base is currently being used in 35 outlets of The Beer Cafe, which claims to be India's largest beer chain, in 10 cities. The software lets restaurants process debit and credit card payments and manage their inventory. Last September, Zomato, which launched in 2008 as a restaurant guide, announced that it will reshape its business into consumer and enterprise divisions. A month later, it laid off about 300 employees, or 10 percent of its workforce. Like other food startups, Zomato's business in India (where it is headquartered) has been hurt by too much competition from other restaurant listings and delivery businesses (its many rivals include Rocket Internet-backed Foodpanda, Tiny Owl, and Swiggy) and high costs. It brought its restaurant discovery platform to the U.S. in early 2015 by purchasing Urbanspoon, but also faces several well-entrenched rivals there like Yelp and Foursquare. Zomato's solution is to try its luck at different verticals, including payments, reservations, white label apps, and restaurant management software. The startup raised \$60 million last year earmarked for its multi-pronged expansion strategy (its total funding so far is about \$224 million).



RHB Banking Group managing director Khairussaleh Ramli and TABLEAPP founder Benson Chang officiating the innovative collaboration between both parties to provide customers with a fast and convenient dining reservation experience. Malaysia-based dining reservation app, TABLEAPP, has raised a Malay-

and is joined by Infocomm Investments, Philip Private Equity, and Raging Bull, the Singapore-based investment company started by Thai Express restaurant chain founder Ivan Lee. TabSquare allows restaurants to offer tablet menus. Customers can use them to order, redeem promotions, and pay, while the restaurant can update the menus in real time via a content management system that includes a cloud-based data warehouse and analytics engine. The app offers restaurants data to better understand customer behavior and spending patterns. The



Paylo.in (Binge Advisory Pvt. Ltd), an offline payments platform, acquired **Ruplee** | Pay Solutions Pvt. Ltd, an in-restaurant payments app, the company said. The terms of the deal were not disclosed. The deal will see the merger of teams from both platforms and products, helping Ruplee evolve into an omni-channel app-only platform. Founded in 2015 by Rohit Chadda, a former managing director (India) of food aggregator Foodpanda, Paylo had raised seed funding in August. «I want to address and realize the true potential of digital payments in a country like India which has over 1 billion phone connections but only 40 million mobile banking users. The bigger problem I think is that only 6% of merchants in the country, at present, accept cashless payments. Ruplee is a young innovative platform with a strong team which has worked hard to understand how offline payments work», Chadda said. Ruplee, which started operations in October 2014, partners with over 300 restaurants across the national capital region. «The rich experience in the Indian e-commerce market that Rohit and Paylo's team bring will enable us to rapidly scale and congeal our position as a market leader», Natasha Jain, founder and chief executive of Ruplee, said in a statement.



TableHero, an intelligent Operating System for small local businesses, has raised about **US\$1 million** in seed funding, led by growX ventures. TableHero was founded by serial entrepreneur Deep Ubhi, who founded burrp! (sold to Network 18). He was previously the COO of FreeCharge, which was acquired by Snapdeal last year. TableHero is targeting the tech

stack for restaurants and small local businesses to help them focus on the business that they know best. It includes a suite of products that will simplify website and digital presence management; reservations, bookings and appointments; and payments, loyalty and customer management. The company will initially be launching its services in the US. growX is an early-stage investment firm based out of Delhi.



Street food heaven Taiwan is getting a tech upgrade, courtesy of Taiwanese startup **iChef**. It has cooked up an iPad-based restaurant point-of-sales (POS) system which has been scoring customers. 1,080 restaurants are using its product, each paying on average US\$80 a month (that's a monthly revenue of US\$86,400). The company has raised series A funding worth US\$5.6 million from ApWorks, CDIB, and CTBC Venture. In total, it has gotten US\$7 million since its inception in 2012.

IOT AND O2O FOR RETAIL AND FINTECH

In 2016, however, there will be a shift: the most successful businesses will be characterised by collaboration between businesses in the same sector, different sectors or with their customers. Innovation in technology has fundamentally changed the way businesses function and work with each other. It's no surprise, then, that the nature of competition has changed, driven by companies expanding their offerings along with diversifying and innovating in new sectors. Competition comes not only from the other players in your space, but from those in other sectors who see an opportunity. This can be viewed as a threat, or people can collaborate and create a bigger pie for everyone to have a share of. «If a reader sees a Chanel top in a magazine and it's not yet available to buy online, the magazine should communicate

directly with Chanel and find it at no extra cost». Social shopping is rapidly gaining momentum. Platforms from Instagram to Pinterest influence how consumers discover items and spend their money by making e-commerce about more than dropping items in a virtual shopping cart.



Estimote, a beacon company whose small, wireless sensors and accompanying software provide indoor location technology to some of the largest retailers as well as 65 percent of the Fortune 100, has now closed on **\$10.7 million in Series A** funding. The round will help the business scale to meet the needs of its current customer base, around half of which is retail, as well as fund R&D efforts related to what's next.

One startup that's been busy building out a full beacon platform to take advantage of these opportunities is **Kontakt.io**, which, along with competitor Estimote, is headquartered in Krakow, Poland — a region fondly referred to as 'Beacon Valley'. Previously backed by Sunstone Capital, Kontakt.io is announcing that it has closed another **\$5 million in funding**. Leading the round is new investor Credo Ventures, the Prague-based VC firm. The Polish startup says it plans to use the new capital for product development — expanding the ecosystem and use-cases for beacons — and for further international expansion.

Euclid Analytics plans to help more companies track customer behavior in their retail stores after raising a **\$20 million Series C**. The funding will be used to acquire clients, add new employees, and build Euclid's location analytics platform. The round, which brings Euclid's total raised so far to \$44 million, was led by media conglomerate Cox Enterprises. Groupe Arnault (the investment firm that holds a controlling stake in luxury group LVMH) and Gold Sky Capital also participated. ●



ONLINE ACQUIRING

CHAPTER #8

The most famous and one of the most innovation products in fintech for this year is Atlas by Stripe. It is much more than online-acquiring – it is brilliant way of fintech-broad-less-thinking.

Three month ago, payments company **Stripe launched Atlas**, a toolkit for startups to incorporate in the U.S. and lay the groundwork for growing their businesses online. Aimed largely at small enterprises outside

in the US, but it's looking beyond those borders in its next phase of growth. Asia is a clear contender – it has about half of the world's smartphone users and is predicted to see the fastest e-commerce growth in the world in the years to come. Stripe's currently beta-testing in Singapore and is fully operational in Japan. Hong Kong and New Zealand to be next.



PayPal's first acquisition after it separated from eBay in 2015 was of a young startup called **Modest**, which had built a platform for small businesses to integrate buy buttons across third-party apps. Now, PayPal is taking the wraps off a new product that will integrate Modest's technology. PayPal Commerce — as the new service is called — launches today in closed beta, setting the stage for how PayPal could potentially reboot its platform for the next generation of the Internet and the 179 million customers already using PayPal.

PayPal Commerce is based around a set of APIs. Third-party services will be integrated in the back end to the Commerce platform. As a point of reference, Modest charged a monthly fee to its larger customers — \$200 — and a percentage of transactions for smaller businesses.

The PayPal-owned payments platform Braintree announced the launch of Braintree Auth. The system lets e-commerce platforms give their merchants easier ways to enable payments on their online storefronts. It also lets service providers access customer and transaction data on merchants' behalf. The move signals Braintree's attempt to expand its reach into the SMB market, as competition with startups like Stripe heats up. **Braintree** says that it has already partnered with several large e-commerce platforms, including Bigcommerce, WooCommerce, and 3DCart, as its new service launches into private beta here in the U.S. With **Braintree Auth**, e-commerce platform owners, as well as shopping cart providers and recurring billing services, can now make it easier for their merchant customers to accept

US

In February **Stripe announced⁸⁹** **Atlas**, a business-in-a-box service designed to help entrepreneurs handle the details—incorporation, legal advice, tax advice—involved in launching a company in the United States. By filling out a web form, entrepreneurs will be able to incorporate their businesses in Delaware, establish a US bank account, and receive a tax identification number. They'll get access to a host of services, including legal advice from international law firm Orrick; \$15,000 in computing services from Amazon Web Services; and tax advice from PriceWaterhouseCoopers. And, of course, they'll get a Stripe account. The entire process, says Collison, will take less than a week. Potential customers are people like the founders of Platzi, an online education startup offering professional skills courses in Spanish and English. The startup is based in Colombia, but its founders, who are Guatemalan and Colombian, believed they'd have more access to capital and an easier time accessing services like Stripe if their business was incorporated in the United States. Atlas is the first attempt Stripe has taken to build startup tools beyond payments.

of the U.S., Atlas is making a notable addition to the roster of countries covered under the program: it will begin to accept Atlas **applicants from Cuba**, so that Cuban startups can incorporate in the U.S. The move represents one of the first big moves to bring U.S. tech services into Cuba, to give Cuban founders a way to extend their own ideas and enterprises to the U.S., and to foster tech trade with the country, made as Barack Obama becomes the first sitting president to visit the country in 90 years.

Over the past year Stripe has doubled in size to 380 employees and snatched investments that value it at \$5 billion⁹⁰. Stripe has expanded to 23 countries and is routinely striking partnerships with the likes of Visa, Apple Pay and Alibaba. Facebook, Twitter and Pinterest have chosen Stripe to power their e-commerce efforts. Stripe's revenue at more than \$450 million. Braintree has said it will process some \$50 billion in 2015 —more than double Stripe's volume. Adyen is also larger and pushing aggressively into new markets. There is no talk about an IPO right now. Stripes are focusing on the basics. Stripe has been a definitive success

credit cards, debit cards, and PayPal payments on their own storefronts through a single interface for shoppers. The system also introduces a secure way for shoppers to store their cards with a website, then have those cards shared with other connected merchants also using Braintree to power their payments. However, once connected, partners can take advantage of the Braintree SDK integration to expand the types of payments their merchants can accept. That means merchants could choose to offer Venmo, Apple Pay, Android Pay, Coinbase and other, more innovative checkout options to customers that arrive in the future if they choose. In addition to the above market of e-commerce platforms and service providers, Braintree Auth also has advantages for those businesses that provide **invoicing, accounting and analytics services to merchants**.

Also Braintree announced that it is shuttering its @braintree_dev account and cancelling «BattleHack», an annual hacking competition that last year took place around the world and ended with a 24-hour final in Silicon Valley.

As a result, Braintree is also axing some staff associated with the project, in particular «developer advocates». PayPal did not confirm figures on the number of staff that are leaving but one dev who has been decrying 'developer evangelists' and the cost of such roles said they've let the whole team go.

Visa Checkout announced that some major new companies would starting to utilize the service. Starbucks, Walgreens, NFL Shop, HSN and Match.com have all signed on and will be joining Checkout's more than 250,000 merchants using the express online payments service.

Amazon will acquire startup Emvantage for an undisclosed amount to develop its Indian e-commerce site's payment platform. In a press announcement, Amazon said the Noida-based company's employees will start working for Amazon's payment team after the transaction

is completed. Founded in 2012 by chief executive officer Vivek Sagar, Emvantage's platform includes a payment gateway for online transactions made using credit or debit cards, mobile payment tools that integrate into merchant apps, and a prepaid wallet.

percent stake for 200 million crowns (\$23 million), and already handles 10 percent of all online transactions in Europe. In Sweden it now processes 40 percent of all online purchases. Klarna investors include the founders, Sequoia Capital, Skype founder Niklas Zennstrom's Atomico, General



Hello, we're Klarna. We're simplifying buying.

Ever since we started in 2005, we've been committed to making online shopping easy and hassle-free. It's an ongoing mission and there's more than eleven hundred of us working on it everyday.



EUROPE



Klarna, the 10-year-old Swedish e-commerce firm which is now one of Europe's most highly valued tech start-ups, **expects revenues to rise by about 40 percent this year as it moves into the U.S. market**, where it has mounted a direct challenge to online payments giant PayPal⁹¹. «We're picking up the pace in growth», said Sebastian Siemiatkowski, the company's 34-year-old chief executive and co-founder. «This year, we're going to add almost 10 percentage points to our growth rates, and in absolute terms we will probably double our growth», he told Reuters. Klarna, meaning 'clear', believes its password-free service which enables 'one-click' impulse shopping and immediate payments for merchants, will be key to attracting new customers and retailers in the fiercely competitive U.S. market where it launched in September. The company had a \$2.25 billion valuation at the end of last year, after Swedish insurer Skandia bought a 1

Atlantic, DST, Wellington Management CO and Wellcome Trust. Disclosing 2015 figures for the first time, Siemiatkowski said Klarna generated 2.8 billion Swedish crowns (**\$331 million**) in revenues last year, up from 2.2 billion crowns (\$260 million) in 2014, thanks to strong sales in the Nordics and its German-speaking markets. Though it is already present in **18 national markets across Europe**, the big prize is now the United States, where online retail sales are seen growing 10 percent annually, reaching \$480 billion by 2019, according to Forrester Research.

GOCARDLESS

Offering an alternative to card payments, **GoCardless** provides a simple way for businesses to set up and accept bank-to-bank payments online (also known as Direct Debit), and is now processing £1 billion worth of payments annually⁹². That's up from £500 million in July. The company raised a further **\$13 million** in funding. The round is being led by new investor Notion Capital, with participation from existing backers

Balderton Capital, Accel Partners, and Passion Capital. It brings total funding for GoCardless to **\$25 million**. Founded in 2011, and after unsuccessfully trying its hand at group payments, GoCardless has built out a platform to make it infinitely easier for small and large business to accept bank-to-bank payments as an alternative to card payments. In particular the startup is targeting subscription-based commerce or any other type of business that relies on recurring payments.

That's because by taking money directly from a customer's bank account, many of the pitfalls of card-based payments are avoided. This includes when a card is lost, stolen or expires, contributing to a failure rate of up to 15 per cent for card transactions. Direct Debit/bank-to-bank payments offer a potentially much more robust means of accepting regular payments. GoCardless is now open for business in Spain, Sweden, and the Netherlands, adding to existing operations in the U.K., France and Germany. In total, GoCardless says 16,000 merchants are using its wares. Customers include major brands such as Thomas Cook, The Financial Times, and Trip Advisor, as well as SMEs. That's noteworthy when you consider that the startup charges a fee on each transaction.

MIDDLE EAST



Israel-based payment platform startup **Zooz said it has closed a \$24 million** led by Target Global Ventures, to expand globally and bolster its products and services⁹³. Zooz's series C round more than doubles the total amount invested in the company to \$40.5 million, raised in four rounds. The latest round included Fang Fund, iAngels, Kreos Capital and existing investors Bloomberg Capital, lool ventures, Rhodium, Claltech (Access Industries' Israeli tech vehicle), XSeed Capital, Cam-

pOne Ventures and angel investor Eilon Tirosh. «We are opening sales and tech support offices in Berlin and San Francisco. We are also going to invest more in business intelligence that relate to payments and better optimization of data. We are also looking to go from 80 to 120 employees in a year's time. Sales and tech support in both cities», said Ronen Morecki, co-founder and CTO of Zooz.

ASIA-PACIFIC



PromisePay, an Australia-headquartered fintech startup that specializes in payments for online marketplaces, has **raised \$10 million** in fresh capital for growth⁹⁴. The company landed \$2 million nearly a year ago. Australia's Carsales led the financing, with participation from Australian VC funds Rampersand and Reinventure, and existing backers U.S.-based Cultivation Capital and Mark Harbottle, co-founder of logo marketplace 99Designs (another notable Australian tech name.) Founded in 2014, PromisePay targets new digital commerce platforms, such as online marketplaces, where the risk of fraud or disagreement is higher than more traditional online commerce. The startup, which graduated St. Louis' SixThirty fintech accelerator, claims over 40 customers in Australia and the U.S. PromisePay claimed its revenue grew 25 percent per month over the past year. It has been on a hiring spree with its staff, which is spread across Australia, the U.S. and Philippines, jumping from 35 to 75.



TranServ, one of several companies digitizing payments in India, said that it has secured a **Series C of \$15 million** to develop new financial products⁹⁵. The round was led by IDFC Spice Fund and Micromax Informatics. Returning investors Nirvana and

Faering Capital India also participated. Micromax, one of India's largest smartphone makers by market share, is also one of the startup's strategic partners. The two companies recently signed a deal with Visa to offer mobile payment services, including NFC-based contactless payments on Micromax devices. TranServ claims a total of 10 million users. It processes about \$15 million per month through its APIs, which let merchants integrate payment tools into their own software, with clients including BookMyShow, PayU, Ixigo, and Askmebazaar. The company plans to launch new products, including micro-loan services, new non-payment features for its API stack, and online meal vouchers for companies that still issue paper coupons to their employees. It will also continue developing its mobile wallet app Udio.



2C2P (2008, Singapore, \$10M) raises strategic investment to enter into the European and North American B2C E-commerce market.

PING++

Ping++ (2014, Shanghai) Payment processor that offers integrated mobile payment SDKs and comprehensive payment solutions for developers, has raised \$10M in Series B.

Jewel announced it has snapped up over S\$1.5 million (US\$1 million) in series A funding. Tuas Capital Partners led the round, while institutional and private investors, including Singapore-based investment partnership 8capita, participated. Jewel Paymentech offers solutions to help banks and payment facilitators conduct merchant due diligence and manage fraud risks using predictive analytics. ●

CHAPTER #9

CROWDFUNDING

Crowdfunding is a rapidly growing modern industry worth US\$34 billion in 2015 (in payment volume), and reward crowdfunding has US\$2.68 billion share in it built on a century old patronage model.



PayPal is changing its purchase protection rules to reflect increasing risks associated with crowdfunding⁹⁶. The new language, which will go into effect in June, state that «payments on crowdfunding platforms» will no longer be eligible for Purchase Protection. The move reflects two interesting trends. First, it shows that crowdfunding is going strong in entirely new populations and this popularity is bringing new customers to the fray. Second, it shows that PayPal doesn't want to deal with the risks associated with crowdfunding that are similar to the risks associated with purchasing or paying a government agency and «gambling, gaming and/or any other activity with an entry fee and a prize», two other situations where Payment Protection will be made unavailable. In short, it's gotten more popular and more dangerous to back crowdfunded projects.

Kickstarter has made its first acquisition after the crowdfunding site snapped up **Drip**⁹⁷, a service that lets

music artists engage with fans with new work and previews while drawing revenue from the platform. Five-year-old Drip had become a popular community for independent labels, but the company made the difficult

ing assistance and go-to-market support⁹⁸. The Arrow integration means that Indiegogo is getting its hands dirty in the process of getting products to market — a refreshing change in the crowdfunding world. Qualifying campaigns will get direct access to Arrow's design tools, prototyping services, manufacturing support, supply chain management assistance and — most importantly — engineering experts. The top-tier package includes products and services worth up to half a million dollars. Before committing to help, Arrow will assess Indiegogo campaigns for their technical feasibility, manufacturability and is-this-a-good-idea-in-the-first-place-or-will-it-die-the-fiery-death-of-crushed-entrepreneur-dreams. Over the last year, Indiegogo has introduced new services meant to support entrepreneurs beyond the crowdfunding stage of their business, including In-Demand, which enables campaigns to continue accepting pre-orders after their crowdfunding efforts end, and Marketplace, which is Indiegogo's leap into e-commerce, offering a service for business owners to sell products that are ready to ship.



decision to close down last month. That's being reversed now that Kickstarter has bought it the day before it was scheduled to shut down. The site and service will remain open as founder Sam Valenti explained. «The [Drip] service, community, and creators will remain active and my co-founder Miguel Senquiz will join the team at Kickstarter to see Drip's vision through», he wrote on Medium. Kickstarter CEO and co-founder Yancey Strickler said many at the company had «admired Drip over the years». «At heart, we've been on similar paths. Strengthening the bonds between artists and audiences, and fostering the conditions for a more vibrant creative culture is at the core of our work at Kickstarter, too», he explained.

One of the biggest challenges of a hardware crowdfunding campaign is delivering in a timely fashion. **Indiegogo knows that better than most, and is teaming up with Arrow Electronics to help entrepreneurs deliver products through engineer-**

Indiegogo wants to step out of Kickstarter's shadow by embracing commerce beyond crowdfunding. That means helping sell pre-orders and finished products from entrepre-

neurs who are done raising money. So **Indiegogo announced it's acquired select assets of Celery**⁹⁹, the «pre-commerce» platform that specializes in beautiful, fully-tailorable sites for taking product pre-orders. «We had certain customers who wanted a really customizable platform» Indiegogo CEO Dave Mandelbrot tells. «It's not something we couldn't build ourselves, but we wanted to be in market with a really good solution quickly». The terms of the deal weren't disclosed.

The company is launching a brand new set of tools today dubbed «**Enterprise Crowdfunding**». This time, it's all about the large well-established companies and helping them make risky bets. Indiegogo is going to work with General Electric, Harman International Industries, Hasbro and Shock Top at first. Compared to newly launched startups, these companies don't need cash to launch new products. It would be unfair to talk about crowdfunding for Fortune 500 companies. Now, there's a risk

GoFundMe seems to be everywhere these days. The platform celebrates its community crossing the **25m donors** milestone¹⁰¹. GoFundMe's success is perhaps not that surprising; it was the platform Taylor Swift used to make a \$50,000 donation to a girl who had to miss her concert due to cancer treatment, it is being used by WWE stars to raise money and has been in the news frequently — for good and for bad. The platform, most recently valued at **\$600m or so**, is aiming to bring crowdfunding down to a micro scale, making it easy to raise money from small groups of people, for specific goals. Given that the GoFundMe collects 5% of all donations as its fee, it's easy to see why there might be a bit of a party going on in its offices at the moment. I'll save you having to do the math: 5% of two billion is \$100m, and while the company does re-donate a chunk of the money to causes on its own platform, it's safe to say there's a lot of money in the charity business.

Today's stars can rely on crowdfunding for their income. San Francisco-based crowdfunding platform Patreon Launched in 2013, the site is a Kickstarter for creative professionals¹⁰²: but rather than fund specific projects, it lets fans support individual artists — from musicians to illustrators and film-makers. Fans pledge financial support, paid either as a monthly sum or per piece of new content. In return, backers receive exclusive content. (Patreon takes a five per cent cut.) The service now has more than 20,000 individuals using it for income, including the musician Amanda Palmer, and in 2014, the company raised \$15 million in funding led by Index Ventures. Patreon's target audience is niche creators making a living through their art. «They make enough money to make it themselves; they are not household names, but they are loved in their communities». Patreon isn't without its challenges: in 2015, the site was hacked, with millions of artist and patron emails posted online. («Nobody's credit-card data was com-



After eight years at its helm, **Indiegogo** co-founder Slava Rubin is stepping down from his role as CEO and will be replaced by current COO Dave Mandelbrot¹⁰⁰. Rubin will be taking on the new role of Chief Business Officer at the crowdfunding powerhouse. The company hosting over 600,000 crowdfunding campaigns since its inception and has about 100 employees. Rubin noted that he hopes that this change will allow him to focus his own efforts more towards «innovation and growth —including our already thriving marketplace business, enterprise crowdfunding, as well as new opportunities like equity crowdfunding, China, and strategic partnerships with retailers and manufacturers».

that these large aging companies will use Indiegogo as a way to market themselves as edgy companies. Indiegogo will have to make sure that these big clients are showcasing actually interesting products.



promised, all tax data was encrypted.) Most creators on the site make only a small sum. And other startups tackling the same problem, such as the micropayments company Flattr, haven't reached widespread adoption.

SHOW4ME

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RECORD LABELS.

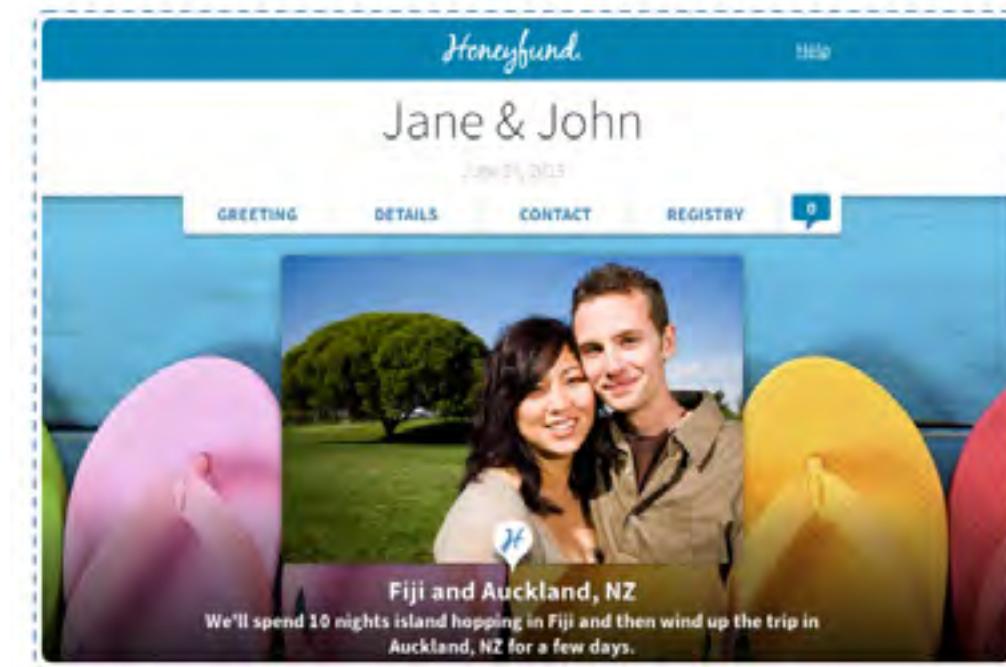
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COMING SPRING 2015

Headquartered in London with a development operation in Ukraine, **Show4me** has adapted the now familiar principles of crowdfunding to the specific requirements of **concert promotion**¹⁰³. The idea is simple. Under normal circumstances, a concert promoter hires a venue, pays an advance deposit to secure the required date and then sets about the process of marketing and selling tickets. And in many cases it's a high risk business. Shows are promoted on the expectation that a particular act will prove a big enough draw to fill the venue, cover costs, pay the band and generate a profit. But it doesn't always work out like that. If the choice of concert venue is over ambitious, or if ticket prices are set too high, then sales won't cover the venue costs and the promoter takes a hit. This is not only bad for the promoter's bank balance but also a blow to the ego of musicians who find themselves playing to empty seats. So Show4Me works like this. A promoter proposes that a band will play at a certain venue within a designated timeframe — say early March — and then invites

fans to pledge ticket money. When the pledges hit a level which will allow the promoter to at least break even the date and venue is confirmed and booked. However, at this point the crowdfunding campaign continues. With the venue costs paid for, the second half of the campaign takes the event into profit.

page to enable their wedding guests to fund their dream honeymoon to Fiji — and subsequently decided to turn the idea into a company.

Lifestyle projects crowdfunding platform **KaiStart** announced they have secured a series A+ funding round led by Matrix Partners and



A lot of people live with the idea that life is about experiences rather than things. A firm subscriber of that philosophy is **Honeyfund** — a company whose new Honeyfund app helps newlyweds bankroll their honeymoon, rather than stocking their house with half a dozen different bread makers¹⁰⁴. With Plumfund, fundraisers can ask friends and family in all sorts of categories. The company has been around the block a few times themselves, and today is a double celebration: combining an app-launch and its 10th anniversary, 10 years down the road from its own honeymoon period. Honeyfund first launched in 2006 when the company's founders, Sara & Josh Margulis, discovered their own wedding guests were strongly in favor of giving experiences and memories rather than trinkets, housewares and other doo-dahs. They set up a simple

Vision Capital. KaiStart's crowdfunding campaign includes films, books, and small business ideas. Two months ago KaiStart completed a RMB33.5 million (US\$5.2 million) series A financing round. Launched in April 2015, KaiStart secured funding from Incapital and domestic first-line angel investors, followed by nine institutional investors including Meridian Capital China, Tipping Point Partners, Jiusui Capital, and Zhejiang Wenchuang Group. The crowdfunding platform is unique in China, funding primarily passion projects. Past campaigns include planting trees in China's deserts, building a museum for antique Chinese books, a craftsman who makes toys out of old stools, and an astronomical observatory in a forest in Hangzhou. The company has a current goal of four million users to participate in their crowdfunding campaigns. ●

CHAPTER #10

CROWDINVESTING

US

As strange as it may seem, only a small percentage of Americans can legally invest in most startups today¹⁰⁵. Under long-standing rules governing who qualifies as a so-called «accredited investor», only quite wealthy individuals (those make at least \$200,000 in annual income or have \$1 million in assets, excluding their home) can buy shares in a fast-growing, privately held company. This «accredited investor» definition is extremely important for the startup ecosystem, since the most common legal arrangement that startups use to raise funds limits participation almost exclusively to accredited investors. Granted, the landscape of investor participation in funding startups may be changing thanks to the JOBS Act. What's being referred to as «regulation crowdfunding» is set to go live in May, allowing startups to accept not just monetary donations, but securities-backed investments, from online supporters, regardless of their income. Nonetheless, as many industry experts have argued, the regulatory requirements for both issuers and investors participating in this new form of crowdfunding may limit its full potential. Because regulation crowdfunding will be costly and restrictive for most issuers, many entrepreneurs may opt to instead rely on traditional accredited investors to raise capital, whether in the form of venture capital or angel investments. The SEC is authorized to change the accredited investor definition without legislation from Congress. And though the agency is often opaque in its proceedings and leanings, at a recent public event, SEC Chair Mary Jo White remarked, «I think the rule needs changing». If this is any indication, then it's all the more important that entrepreneurs, investors and supporters of our country's emerging startup ecosystems everywhere chime in and tell the SEC that changing this definition is bad for startups and bad for our economy.

In the wake of the passing of Title III of the JOBS Act, crowdfunding equity platform **FlashFunders has relaunched its site with new features**¹⁰⁶. The new features allow users to crowdfund investment under Form C, which allows for up to \$1 million in a single Series from anyone, not just accredited investors. FlashFunders launched on the scene a little under one year ago, offering a web-only way to raise money from investors, automating the entire process that a securities lawyer would traditionally handle.

Crowdfunder announced the world's first VC «Index Fund», which enables smaller investors to get involved with much bigger deals while still being able to spread their investment risk¹⁰⁷. Crowdfunder's new Index Fund is aiming to mimic certain aspects of this strategy by providing investors with access to a much broader spectrum of investment opportunities while reducing their risk at the same time. The fund is planning to invest in 300 early-stage deals. Given that most VC funds make on average 30 investments in their lifetime, Crowdfunder claims their fund is 10x more diversified than a VC fund, leading to significantly lower portfolio risk. «We have created the next generation of the early-stage venture firm», said Chance Barnett, CEO of Crowdfunder. «We're allowing investors to access both direct online investments into single ventures, as well as broader diversification into a portfolio of hundreds of VC-backed startups». The minimum investment into the Index Fund is \$100,000, and Barnett told me they are expecting the majority of the investments to fall between \$100,000-\$500,000.

EUROPE



SyndicateRoom, the U.K. equity crowdfunding platform that announced that the world's first equity-crowdfunded Hollywood film has signed Antonio Banderas to appear in its movie, has some big news of its own, announcing a £3.1 million (**\$4.5 million**) Series A from a number of heavy hitting angel investors¹⁰⁸. The round was led by Abcam founder Jonathan Milner, who noted he is excited about the company's «superb leadership and a brilliant company culture». Unicorn AIM VCT was the largest investor in this round, putting down a \$1.4 million bet on the company's future. The goal was to raise \$3.35 million at a \$36.5 million valuation, but the company smashed through that goal in less than 10 hours. This beats the company's previous record for its angel round about a year ago, when it raised a \$1.75 million round in around 33 hours. «We are building a platform for companies to raise equity investment at all stages of their equity journey, from idea to IPO», said Goncalo de Vasconcelos, CEO and co-founder of SyndicateRoom. «To have such strong demand from both retail and institutional investors is the strongest vote of confidence we could have regarding our expansion plans within crowdfunding and equity capital markets».

Earlier this year, **London Stock Exchange is turning to a crowdfunding platform to give small-time investors in the U.K. access to initial public offerings**¹⁰⁹, a market which is largely the preserve of institutional

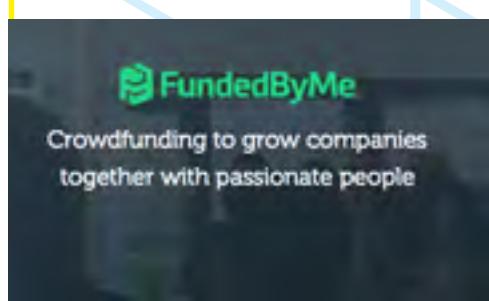
A screenshot of the SyndicateRoom website. At the top, there's a navigation bar with links for "INVEST IN COMPANIES", "SEEK INVESTMENT", "ABOUT US", and "INVESTOR'S ACADEMY". Below the navigation, a banner reads "Our investor led model is winning award, after award, after award." Three circular awards are displayed: "BEST INVESTMENT PLATFORM 2015", "ALTERNATIVE FINANCE PLATFORM OF THE YEAR UK 2015", and "BEST CROWDFUNDING PLATFORM 2015". The footer of the page includes the URL "lifesreda.com" and the text "At the Growth".

investors and rich individuals. The LSE made **Syndicate Room** Ltd. a member of the exchange, allowing the startup's customers to invest in IPOs and private share placements. The move, the first of its kind in the U.K., aims to democratize the process of investing in companies coming to market in a response to criticism from smaller investors that they are often frozen out of these deals in which shares are often sold at a discount. Depending on the IPO, Syndicate Room could allow investors to put sums of a few hundred dollars into listings via its website. The battle to open up the U.K. IPO market could prove long. Currently only a few initial public offerings include a tranche reserved for retail investors. Previous efforts to draw in a wider community of investors during the dot-com boom floundered as smaller investors lost money on sinking stock prices. The U.K.'s Conservative government is trying to rekindle former Prime Minister Margaret Thatcher's vision of a shareholder democracy.

INVESDOR

Invesdor is a platform focusing on **Scandinavia**, who used its own platform to raise its fourth round of funding¹¹⁰. This time, the company raised €1.2m (**\$1.36**) to expand growth, especially in the UK. Equity crowdfunding is accelerating rapidly in Europe as the market is maturing. Companies like Seedrs (who recently raised \$15m to expand in the US), CrowdCube, (who also raised a fat wedge of cash to fuel its expansion) and SyndicateRoom are already extremely active in the UK market, so Invesdor is facing a terrific challenge in trying to make way; it remains to be seen whether the relatively modest round will be enough to put a dent in the new market. The company is currently active in **Finland, Norway** (where it claims it is the only platform licensed to run equity crowdfunding campaigns), **Denmark, and the UK**. Invesdor anticipates it will use the funding to strengthen its presence in these

markets, rather than expand to additional countries in the short term. The company raised the current round from a total of **300 investors spanning 19 countries**.



Swedish crowdfunding platform, **FundedByMe**, announced it has received approval from the FSA for its loan making process. Only registered limited liability company that has been operating for more than 18 months and has a turnover of at least 150 000 SEK can apply for loans of FundedByMe. Companies' financial position and the information verified by the Credit Information Agency (UC) and Bisnode. A risk assessment drawn up showing the potential risk for the investment. Lender verifies their identity by uploading identification documents. The interest rate on the loan is determined by FundedByMe and gets between 6.25- 13.33%. Minimum loan amount is 50 EUR. A low fee of the loan with respect to success.

ASIA-PACIFIC



Monetary Authority of Singapore

The Monetary Authority of Singapore (MAS) announced it wants to **make access to securities-based crowdfunding easier for startups and small- and medium-sized enterprises (SMEs)**¹¹¹. Platforms that

use crowdfunding to invest in startups and SMEs can now raise funds using existing regulations. These regulations allow issuers who raise less than **US\$3.71 million within 12 months** to do so without a prospectus — what's known under Singapore law as the small offers exemption. Crowdfunding platform operators will be required to disclose the risks of such investments to investors and make sure they acknowledge those risks. The new regulations will allow crowdfunding platform operators to be licensed as dealing intermediaries, raising funds only through accredited and institutional investors. The base capital and minimum operational risk requirement is lowered from US\$185,440 to US\$37,100. A requirement for a US\$74,000 security deposit is waived. The new guidelines will allow crowdfunding platform operators to advertise their services and will provide guidance in how they can do so.



FundedHere, an equity-based and lending crowdfunding platform targeting startups in Southeast Asia and Greater China, has secured **S\$1.74 million (US\$1.29 million) in seed capital**, at a post-money valuation to S\$11 million (US\$8.17 million)¹¹². The funding comes from three high net-worth individuals (HNIs) — comprising a major shareholder of a Singapore mainboard-listed company investing in his personal capacity; an entrepreneur with business interests in China investing through her Singapore-based family office AsiaWorld Assets; and a Swiss intellectual property specialist. The capital will be used to strengthen the management, step up marketing and build a pool of accredited investors. It (the funding) validates the hard work of the FundedHere team as well as interest and support of this disruptive

form of fund-raising for startups», said FundedHere CEO Michael Tee. It allows investors registered with the platform to invest from as low as S\$5,000 (US\$3,700) each. The company said in a statement that it has reviewed more than 100 startups till date, mostly from Singapore, and has short-listed approximately 10 which have potential to be crowdfunded. It intends to reach out to startups in Singapore, China, Indonesia, Vietnam and the Philippines. Under the Monetary Authority of Singapore (MAS) guidelines, only accredited investors (AIs) with at least US\$1.5 million in net personal assets, excluding the primary residence, or US\$225,000 in annual income, are allowed to participate in crowdfunding in Singapore. FundedHere targets to register at least 1,000 AIs and secure more than US\$3.7 million in funding for 20-25 startups by the end of this year. In the long term, it hopes to register up to 10 per cent of AIs in Singapore.

Before this FundedHere received its Capital Markets Services Licence from Singapore's monetary authority, which permits it to deal in securities under the Securities and Futures Act. FundedHere, an equity-based and lending crowdfunding platform targeting startups in Southeast Asia and Greater China, has launched operations in Singapore. Startups can raise angel or seed funding — through equity issue and/or debt — by registering their business ideas through the FundedHere platform. As the startups mature, they can seek more traditional venture capital or private equity.

Now Three Singapore-based startups and an Asian education provider have raised a combined S\$1 million (\$750,000) from **FundedHere¹¹³**, becoming the first companies in the city island to obtain funding from accredited investors registered with the local licensed crowdfunding platform.

CROWDO

Crowdfunding platform **Crowdo also has received its provisional Capital Market Services (CMS) License** from the Monetary Authority of Singapore (MAS) which would allow the company to offer both equity crowdfunding and peer-to-business (P2B) lending solutions in Singapore¹¹⁴. The company has also made synchronised public launches in Malaysia and Indonesia. Crowdo chief executive and co-founder Leo Shimada commented that the platform is now gearing up for a full launch in its home market of Singapore. In early March 2016, Crowdo launched its first fundraising offer in Malaysia. Its very first issuer, The Parenthood, achieved the largest equity crowdfunding offer to date in the region, having raised close to S\$900,000, surpassing its target by 250 per cent. A second offer by Wedding.com.my, is expected to launch soon. In the same month, Crowdo also launched its P2B lending platform in Indonesia to the public, garnering interest from both local and global investors.

Crowdfunding platform operator **Crowdo**, which officially launched its equity crowdfunding (ECF) platform in Malaysia on Jan 11, believes it has what it takes to beat off its rivals and emerge on top. Last year, the Securities Commission of Malaysia (SC) gave the green light to six ECF operators, allowing them to provide an alternative funding platform for small businesses and startups.

These six platforms operators

include Alix Global, Ata Plus, Eureeca, pitchIN and Propellar Crowd+ (crowdplus.asia). «The launch is indeed timely in a Malaysian context, as we believe that the Malaysian startup scene is at the beginning of a dynamic and exciting growth phase», said Shimada. «Equity crowdfunding is widely seen as a powerful enabler that will help startups grow and further develop their innovations. «At the same time, it is viewed as revolutionary, allowing businesses to leverage the full power of community-driven online platforms to efficiently raise capital. One more player, online capital-raising platform Capbridge received a licence that allows it to help high-tech companies secure funding from global capital markets¹¹⁵. The capital markets and services licence from the Monetary Authority of Singapore lets the firm connect investors seeking alternative investment vehicles to high-tech companies aiming to raise at least US\$10 million (\$13.5 million). Capbridge targets firms with valuations of between US\$100 million and US\$300 million in healthcare, infocomms and communications technology, and other high-tech industries. It has a pipeline of about 35 companies but will target only four to five this year and more next year. Through its partner Healthios, an American healthcare online capital-raising platform, Capbridge has access to 366 global institutions with a deployable fund size of US\$409 billion. The Singapore Exchange (SGX) gave a \$1.5 million grant to Capbridge to develop its platform. The start-up then raised another \$2 million for business expansion and manpower.



United Overseas Bank (UOB), one of Singapore's largest banks, announced that it will be investing **US\$10 million** in OurCrowd, an «equity crowdfunding» site where accredited investors among UOB's clientele can log on to invest in tech startups. UOB's investment makes the bank a stakeholder and limited partner in the platform. That means it will invest in OurCrowd's portfolio of startups. Originating from Israel, OurCrowd focuses on startups across the entire spectrum — from seed stage to mature. It claims to have helped raise US\$200 million and vetted 4,000 companies so far. Asian startups will be given the opportunity to get listed on OurCrowd.

Tracxn

Now a new marketplace aims to help angel investors sell their startup stocks to VCs. It's an initiative by Bangalore-based startup market research firm Tracxn, which raised fresh funds from Teruhide Sato and other influential investors. **Tracxn-Secondary** is the name of the secondary marketplace which aims to facilitate startup stock transactions by connecting shareholders of private companies with institutional investors. It was launched in India today, but Tracxn plans to deploy it soon in Southeast Asia too.

CrowdPlus.asia

Malaysia's first equity crowdfunding (ECF) platform operator to launch, **CrowdPlus.asia**, has now posted its first listing — a location-based currency comparison app **Curren\$eek** (see above). Curren\$eek is targeting to raise at least MYR300,000 (\$69,320) and a maximum of MYR500,000 (\$115,530) on the ECF platform over 60 days. On CrowdPlus.asia's platform, the listing noted that Curren\$eek is issuing between 9.09 per cent and 14.29 per cent of its equity for the ECF fundraising.

CROWDINVESTING AND P2B-LENDING IN THE REAL-ESTATE INDUSTRY

Why startups can't disrupt the mortgage industry? Home loans are the Holy Grail of online lending¹¹⁶. They come with high loan balances, steady returns and hefty fees. There also is a healthy liquid market for the securitized loans, and the debt is asset backed, which reduces risk and opens up the investor pool. On top of that, «establishment» mortgage lenders are not leading the pack with innovation, which means there is a lot of room for improvement. For instance, **Quicken Loans** is massive, but they are the exception, not the rule. **Sindeo** wants to do \$1 billion in funding for 2016, according to CEO Nick Stamos. **Lenda** did \$60 million in originations between the summer of 2014 and November 2015. The top loan officer for 2015 originated almost \$645 million in loans — more than SoFi would do on an annualized basis based on their November 2015 volume. Mortgage companies have a hard time innovating. First, it's hard to attract and retain the type of talent required to build an innovative market solution. Second, they are not the type of company to raise a large round of venture capital. Mortgage companies aren't the only area in the financial world that are plagued with legacy systems, complex regulations and the need for robust infrastructure to scale. Could «M&A Innovation» be the logical extension of this trend?



LendInvest, an online marketplace for **property finance in the UK**, completed a 17 million pound (**\$25 million**) **Series B** equity investment from Atomico. The investment brings the company's total equity funding to 39 million pounds (\$56 million). In June, LendInvest secured a 22 million pound (\$33 million) Series A investment from Beijing Kunlun, a listed Chinese technology company. The round takes LendInvest's total institutional funding (debt and equity) to over £200 million (\$285 million). LendInvest was launched in 2013 by founders Christian Faes and Ian Thomas, and has lent £560 million to finance 2,100 properties in the UK. LendInvest has also opened up mortgages as a new and attractive asset class that delivers returns of over 5% per annum for investors. LendInvest is authorised and regulated by the Financial Conduct Authority and in June 2015, it became the first marketplace platform to be rated by a regulated European credit rating agency.



co-founders, Brew Johnson, Brett Crosby, and Alex Perelman, have been working alongside famed investors like Dr. Michael Burry to **provide investors access to real estate debt**¹¹⁷. PeerStreet lowers that minimum exposure to \$1,000 per loan. The company also does underwriting due diligence on all its loans and visits each property before giving users access to a new investment opportunity. Everyday casual investors typically don't understand the difference between real estate debt and a real estate ETF. Second, there is the small matter of the Securities and Exchange Commission (SEC). The SEC, with its accredited investor guidelines, sets a benchmark for armchair Wall Street wannabes. Investors in some alternative asset classes must hit a benchmark of either a million dollar net worth or yearly income of \$200,000. PeerStreet mostly solves the first problem by **offering an automated portfolio builder that invests money in loans** to encourage diversification. \$75 million has been invested on the platform. PeerStreet gets paid when investors get paid. The company takes 1 percent off interest payments from their loans. The company sends the other 99 percent to accounts in City National Bank where investors can withdraw their money from FDIC insured accounts. Loans that PeerStreet underwrites are backed by real estate for collateral. This is very different from opportunities on other alternative investment platforms. Investors on PeerStreet can sleep tight knowing that their money is financing businesses buying properties to rehabilitate rather than residential homebuyers.

Less than a year after it closed a \$10 million round of financing, the real estate investment marketplace

RealtyShares has managed to rake in another \$20 million for its funding platform. The San Francisco-based company has raised over \$130 million for over 1600 properties through 290 since its launch, which the company says makes it one of the largest real estate investment platforms in the U.S. Available only to accredited and vetted real estate investors, the site offers a mix of fix-and-flip loans, preferred equity and mezzanine products, joint venture equity and commercial loans alongside its capital partners. According to chief executive Nav Athwal, the current small-deal commercial real estate market of properties valued under \$50 million is under-served by current investors. «For a marketplace lender, it's important to think about topline, but also defaults and potential issues. We're protecting the capital in a way that we didn't a year ago», says Athwal. Marketplace lenders also want to think about their returns to investors. As of last year, we wrote that the company was looking at returns in the range of 8% to 20%, far better than folks are getting on standard loans in the current market. ●

“PeerStreet's investments have similar yields to LendingClub, but are backed by real estate and carry very attractive loan-to-value ratios. Simply a smarter way to invest.”

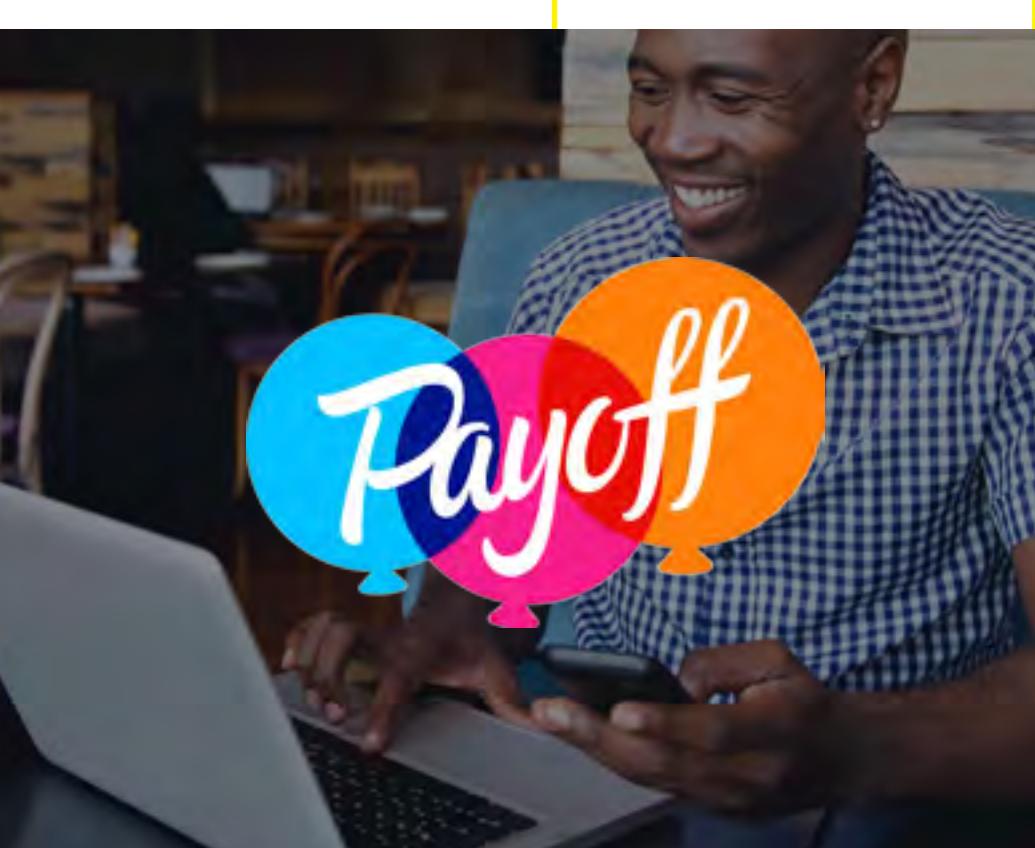
Dr. Michael Burry
Investor and CEO, SIEBEL INVESTMENT LLC
Featured in Startup Lawyer “One Big Story”





ONLINE LENDING

CHAPTER #11



US

Payoff, a 7.5-year-old startup that makes loans for people looking to pay off credit card debt, has raised \$46.7 million¹¹⁸ as part of a round expected to close at \$67.4 million. The company had previously raised \$38.4 million from investors, including FirstMark Capital, Great Oaks Venture Capital, and Anthemis Group. Payoff targets millennials seemingly, with 10-minute-long quizzes to help users understand their financial «personality», understand what their overall financial picture looks like, and assess how much finance-related stress is impacting them. Beyond its content, Payoff provides loan amounts of between \$5,000 and \$35,000, between two- and five-year-long terms, and for fixed rates of between 8 percent and 22 percent APR. Borrowers also are charged a one-time 2 percent to 5 percent fee when their loan is issued. Payoff seems to be steering clear of «subprime» borrowers, the kind that firms like LendUp loan to at extravagant rates (though those rates fall with every loan that's paid in full). It instead requires that applicants have a minimum credit score of 720, gross

income of at least \$25,000, and a minimum credit history of three years. Borrowers are limited to using the loans to pay off credit card debt, too. As for the money that Payoff is lending out, it largely comes from Eaglewood Capital Management. According to the WSJ, Payoff last summer **secured up to \$250 million in debt financing** from the firm to ramp up its offerings of unsecured loans. In January, it partnered with Moven, an institution that's focused on money management. Additionally, cofounder and CEO Scott Saunders told the Journal last year that the firm hopes its content and quizzes will help it evolve into more of a wealth management outfit over time.



Recently student-lending **Affirm announced they are partnering with Expedia and Eventbrite** to offer 3-, 6-, or 12-month payment plans

to customers buying intangible «experiences» like a vacation or concert ticket¹¹⁹. On the surface, the benefits for both sides are clear. Affirm gets a large, pre-existing customer base with whom it can offer financing, and Expedia and Eventbrite get to offer their customers a new payment option, which Affirm says typically leads to increased sales performance by retailers. Financing experiences also raises the question of whether or not shoppers will still repay Affirm after they already went on a vacation. With a tangible good, you continue to gain utility every day for months or even years after you've repaid the company. But with a vacation, shoppers may be more likely to leave Affirm on the hook for the balance of the trip when they are still paying a year after the experience they now barely remember.



LendUp has now attracted an \$150 million Series B¹²⁰. That includes \$100 million in debt from Victory Park to finance LendUp loans, plus \$50 million for equity from patient investors like Google Ventures, Yuri Milner and others. The company did several hundred million dollars in loan volume last year, and grew new customers by 36% in December alone. Users are becoming evan-

gelists. Now after several months in beta, LendUp is launching its own credit L card. It's a 100X bigger market than payday loans. Even if you have a \$10,000 credit limit on your L Card, you credit card will improve if you don't spend much of it or pay it off before your statement comes. So the top of the LendUp Card app shows your credit health bar. Have over 70% left and it's green, under 30% and it turns a frightful red, encouraging people to keep their balance paid. LendUp is already profitable on a per loan business, and would be overall if it wasn't pouring so much capital into growth and engineering.

since being founded in 2012. «Instead of undergoing this extremely complex and time consuming process, a consumer can simply provide his personal data on Finanzcheck.de once, via one single interface merging all scorecards». «We pre-score the client based on our own in-house big data matching algorithms to preselect most suitable banks. Via direct interfaces, deeply integrated into the bank's IT architecture which enables real-time communication, the client's data is transferred and the banks now place their loan offer in realtime. Our recommendation engine evaluates these offers and selects the best one for the customer».

services to consumers who have little or no credit history by using some 20,000 data points online to assess their suitability — has **added another \$11 million (€10 million) to its Series C round** of funding¹²². This brings the total raised by Kreditech in this round to \$103 million, after first announcing \$92 million (€82.5 million) in September 2015. Other investors already in the round include PayPal co-founder Peter Thiel, Amadeus Capital Partners, Värde Partners, HPE Growth Capital and Blumberg Capital. The round was led by U.S.-based private equity firm J.C. Flowers. Kreditech's valuation remains the same as it was previously for the Series C — **between €250 million and €300 million** (\$279 million-\$335 million). The company has raised total around \$150 million. This latest tranche is notable because of its origin: it comes from the International Finance Corporation (IFC), a division of the World Bank group that focuses on economic development in emerging countries by financing private enterprises whose businesses can spur that development. Kreditech today does most of its business in Poland, Spain, the Czech Republic, Mexico and Russia, but given the remit of the IFC will likely expand elsewhere. Kreditech is also in the process of raising another very large debt round, we understand, with that round likely to close around the end of Q3.



EUROPE

Hamburg-based **Finanzcheck**, the consumer loans marketplace, has raised €33 million in Series C funding¹²¹. The round was led by growth-investor HarbourVest, with participation by Acton Capital Partners, and existing backer Highland Europe. Finanzcheck says it will use the new capital to consolidate its claimed leadership position in Germany's €70 billion consumer loan market, as well as to accelerate growth and roll out new products. The company has brokered more than €1.3 billion in consumer loans

To that end, Finanzcheck compares up to 35 bank and P2P lender's scorecards, «increasing the matchability of client and bank from 40 per cent to over 85 per cent», which is a big deal if you've ever applied for and been turned down for a loan. «For those clients with a high credit score and multiple scorecard matches, Finanzcheck will provide the offer with the lowest interest rate available to them. In this setup and process we heavily outperform single banks or P2P lenders in Germany». Kreditech — the German startup that offers loans and other financial



Mambu, the SaaS banking platform, has raised a further €8 million in funding. The round was led by Acton Capital Partners and CommerzVentures. The additional capital will be used to expand its commercial team,

invest in the platform and to open new offices in Asia and the Americas. It says that in the last 12 months it has picked up 30 new customers, and added new functionality including support for various SME and P2P lending methodologies.



Giles Andrews wants everyone to know that **Zopa stands for «zone of possible agreement»**, a negotiating term denoting the range of feasible prices that a buyer and seller can agree on¹²³. On his office wall is a painting of another Zopa — Lama Zopa Rinpoche, a Tibetan Buddhist scholar and mediator. «It's not one of those made-up names», Andrews, the co-founder of the peer-to-peer (P2P) lending company, insists. «The name does actually stand for something». Zopa was founded by Andrews and four colleagues in 2004, with the idea of creating «an eBay for money». Zopa reported £11.5m of revenues in 2014, more than double its £5.4m total the previous year, and executive chairman Andrews expects the 2015 figures to show revenue of £21m. Zopa claims to have invented P2P lending and remains the largest of Britain's new generation of P2P lenders, with total lending so far of £1.3bn, putting it ahead of rivals including Funding Circle, MarketInvoice and RateSetter. Some £530m of this lending took place last year alone, double the total of 2014.

About £650m of the loans are still outstanding. Zopa's 60,000 personal lenders advance between £1,000 and £25,000 on the platform. The company's average loan is £7,500, all the loans are unsecured and it makes its returns by taking a fee from both lenders and borrowers. Zopa's interest rates are set by algorithms based on borrowers' credit history. Its current interest rates for borrowers range from 3.3pc to 29pc, with an average rate of around 10pc. Zopa's lenders get a return of 5pc for long-term loans and 3.8pc for short-term lending of less than three years. Zopa is 70pc owned by the venture capital groups Bessemer Venture Partners, Wellington Capital, Augmentum Capital, Arrowgrass Capital and Runa Capital, and has 170 staff based in London. Its losses more than doubled from £2.6m to £5.6m in 2014. However, the company made profits in 2011 and 2012 before raising funds and deciding to invest in the business. Zopa now plans to enter the car loans market, as well as other secured lending.



PayPal Credit expands to the UK with an interest-free option for purchases over £150¹²⁴. It is taking a step to do both, with the U.K. launch of PayPal Credit — a service that lets consumers use their PayPal accounts to spread out online payments for goods as a replacement for traditional credit cards. It will give consumers online the option of buying with PayPal Credit across all PayPal-enabled sites, with purchases over £150 (\$212) offered at 0 percent interest to sweeten the deal, and agreements with select retailers for special interest rates on their sites. Interestingly, as a point of comparison, PayPal offers an interest-free option in the U.S. at less than half that price, \$99. This is the first market for PayPal Credit outside of the U.S., where it launched in 2014 (as a rebranded and expanded Bill Me Later) along with a PayPal Extras MasterCard physical credit card, issued by Synchrony, and a money

transfer service. The U.K. service for now has no plans for a physical card or money transfer service.



Amazon UK is now offering a monthly pay-back option on items worth over £400 (\$590) too¹²⁵. The service, which is called Amazon Pay Monthly, is in partnership with Hitachi Capital, who also work with John Lewis on a similar scheme. The repayment can be made over two, three, or four year periods, depending on the price of the item — making pricey purchases much more affordable. The interest rate is set at 16.9%. Amazon has become a dominant player in the British retail landscape, with sales of £5.6 billion in the country in 2015.

ASIA-PACIFIC



The Chinese startup, **Fenqile**, which literally means «happy installments», is focused on college-age youngsters and others with low incomes — anyone for whom it's a stretch to pay out the full US\$1,400 for that funky pink MacBook. The payment can instead be spread across up to two years in monthly payments — making that MacBook an easier US\$67 expense each month. **Fenqile announced US\$235 million in series D**¹²⁶ funding to help it grow further. The cash comes mainly from Huasheng Capital. A previous investor is Alibaba arch-rival JD, from



which the startup sources many of its items. In the first six months of the year, Fenqile claims its customers snapped up US\$1.5 billion worth of products. The startup faces a number of similar sites, one of which is a major rival with a similar name — **Qufenqi** — that has itself raised nearly half a billion dollars in total venture capital funding.



FinAccel is a new company that's proposing a credit line for online purchases¹²⁷. The company is based in Jakarta, Indonesia, and it essentially acts as a layer between its credit card and lending company partners and consumers buying online. Started last year by Akshay Garg, who founded ad tech firm Komli, ex-McKinsey consultant Umang Rustagi, and Alie Tan, formerly of a number of startups, the company has raised an undisclosed seed round, led by Jungle Ventures to get started. FinAccel's product — Kredivo — is designed to sit at the point of sale like Visa, but enable customers to pay with one click and make repayments to FinAccel directly. Initially live in Indonesia only, customers have 30 days to repay the amount at no added cost,

but the startup is planning to introduce credit card-style payback plans soon. That would be priced at 41.75 percent APR over a period upwards of six months, which Garg said is anything up to one-third cheaper than «nearly every consumer finance company in the market» and on-par with credit card holders. «You might say that's high, but the cost of capital here is high», he added. «We are basically putting a virtual credit in hands of five to 10 million people in next five years». «We want to go hard against the consumer finance companies», Garg said. «There's a crazy amount of bullshit marketing in the industry today».



Vikas Sekhri and his Mumbai-based startup **CashCare** is trying to take care of **installments-lending in online-shopping**¹²⁸. Vikas explains that he found out there was tremendous opportunity in the gap between the number of credit cards (around 22 million) and the number of debit cards (more than 600 million) in the country. «People want to buy aspirational products. That's where we're helping», he adds. With CashCare, shoppers can make their purchase through ecommerce partners and

get the transactions converted into a three to 12-month easy financing scheme. CashCare charges customers an interest rate between zero and 24 per cent on the loans depending on an individual's risk. In other words, if you cannot afford to buy the latest iPhone because you don't have a credit card, you could use CashCare to buy it from one of the ecommerce partners and pay over the next few months instead of paying for it upfront. Shoppers can use the credit service on sites like Fabfurnish, Shopclues, and MakeMyTrip now. Vikas claims he is confident because his business has proved three important points. He sees demand from customers, says retailers are benefiting from it, and from a credit perspective someone who would not have got credit at the point of sale will now be able to get it — thus fueling more transactions. The company is also doing a pilot with offline stores, and has partnered with MakeMyTrip at its offline stores.



Philippine fintech startup **PawnHero**, an online pawn shop in Southeast Asia, has secured an undisclosed funding in a **pre-series A Round** led by the Kaikaku Fund, a SoftBank affiliate¹²⁹. Other participants in the round were global investors 500 Startups, and IMJ Investment Partners. PawnHero will use the funds for talent acquisition and continuing its mass outreach in the Philippines. CEO and founder David Margendorff said, Pawnhero has been growing rapidly since its launch in early 2015. «Even more Filipinos will know that they can now pawn online without leaving their homes, at half the interest of what other pawnshops charge», Margendorff said. 500 Startups managing partner Khailee Ng sees a lucrative opportunity for Pawnhero's business model, citing most startup investors don't go to pawnshops to get loans but millions of people in Southeast Asia do every day. «PawnHero will literally change their lives, and in the process, the region's

next big startup success story will emerge», Ng said. Recently PawnHero won the 2016 Hack Osaka pitch contest in Japan. This comes at the heels of a June 2015 win in the Echelon Asia Summit last year in Singapore where it bagged the title of «Most Promising Startup in Asia 2015». Prior to its launch in February 2015, PawnHero received funding from Sulficio «Jun» Tagud, chief executive officer of 2GO, the largest logistics provider in the Philippines. An investment group led by Malaysia's state fund Khazanah Nasional has invested **\$160 million** at a near-unicorn valuation in Hong Kong-based financial technology start-up **WeLab**, which provides consumer loans in China and Hong Kong through online and mobile platforms. Other investors include ING Bank and Guangdong Financial Technology Group.



WeBank's (which is 30% owned by Tencent) first fundraising round could value the online bank at around \$5 billion — online-bank is seeking to raise around \$1 billion in fresh funds. Tencent's WeBank and MYbank, affiliated with Alibaba Group Holding Ltd., are competing to offer small loans and investment products through their online platforms. Regulators currently limit the range of services these online banks can offer, effectively making them middlemen connecting traditional bank offerings with mobile customers. Raising fresh funds will likely enable WeBank to expand its personal-loan service called Weilidai¹³⁰—«a tiny bit of loan» in English—which allows users to borrow up to 200,000 yuan (\$31,360) without providing a guarantee or collateral.



Alibaba's rival e-commerce giant **JD.com**'s money-focused unit is also in the money after it took in RMB 6.65 billion (around \$1.01 billion)

from Sequoia Capital China, China Harvest Investments and China Taiping Insurance — it values JD Finance at RMB 46.65 billion (approximately \$7.1 billion) post-money. «By partnering with top financial and start-up service institutions, we will be even better positioned to create China's leading financial technology ecosystem».

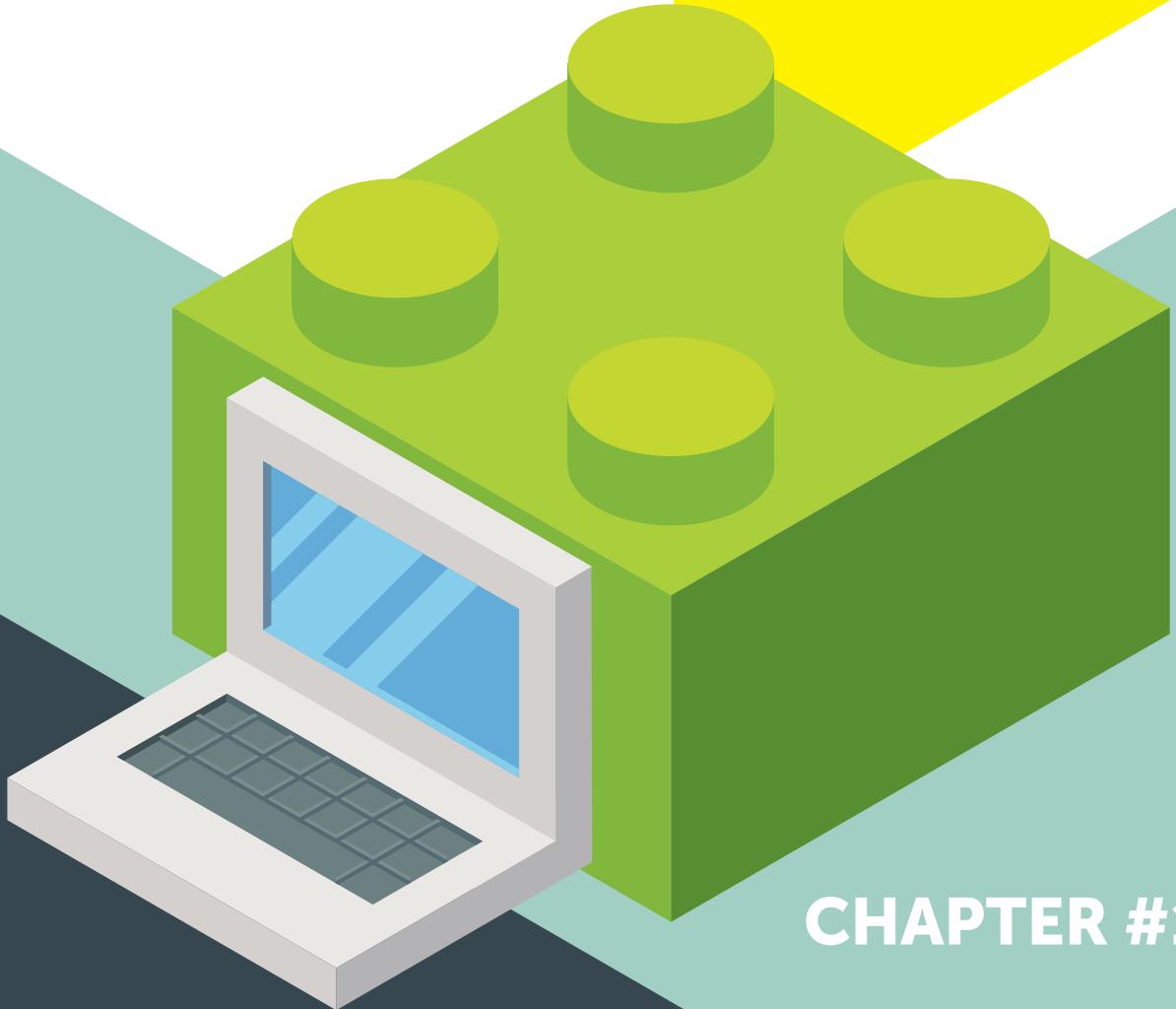
decline the application for financing. If accepted, the user can buy the item on the spot using their mobile phone, getting six months of interest-free time to pay for the product, if paid in full. After that six months, the user will pay back the loan on a **19.99 percent interest rate**, which is relatively lower than the average 26 percent for other financing programs from



POSLENDING

Blispay is a new startup founded by Greg Lisiewski, formerly of BillMeLater, which was acquired by PayPal for nearly \$1 billion in 2008¹³¹. From that point, he served as global head of credit products at PayPal until the past year, when he went on to found Blispay. The company just received **\$12.75 million in seed funding** led by FirstMark Capital, with participation from Accomplice, NEA and TriplePoint Capital. Blispay signs on with merchants to offer financing programs that are free for the merchants and require no extra time or energy from the retail associates. These merchants simply hang signage that explains to customers that a financing plan is available to them. When a customer walks into the store and either can't, or doesn't wish to, pay for the item in full on the spot, they can sign up for Blispay on their phone. The sign up includes a few minutes of fine-print reading and asks the user to include their name, email, password, phone number, DOB and Social Security number. From there, it takes under a minute to either approve or

big box retailers, but slightly higher than a traditional credit card (average 17 percent interest). What's more, after the user goes home with the initial product, they receive a **Blispay Visa card** in the mail to use on other purchases. The same six-month-interest-free deal applies to all purchases over \$199, but the card can also be used for every day purchases like Starbucks, etc. The card also offers a flat 2 percent cash back program on all purchases. On the backend, Blispay partners with a Utah-based bank called **First Electronic Bank**. When the original purchase goes through, First Electronic Bank pays Visa, which pays the merchant the next day, with both entities taking a small transaction fee. At that point, Blispay buys back the loan and bills the customer directly, receiving 100 percent of the purchase price, which is the way they generate revenue. Beyond that, they also receive most of the interest for users who either can't or don't wish to pay back the loan in the first six months. ●



CHAPTER #12

ONLINE LENDING *for students*

SoFi is trying to change the notion that all financial services must be done through the traditional banks that we have all come to know as the norm. The last thing viewers saw on the commercial was «Don't bank. SoFi». It is quite apparent that SoFi prides itself on not being a bank, as it is also all over the company's website, social media accounts, and online advertising. SoFi's Super Bowl 50 commercial has surely made a splash. Just as Netflix sunk Blockbuster, SoFi is looking to take out the big banks through much-needed innovation. Investors have bought into the idea too. The coming years will tell if SoFi is truly «great» or not, but one thing is for sure, many people are now considering ditching their traditional bank to «SoFi». **SoFi's recent «Don't Bank» campaigns are provocative¹³²**. Especially when you consider the fact that the millennial generation watched the housing collapse from the sidelines, it makes sense that SoFi would want to distance themselves from the old-money banks and mortgage lenders in the market. Sure, the company takes great care of its customers, who they call «members». Members receive perks, like investor introductions for entrepreneurs or career planning services – which are totally awesome benefits, but only if they accept you into this exclusive club. It's this exclusivity that's a problem. Watching one of their video ads, one line in particular struck me: «We can't accept everyone, and we make no apology for that».«We hope that by getting a little education they can be great in the future». SoFi has a history of targeting the high-end customer. Starting as a student loan refinance lender, they focused on customers with degrees in specific fields or from certain schools. Imagine what would happen if Wells Fargo or Bank of America came out and said «We can't accept everyone, and we make no apology for that».

What if these other major institutions only targeted the top end of the market? The Internet would explode and stock prices would tumble. In a way, SoFi's «Don't Bank» campaign feels like a small-scale version of redlining. They get away with it because they are a fresh, innovative disruptor – but this only buys them so much runway.



Social Finance (SoFi), as it once was, started life in 2011 as a way to match students who needed money to pay for a degree at Stanford with alumni with lots of dough¹³³. SoFi quickly expanded—to borrowers from other prestigious universities, and to other forms of lending. Having provided many of its customers with their first loans, SoFi then worked to cater to their expanding financial needs after graduation, offering them personal loans and mortgages. The firm's lending algorithms ignore the rigid credit scores used by banks in favour of common-sense indicators of ability to pay. Like many other fintech lending operations, SoFi obtains the money it lends from hedge funds and investment banks. Its balance-sheet is turned over every two to three weeks; some of the loans it issues get sliced, diced and repackaged in much the same way subprime mortgages once did. SoFi is the opposite: its customer base is focused (though it now lends to graduates of over 2,200 schools) but it is busy diversifying its offering. Beyond student loans and mortgages, it aspires to manage its customers' wealth and offer them insurance. It even wants to launch something akin to a current account, without

officially becoming a deposit-taking institution. But SoFi faces three obstacles if it is to keep growing fast enough to justify a recent investment that valued it at around \$4 billion (it is not listed). The first is growing without lowering its lending standards. The second obstacle is rising interest rates. The third is regulation.

Very interesting step — **SoFi opened a credit fund that will buy its loans and some from its competitors¹³⁴**. The unusual move by SoFi is an attempt to get around waning investor interest that is threatening online lenders' growth. The sector lacks the deposits needed to fund its loans like traditional banks, so it relies on being able to sell the loans to investors to free up capital to make new ones. The new hedge fund, called SoFi Credit Opportunities Fund, has «a real chance to solve the balance-sheet problems facing the industry», said SoFi Chief Executive Mike Cagney. SoFi's growth has been driven in part by selling packages of loans sliced into bonds with different levels of risk, known as securitizations. But that is getting more expensive. SoFi raised more than \$1.6 billion in securitization funding last year, according to PeerIQ. It completed its first deal of this year, for \$551 million, this month. But the yield on the highest-rated portion of the SoFi deal compared with benchmark rates was about 0.5 percentage point higher than that spread in the last deal. The fund launched in February with \$15 million from a handful of investors, according to a filing this month. But it could grow to \$500 million to \$1 billion in assets, said Mr. Cagney. It will charge investors a relatively high performance fee of 25% of returns but only after clearing an initial hurdle of three percentage points plus the rates of short-term government debt. The fund won't have a separate annual management fee. Also SoFi is sketching out plans to start a **real estate investment trust that would buy the mortgages** the startup lender makes. Executives at the company are considering the idea as a way to raise money at low cost to lend out long term.

earnest

Online student lender **Earnest** completed its first sale of a package of loans, \$112 million worth, to big institutional investors, including real-estate investment trust Western Asset Mortgage Capital Corp¹³⁵. The highest class of notes received an A rating from credit rating firm DBRS Inc. Earnest also inked a deal in recent weeks with Goldman Sachs Group Inc. to provide a **\$150 million credit line to fund loans** until they are packaged and re-sold as securitizations. Securitization of online loans soared last year, to more than \$8.4 billion according to data provider PeerIQ, but had halted since mid-December as investor anxiety rose on subjects ranging from China to oil to Federal Reserve interest-rate targets. Earnest has lent out over \$500 million since launching in 2014, and mostly refinances existing student loans and offers features to borrowers like the ability to delay a payment or switch from fixed to floating interest rates.

CommonBond

Student lending service **CommonBond** rakes in another \$275 million in available lending capital¹³⁶. Macquarie Capital, Barclays, and other, undisclosed, financial investors, are providing CommonBond with a line of credit called a «warehouse line», which CommonBond will use to provide loans to its student borrowers. «Mechanically, the idea of warehouse lines and their securitization have been around for a long time». With the new loan capacity CommonBond is on track to issue \$1 billion worth of loans in 2016. Right now, the bulk of the company's business is coming from refinancing existing student loans (between 85% and 90%), but its direct loan business to students to grow in the coming years.



Affirm

Affirm, the alternative lending site started by PayPal co-founder Max Levchin, has raised a \$100M Series D¹³⁷ led by fellow PayPal co-founder Peter Thiel's Founders Fund. The all equity round also included participation from existing investors including Lightspeed Venture Partners, Spark Capital, Khosla Ventures, Andreessen Horowitz, and Jefferies. While some of Affirm's loans are packaged and sold to third-party banks, the company also carries some directly on their balance sheet.

Also **Affirm has announced it is acquiring Sweep**, an app-based personal finance tool¹³⁸. The move comes just two weeks after Affirm raised a \$100M Series D round, which was partially raised to help the company expand into new product categories outside of lending. Specifically, Max Levchin, co-founder and CEO of Affirm, acknowledged that users will most likely never be using Affirm's loan products on a daily basis. So, the company wants to expand into services outside of lending, with the goal that users would use these services more often than they use Affirm's loan product – maybe even on a daily basis. The app, founded in 2014, provides users with a future view of their cashflow so they can better plan ahead for things like bills and other expenses. Essentially, the app collates all of your financial activity into a single dashboard, which could function as an alternative to simply checking your account balance. As a result of the acquisition, Sweep co-founders Jackson Gates and Asi Behar and most of the Sweep engineering team will be joining Affirm.

Employers want to attract and retain employees and, unfortunately, one of the best ways to do that right now is by offering student loan assistance benefits. Small businesses and enterprises can **use Gradifi to contribute money toward the student loan debt of employees**¹³⁹.

gradifi

When Boston-based Gradifi first launched its student loan paydown plan, 456 companies reached out wanting to sign up for the benefit. Gradifi has 20 companies registered and another 80 scheduled for on-boarding through Q4 2017. Price-waterhouseCoopers signed on to Gradifi in January. Nearly \$150 million in student loans are registered on the Gradifi platform. Now Gradifi is launching a **partnership with Radius Bank** to allow MasterCard Debit Card users to earn 1 percent cash back for student loans. That doesn't sound like a lot, but if someone spends \$2,500 a month on their debit card they will earn back \$25 a month. Over the life of a 120-month student loan, users will earn \$3,000 to be paid toward student loan debt. Gradifi is exclusively backed by angel investors and has expectations to be cash-flow positive by the end of 2017. The team has expanded from three to 30 employees over the last year.



Climb Credit looks to transform student lending with a new business model based on graduate success¹⁴⁰. Climb Credit, a new entrant into the student lending market which just received a \$400 million lending facility, is taking a different approach. «We started Climb to fund what we call high ROI education», says co-founder and chief executive Zander Rafael. «It's education that actually works and benefits the student». The 31-year-old Harvard graduate and his co-founders Amit Sinha and Vishal Garg all saw the problems bedeviling higher education in the U.S. «Most schools aren't providing the value to the students that the students want and the employers want. Dropout rates are high, which leads to higher defaults, and even if

you do graduate you don't necessarily get the skills that you need», Rafael says. So Climb set out to change the model. The company identified schools that were doing things well — from charging lower fees, to directly linking training to the skills needed for future employment, to reducing spending on things like infrastructure in order to focus on student outcomes and teacher salaries. Currently, the company is partnered with roughly 40 schools that are operating from 70 campuses. The company has also raised a small, **\$2 million venture round** to fund its operations.



Future Finance — a startup based out of Dublin that provides loans to students in **Europe** using big data algorithms to assess their credit-worthiness — announced a new £119 million (**\$171 million**) in funding¹⁴¹. This includes £19 million in equity and £100 million towards future loans made through the platform. Future Finance is not disclosing its valuation in this round. Future Finance is currently live in the **UK and Germany** with plans to expand further in the region, according to co-founder and CEO Brian Norton — an American with a background in finance who upped sticks and moved to Dublin to build Future Finance in this part of the world. Future Finance has raised \$266 million, or £185 million, since going live in May 2014. Future Finance's equity investors now include QED Investors, Blackstone Strategic Opportunity Fund, Colchis Capital, Invus Opportunities, KCK, DW Partners, Fenway Summer Ventures, Ridge Road Partners and 1/0 Capital. And the company also has disclosed that Goldman Sachs has also been backing the company, providing funds for the £25 million in loans paid out on the platform to date. The company says it has had 37,000 applications received to-date and has seen loan growth of over 900% year-on-year. The problem that Future Finance is aiming to solve is one that

is still largely nascent in Europe, but is bound to grow over time: While the cost of going to university in Europe is tiny compared to average prices in the U.S., those costs have been on the rise. Traditional banks have yet to fill the funding gap for students after grants, scholarships and government programs, and while students also work through college, sometimes this can become a distraction. In its most mature market, the UK, Norton tells that the average price for a university undergraduate degree is around £60,000. «The average person can borrow £35,000 from the government on terms that are pretty easy, flexible and student friendly.» Future Finance aims to make up the difference, providing loans of between £2,500 and £40,000 per each academic year, with the funds typically used both for tuition and living expenses. The company aggregates data on what a person is studying, and where, along with other factors around a particular student's life, and it then combines this with government data and other «proprietary sources» to make an assessment on whether to provide the loan. It's partnered with 33 universities across the UK to provide loans, and this is likely another source of data for making assessments. Future Finance aims to provide terms that are more student-friendly than an ordinary bank loan, with ten-year loan terms, no early repayment charges and payment holidays built in. And that's before you consider that many students aren't even eligible for bank loans because of a lack of credit history.



LendEDU is a marketplace for student loan refinancing, the company's service is simple. One application gets you visibility into all of the many different options for student loan refinancing. The company calls it the **Kayak of student lending**. Average users at LendEDU save roughly \$12,000 by refinancing their student loan debt. Currently in the most recent batch of Y Combinator, the company has racked up some

impressive numbers. They had 70,000 unique visitors to their website in January alone and have big plans for the coming year — eventually the company will launch its own student loan marketplace (coming in April) and is working on credit cards that should roll out in the April timeframe, as well.



Buddy, a microlending startup in India that provides students with small loans to use on ecommerce sites, raised **US\$500,000 in pre-series A** funding today from Blume Ventures, Tracxn Labs, and a few other angel investors. The startup was founded by Deepak Malhotra and Rajan Bajaj, ex-employees of PayPal and Flipkart respectively. The startup analyzes over 1,000 online and offline data points in order to come up with a loan applicant's risk profile. In order to take out a loan, students are required to submit their student ID number, a parent's phone number, and a classmate's phone number. Once verified, a student has to copy and paste the URL of the product into Buddy's site or app along with the amount of down payment she's willing to put down and the sort of time period she's looking to spread her monthly installments across. If a borrower misses their payment, someone from Buddy's risk management team will send out a notification and freelancers — usually student ambassadors — are assigned to college campuses to check up on students. The market for students shopping online is currently worth around US\$750 million. Buddy claims to see over 2,000 new students using its service every week. Since it launched in January, it's seen **5,000 student borrowers across 100 colleges** in Bangalore. It has already partnered with major ecommerce sites including Flipkart, Snapdeal, and Amazon. ●





P2P-LENDING

CHAPTER #13

Mr Ray Dalio, by one measure the most successful hedge fund manager of all time, argued¹⁴² in a note to clients that central banks will eventually have to usher in what he calls «monetary policy 3» — where rate cuts were the first stage and quantitative easing the second phase — which will more directly and forcefully encourage spending. The Bridgewater founder says this third era of monetary policy will range from central banks directly financing government spending through electronic money-printing to what the famous economist Milton Friedman coined «**helicopter money**» in 1969, in other words central banks disbursing cash directly to households. (In this case, is it possible to consider that involvement and shift to «basic income» in Finland and Switzerland is not measure of social or economic policy of these countries, but to the «helicopter money?»).

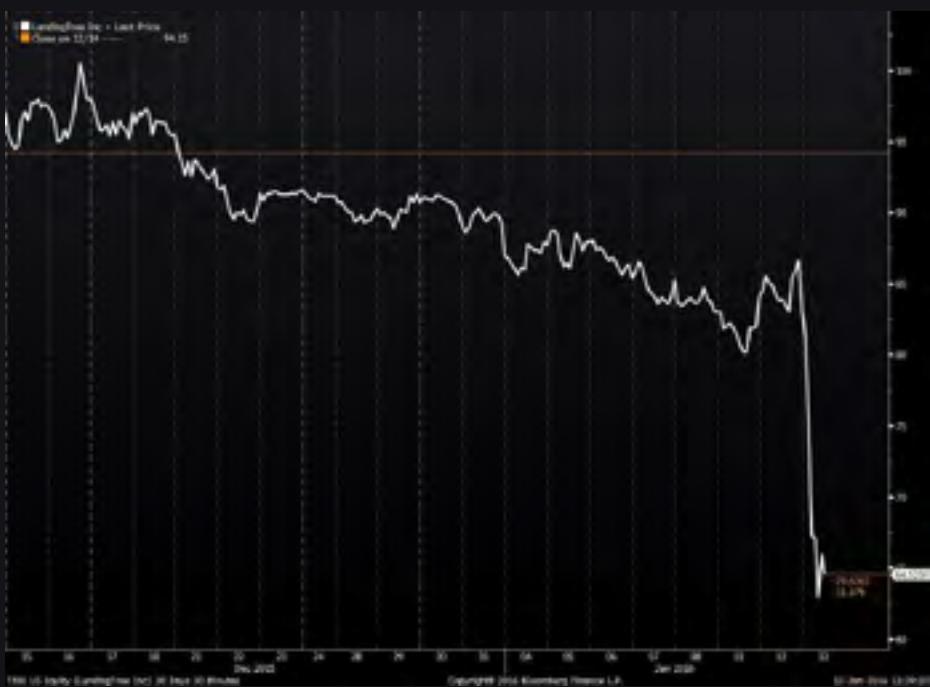
rates could restrict some of their funding at the same time that defaults begin to jump.

don't be surprised to see Internet consumer companies like Google, Facebook or Amazon enter this



Peer-to-peer (P2P) lending became one of the hottest industries in fintech — or any other industry — in 2015. Companies raised large venture rounds, investors

space and either partner with or acquire existing lending sites. In the past few years, the so-called P2P lending industry has certainly experienced tremendous growth, with origination volume doubling annually, reaching \$24 billion globally in 2014. Morgan Stanley forecasts that global originations will grow at a 51 percent CAGR and reach a staggering \$290 billion by 2020. P2P lending startups also have attracted an enormous amount of attention from venture capitalists: U.S. lending startups raised \$2.4 billion in the first three quarters of 2015 alone. While the earliest lending platforms (e.g., Prosper, LendingClub) began with true «peer-to-peer» models, the majority of lending capital is now provided by institutional investors, such as hedge funds, insurance companies and, yes, even banks. In 2014, 81 percent of LendingClub's loan originations came from institutional and managed investors. **The shift of suppliers from many small providers to fewer large ones is not unique to P2P lending. The same trend can actually be seen on many other types of Internet marketplaces.** New lending platforms actually employ **two new business models:** technology-enabled lending (a new distribution and underwriting model) and 100 percent off-balance-sheet financing through a «marketplace» (a new funding model). Most marketplace lending today, at least on the



As Tracy Alloway in Bloomberg predicted¹⁴³, **2016 has not been a good year for peer-to-peer, or marketplace, lenders.** Doubts regarding the longevity of some «P2P» players' business models have been around for a while, with many investors and analysts criticizing some of the companies for never having experienced a full credit cycle. In a worst-case scenario, rising interest

found unicorns and there were even a couple of IPOs. **There are several factors that will determine if the rapid growth in peer-to-peer lending will continue:** 1, Rise in interest rates, 2, Regulation, 3, Competition from banks, 4, Market size. Lending sites in 2016 will continue to put up impressive numbers. We also may see IPOs from Kabbage, Prosper, Avant and SoFi in 2016. However,

major platforms, is for refinancing old loans, not issuing new ones. Startups have begun to emerge to address this opportunity across many verticals of consumer spending: e-commerce (Affirm, Bread), elective medical procedures (PrimaHealth Credit), coding academy tuition (Climb, Earnest, LendLayer), automotive financing (AutoFi) and weddings (Promise Financial). The **point-of-sale** opportunity is also specifically suited to marketplace lending in a way that refinancing is not; retailers need high approval rates, which the marketplace lending model is uniquely suited to offer because of its ability to find investors for a broad range of borrower credit profiles.

in the year prior. Earnings per share were stated at \$0.01 for Q4. In 2014, Q4 saw a loss of \$0.07 per share. Lending Club CEO and founder Renaud Laplanche expressed «confidence» in the coming year and raised guidance, once again: «Our confidence is bolstered again by Lending Club's performance in 2015 and causes us to raise our outlook for 2016», said Lending Club founder and CEO Renaud Laplanche. «We have earned the trust of **1.4 million customers**, have considerable room to grow our existing products, and intend to continue to expand both our product line and addressable population going forward. Our operating efficiency reached record levels

afloat, though the problem is just becoming widely understood now. For many casual observers in Silicon Valley, the first signs of trouble in the online lending category emerged in late April, when the WSJ reported that Avant made \$514 million worth of new loans in the U.S. in the first quarter, a 27 percent drop from the fourth quarter of 2015. Then, two weeks ago, Prosper confirmed that it planned to cut roughly 28 percent of its staff in response to falling loan volume. And Prosper's news came just a day after OnDeck Capital said its own first-quarter losses had more than doubled as demand for its loans began to nosedive. Of course, the kicker came last week, when Lending Club CEO Renaud LaPlanchere signed following an internal audit that turned up \$22 million in loans that were sold to Jefferies yet didn't meet the investment bank's criteria. If the shift in the companies' fortunes seemed abrupt to Silicon Valley, it wasn't a surprise to many in the financial industry.

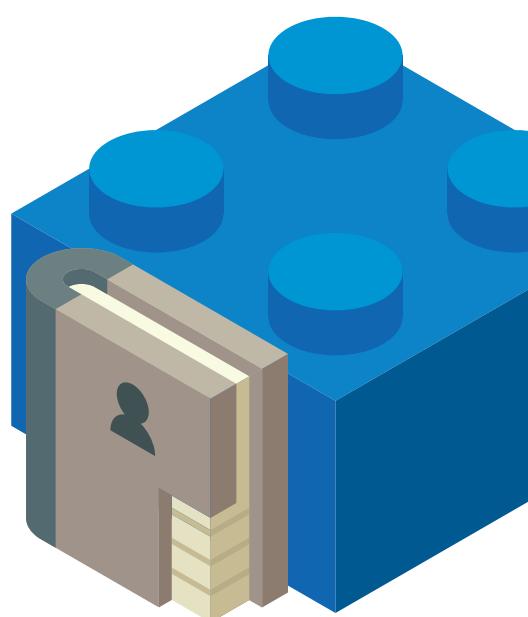


US

In February 2016 the leading marketplace lending platform in the US **Lending Club reported Q4 and 2015 full year results¹⁴⁴**: to date, it has facilitated over **\$16 billion in consumer and SME loans**. Lending Club also revealed its intent to launch a share buyback program of \$150 million. Lending Club beat analyst expectations and shares were boosted by the positive outlook delivered by Lending Club. Net income for Lending Club was \$4.6 million for Q4 of 2015, compared to net loss of \$9.0 million in the same period last year. Net income included \$13.7 million of stockbased compensation expense during the fourth quarter of 2015, compared to \$11.3 million

in Q4, and our credit performance, marketing efficiency and customer satisfaction remain very strong. Accordingly, we are raising Lending Club's 2016 revenue guidance to \$730 to \$740 million, or 72 percent top line growth, and adjusted EBITDA guidance to \$130 to \$145 million. We believe there is tremendous long term potential that is not reflected in Lending Club shares and so we are taking this opportunity to use a small portion of our cash to buy back up to \$150 million worth of our stock».

Lending Club can't originate a loan until it has sold it to another party¹⁴⁵. It's not just Lending Club that's grown overly reliant on institutional sources of capital to keep its business



A U.S. Treasury report recommended stricter scrutiny of p2p-firms, which have mostly been regulated until now only on the state level¹⁴⁶. In recent weeks, a major bank stopped buying debt from Prosper Marketplace Inc. and losses mounted at On Deck Capital Inc. All that woe made it tougher for executives

like Kathryn Petralia of Kabbage Inc. to argue that the industry should be spared from rules that would make it more difficult to lend on the Internet to small businesses. **Online loan companies have slowly built a ground game in Washington to match their growing presence in American finance.** Now they're drawing a line in the sand between the industry's different business models. Not surprisingly, LendingClub is frequently on the other side of that line. The lobbyists' message: Some companies abuse customers, others don't. Some make loans to small businesses, and they should be subject to different rules than firms that lend to individuals. Some use their balance sheets to finance, while others arrange loans by matching borrowers and investors. Some should be called online lenders, others loan marketplaces. Companies have banded together to tout their transparency and responsibility — Kabbage, On Deck and others were the latest to form a trade group. Now they're all trying to avoid the stain that's seeping through fintech. «The industry has to shift from playing offense to defense right now in Washington», said Isaac Boltansky, an analyst at Compass Point Research & Trading. «They're drawing the wrong kind of attention and it plays into the burgeoning fears in D.C. that this model is untested and therefore warrants additional scrutiny».

LendingClub has been drawing its own lines in Washington. The company helped start a trade group, whose members include Prosper and Funding Circle Ltd., and has worked with other companies on ways to improve transparency in the industry. LendingClub continues «to lead the industry in its dialogue with policymakers and regulators on best practices for borrowers», said Richard Nieman, LendingClub's head of regulatory and government affairs.

hands of anyone with a smartphone. It takes just under a second for a loan to go from posted to bought on the platform. Despite the quick response time, a lot is going on under the hood. Lending Robot parses through everything from FICO scores to employment history and debt-to-equity ratios when determining whether to execute a transaction. «Ultimately we want to provide a service as easy as a savings account but with returns over 5 percent per year. That's our goal».



Lending Robot integrates with peer-to-peer lending platform Lending Club to let users offer credit and buy and sell notes on a secondary market¹⁴⁷. Previously, users would have to compete to execute split second transactions for the most popular, highest quality loans. Users also had to fill out an often inaccessible set of profile questions to get the platform to begin trading. While this more detailed framework still exists for advanced users, the interface has been stripped down for casual investors. Founded in 2012, Lending Robot utilizes machine learning to help customers make more educated peer-to-peer lending investments. The company closed a \$3 million Series A in January 2015 and has since grown to over 5,000 clients. Lending Robot piggybacks on this trend to place algorithmic debt trading in the

Prosper Marketplace, the marketplace lender focused on refinancing and credit rehabilitation, has re-launched its **BillGuard PFM-app** (acquired last September) under its own brand as **Prosper Daily**¹⁴⁸. The Prosper Daily app will offer BillGuard's budgeting and spending tracking services, alerts for potential fraudulent charges, and credit monitoring. «Getting people into an installment loan off of a high rate credit card can change and improve their life», the company said, responding to criticism that the company only operates as a quasi-payday lending service. «We bought BillGuard to help us to continue to achieve our goal of helping customers achieve their own goals of getting on top of their finances». Vermut argues that the financial tools that give borrowers a window



into their finances are equally as helpful as the company's 12% to 13% loans — which are still lower than credit card fees. The mobile app engage with potential customers even if those people can't receive Prosper loans. «We turn away a lot of people from Prosper.», «We should be giving them this app so we can become a trusted partner in their financial life». Ultimately, Prosper's strategy is to expand its services through new mobile apps. «We look at ourselves as a fintech company that is designing... unsecured credit products for the middle class consumer».

\$100 billion a year over its platform one day. But the 44-page Deloitte report proceeds to ruthlessly set out why marketplace lenders haven't reinvented the wheel when it comes to lending, why they will struggle to grow much bigger than they already are, and why banks not only have a pricing advantage over them but could copy what they're doing pretty quickly if they chose to. The most basic summary of the report is that marketplace lenders can enjoy a profitable, if modest existence targeting specialist, niche segments of the market where their knowledge can be a competitive advantage.

Launched in January last year, Mintos matches investors with loans they can fund or 'buy' from loan originators who seek alternative means of liquidity rather than having to indefinitely fund loans themselves. It also saves those loan originators having to launch investment platforms of their own, akin to something like FundingCircle. The company has seen «great traction so far» and that €13 million of funded loans have been traded via the marketplace, with loan originators connected to the platform funding business, car, invoice finance, mortgage, and personal loans. «Investors are coming



EUROPE

Deloitte's verdict is crushing to the marketplace lending industry's growth ambitions in the UK¹⁴⁹.

Deloitte concludes that marketplace lenders, more commonly called peer-to-peer lenders in the UK, «are unlikely to pose a threat to banks in the mass market», according to Head of UK Banking Neil Tomlinson. The report concludes that the platforms «will not be significant players in terms of overall volume or share». Marketplace lenders have big ambitions — Funding Circle CEO Samir Desai told us it wants to be lending

But if they target more mass market offerings their destiny is not in their own hands. The success or failure of these platforms will be down to interest rates and banks.

mintos

Latvia's **Mintos**, a fintech startup that operates a p2p loans marketplace to let investors invest in various loans from a growing number of loan originators, has **raised €2 million** in seed funding. Backing comes from Riga-based VC Skillion Ventures.

from 40 countries, while loans are originated in Estonia, Georgia, Latvia, and Lithuania, and soon also the Czech Republic and Poland with several other countries in the pipeline».

ASIA-PACIFIC

China's P2P lending industry hasn't been doing well recently, with fraud investigations, dying companies, and outside support drying up. China's regulator has warned that the explosive growth of so-called P2P lending -- not only in China, but around the world -- means other problems could be lurking out there, too. The alleged

scheme involving Ding, Zhang and their assorted associates unraveled this week after a months-long investigation into their Yucheng Group and its P2P platform, Ezubo, which had been celebrated as a new model for financial services. The numbers are staggering: Authorities say **Ezubo defrauded more than 900,000 people out of the equivalent of \$7.6 billion by promising them returns as much as 10 times higher than the official deposit rate. That would make it the largest Ponzi scheme in Chinese history.** Ezubo's model, allowing the online public to invest in underlying assets in leasing contracts and get returns from the cash flow paid by lessors, made it one of the country's more than 3,600 peer-to-peer lenders. The industry has drawn unlikely companies, such as nail and screw maker Yucheng Group, to an exploding frenzy of lending totaling 982 billion yuan (\$149 billion) in 2015, almost quadruple the amount in 2014. More than 1,000 of these so-called P2P firms are «problematic», the China Banking Regulatory Commission said in December when it announced draft rules to restrict such lenders and pledged to «cleanse the market».



Chinese P2P lending firm eSuDai has officially confirmed that its offices were raided by local finance authorities¹⁵⁰, and that both staff and employees have been being interviewed by police, although it called the investigation «routine». The company's website was also down, although as of this writing it seems to be up again. eSuDai is one of China's older P2P lending sites, having been founded in 2010. Over the company's lifetime, it claims to have handled a total transaction volume in excess of US\$1 billion, and in recent days its average daily transaction totals have averaged above US\$1 million. What's happening to eSuDai isn't yet clear, but it certainly doesn't look good. China's P2P lending industry has been beset with legal issues since major P2P lending site Ezubao was discovered to be a Ponzi scheme earlier this year. Since then, the industry has seen banks withdraw support, additional reports of fraud emerge, and an overall shrinking trend. Landlords are even backing away from renting office space to P2P firms. It's not clear, however, whether the raid on eSuDai

was prompted by some reports of fraud on the company's part, or whether this is going to be part of the routine for P2P lending firms going forward. China's government has resolved to tighten oversight of the sector, and on Friday Reuters reported that a plan to regulate the sector more closely has already been approved. The new rules will forbid P2P firms from holding clients' money in-house, instead requiring it to be deposited with third-party banks. They will also require new kinds of registrations and permitting, restrict advertising, and require firms to assess clients' risk profiles, among other things.

New struggle for China's P2P lending startups: nobody wants to rent to them¹⁵¹. Over the past half year, things have gotten pretty rough for China's P2P lending industry, and I have chronicled those travails in some detail. But the latest blow for an industry that is already struggling with high-profile fraud cases, withering bank support, and a definite slowdown may be an unexpected one: it's getting hard to find places to rent.

Yet another bank has joined **China Merchants Bank and Agricultural Bank of China in shutting down payment connections to P2P lending sites**. News broke Wednesday that suggests China's Bank of Communications has joined the blockade, asking third-party payment providers to stop allowing users to buy P2P lending products via the bank's cards. Why are banks doing this? Exactly the reason you'd expect: they don't want to be associated with what is increasingly seen as a high-risk industry. Fraud like the Ezubao case is one reason, but it isn't the only one. There are also concerns, for example, about the lack of a reliable credit system potentially leading to lots of bad loans.

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A peer-to-peer lending website Chinatou.com experiencing a liquidity crunch said it will settle all of its payment obligations to investors with bottles of an expensive Chinese liquor called Baijiu¹⁵². Police in the eastern province of Anhui detained Zhou Qinde, executive director and general manager of the P2P lending platform Chinatou.com, on June 1 after some investors complained about this unorthodox payment arrangement, the lender said in a statement on June 6. As of May 15, Chinatou.com owed 230 million yuan to 1,850 investors, data from the website shows. 230 million yuan, or about US\$35 million, will buy an awful lot of hooch.

A video has surfaced online showing staff at a Chinese bank being publicly spanked¹⁵³ for poor performance during a training session, sparking outrage. The video, first posted by the People's Daily, shows a trainer asking eight employees why they did not «exceed themselves» at training. He then spanks them with what looks like a stick. Reports say he later also cut and shaved their hair. Two executives at the bank have been suspended. The incident took place at a training session for more than 200 employees at Changzhi Zhangze Rural Commercial Bank in northern China.

Female college students in the southern province of Guangdong in China were told to hand over naked photos of themselves holding their ID cards, with lenders threaten-

ing to make them public if they failed to repay their microloans¹⁵⁴. While these loans were brokered on Jiedaibao, the P2P online lending platform denied direct involvement as the two parties subsequently agreed terms over another channel. «This is an illegal offline trade between victims and lenders who did it by making use of the platform», a representative said. Blackmailing with nude photos joins a long list of threats including property destruction and bodily injury committed by loan sharks attempting to collect unpaid loans. «If they borrow from banks there is no threat to personal safety. But if they borrowed from private lenders, especially high-interest lenders, it can happen», said bankruptcy lawyer Han Chuanhua of the Zhongzi Law Offices in Beijing. Before this Alibaba subsidiary Ant Financial posted to its Weibo account that P2P lender Jiedaibao has been falsely using Alibaba-related names to mislead customers. Example screenshots posted by Ant Financial show WeChat accounts promoting Jiedaibao products by saying they are recommended by and/or created by Alibaba founder Jack Ma. That, of course, is not the case.

Nevertheless P2P lending platform Jiedaibao raises \$380M at \$7.8B valuation¹⁵⁵. Anonymous social

circle based P2P lending platform has raised \$380M from commercial banks and institutional investors. This is the second \$300M+ round that the company has raised in the past 6 months.

Chinese authorities are planning to tighten regulation of its fast-growing internet finance industry and crack down on illicit transactions. China's unregulated online peer-to-peer (P2P) industry has been dogged by reports of fraud in recent years, underscoring growing financial risks and increasing the potential for social unrest. More than 1,200 P2P firms operating in the sector are in trouble.



Junrongdai.com, a Beijing-based peer-to-peer (P2P) lending platform, has completed its first round of funding of about a dozen million USD from Chun Xiao Capital. Founded in 2014, Junrongdai.com is an internet financing platform which focuses on supply chain finance systems. Its projects include Eventown.com.cn, kezhanwang.cn, JD.com, Lenovo, Youngor, and Pingan Danbao. Beijing-based P2P (peer-to-peer) lending start-up **Weijinsuo** has completed a RMB300 million (US\$46 million) series A round of financing led by HNA Capital Group Co., Ltd., the financial services arm of Chinese conglomerate HNA Group. Founded in 2013, Weijinsuo currently has 700,000 registered users and has completed aggregate transaction value of RMB4 billion (US\$616 million).



Dianrong (2014, Beijing) P2P lending platform for consumer loans such as auto financing, personal

loans, mortgages, etc., has raised \$59M in Series B funding from Furen Group, a Zhengzhou-based pharmaceutical group. The found values the 18-month-old start-up at RMB1 billion (US\$153 million) post-money. Launched in July 2014, Duanrong received series A funding of around US\$10 million from Qifu Capital Management three months later.

Venture Catalysts, a network of angel investors and a seed investment and innovation platform in India, has invested an undisclosed sum in **peer-to-peer lending platform LenDenClub¹⁵⁶**. The investors who participated in the round include Anirudh Damani, Daud Ali, Narendra Carnival, Vikas Kapoor, Vikram Lakhota, Krishna Jhunjhunwaala and Jayesh Shah. LenDenClub plans to utilise the seed funds to enhance the platform and create an end-to-end online lending process. Founded in 2014 by Bhavin Patel (CEO) and Dipesh Karki (CTO), LenDenClub is a fintech startup connecting salaried borrowers to individual lenders. Currently operating as a web-based platform, LenDenClub considers a combination of traditional and non-traditional data points to validate the credit-worthiness of the lender. The startup claims to have arranged more than 150 loans till date.



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Indian peer-to-peer lending **marketplace i-Lend has partnered with credit risk assessment and verification company Lenddo** which uses social and non-traditional data for credit scoring. Singapore-based Lenddo is backed by Life.SREDA, AT Capital, Omidyar Network, Bloomberg Capital and Golden Gate Ventures. Lenddo opened up its technology to third party companies including banks, NBFCs, telcos and others in January last year and has also forged a partnership with Ahmedabad-based digital lending platform LendingKart which provides capital to small businesses. «While at i-lend we use borrowers' financial data to assess his ability to repay loan, we believe that using social data to understand individual's behavior and assessing their intention to pay gives us a better assessment of larger segment of borrowers», said Shankar, founder of Hyderabad based i-Lend which has so far disbursed Rs 90 lakh through its online marketplace for unsecured personal loans.

According to the Reserve Bank of India (RBI), **twenty P2P lenders entered the scene last year in India, bringing the country's grand total to thirty¹⁵⁷**. The excitement is with reason: this is the first time that millions of Indians without financial histories have the opportunity to take out loans.

One guy had a bit of extra cash lying around, so he decided to try out **Faircent**, an Indian P2P lending site backed by ex-Infosys CEO Mohandas Pai and JM Financial. When he signed up with the site, he was met with a list of borrowers, ranked by how risky it would be to lend to them. «These numbers were calculated by things like their account balance, or their credit scores, or loan histories», he recounts. «The lower the risk, the lower the interest rates — something like 16 to 18 for really low, and 24 to 25 for mid-tier». He was also prompted to place the amount of money that he would want to transfer into a virtual currency wallet as a placeholder. The money would not be taken from his bank account until after the procedure was over, he explained. He decided to choose a medium-risk borrower who resided in Pune.



The borrower had the option to choose multiple lenders for the same loan, so my friend had to bid on how much money he wanted to put in. «A woman who worked at Faircent emailed me and asked me to submit copies of documents to her — identity proof, passport, PAN cards», he recollects. «They then created a dashboard for me where I could see my different investments». In turn, the woman on the email sent him the bank account details of the borrower, something that my friend dismissed as a risky and slow procedure. If he said no, the borrower would have to waste time finding a new lender to cover that part of the loan. In that case, the rest of the lenders would also be held up.



Varun Bhalla of impact-oriented VC fund Khosla Impact, says that new ways to establish credit are now being proposed across the world — but they're entering the scene at the same time as P2P lenders in India. «Startups like **Finomena** that scrape data to get credit are coming up in India», Varun says. «They will help ease the unbanked along». Another is **CreditVidya**, a startup that claims to scrape 10,000 data points, from social media networks to phone top-up behavior. It raised US\$2 million earlier this year.

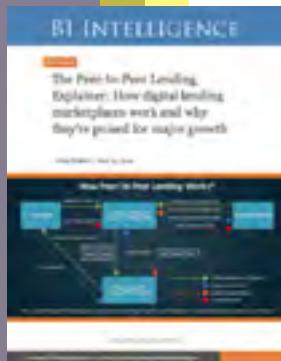


**LENDBOX OFFERS
FASTER PROCESS
KEEPING THE
TRANSPARENCY INTACT**

Some believe that strict regulations may put a damper on the sector's growth. «We expect the final rules to be those that wouldn't take away the edge of disruptive force that P2P lending brings to the lending business», Ekmeet Singh, CEO of **Lendbox**, explained in an interview with Bloomberg. «We think that with a little bit of regulation, startups in the financial services industry flower. The prime example of this is what happened to e-wallets in India». At the end of the day, it's up to India's regulatory powers to decide what's best. Are these freeform mistakes something that the country's fragile startup ecosystem can afford? Or should it tread these waters carefully? As of now, it seems to be leaning toward the latter. ●



BusinessInsider: **The Peer-To-Peer Lending Explainer**



Banks have historically handled most consumer and small business lending because they have the resources to assess a borrower's creditworthiness, and the regulatory approval to fund loans. However, this model has some key inefficiencies — interest rates are not individualized, the costs of underwriting loans are high, loan decisions can take months, and small businesses in particular have been shut out of the process. This has left room for the growth of online lending marketplaces — dubbed peer-to-peer (P2P) lenders — that leverage the internet to give both borrowers and investors a better deal. P2P lenders solve the banking model's inefficiencies by developing online marketplaces that use complex algorithms to match borrowers with investors according to each party's specifications. In this research from BI Intelligence, we look at the mechanics of P2P lending platforms and how they are using online marketplaces to lower rates, increase returns, and expand opportunities for borrowers and investors. We also provide a companion report on the top markets for P2P lending and the next major countries where growth will take off.

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ReportsnReports.com adds «P2P: The Disruptive Potential; New tools and technologies are changing the face of domestic and international payments market» research report published in March 2016 to the banking and financial services category of its library. Complete report on P2P market spread across 31 pages, mentioning 25 companies and supported with 9 figures is now available

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CHAPTER #14

**RENAISSANCE
OF P2B-LENDING
IN ASIA**

Lufax, a Chinese p2b-lender and broker, has secured its position as one of the world's most valuable financial technology startup by completing a fundraising that it said values the company at \$18.5 billion¹⁵⁸. The company, which recently rebranded its business as **lu.com**, raised a total \$1.216 billion, many times the amount it planned, according to a statement. Investors included Bank of China Group Investment Ltd., Guotai Junan Securities Hong Kong Ltd. and a unit of China Minsheng Banking Corp., the statement said. The money will be used to support Lufax's existing peer-to-peer lending operations, and to diversify into new areas such as wealth management. The company also wants to expand cross-border business and increase its ability at packaging loans. The company was valued at \$10 billion in March 2015, when it raised \$500 million in a private placement. Lufax's initial public offering could come as early as this year, though the company is still considering whether to list domestically or overseas. Gibb, Lufax CEO, said he expects a consolidation in China's Internet finance industry as the rapid growth seen in previous years starts to slow. Online lending has emerged as a fast-growing but unruly sector. Among P2P lenders, Lufax ranked second by transaction over the past 30 days with Rmb4.1bn in transactions. Topping the table is **Hongling Capital**, launched in 2009, which hosted Rmb7.6bn in transactions in the period. But Lufax leads the industry by loans outstanding at Rmb35bn, suggesting it focuses on loans with longer maturity.

2016 is expected to be a challenging year for small and medium-sized enterprises (SMEs) in Southeast Asia, especially with the growing uncertainty over the global economy. According to a Singapore Business Federation and DP Information Group study last year, 3,600 SMEs in Singapore said that they were not confident of obtaining funding from September 2015 to March 2016. Supporting this, a survey conducted by Visa and Deloitte last April found that **40 percent of Singapore SMEs have no access to bank loan financing**. Moreover, 37 percent of SMEs in the republic owed payments that are over 30 days late, with the top reason being a lack of funds. This challenge has led to the emergence of peer-to-peer (P2P) lending platforms/sites such as **Funding Societies**. Founded in 2015, the platform matches retail investors with SMEs that require funds. «By using our platform, SMEs could secure loans of up to S\$200,000 for 24 months at interest rates just above banks' (without providing collaterals), and these fast-growing SMEs could build a credit record with Funding Societies and eventually obtain loans from banks. Moreover, the application process can be done online securely within minutes, eliminating the hassle of visiting a physical branch», said Kelvin Teo, Funding Societies' co-founder. There are three things that the P2P lenders have to do to encourage SMEs to leverage P2P lending to fuel their business growth, said Teo. «Firstly, P2P lenders need a business-friendly and reliable regulatory framework to ensure that platforms are operated

at a professional standard, which is critical for the legitimisation of P2P lending as a viable form of alternative financing and investment. Secondly, they must have strong credit assessment capability especially in emerging markets with little credit data. And finally, such lenders need considerable market education on risk and return of P2P lending».

Should SMEs use P2B-lending services or bank loans? e27 speaks¹⁵⁹ to two Singapore-based P2P lending platforms **MoolahSense** and **Funding Societies** – both which recently partnered with DBS Bank, Southeast Asia's largest bank – to find out how their services can be a complement to mainstream financing options. «There are two target segments. Firstly, it's the non-bankable SMEs with younger credit history, imperfect financial record or little collateral. Secondly, it's the bankable SMEs with existing bank loans, but are looking for more loans», says Kelvin Teo, Co-founder of Funding Societies. «We serve these segments because we focus on SMEs' cash-flow, while banks concentrate on SMEs' assets to determine ability to repay. Similarly, we look at both hard and soft data to evaluate willingness to repay, while banks rely more on credit record», he adds. P2P lending platforms are able to offer short term and flexible repayment structures that better target SME cashflow profiles, says Lawrence Yong, CEO of MoolahSense. Both Teo and Yong say the online nature of these platforms allow credit assessments to be made quickly – shortening the application process time. Because P2P lending platforms do not require collateral from the SMEs and accept softer data such as site visit for credit assessment, the businesses are subjected to more scrutiny. «We best serve as a complement to banks, given the different customer segment and limitation of crowdfunding. When our SMEs grow bigger, it's more suitable for them to turn to banks for bigger loans at lower interest rates. We're here to fill a financing gap, as evident by our recently inked partnership with DBS», says Teo.



DBS Bank has signed cross-referral agreements with peer-to-peer (p2p) lending platforms **Funding Societies** and **MoolahSense¹⁶⁰**. DBS said it is the first Singapore bank to collaborate with such lending platforms to further expand funding sources available to small businesses. Under the partnership, DBS will refer some of the smaller businesses that it is unable to lend to, to Funding Societies and MoolahSense. In return, the p2p lending platforms will refer borrowers who have completed two successful rounds of fund raising to DBS for larger commercial loans and other financial solutions such as cash management. To safeguard borrowers' privacy, the bank and p2p lenders will only share information when they have obtained borrowers' consent in advance. This latest initiative follows a collaboration between **DBS and AMP Credit Technologies** earlier this year on a new way of making credit assessments for small business loans. Instead of relying on financial statements, personal income statements and physical collateral, the joint credit assessment takes into account electronically verifiable cash flows to assess the health of the businesses and their ability to repay. To qualify for the loan, the small business must accept card payments and have been in operation for at least six months.

Singapore's nascent peer-to-peer (p2p) lending sector may see its first loan default soon amid weak economic conditions, with at least one such online platform reporting a recent rise in «payment issues» during the Chinese New Year period. **Capital Match** told that it may see its first default out of a total of about 50 loans. A check with its two main competitors, **MoolahSense and Funding Societies**, showed that all their existing loans are not at risk of default — going by their credit definitions. The largely unregulated p2p loan marketplace has been popular, generating about S\$15 million in loans over a fairly short time. These crowdfunding sites are not regulated by the Monetary Authority of Singapore at the moment. Also known as crowdfunding platforms, p2p sites earn a fee by helping to matchmake SMEs seeking short-term loans to investors. They register regular investors for their contact details, screen businesses looking for loans, then get investors keen on earning the interest to subscribe to a loan. The troubled Capital Match loan was extended to a construction company, and interest payment has been overdue for a few months, Pawel Kuznicki, director at Capital Match, told. He declined to give details on the size or tenure of the loan; the site

says it offers financing at between S\$50,000 and S\$200,000. The p2p site has registered a rise in «payment issues» during the Chinese New Year period, and informed investors via e-mail of payments that had fallen behind. During the festive season, many smaller SMEs were on break, said Mr Kuznicki. «Repayments on loans are considered unlucky in the context of the Chinese culture», he said. «There are still a few companies with delayed payments but a number of recent delays have been cleared now. We have experienced one case that likely will result in a default, out of close to 50 loans». In the event of a bankruptcy, any amounts recovered through Capital Match will first be repaid to investors' principal and then investors' interest. All three p2p sites say the loans are backed by personal guarantors, typically by the company directors. But it was clear that p2p investments carry risks, including the risk of losing the entire invested amount. Capital Match said on its website that it has funded about S\$6 million in p2p loans to date. Funding Societies defines a default as missing two monthly repayments or threats to cease repayment altogether, said Kelvin Teo, co-founder of Funding Societies. This p2p lending platform, which is the only lending platform with a government-registered escrow account,



has matched SMEs to about 50 loans from investors totalling S\$4.6 million. «Late repayments, delinquencies and defaults are part and parcel of SME lending. From time to time, some SMEs may face payment delays from their customers which may affect their short-term liquidity to promptly meet their obligations. While not ideal, for most SMEs, these are temporary and can be resolved after some days», said Mr Yong from MoolahSense, whose platform has matched more than S\$5 million in loans. For Capital Match and MoolahSense, the minimum investment is S\$1,000 each time. At Funding Societies, it's at S\$100 per loan. «When we see an investor putting in too much funds in a single loan, we'd usually call and remind him or her to split the funds across multiple loans», Mr Teo said. Keeping investors informed is a priority, he noted. «We believe transparency is key».



Singapore-based p2b- and e-invoicing-financing company **Capital Springboard** has announced¹⁶¹ its official launch. The platform, which allows investors to **purchase short term invoices**, have already incurred over 1,300 invoices worth S\$80 million (**US\$60 million**) in trades since it launched its pilot in July 2015. Capital Springboard backed by UK-based assets management company Centurion Group. It will focus on bringing on board accredited or institutional investors and not retail investors. The team is comprised of financial experts who hail from

HSBC and Standard Chartered, its CEO Roger Cook was formerly the chief executive of Global Forwarding. «Accredited Investors can open a Capital Springboard trading account held by escrow agent, Vistra Trust (Singapore) Pte. Limited, with a minimum investment of S\$50,000 (US\$37,000) and withdraw their un-deployed funds at any time». Vistra Trust is regulated by the Monetary Authority of Singapore (MAS). In a press statement, Capital Springboard said that investors can stand to benefit from **returns of 11-25 per cent** depending on the grade of risk of the invoice, during a 90 day investment window». Crook told e27 that the platform will, however, focus on the quality rather than the quantity of the trades. To qualify, your company needs to be at least a year old and has to be registered in Singapore. It also needs invoices averaging 90 days and amounting to a minimum of S\$25,000 (US\$18,600), and have an existing business relationship with a debtor.

Indonesian online peer-to-peer lending marketplace **Investree** said it has secured a series A funding commitment from a local venture capital firm, **Kejora**¹⁶². Details of the amount, however, have not been disclosed. Investree connects lenders with borrowers — those that want to invest their money to get returns and those who need funds for personal use or businesses. The company offers lending solution for both business financing and employee loan. Before securing the funding commitment, Investree has been bootstrapping for almost a year, raising \$500,000 for its initial stage development. As of May, Investree has disbursed 23 loans totalling Rp6.8 billion. Average funding period is five days with 16.7 per cent average return to lenders. Total loans default is still maintained at zero. The service model is predicted to enjoy a boom in Indonesia, where access to financing for small and medium enterprises (SMEs) is still limited. Indonesian Financial Services Authority (OJK) has estimated that the actual needs of business financing in the country

would be around Rp1,600 trillion. In reality, only Rp600 trillion could be disbursed every year through banking, capital market, and multi finance. The disparity is further shown in the fact that only 11 million out of 60 million SMEs could get loans from the banks. Sixty per cent of that figure are based in the Java island. A recent report by Oliver Wyman and Modalku reveals that Indonesia will see a \$54 billion small and medium enterprises financing gap by 2020, with more than 57 million potentially bankable micro businesses.



Bangalore-based **Loanzen**, which was founded in September and formally launched last month, announced an undisclosed amount of seed funding from Tracxn Labs as well as angel investors via TracxnSyndicate. Loanzen provides short-term loans for up to 120 days to businesses which are less than three years old to meet their cash flow gaps. These are unsecured loans from private companies or non-banking financial companies. The borrower and lender enter a tripartite escrow agreement with Loanzen which operates as a marketplace. ●



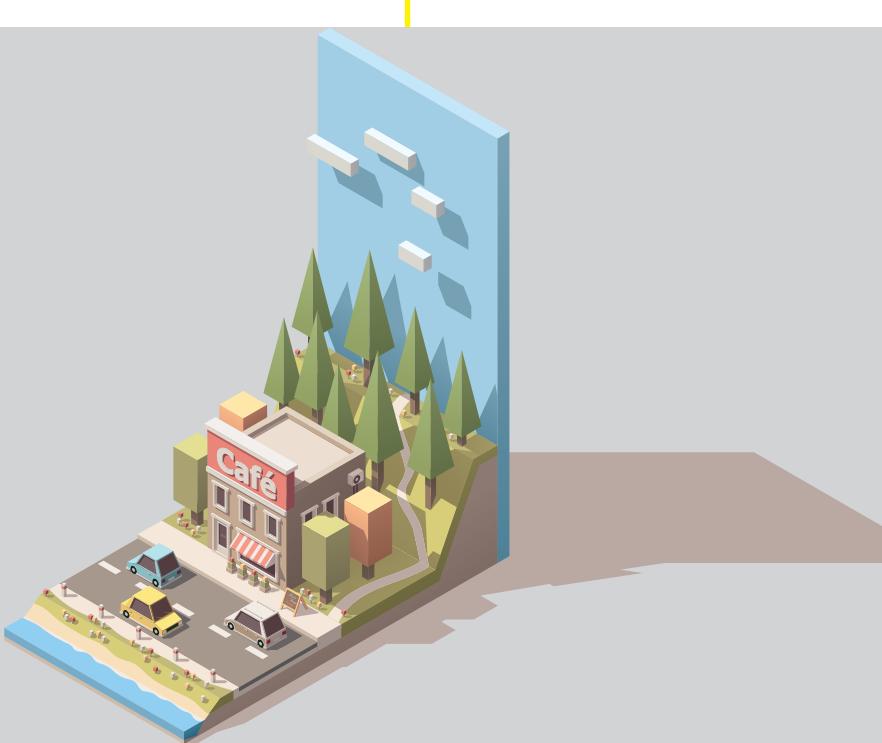
The word "SME" is rendered in large, bold, black letters. The letters are partially cut out by a white shape that resembles a stylized 'E' or a series of diagonal bars, creating a layered effect. The letters are set against a solid yellow background.

SME

SME-LOANS



CHAPTER #15



US

Online business lenders like **Kabbage** and **CAN Capital** have burst on the scene with what they view as a better mousetrap, causing headaches for old-line lenders such as community banks¹⁶³. «We believe the way loans are made is broken, and we plan to change that», said Rob Frohwein, CEO and co-founder of Atlanta-based Kabbage. New York-based **CAN Capital**, which has its biggest office in Kennesaw, says it's the nation's first, largest and most profitable alternative lender to small businesses, with over \$5.5 billion in loans. It has 450 employees, including 300 in Kennesaw. It was founded in 1993, but its growth has recently exploded with backing from equity firms and banks including SunTrust and Wells Fargo. CAN Capital says its digital business has expanded more than 600 percent in the last two years. **Kabbage**, started in 2009 and headquartered in Midtown, says it has grown into the second-largest lender of its type, with \$1.5 billion in loans outstanding. Frohwein expects the company to loan another \$2 billion this year. Kabbage's backers include private investment firms, UPS' venture capital arm, and overseas banks. It has 280 employees. By harnessing technology and online data, Frohwein said, the firm can make relative-

ly tiny loans to small businesses — in the \$2,000 to \$100,000 range — that banks can't touch because their underwriting expenses are higher.

When the economy slows and lenders stop extending term loans, they want to see as much money as possible on their balance sheets. When borrowers get scared and start drawing on their **credit lines**, this money flows out and can leave lenders and investors scrambling. While lines of credit certainly present a myriad of issues, quite a few companies are trying to make a name for themselves in this space, especially on the business side of things. Examples include **OnDeck**, **Dealstruck**, **BlueVine**, and **Kabbage**, all of which provide small business lines of credit. No collateral is required; these are unsecured credit lines. By charging much higher interest rates than banks, these firms offset some of the risks associated with lines of credit.

While **Kabbage** and **OnDeck** have many similarities, there are some important differences between them that you should consider before choosing your financing source¹⁶⁴. OnDeck offers more money if you need a larger sum, and more flexibility as to the form and terms of your loan. Kabbage can be

a good resource if you want more than \$20,000, like the idea of a line of credit that you don't have to pay back until you actually use it and feel confident you can pay back the loan in six months. The answer will depend on your needs.

Small business lending platform **Kabbage announced a partnership with Scotiabank** to make it easier for residents of **Canada and Mexico** to take out small business loans of up to \$100,000 in minutes¹⁶⁵. Kabbage has historically worked directly with business owners. The company offers rapid evaluation and a line of credit. The company has relied on partnerships with banks like Silicon Valley Bank to supply the capital to small business owners. The platform uses innovative metrics like social media followers and Yelp reviews to maximize loan de-risking. Small business owners still pay a large interest rate premium to borrow but don't have to deal with predatory loan sharks or slow and conservative traditional banks. Scotiabank is the third international bank that has partnered with Kabbage.

The company has already signed deals with **ING and Santander**. Kabbage supports banks by providing them with valuable data on businesses seeking capital. Kabbage offers workshops for institutions and implementation staff to help them onboard the platform. Kabbage first contacted the bank in January and finished the integration in less than six months. A suit of APIs integrate directly into the existing backend of banks like Scotiabank. «We want to grow beyond small business lending», said Pete Steger, Director of Business Development at Kabbage. Kabbage is in late stage conversations with six more banks. While Kabbage has recently been **making moves in the platform space**, they have no plans to slow their core direct lending efforts.

EZBob Ltd., which trades as business e-lenders Everline and EZBob, announced that it has closed its Series C investment round with a

£20m equity investment from Leumi Partners, the investment banking arm of Israel-based Bank Leumi, and funds managed by Oaktree Capital Management L.P., an existing investor. This latest investment round provides EZBob Ltd. with additional capital to increase its lending capacity and further develop its leading technology platform to enable more of the country's 5.2m SMEs to instantly access the capital needed to fuel their growth plans, any time and from anywhere. EZBob Ltd. has now provided over **£100 million funding and over 8,500 loans** to small and medium-sized businesses in the UK through its trading brands Everline and EZbob. In the last 12 months, the FinTech start-up has announced a partnership with Alibaba.com, as well as the first loan guarantee agreement in the U.K. with the European Investment Fund (EIF) to the value of £40 million. The UK government-supported Angel Co-Fund is also an investor. The e-lender's fully automated smart lending platform links directly to a business' key data sources, such as cloud based accounting services, tax reports and bank statements, to make up-to-date and rapid lending decisions based on the business' performance. The application process, risk and decision making and servicing are all fully automated, meaning funds of up to £120,000 can be in a business' bank account within minutes.

Satago, a U.K. fintech startup, started¹⁶⁶ an automated database that lets users see how well (or poorly) companies are at paying invoices in a timely fashion, and has tools such as automated invoices, reminders, payment requests and integrated credit reporting that help freelancers keep track of their finances and outstanding payments. In January of this year, the team launched a pilot of Invoice Finance, a premium tool that actually paid freelancers and small businesses 85 percent of outstanding invoices up front, then the remaining 15 percent, less a small fee, once the businesses finally ponied up. The company recently announced a **£4.6 million funding** from ESF Capital.

That funding will enable Satago to give its roster of 1,000+ freelancers and SMBs the same level of credit control as major corporations.

Palo-Alto based **BlueVine has raised \$40 million** to provide credit lines for small businesses. The round is led by Menlo Ventures, with participation from Rakuten, Lightspeed and 83North. Instead of offering loans, BlueVine does what's called «factoring», where it pays for customer invoices upfront, so that small businesses do not have to wait for the cash to come in. Founded in 2013, BlueVine has raised \$64 million to date.



EUROPE

The French startup **Lendix has just raised \$13.5 million** (£12 million) and now wants to become one of the leading European peer-to-peer lending platforms¹⁶⁷. Lendix launched just like year. But the startup has taken over the French market by storm. During its first year, the platform has managed **\$22.5 million (£20 million) in medium-term business loans**. Typically, Lendix manages loans for small and medium companies for 3 to 6 years with annual returns between 4 and 9 percent for the lenders. But now that Lendix has acquired its smaller competitor, the company will be able to manage short term loans as well as this is where Finsquare shined before the acquisition. Lendix raised \$13.5 million from CNP Assurances, Matmut, Zencap AM and existing investors, such as

Partech Ventures, Decaux Frères Investissements, Sycomore Factory and Weber Investissement. But this is just one part of the equation as some of these investors have also **committed to investing \$22.5 (£20 million) on the platform**. Next, Lendix is going to expand to other European countries, starting with Spain and Italy in the coming months. For each geographical expansion, Lendix has to work on getting a license to operate on these new markets.

Spotcap, the Rocket Internet-founded fintech startup that operates an online lending platform for small businesses, has beefed up its coffers



with **€31.5 million** in new funding. The round, which is the company's third in 18 months, having previously raised €18 million, is being led by Russian private equity firm, Finstar Financial Group, with participation from previous investor Holtzbrinck Ventures. Claiming to use technology to bring a high level of automation to the lending process, Triebel says that Spotcap works with small businesses of all kinds, both online and brick 'n' mortar, to provide flexible financing, such as retailers that don't have the required cash flow to buy extra stock in preparation for peak seasons or construction companies that have high upfront costs. That startup's credit scoring technology plugs into a business' accounting software and bank account, and uses thousands of data points to accept or decline a loan or credit line, typically lasting over 12

months. In some ways, it's similar to London-based **Iwoca**.

ASIA-PACIFIC

JD.com's financial services arm pulled in \$1 billion in January led by Sequoia China. That round valued **JD Finance at around \$7.1 billion**. Baidu and Tencent, which also rival Alibaba across a range of areas, both run their own online banks and financing programs, but each (WeBank, Tencent, and Baixin Bank, Baidu) is a unit inside the parent company.

Capital Float, an online lending platform for small businesses in India, announced that it has closed a **\$25 million Series B**¹⁶⁸. Combined with the startup's previous funding, including a \$13 million Series A last year, the new round brings Capital Float's total raised so far to about \$41 million. Creation Investments led the Series B, with participation from returning investors SAIF Partners, Sequoia Capital and Aspada. Sashank Rishyasringa and Gaurav Hinduja, who founded the company in 2013, say the latest infusion of equity will fuel Capital Float's ambitious expansion plans. Over the next twelve months, Capital Float wants to add about 20,000 more customers and originate about \$300 million in new loans. It will do so by reaching out to small business owners in Tier 2 and Tier 3 Indian cities (which the Reserve Bank of India classifies as cities with populations between 50,000 and 99,999, or 20,000 to 49,999, respectively). The founders claim that over the past two years, Capital Float has made loans totaling more than \$60 million to small businesses in more than 40 Indian cities. The company is now nearing a monthly loan origination rate of \$10 million and expects to grow 20 percent month-over-month in fiscal 2017. Capital Float currently claims a default rate on its overall portfolio of less than 0.5 percent, compared to the more than 2 percent to 3 percent rates seen by SME loan books in India.

Prime Venture Partners invests US\$750K in MSME lending startup KredX¹⁶⁹. The over-a-year-old startup

Mandii, which has now rebranded as KredX, has just got US\$750,000 in funding from Prime Venture Partners, formerly AngelPrime. KredX was started in 2014 by IIT and Stanford alumni Manish Kumar, Anurag Jain and Puneet Agarwal. The startup has developed a credit risk assessment model and a technology platform for borrowers that ensures fast, hassle-free and secured transactions. For financiers, KredX provides complete trade services starting from sourcing curated invoices to conducting due diligence using its proprietary credit underwriting algorithms. It also manages complete paperwork for the financier and borrowers. Sanjay Swamy, Managing Partner, Prime Venture Partners, said: «Alternate financing and lending platforms are going to transform the way businesses and individuals gain access to capital. KredX is using technology to solve an obvious pain point for over 21 million MSMEs in India with hundreds of unpaid invoices. The core competency required for any credit product to scale is risk modelling. KredX is assembling an incredible team of experts in Data Science, AI and Machine Learning that will play a key role in scaling the business. We are excited to be a part of this journey».



NEW (AND SUCCESSFUL) PLAYERS: PAYPAL, SQUARE, ETC.

What's the Difference between PayPal Working Capital and Square Capital? There's not a lot of difference between them, but PayPal does have an advantage in some areas:

- Although neither company provides loan cost information in APR format, reviewers have calculated Square Capital's average APR as

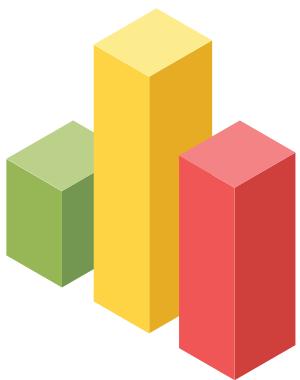
35% while PayPal Working Capital's APR average from 15% to 30%.

- PayPal lets you choose your own repayment percentage.
- PayPal offers larger loans. However, since loans are based on a percentage of PayPal sales, you'd have to have been using PayPal at least a year and have significant PayPal sales to qualify for these higher amounts.

Swedish mPOS-vendor **iZettle** is to move into small business financing by providing SMEs with an advance based on future card sales. The launch follows a EUR60 million funding round secured by the vendor in August last year to help the firm expand beyond the world of card payments. iZettle Advance — which is being rolled out across Europe — is aimed at small businesses that face a tough time going through the arduous process of getting capital from traditional lenders. Because the service is aimed at merchants that use iZettle's payment acceptance tech, users are pre-assessed, meaning that when they apply they can get funds within a couple of days. They then pay back the money automatically as a fraction of card sales. Jacob de Geer, iZettle co-founder and CEO says: «Small companies have persistently been underserved by the traditional finance industry. We want small companies to thrive, and with **iZettle Advance** we're applying the exact same logic as when we started iZettle five years ago, and completely overhauled card payments acceptance for small businesses».

Following in the footsteps of PayPal and Square, e-commerce software company **Shopify** said that it would start offering cash advances to **business owners** who use its software¹⁷⁰. The program, called Shopify Capital, will let eligible Shopify merchants obtain a lump-sum cash advance in exchange for a fixed percentage of their daily sales. Cash advances are popular with small businesses that don't have the time or business history to secure a loan from a bank. ●

CHAPTER #16



BIG DATA

BIG DATA AND ONLINE-SCORING

New EIU report¹⁷¹ examines how companies are positioning themselves to benefit directly from the wave of opportunities offered by fast-evolving data technologies. It is based on a cross-industry survey of 476 executives based largely in North America, Europe and Asia on their companies' data plans and practices, as well as insights from the leaders of organisations at the forefront of the emerging data industry.

than its stimulation.

Challenging the dominance of credit score incumbents like Equifax and **Credit Karma**, a California tech entrepreneur, Chad Swensen, has developed **NEFT**, which offers consumers a way to get a look at their credit ratings without it having a negative effect¹⁷³. NEFT, short for New England Funding Technologies, just scored \$10 million in



UBS's Paul Donovan offered some thoughts earlier this week on the unintended consequences of negative rate regimes¹⁷², which – whilst interesting – stimulated a different thought in us related to data. Donovan chimes in on an idea that's been percolating through our heads for a while: **Data is the new money**, and data – like money before it – is only valuable if it's being shared and rehypothecated through the wider network. Furthermore, we put our data into the safekeeping of cloud custodians for precisely the same reasons we put our money into the charge of banks: security, liquidity and utility maximisation. Hence the Gosplan 2.0. thesis: we are reverting to a world where a technocratic elite makes economic planning and allocation decisions based on their subjective interpretations of personal behaviours, status and privilege, who it's fair to overprice and who it's fair to subsidise, rather than clearcut at cost price signals from the market. Now consider that negative rates only encourage a transfer of fungible cash claims into dark inventory stashes where they can't be shared as easily with the market – meaning less reinvestment into productive ventures and even fewer market signals – and you see the potential for the decoupling of the economy rather

Series A funding and Swensen is in discussions with banks to include his technology in mobile banking apps. Swensen, who surfs in his spare time, tells he's discussing partnerships with banks to get around the credit reference companies. The discussions are aimed at avoiding the «hard pull» lender inquiries that can reduce consumer credit scores. «Because we're working directly with the bank, we can do a soft pull and know where you're at», Swensen said. One-year-old **IndiaLends** is a platform for individuals as well as small businesses to get unsecured loans. It has backing from Singapore-based DSG Consumer Partners. IndiaLends has come out with a mobile app that lets **anybody check their credit-worthiness** instantly on their phone. It also provides tips on improving credit score.



«Credit awareness in India is very low. If you were to ask a consumer in the US what his credit score is, 10

out of 10 people would know it. In India, only a handful of consumers are aware of their credit score», says Gaurav Chopra, co-founder of IndiaLends. «As a result, those who apply for loans are more likely to get their applications rejected or be charged higher interest rates and fees. Our app enables them to make better decisions and negotiate interest rates». The free app also has features to help users **manage their personal finances**, such as credit cards and home loans. You can set payment reminders or track your spending. It's currently available only for Android, but an iOS app is expected soon. The number of mobile internet users in India is expected to cross 370 million by June.

Lenddo, world leader in using non-traditional data for Credit Scoring and Social Verification, announced the appointment of **Abhinav Haldia**, as the Country Director for India, with focus to further develop Lenddo's growing portfolio of customers in the country. Abhinav Haldia comes with a wealth of experience within the Financial Industry in India, having spent the last 5 years at CIBIL, India's first Credit Information Company, where he was instrumental in growing the credit bureau's business, coverage and footprint. «We are excited to have Abhinav joining the group as part of our long term commitment to India», Richard Eldridge, the CEO of Lenddo said. «Abhinav has an extensive expertise in the Financial Industry and will help us drive our Financial Inclusion efforts in a country where less than 23% of the population has access to a credit score. We look forward to working with more Banks, NBFC's, eCommerce platforms to help them access and serve new and underserved market segments using Lenddo's technology to leverage new sources of digital data». ●



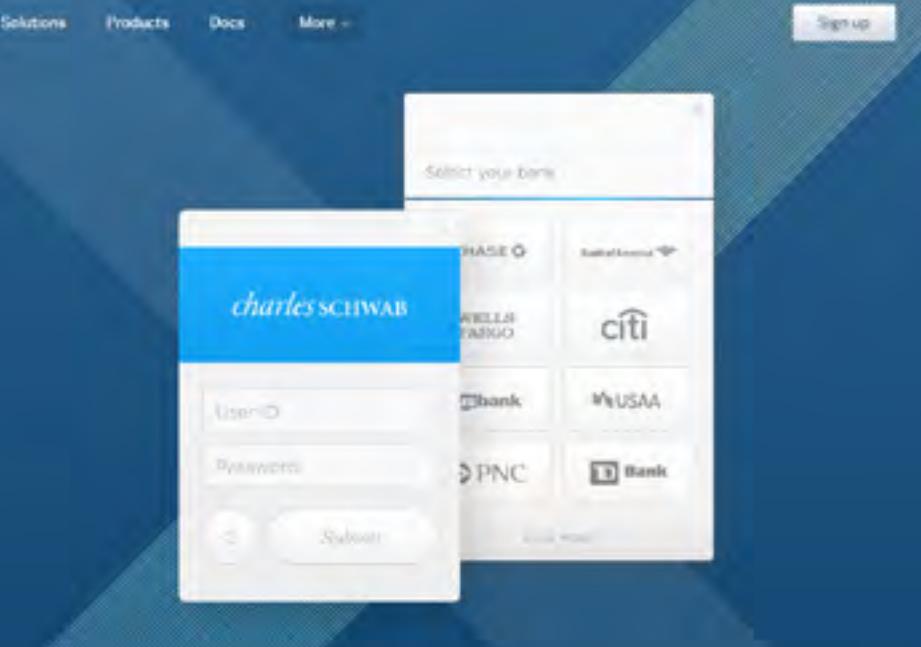
CHAPTER #17

PERSONAL FINANCIAL MANAGEMENT

Wish, an e-commerce wishlist-style mobile app, raised nearly \$600 million from investors. Wish now has «hundreds of millions of users», that it saw «single-digit billions of dollars» in gross merchandise volume, and seemingly confirming rumors that the company has seen interest (if not concrete acquisition offers) from Alibaba and Amazon. Wish began as an app that asked people to create wish lists, then the company approached merchants, letting them know a certain number of customers wanted, say, a certain type of table. On the merchants Wish works with and the types of merchandise it sells: «We thought that being more relevant and showing the right recommendations would be critical; what we didn't predict was the types of products and the types of merchants».

security of passwords and surges of data traffic to banks' websites. Many upstart financial-services providers such as online financial adviser Betterment Inc. use Plaid's software to access or check customers' account data when providing mobile and web services like budgeting, investing or lending. Zach Perret, co-founder of Plaid, said: «There's an active discussion in the industry, and we think consumers should have access to their data, and should be able to utilize it when and where they need it». For example, **TrueBill** works with companies like Plaid to sift through bank statements and determine what subscriptions users have. Users can then monitor those subscriptions and, through an automated process, unsubscribe to them.

now for iPhone, iPad and the Apple Watch, Digit CEO Ethan Bloch says that the **new app** serves as a bit more peace-of-mind for those who like that Digit takes their money but want an easier way to actually see the money¹⁷⁶. «When you want to see your money and feel that its safe, you open up the app and you can see that», he explained. «It's a metaphor to ground where your money is, and we found that to be super powerful». Additionally, the app offers an easier way to actually sign-up for Digit, rather than going through a mobile browser on the phone. It's also a bit of a «cheat sheet» into the functions of what Digit can do. The company has many code commands that offer different adjustments to Digit's habits, like a minimum balance limit or adjusting the frequency of transactions. «We didn't design the iOS app to change the fundamental Digit experience», he said. «We didn't add anything to the app where you need to open up Digit frequently». Despite not getting in the way of what current Digit users are familiar with, 30 percent of beta users did open up their app at least once a day.



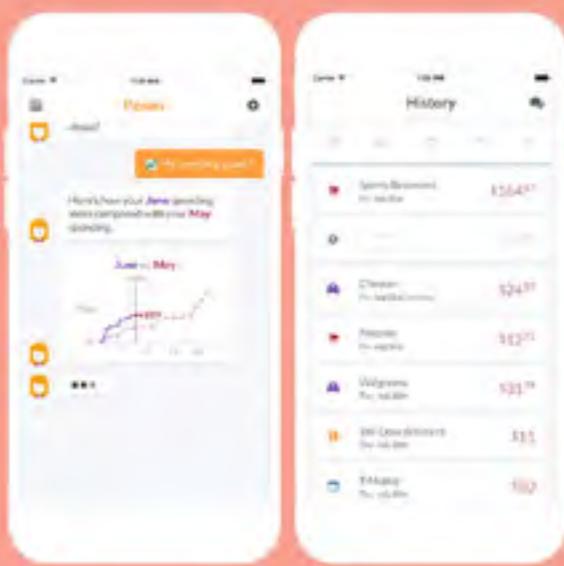
Plaid, whose software allows a variety of financial-technology startups to access their customers' bank account information, has raised \$44 million in a new round led by a fund at Goldman Sachs¹⁷⁴. The new funding is a boost for apps and websites that use Plaid, which has now raised about \$60 million total, as they work to ensure access to customer data held by banks. In recent months, banks and fintech firms have clashed about some of the ways that the firms access bank-customer account data, including concerns about

Digit closed a \$22.5 million Series B just a year after closing an \$11.3 million Series A¹⁷⁵. Ribbit Capital led the round with support from all prior investors including General Catalyst. This new round brings their total fundraising to \$36 million. The San Francisco based startup, founded in February 2015, operates in the savings space and has been doubling down on the notion that Americans, especially those in the 18-30 set, do not save enough money. **Digit** says it has helped its customers save over \$125 million since launch. Available

he's on the verge of launching his next project: **Clinic**, a mobile app to make it easier to save money for a future purchase or financial rainy day. Using what Arnold describes as a «dynamic intelligence algorithm», Clinic promises to track your current account spending and analyse the results to find the optimum amount to save each month, which is then automatically deposited into your Clinic savings account underpinned by the startup's partner bank. Clinic's central proposition is to help you achieve your financial goals faster. «This is the biggest challenge you can tackle in financial technology», says Arnold. Clinic is still operating in stealth mode, with a limited closed beta. The newly ousted startup is planning a full launch in Germany in the middle of this year, and international availability, including the U.K. and U.S., sometime in 2017.

if their gym membership is worth it, or compare your Amazon spending with the average person's. One thing about Penny is that the app only lets you send pre-populated messages, not natural language requests. As we enter the age of bots, it's becoming clear that a messaging interface just isn't the best way to do everything. Penny currently only lives in its own iOS- and Android-based mobile app. However, Mitchell Lee, co-founder of Penny, noted that they would definitely consider putting their bot on a platform like Facebook Messenger, but not yet — mainly because the startup can't yet see a clear value proposition of offering Penny on other platforms.

Ex-Swedish and now US-based **Capital**, the financial management service integrated with most banks, **launched its Android app**.



Penny, a personal finance bot we reviewed last fall, **has raised \$1.2 million** in seed funding from Social Capital¹⁷⁷. As a refresher, the app offers a chat-based interface that offers advice tailored to your personal finances. This advice includes things like how much you spend on food each week, how this month's spending compares to last month's and even income graphs. For example, the app now will help users decide

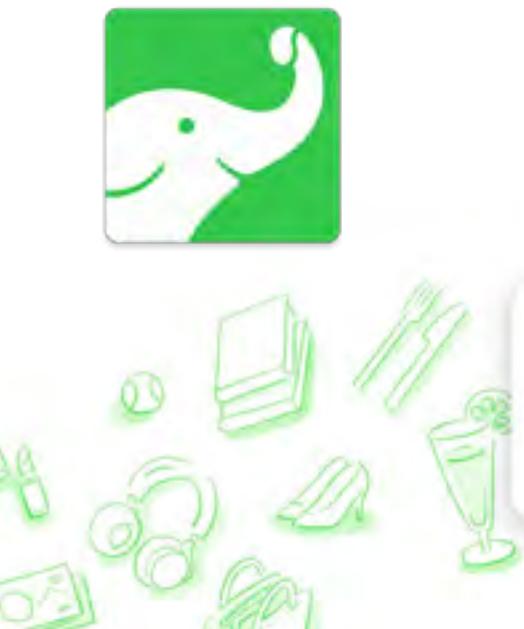
NextGenVest, a startup out of New York, is setting out to become a new kind of trustworthy financial entity. And to do that, it's tackling a big problem. It's setting out to help students manage the process of financial aid applications and financial management. Think: your friend who's already done it all, checking out your forms and guiding you through the process. The platform provides reminders, guidance and

on-demand help over SMS text message and Snapchat (see examples below). NextGenVest's platform allows them to customize a few different questions, pre-populate reminders for students and for bucketing common responses. The startup also brings in financial aid experts for more complex enquiries. After running in Beta in NYC, it's spread to 12 different states and 5 different countries, as it increasingly handles international students also applying for study grants in the US. NextGenVest has raised seed funding from the Kauffman Foundation and angels.



Seedly is a personal finance web app that lets you keep track of your money. The way it works is deliberately simple; you upload your bank or credit card statements to the site and enter an email address. The team crunches the data and then produces an infographic that presents your finances in a stylish, easy-to-read way. The infographic includes information like your total income from all your bank accounts, your expenses, and your savings. In addition, it breaks your expenses down to show you how much you've spent on what, your top three expenses of the month, and money you spent on subscriptions. Finally, it gives you tips and insights on your spending. Seedly's approach is meant to sim-

plify personal finance management **for millennials**. Seven out of ten millennials in **Singapore** think they're not in control of their finances, the company said, especially in the first two months of their job. «The majority of personal finance solutions out there are very cumbersome [for this demographic], and there isn't one place to pool multiple bank accounts together», he explains. «A lot of people also commented that they are too lazy to track their finances themselves». Seedly plans for a full launch in, but it has already secured **seed funding from venture capital firm East Ventures**. The amount of the funding is undisclosed. The team says it wants to make Southeast Asia's first non-banking personal finance app. There were 19 million workers in Southeast Asia in the past 10 years, so that's the market the company is targeting. It's currently counting on their new investor's experience in the region, especially in Indonesia, to help propel it to new markets after launch.



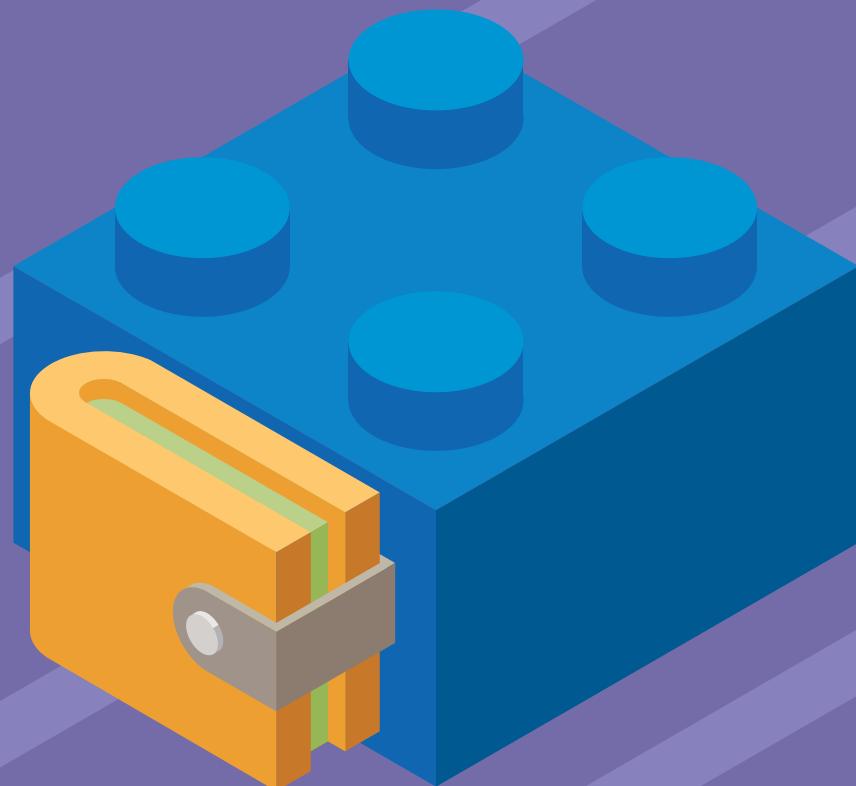
Japanese fintech startup **Moneytree** and Japan's second largest megabank Mizuho Financial Group announced a partnership in which Moneytree's API technology will let Mizuho customers finally see all of their financial data in one place. Moneytree, founded in Tokyo in

2012, offers three main services: personal finance, business expense management, and Moneytree Pro for corporate accounts. According to today's announcement, it is the first time that one of Japan's megabanks will partner with a startup on developing new technology. For **Moneytree**, founded in Tokyo in 2012, just being recognized as a Japanese startup when its co-founders aren't Japanese has been an uphill battle — even after landmark fundraising from the country's top-three megabanks: Mitsubishi UFJ, Mizuho, and Sumitomo Mitsui. No startup, Japanese or otherwise, had ever brought the trio of direct rivals together for the same financing round. Moneytree helps users to get a snapshot of their personal finances. They can input multiple bank accounts, credit cards, and even Japan's ubiquitous loyalty cards into the app to visualize spending habits, account balances, and receive alerts when payments are due or points are

as a first for Japan. The amount of Moneytree's series A round remains undisclosed, but sources close to the deal say the amount is in the millions of US dollars. The startup previously raised US\$1.6 million in seed funding from DG Incubation and angel investors, including former directors from MasterCard, Morgan Stanley, and PayPal. The Moneytree app has more than 850,000 total downloads — it has a retention rate of 70 percent among active users. As of last November, their rival **MoneyForward** boasts 3 million users for its personal finance product and more than 400,000 enterprise users. It also has a number of financial industry investors, including Mitsubishi UFJ and Credit Saison, one of Japan's biggest credit card issuers.



Personal finance portal **MoneySmart.sg** will offer an OCBC Bank home loan for a limited period. From Feb 15, it will offer at fixed deposit-linked interest rate package, at a 36-month fixed deposit mortgage rate of 1.63 per cent, for the first three years on a loan of \$500,000 and above. Owners and buyers of completed or resale private properties can apply or refinance through the website. This offer will run only on MoneySmart.sg for 15 days. ●

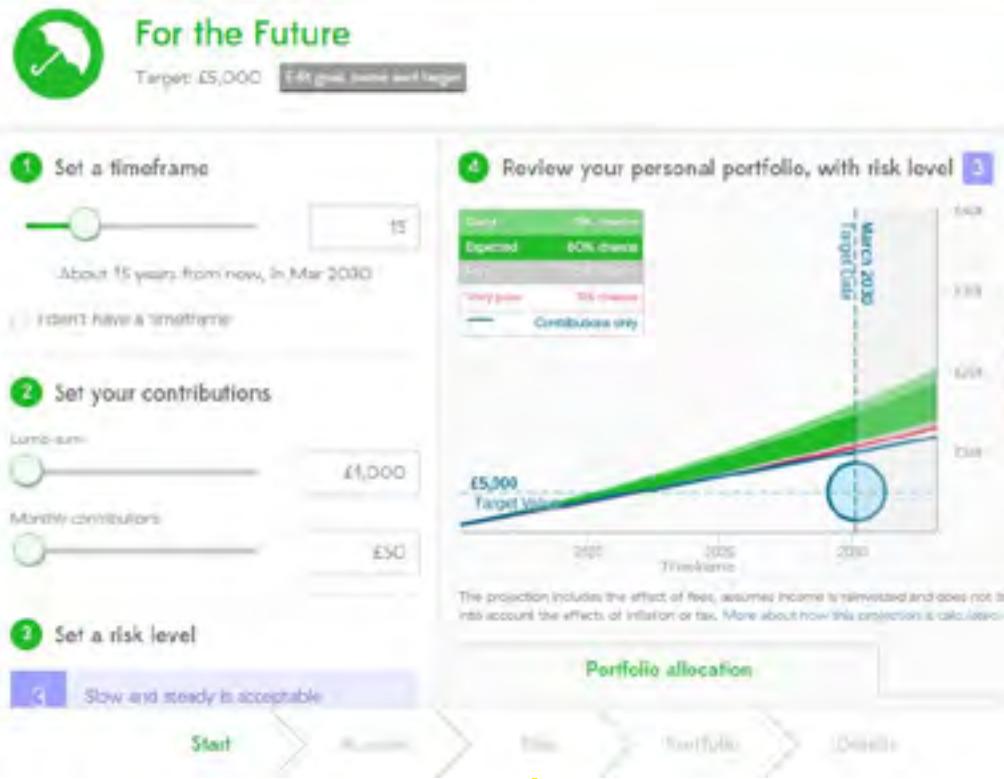


ONLINE-TRADING AND WEALTH- MANAGEMENT

CHAPTER #18

Now the 99 per cent can play the investment game. As Nocole Kobia wrote in *Wired* magazine¹⁷⁸, «apps and online wealth management means that anyone can put their money to work — no financial advisor required. Fintech startups have long-promised the democratization of big finance but now the very incumbents they seek to unseat are starting to catch up. Like travel agents and typing pools before them, financial advisors are going the way of the dodo». Click over to **Nutmeg**, and it'll ask you the basics: age, income, and your financial goals, such as saving for a house, retirement, or simply for a rainy day, all starting from £500. Choose how much risk you'll accept using a sliding graph and your automatically generated portfolio will pop into life in a series of easy-to-read pie charts.

nutmeg

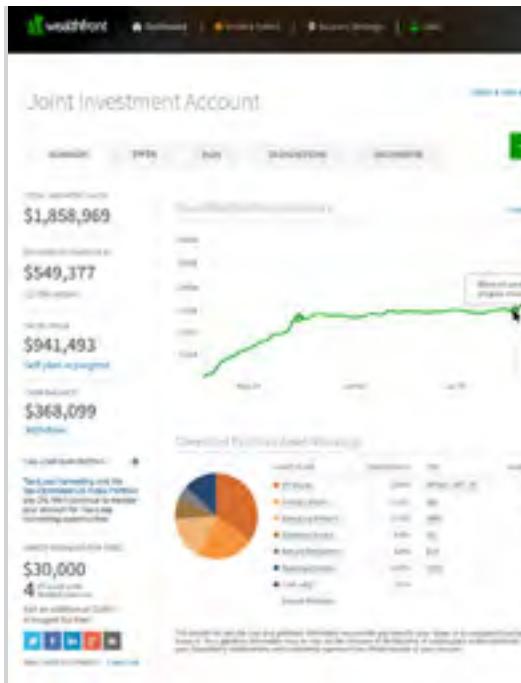


That's asking a lot from any app, but this new breed of financial tools does have some benefits over calling up a human financial advisor: **they require less initial investment, cut costs, and reduce the knowledge burden**. «For most people, the face-to-face bit, isn't an option», says Nutmeg's head of user experience Jono Hey. «You can go speak with

your bank, but if you actually want proper financial advice and wealth management, you generally speaking have to be looking to invest a good sum of money». Most traditional investments are the preserve of the over-50 crowd, says Adam Nash, CEO of **Wealthfront**, but 90 per cent of his company's customers are younger than that. (Half Nutmeg's customers are first-time investors with an average age of 35 years old.) «Our clients are younger than you'd typically see in the industry and most of them have lived through not one but two market crashes already. This has made an impact on how they view investing. They generally don't believe that there is a magic approach to beat the market».

Look at **MotifInvesting**: that investment startup lets users pick and

or sustainability». But robo-advisors as a whole make up less than \$100 billion of the total assets under management in the US, compared to a total market of \$30 trillion. A third of a percent isn't going to sway big finance to favour «friendly» stocks. If fintech apps may not do much more than add a few more lightweight investors on the bottom rung of capitalism, but simply getting in the game has another benefit: at least **we can finally learn the rules**.



«All of this is going to reduce information asymmetry», says Robert Wardrop, executive director of the Cambridge Centre for Alternative Finance. «The big issue in financial services is information asymmetry. A lot of the fintech technologies coming in are disintermediating and in the process reducing that information asymmetry». Two years ago Nutmeg won investment from Schroders, the second largest asset manager in Europe — it «makes» the financial products, and lets Nutmeg **sell them to a new audience**, happily gathering data about what those new customers want. And, after all, you can invest not only in stocks through these services, but also in p2p\p2b-lending, crowdfunding. According to Bryan Zhang, director at the Cambridge Centre for Alternative Finance, an 87-year-old Briton who spread £1,000 across 100 P2P loans, giving him a «bit of

money coming in every month». Or — most of us use crowdfunding to pre-order a product we want to exist. Or — equity crowdfunding sites giving investors a slice of a startup in return for investments as low as £10. Of course, it could take time for that investment to pay off, as companies take years and decades to grow.

Robinhood will bring its free U.S. stock trading app to the world, and announced **one of the first countries will be China¹⁸⁰**. To prepare, it launched a Chinese-language version in the U.S. and began asking users to invite friends and family in China to its waitlist. Robinhood previously launched a waitlist for

and scalability rather than localized marketing, Robinhood could spread virally across the globe. But to do that, it needs to jump through each country's financial regulation hoops.

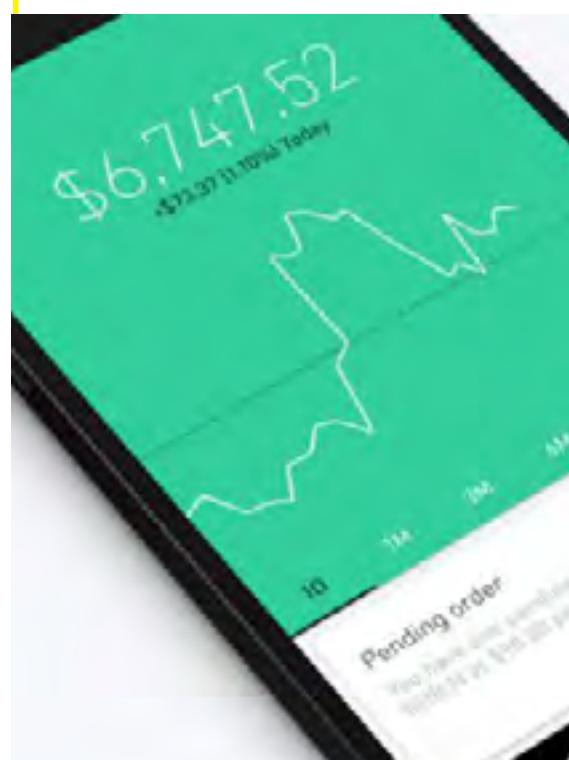
The most annoying part of zero-fee stock trading app **Robinhood** was that when you signed up, there was a 3-day delay before money you deposited appeared in your account. Luckily, the startup is solving this by embracing a slightly higher risk of fraud with the launch of **Robinhood Instant¹⁸¹**. It lets users borrow up to \$1000 to trade with while their deposit clears, and immediately trade with any proceeds of stock sales they're owed but that will take a few days to transfer. You can sign up for Robinhood Instant here from iOS orAndroid. Here's the catch: to speed up access to Robinhood Instant, users have to get their friends to sign up for the app. It's a bit smarmy, but still a smart virality tactic similar to how Robinhood let people move up its **800,000-person pre-launch waitlist** by inviting friends. Users are clearly hungry for the feature. Over **70,000 people have joined the Instant waitlist just for first hours**.

Robinhood is changing stock trading. First it democratized it, because while rich people would hardly notice those \$7 fees, they might erase the upside potential for younger and less wealthy traders. On Robinhood you can trade as little as you want without the fees eating your profits.



MotifInvesting was started as a way to allow anyone to invest creatively via concepts, democratising the process of making money in stocks¹⁷⁹. The company creates packages based on themes — for example artificial intelligence or coffee — and allows users to invest amounts small or large. These «intelligently weighted basket of stocks» give you more control over security when compared to an exchange-traded fund, and are far cheaper. The company now allows its customers to build their own motifs, monopolising on the shared expertise of those keen on investing. «It took our PhDs a year to build 100 of these motifs. When we handed it over to our customers, we had 85,000 in the first year». Motif is allowing anyone and everyone to invest in concepts that interest them. They've been on the market for over three years, have **250,000 happy 'Motifers', and are beginning international expansion**. They're even moving into trading in risk.

Australia, but has otherwise only been available in the United States. For now, Robinhood is just trying to let people from other countries buy and sell U.S. stocks. But eventually it wants to open trading on each country's native exchanges. If it succeeds, it could one day build a 24-hour stock bazaar that spans the siloed markets. While most American apps are banned in China for violating the country's regulations about the exchange of information, Robinhood's stock tracking and trading app expects to be able to operate there. However, it's unclear now whether that will be through official government approval or circumventing regulation somehow. That still might take a while, considering Robinhood put up its Australia waitlist 11 months ago and is still finalizing permission to open trading. But it's now formally working to secure access and let Chinese citizens trade stocks on U.S. exchanges through the app. Because it focuses on efficiency



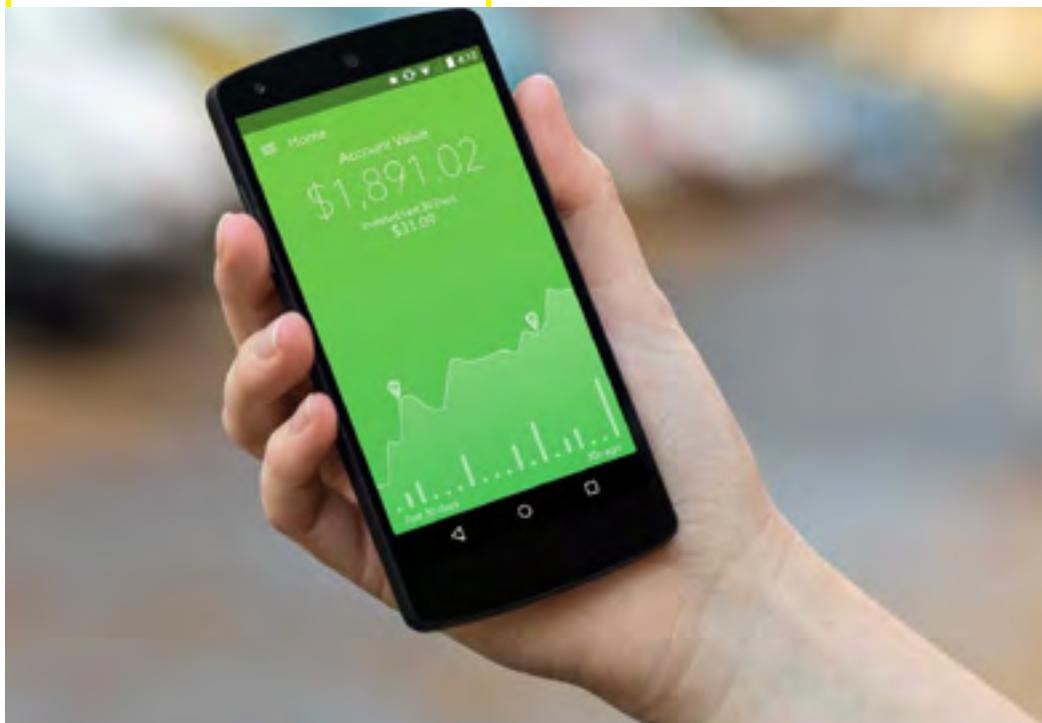
Former Citigroup CFO **Sallie Krawcheck** launched her anticipated new startup, a digital investment platform for women called **Ellevest**¹⁸². Prior to Ellevest, she was the president of Global Wealth and Investment Management at Bank of America and the CEO of Smith Barney and Sanford Bernstein, in addition to Citigroup. She also bought Ellevate, a global network with tens of thousands of members that promotes women as business leaders.



However, until now, all we've known about Ellevest is that it's focused on helping women invest, and that the company raised **\$10 million in Series A** funding last fall. That round was led by investment research firm Morningstar, and included participation from Mohamed El-Erian, chief economic adviser at Allianz and the former CEO of PIMCO; Ajay Banga, president and CEO of MasterCard; and Brian Finn, former president of Credit Suisse First Boston, according to an earlier report from Fortune. Krawcheck will serve as the company CEO and fintech startup Andera's founder Charlie Krollis Ellevest's COO. Krawcheck disclosed further details of her team, which includes Chief Investment Officer Sylvia Kwan, who has degrees from Stanford and Brown, as well as people with technology industry experience from places like Vogue.com, Thrillist, fintech startups and a PM from Weight Watchers — a company dedicated to getting women to embrace change.

«This isn't 'for women,' 'pink it and shrink it,' 'make it smaller,'» she says. «We're going to forecast out your life so that you can achieve your goals. And then we'll put a bespoke investment portfolio against each goal to help her achieve them». The service's products include managed ETF's to keep costs down. It's not «the cheapest» — the website's FAQ says it charges an annual fee of 0.50 percent of an account's average daily balance — but it's lower than what some other firms charge, says Krawcheck. Ellevest is live now, but is requesting women sign up for invites which will be distributed on a rolling basis.

people can keep growing their account in small amounts through lots of different sources», adding that «with micro-investing, anyone can start growing wealth». About 75 percent of Acorns' users are between the ages of 18 and 34. The app is free and fees are just a dollar per month for accounts under \$5000 and .25% per year for accounts with more. Also **Acorns officially launched in Australia**— its first market outside the U.S. — aims to help people start investing with only small amounts of money, and without high commissions and prohibitively large minimum account balances. The free Android and iPhone app, which was



Acorns, the investing app, announced a \$30 million strategic investment from PayPal¹⁸³, with participation from the Rakuten FinTech Fund. This brings the team's total funding to \$62 million. With 850,000 active investment accounts, Acorns works by rounding up purchases and investing the remainder. In other words, if you buy a latte for \$3.99, that penny will go into an ETF. Users trust Acorns with their credit card information, syncing it with the app for automatic investing. The startup highlights diversified portfolios containing stocks and bonds. Targeting millennials, incoming CEO Noah Kerner says that with Acorns, «young

founded in 2012 by Jeff Cruttenden and his father, Walter Cruttenden, aims to open up investing to young people. The company began a beta testing phase for the app in December 2015, and claims to have signed up 26,000 people as of launch day. There's no minimum account balance required on opening an account, but you'll need at least \$5 to keep investing. Money can also be withdrawn at anytime with just a couple of swipes. For its part, Acorns charges A\$1.25 per month for accounts below A\$5,000, and 0.275% per year on accounts over A\$5,000. Although apps like Acorns and Robinhood are going after the first-

time, millennial investor, questions have been raised about whether young people even want to invest or whether the apps could become exploitative. An app like Acorns can have a positive impact, introducing young people to financial literacy.

SigFig, the developer of tech-enabled financial advisory services products, has raised **\$40 million** from the venture investment arms of a slew of big banks¹⁸⁵. Apparently some big banks agreed with Sha's assessment to the tune of a \$33

sell stock based on various changes in the market¹⁸⁶. For instance, users can set a trigger to buy stock when it reaches a one-year low; or a user could set a trigger to sell a stock when it reaches a certain percent return. Think of the app as IFTT (If-This-Then-That) for stock. The aim of Trigger is to bring hedge-fund level investing tools to the masses.



With **Vestly**, incubated by Fundermark, you get the same fun of playing the stock market without putting up any money¹⁸⁴. Users log on to the platform and give up some basic information, via a required Facebook log-in, and then get started picking their stocks. This might be the most difficult part of the process, as there are no curated selections or added information in the process of creating a portfolio. Instead, Vestly asks you to enter the stock symbol or name of the company you'd like to purchase virtual stock from. The company operates under a theory that comes from Peter Lynch, author of Beating the Street, that says the chances of success are greater when users invest in companies that they use, know, and believe in. Vestly educates users to do the same, choosing their portfolio based on the companies they use and love the most. At the end of the month, 100 people with the top portfolios will split \$10,000, with the highest ranking players taking home more of the prize. The company also offers a longer-term prize for folks each six months, in the form of a new car, an Audi Q3 Quattro. Vestly recently raised **\$4 million in seed funding**.

million equity and \$7 million debt round of funding. Participants in the new round include Santander InnoVentures, UBS, Eaton Vance and New York Life. Previous investors Union Square Ventures, Bain Capital Ventures, DCM, and NYCA Partners also put up cash in the latest round. Meanwhile, Comerica Bank gave SigFig a \$7 million debt facility. Through the company's direct asset management platform, SigFig manages a pretty paltry \$100 million. SigFig differentiates itself from asset management competitors like WealthFront and Betterment by billing itself as more of a full service shop for the financial services firms that still manage the bulk of America's wealth. «The idea is not that we're building technology that is algorithmic money management», Sha says. «There's CRM, client tools, and money management», through the SigFig platform.

It can still be difficult for non-expert investors to figure out what they should be buying or selling—or when, or why. Also, many people don't have time to monitor the stock market frequently. A new app called **Trigger will link to your brokerage account and help you purchase or**



Smartkarma, a service that provides institutional investment research on demand, **has raised \$4.7 million** from investors including Wavemaker Partners LLC and Jungle Ventures to expand its business¹⁸⁷. The second round of financing brings total capital raised to \$7.5 million. Smartkarma bills itself as the Spotify for Asian research. It provides analysis and context about Asian markets to help institutional investors make their decisions. Before this Smartkarma has officially launched from closed beta¹⁸⁸. Smartkarma is radically changing the way global institutional investors create, distribute and consume investment insights. Through a single subscription, clients gain unlimited access to a large, fast growing pool of Insight Providers, which together make up the widest range of analysis on the Asian markets available. Having started operations in a closed beta in January 2015, Smartkarma now has over 70 contributing firms, 400 individual insight providers and over 100 institutions using the platform. It combines intelligence from the world's premier analysts, academ-

ics, data scientists and strategists, all in one unique ecosystem. Smartkarma has already published over 2,300 individual insights, representing an average of over 16% month-on-month growth in published research. A testament to the success of Smartkarma's unique subscription model, this body of work has been viewed over 375,000 times. Platform activity is up threefold in the last 12 months, and growing 50% quarter-on-quarter.



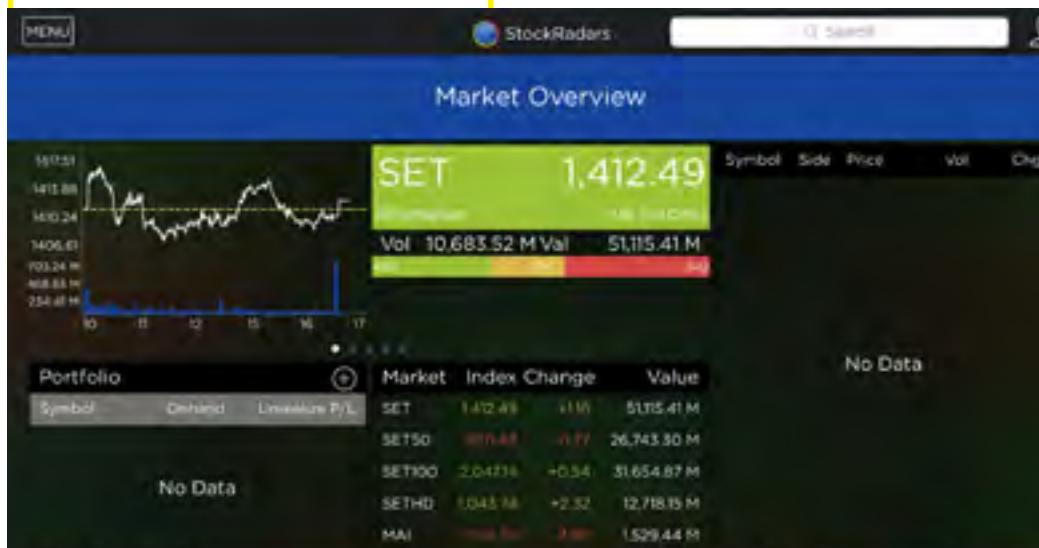
According to Mesitis founder Tanmai Sharma, the startup has raised US\$2.35 million from undisclosed investors. The money will go towards developing Canopy¹⁸⁹, an online service that aggregates financial data from many formats into an easy-to-view, highly visual form. «A typical investor gets between 1000 to 3000 pages of paper a year. Canopy converts all of this 'raw data' into 'information' – typically a single chart or drawing, based on the subject you are looking for», said Tanmai. This latest round is on top of a US\$3 million series A round it raised in June 2015, and another US\$775,000 before that from founders and employees. The startup's customers include high net worth individuals, wealth managers, and family offices. It told The Straits Times in March 2016 that it had 70 customers aggregating some US\$3 billion in wealth (up from US\$1 billion in June 2015). The service costs US\$299 per month.

After raising seed funding in a round

led by 500 Startups in November 2015, mobile market data notification firm **Call Levels** has announced a new investor. Injecting funds is the Lippo Group, which is headed by the Riady family of Indonesia, ranked #8 in Forbes Indonesia's Richest list. The new investment occurs as the firm has experienced strong growth for their service due in part to increasing volatility in equities during 2016. According to Call Levels, it has registered **400% user growth** in the past three months, has 11 new alerts set every minute across its customer base and it supports 10,000 trading products. Commenting on the investment, Call Levels co-founders Daniel Chia and Cynthia Siantar stated: «We empower not only financial institutions, professionals, traders investing heavily in technology but also everyday participants to give everyone that edge». To date, the start-up has raised US\$500,000 (S\$703,000) from 500 Startups and other investors such as seasoned corporate executives Timothy Teo, formerly a senior executive with JP Morgan. Call Levels, which opened an office in London last month, sources its information directly from global stock exchanges. A new fintech start-up called Cash2Cash allows people to exchange foreign currency with others using mobile phones.

real-time stock trading inside its app for the first time. That live-trading feature is limited to Thailand for now, but the company has expanded its analytics service to eight new countries – China, Taiwan, Hong Kong, South Korea, Japan, New Zealand, India and Singapore – with a view to rolling real-time trading out in these places, too. To help that regional push, Siam Squared, the company behind StockRadars, has closed new funding. The round is undisclosed, but TechCrunch understands from a source close to the deal that it is **\$700,000**. StockRadars raised \$800,000 last year and this latest round is a bridge towards a larger raise later this year. This latest round is led by Japan's Cyber Agent Ventures, an existing investor, and it includes participation from a number of angel investors, including prominent stock traders in Bangkok. The StockRadar app for iOS and Android allows users to track and analyze public stock. Users can pay for 'radars', which are essentially layers of intelligence and analysis that help identify best performing stocks and investment opportunities.

«You can really get a sense of quality by looking at someone's performance, looking at their research, looking at their profiles», said Divya Narendra, **SumZero**'s co-founder and chief executive officer. «A lot

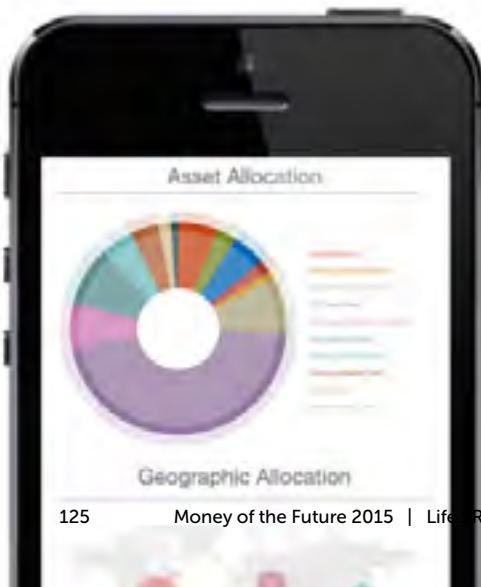


StockRadars, a Thailand-based service providing mobile-based analytics and insight for trading, just followed Robinhood's lead and enabled

of guys that are really smart don't have a brand, don't have a huge network and we can help them build that network out». SumZero is one

of many «fintech» startups vowing to bring transparency to Wall Street and is a long way from upending the existing order. But the New York-based company is starting to win respect by surfacing small hedge funds with unique investment strategies. Multiple studies have shown that smaller funds tend to do better than larger ones, some of which have performed poorly during the recent market rout. Narendra, who previously worked at Credit Suisse and hedge fund Sowood Capital, founded SumZero in 2012 as a place for buy-side analysts to share stock research. Institutional investors' interest in SumZero prompted Narendra to launch a service that connects investors with fund managers—»capital introduction» in Streetese. Based in the trendy WeWork office with various other startups in Manhattan's SoHo neighborhood, SumZero is a lean operation with just 13 employees. The Winklevoss twins invested about **\$1 million** in the company in 2012, and there have been no subsequent funding rounds. Narendra says the company is cash-flow positive. Steve Keating, the director of investments for St. John's University Endowment of \$650 million, appreciates that the fund managers on SumZero can't «cherry pick» their best research to present to potential investors. There's a historical record of the return on the fund's investment ideas, and it can't be erased, no matter how poorly it performed.

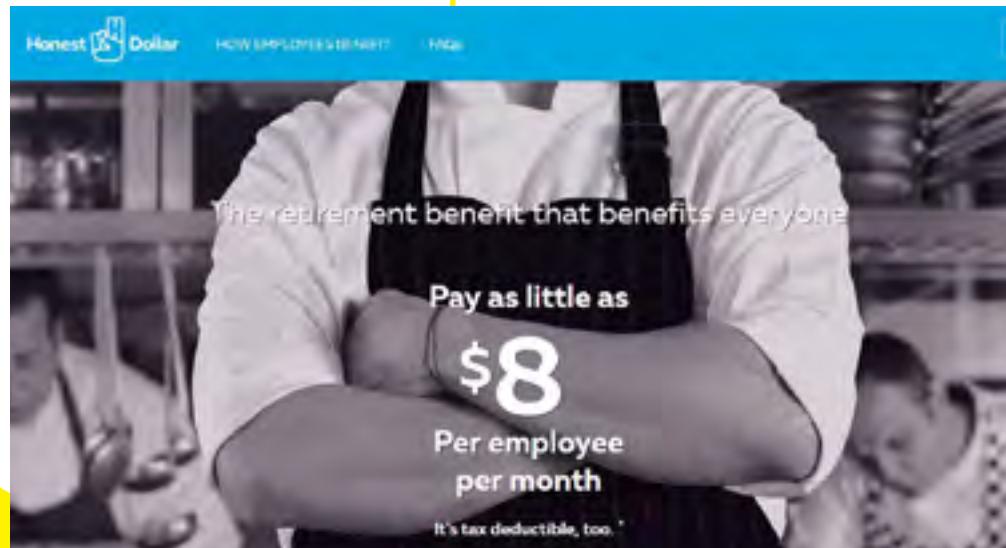
⑧ Now!



8 Securities, a Hong Kong-based fintech startup, has launched the first free stock trading app in Asia¹⁹⁰. The new mobile app lets users trade over 15,000 US and HK stocks and index funds for no commission and without minimum balance or account fee. «The price of executing a trade has gone down a lot these past years», Mathias Helleu, 8 Securities' executive chairman told Bloomberg. «It's always the same game: the more volume you have, the more you can scale. And technology helps». Mobile is very important, notably for Asian customers, he noted. In addition to the launch of its free stock trading app, 8 Securities is introducing Chloe, the world's first digital financial assistant. Still under development, Chloe will be using machine learning to provide personalized mentoring and insight for customers. 8 Securities further said that it will soon launch margin lending for active traders. Licensed in Hong Kong under the Securities and Futures Commission, 8 Securities expanded to Japan and mainland China following a **US\$9 million Series B** funding round raised in August 2015. The company is said to be managing over US\$600 million in customer assets. In 2015, Robinhood became the first brokerage to offer zero trading commissions for US listed stocks as well as zero account minimums.

growing influence of technology in finance. An Austin, Texas, based company sells retirement plans consisting of portfolios of low-cost exchange-traded funds to small companies, charging \$8 to \$10 an employee a month. Terms of the deal weren't disclosed. The deal, which is expected to close by July, comes nearly a year after Goldman said it was hiring former Discover Financial Services executive Harit Talwar to lead an expansion into online lending. It is one of a number of moves by Goldman to experiment with cheaper, less-exclusive services. Last year, Goldman surprised its peers with decisions to launch an online lending business for consumers and to start a new ETF that aims to beat the S&P 500 while charging annual fees of just 0.09%. Companies like Honest Dollar are pairing Internet distribution and advances like computer-generated portfolios to push down the cost of saving for retirement. Honest Dollar's customers include the drivers of ride-sharing startup Lyft and its investors include venture-capital firm Core Innovation Capital and former Citigroup CEO Vikram Pandit.

Honest Dollar's sale follows an eventful 2015 in which the company launched its product, raised \$3 million in seed funding and endured the



Goldman Sachs is buying an online retirement-savings startup Honest Dollar, that is barely a year old, as the Wall Street bank adjusts to the

departure of its co-founder and chief strategy officer, Henry Yoshida. More VC being thrown at casual trading startup Bux. The app, which

turns stocks and derivatives trading (via CFDs) into a game-like and social experience, thus potentially broadening the market to include a greater number of people who have never traded before, has pulled in a further **\$6.9 million** in funding. The round, led by Germany's Holtzbrinck Ventures and following \$1.9 million raised last September, will be used to accelerate growth in Europe — specifically expanding to Germany, but also in the U.K., Netherlands and Austria, where Bux is already active. Currently those social features include the ability for traders to create WhatsApp-style groups, where trading tips and information can be shared and discussed. There are also 'channels', a Twitter-style follow mechanism that lets users follow other traders who can blast out their insights. To that end, Bux claims **330,000 registered users** in total, 20,000 or so who have traded using real money.

of the crowd to do better on the stock market, but SprinkleBit offers a unique tool called the Value Prediction Index, or VPI — each stock gets scored based on whether the community thinks its price will increase, and each user gets scored based on how accurately they predict future prices. There's also an educational component — the company offers a set of online investing tutorials called SprinkleBit University. The service was first launched in 2012 and currently has about 10,000 users. SprinkleBit has raised a total of \$13.5 million.

Yet-to-launch **Moneybox** is a U.K. startup that wants to encourage millennials who might not be thinking too much about their financial futures to save and invest. It reckons the key to this is a mobile app that reduces the friction inherent with opening a stocks and shares ISA (Individual Savings Account) and per-

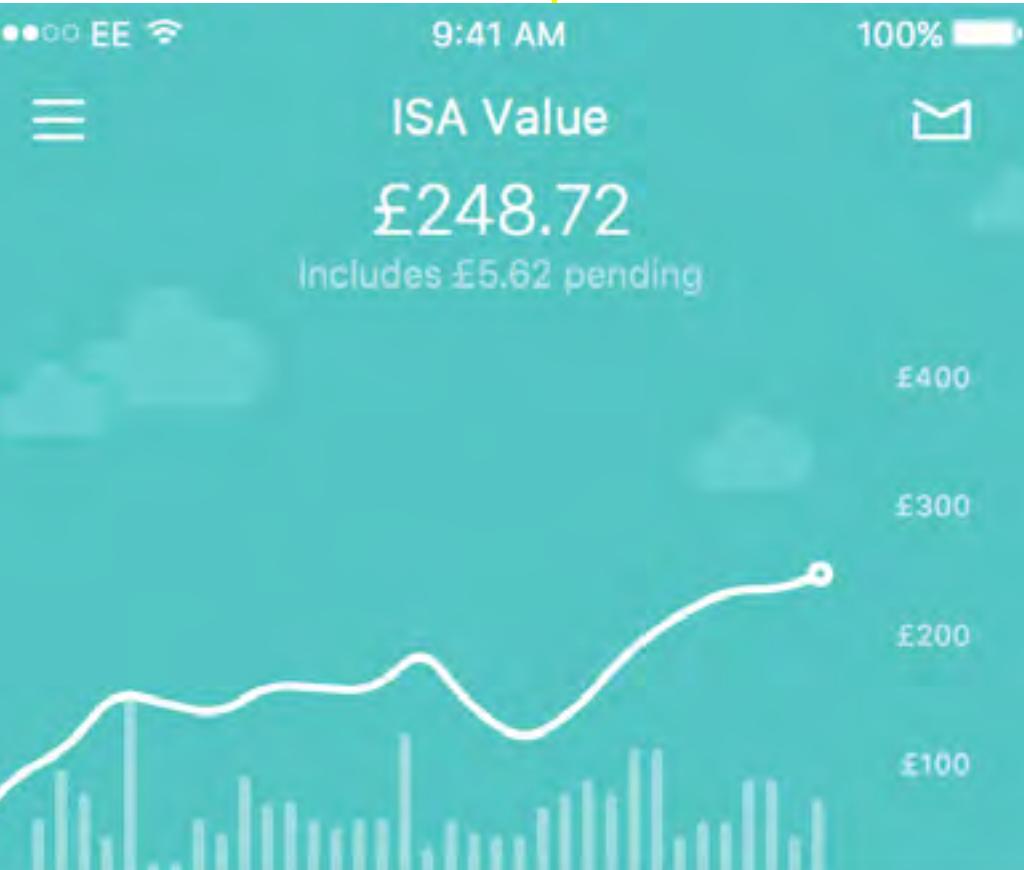
the next few months, the company has **closed a \$3 million seed round**. Backing comes from Samos Investments (which previously invested in the likes of Betfair and Ocado) and various unnamed angel investors. The funding will be used to expand the core team to around 20 people, and for the development of the Moneybox app ahead of an «early 2016» launch.

Wealth management company **Suishouzan** received several million RMB in seed funding from Gobi Partners. Suishouzan, a incubated company from 9FBank, was launched November 2015.

Swiss private banking firm Julius Baer Group Ltd. and China's Sina Corporation have agreed to invest **US\$22.9 million in total in Shanghai-based wealth management firm Jupai Holdings Ltd.** In July 2015, Jupai raised US\$53 million via an initial public offering on the New York Stock Exchange at US\$10 per American Depository Share (ADS). Founded in 2010, Jupai provides wealth management services to high-net-worth-individuals, enterprises and institutional investors in China.

WHO'S AFRAID OF ROBO-ADVISERS?

The Massachusetts Securities Division recently fired a shot heard around the robo-adviser world when it declared that the online financial advisers may not be up to snuff as fiduciaries for investors¹⁹¹. If that's the case, it means they may not qualify as investment advisers in Massachusetts. Regulators must of course hold all financial advisers to a high standard, but robo-advisers — the most investor friendly financial innovation since the index fund — are on the frontlines in the fight for better outcomes for investors. It's worth considering whether it would be better to improve robo-advisers' shortcomings rather than discouraging their proliferation. Massachusetts is the first regulator to suggest that the bots are a problem, but that move follows a growing chorus of



SprinkleBit, a startup that helps you invest with guidance from friends and experts, **has raised \$10 million** in new funding from GTC. It's not a new idea to tap into the wisdom

haps ingeniously lets you round up your 'spare change' from everyday card transactions to deposit in your tax-free Moneybox savings account. To help bring its app to market in

commentators and regulators who have raised similar questions. The Securities and Exchange Commission and the Financial Industry Regulatory Authority, for example, jointly cautioned last year that robo-advisers may not provide advice that is right for investors' financial needs — which is a cornerstone of the fiduciary standard.

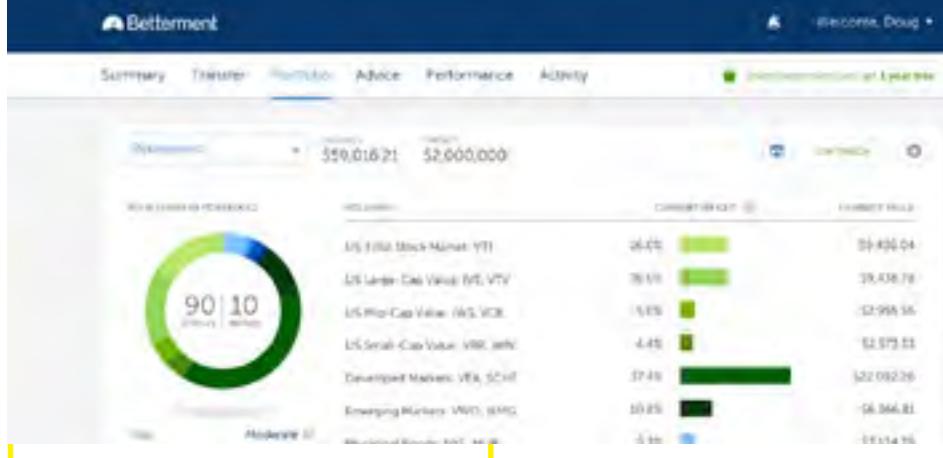
Millennials and small investors aren't the only ones using robo-advisers, a group that includes pioneers Wealthfront Inc. and Betterment LLC and services provided by mutual-fund giants, said Kendra Thompson, an Accenture Plc managing director. At Charles Schwab Corp., about 15 percent of those in automated portfolios have at least \$1 million at the company. «I'm not saving up to buy anything», said the 28-year-old engineer, who shares a rented apartment with two flatmates in south London. «I prefer to go out for dinner at a nice place, pay a round at the pub or explore a new area of the world. I feel like I would be losing out on living if I chose to own stuff instead».

The stock market is starting to reflect his priorities and those of his generation -- **the millennials**, those born between 1980 and 2000. Leisure and travel-related stocks, including pubs, airlines and pizza restaurants, have trumped retailers since consumer confidence picked up following the financial crisis. For U.S. and European indexes tracking the industries, the outperformance just reached the highest since at least 2011. «Experiences help millennials shape their identity and create memories, to a greater degree than for older generations». With incomes shrinking, only 34 percent of millennials worldwide said they saved enough money each month, according to Nielsen's 2015 Global Generational Lifestyles survey. They're also not that interested in allocating funds to acquire the totems of their parents. Buying a car was a top priority for only 15 percent of millennials in a Goldman Sachs Group Inc. survey cited in a 2015 report. The number was the same for purchasing a

television, and just 10 percent for a luxury bag. «People want to buy happiness». «An experience is unique because it gives them that in three stages: the anticipation, the event itself, and the memories after. Not only does that final stage last forever, but you can also share it».

CommonBond and a host of others vying for customers' attention by managing a long-term financial commitment like a mortgage or student loans.

Betterment raised \$100 million from the Swedish growth-stage



Wealthfront, the West Coast robo-advisor battling Betterment for the top spot in tech-enabled wealth management, launched a new version (and vision) of its wealth management service. The Redwood City, Calif.-based company is integrating with tools like Venmo and Redfin to get an even more **complete picture of its customers' financial holdings**. The integration, aimed squarely at **millennials**, is designed to help the robo-advisor come up with an even more tailored set of suggestions for investments to ensure financial health over time. It's an interesting move, and one that positions the company to talk a better game to its core audience — the newly affluent, mid-to-late twenty- and thirty-something employees in white-collar jobs around the country. Wealthfront chief executive Adam Nash wrote: «Wealthfront has been built from the ground up with the same social contract that is at the heart of fiduciary advisor: our clients trust us with the relevant details of their financial lives and we keep their information private and secure. Our advocacy for a fiduciary standard is based on the premise that it will lead to better far better advice and outcomes». The standard also sets the two companies apart from new lending companies like **Earnest**,

investment firm, Kinnevik, which led the new round. Previous investors Bessemer Venture Partners, Anthesis Group, Menlo Ventures, and Francisco Partners also participated, which gives the company a **\$700 million valuation**. In all the company has raised roughly \$200 million across five investment rounds. Like, Wealthfront, the New York-based Betterment believes that it has the right angle on convincing millennials to make its service the entry point to a wider world of financial health. No one puts it more plainly than Betterment chief executive and founder Jon Stein. «Our goal is to become the central financial relationship for our clients», he said in a statement. The company has added a number of features like a **retirement guide and account aggregation**, but the new developments that are perhaps most encouraging for the company are the work with corporate customers on retirement plans and **with financial advisors as a white label tool** that advisors can use with their own existing clients. Most people use a retirement plan through their company — like a 401K — and maybe have a mix of stocks and bonds that they've bought for themselves. The new offerings have also paid off in terms of the company's assets under management. Betterment

now boasts **\$3.9 billion in assets under management and 150,000 customers**. «Everyone should have access to un-conflicted and low-cost financial services that enable them to reach their financial goals», said Lorenzo Grabau, the chief executive of Kinnevik, in a statement. Other vendors in the financial technology sector are mere vendors, who are out for a buck and nothing more. Lenders — who've taken the biggest chunk of the fintech market outside of the robo-advisory space — or even the payments firms that are in the market; all of them are trying to sell something in the end.

E-Trade rolled out its new Adaptive Portfolio aimed at young professionals just beginning to face the financial struggles of adulthood¹⁹². Adaptive Portfolio combines previously offered active and passive management with risk classifications that automatically rebalance to accommodate market changes. Users will also have the option to connect with financial consultants. Competing players, Wealthfront and Betterment, exclusively offer passive portfolio management because it is less costly. In the past, E-Trade has combined this widely adopted form of investment management with optional active portfolio management. The new hybrid investment service will require an initial investment of \$10,000. In addition to the minimum balance, users will pay an annual net advisory fee of 0.3 percent with no separate trading commissions. E-Trade will also require 1 percent of all portfolios to be held in cash. E-Trade plans to invest cash balances



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Your Investing Advantage

in the JPMorgan Liquid Assets Fund. Clients can receive 0.01 percent interest on cash if they have less than \$500,000 invested in the platform.



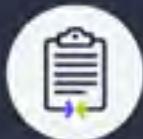
AlgoMerchant, a Singapore-based fintech company, has closed a S\$1.3 million (**roughly US\$910,000**) seed round led by East Ventures. The startup still operates in closed beta. It plans to use the funds to develop the product, accelerate user growth, and hire new people. AlgoMerchant's users will get access to a «peer-to-peer

investing ecosystem» — an environment which helps investors make better investment decisions based on technology and social networking.

Atlanta-based company called **iAllocate** is using artificial intelligence to suggest where you should be stashing your millions. «Currently, iAllocate.me provides investors of all levels a DIY set of tools to not only educate themselves about the investor inside them, but also take away a personal and strategic Asset Allocation Strategy. The user/investor

can then instantly build a diversified Tactical Investment Portfolio with ETF (Exchange Traded Funds) recommendations, which have been intelligently optimized using a proprietary iA algorithm from a selection universe of more than 400 different ETFs». They have self-funded the project to the tune of \$200,000 and they are looking into further equity funding. The team has seen over 100 registrations and they are adding brokerage partners to help users act on the advice the robot gives them. ●

Ways to invest with E*TRADE



Independent



With some assistance



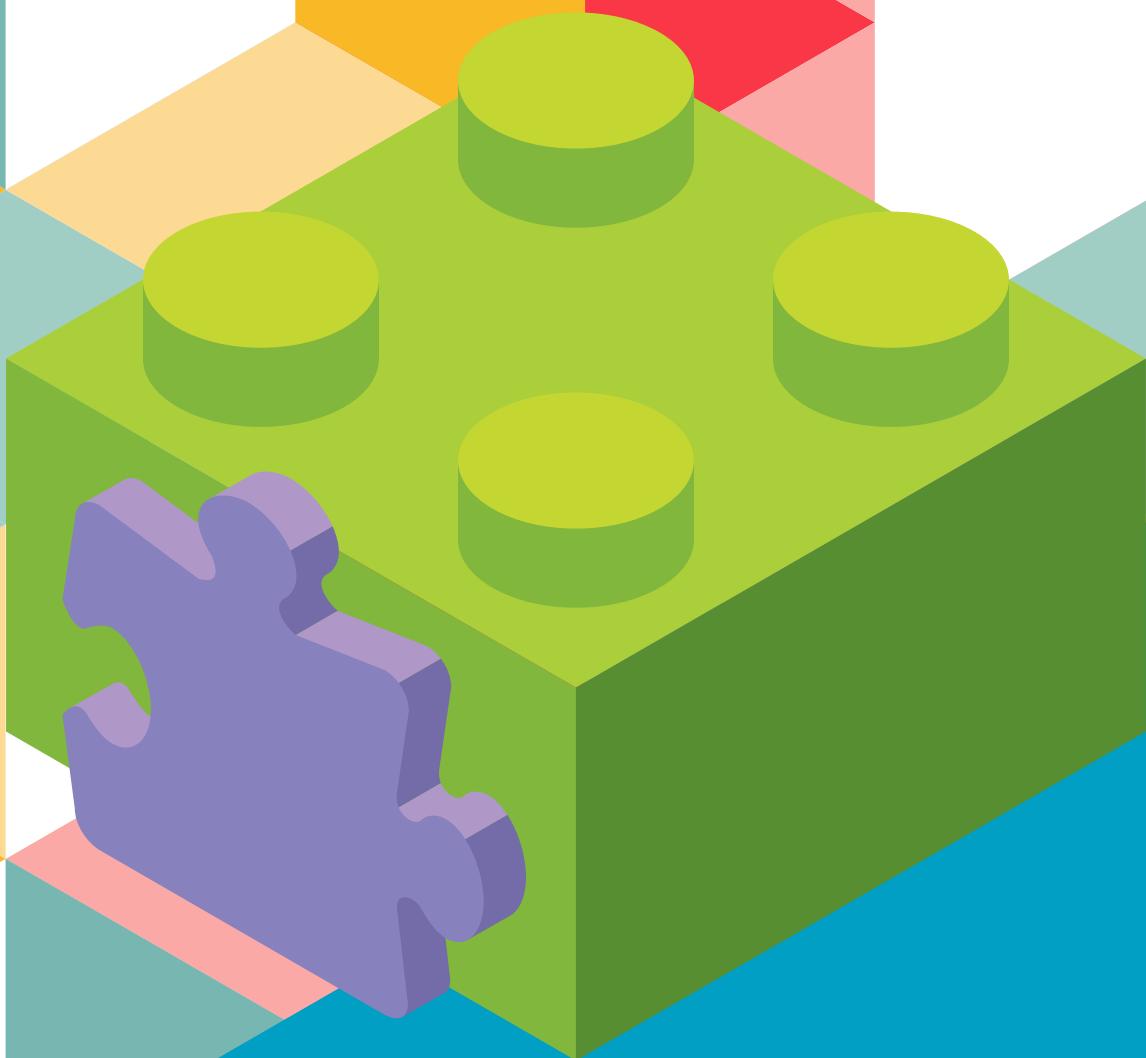
Full portfolio management

More ways to invest with support from us... Investing tools, choices and unbiased analyses.

Sometimes you need to talk to a real human. That's why we've got on-call Financial Consultants and customer service.

Choose a self-managing Adaptive Portfolio or full portfolio management from E*TRADE Capital Management.

CHAPTER #19



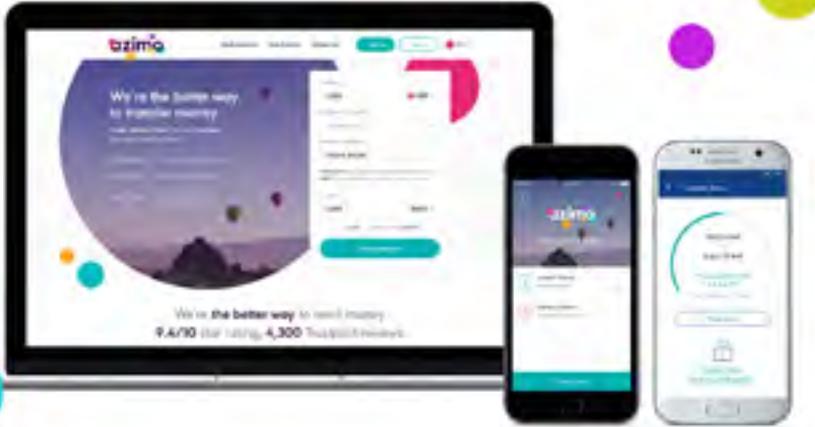
ONLINE- REMITTANCES

Forrester Research estimates that the total P2P payments market will reach \$17 billion in transaction volume by 2019. The Tracxn Remittance Report finds that the industry has seen ~\$1b being invested in the space over the last 6 years.

billion in 2015. Foreign aid during that time period totalled \$131.6 billion. «Total remittances account for three times the size of total development aid globally. It's quite instrumental for the communities to thrive and countries to grow and

Azimo was once in talks to be acquired by WhatsApp and Messenger owner Facebook¹⁹⁴. In May 2016 Viber owner Rakuten putted \$15 million into the London-based remittance startup. It's a strategic investment: the funding will be used to help Azimo integrate into messaging apps like Viber, but also to expand its services further into Asia from its primary base in Europe. Azimo's co-founder and CEO Michael Kent said the company is not disclosing its valuation but from what I understand, it is at an increase from its previous round, when it raised \$20 million on a \$100 million valuation. The company is likely to raise a bigger round next year. To date, Azimo makes most of its transactions across Europe, targeting (as many remittance startups do) migrant workers who send money mostly to family back home. The endpoints that Azimo serves span 190 countries and 80 currencies, and it says that some 500 million people have transferred money through its app since it was founded in 2012. Asia is a big step up for the company: there are some 60 million migrants from the region and some \$250 billion is transferred annually in the region, and today some 75% of that activity is done offline with banks or money transfer operators like Western Union. Azimo hopes to disrupt this by offering transaction fees below 2%, compared to offline rivals that charge between 5% and 8%. While Azimo is already offering services into the Philippines and Thailand, this investment will help the company extend that to more locations.

UK IS THE CAPITAL OF REMITTANCES
Azimo is similar to TransferWise and WorldRemit, but **focusses on an often overlooked demographic: migrants with very low incomes¹⁹³**. Michael Kent and Marta Krupinska founded Azimo, a London-based fintech startup that provides a cheap and simple way for people to send money abroad via a website or app, at the time, remittance fees charged by banks and bricks-and-mortar services such as Western Union averaged at around ten per cent. By contrast, Azimo's transfer fees start at £1. «Our aim is to offer lower cost, better quality remittances. We want to streamline the process as much as possible, so you can send money on your phone and carry on with your life rather than having to go into a physical shop», explains Marta Krupinska, a Polish expat and the co-founder of Azimo. **Krupinska sees remittances as a powerful but under-appreciated flow of money from richer countries to poorer ones.** According to the World Bank, a total of \$432 billion in remittances were sent to developing countries in 2015, up from a total of \$582



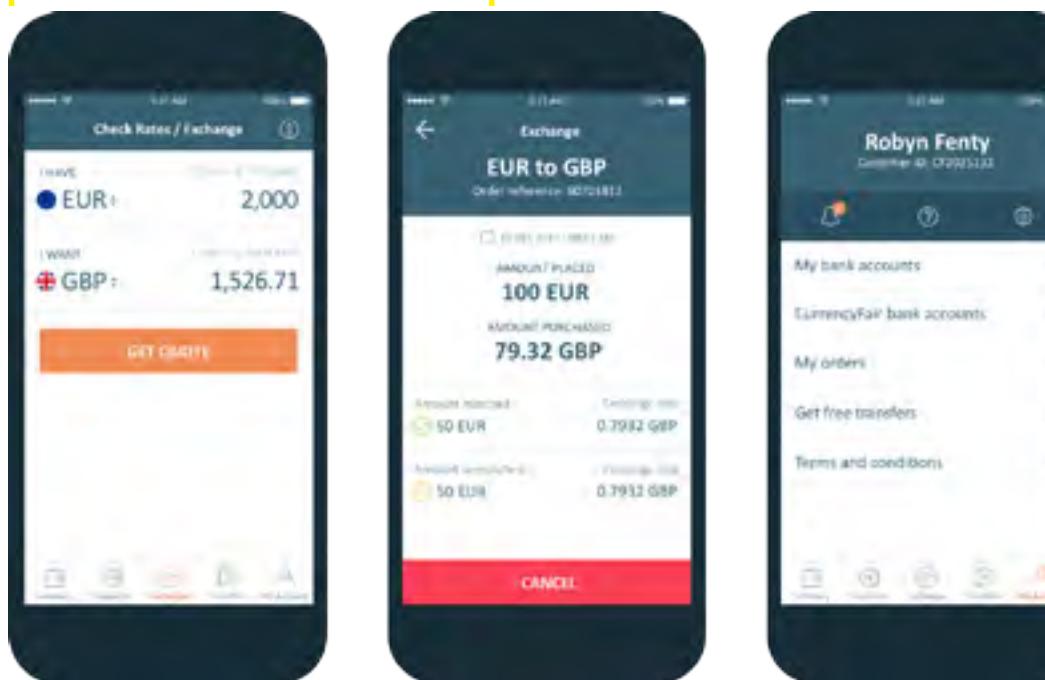
After months of rumours, **TransferWise**, the London-headquartered money transfer startup, has confirmed that it has raised a further round of funding. Described as 'top-up funding', the **\$26 million** round¹⁹⁵ was led by investment management firm Baillie Gifford, with participation from existing investors. TechCrunch understands via two sources close to the company that this values TransferWise at **\$1.1 billion**. Regards today's funding round — it total raised by TransferWise to \$117 mil-

lion. The company, whose backers also include Andreessen Horowitz, Peter Thiel's Valar Ventures and Sir Richard Branson, now employs over 600 members of staff in offices in the U.K., Europe and the U.S. Before revealing that along with marketing, finance and tech teams, the startup employs roughly 100 product people. TransferWise is compliant in the U.S. and that the company is closer to having its own banking license stateside. Interestingly, a money transfer license is required for each of the 50 states in America. Before this round Transferwise, launched in 2011, raised \$91M in funding from investors such as Andreessen Horowitz, Sir Richard Branson, Peter Thiel and Max Levchin, the co-founders of PayPal, — now accounts for 2% of all U.K.-based global remittances, transferring \$760 million every month. The startup, apparently valued at \$1 billion (£680 million) last year, had revenue of less than £6.5 million (\$9.5 million) in the year to March 31 2015. TransferWise had over £45 million (\$66 million) of cash on its balance sheet in the year covered. «We're focused on investing in the business and bringing the service to as many people as we can. In 2015, in the UK we reached 5% market share». «We went from being a UK and European company to a global one, launching in the US and Australia».

A year after raising \$100 million, London-based startup WorldRemit has picked up more funding. To compete against the likes of Western Union in the world of money transfers — and tap a remittance market that the World Bank estimates will be worth \$610 billion in 2016 — the company has added another \$45 million to its coffers. This latest round, a debt round from TriplePoint Venture Growth BDC Corp. and Silicon Valley Bank, will be used to expand its business both in developing markets and wealthier, mature regions like the U.S. We understand from very reliable sources that the valuation is at the same level it was a year ago — \$500 million. The company — which has picked up \$192.7 million in funding to

date from other investors that include Accel and TCV — still has money in the bank from the last round. WorldRemit made \$39 million in revenues in 2015. In dollar terms, that represented growth of 56% versus 2014, short of the bullish projections it made in 2015 after pulling \$24 million in revenue in 2014 (it made \$9.3 million in 2013, growing 168% in 2014). But WorldRemit notes that it's a Sterling company, based in the UK, so 2014 turnover was £15.2m in 2014 and £27m in 2015. In that currency, WorldRemit actually grew 80% last year, as the pound has just weakened against the dollar. WorldRemit currently averages around 400,000 transfers each month, and it claims that its mobile money market share is the largest of any money transfer service today. Today average per transaction is around £90, but historically it was £150.

so-called p2p model, the idea is that by matching customers in different countries with inverse currency exchange needs, money doesn't unnecessarily leave each country and any subsequent savings can be passed on to customers, providing a better exchange rate than banks typically do. However, where there is a mismatch between the amount of money customers in one country/currency want to exchange with another, these startups have to fall back on the open FX market where margins are tighter, leading some to suggest that the p2p model isn't quite all it's cracked up to be. It actually operates a hybrid model: If you want to transfer money immediately and with a guaranteed rate, the startup will step in and buy exchange on the open market on your behalf, taking a pretty competitive cut along the way.



CurrencyFair, one of a number of so-called peer-to-peer currency exchanges, has scored a further **€8 million** in funding. The round was led by Octopus Ventures, with participation from Proxy Ventures. It brings total raised by the 2010-founded company to around **€20 million** — a figure that is dwarfed by noisy rival TransferWise, which closed \$58 million in Series C funding last year alone. In case you're not familiar with the

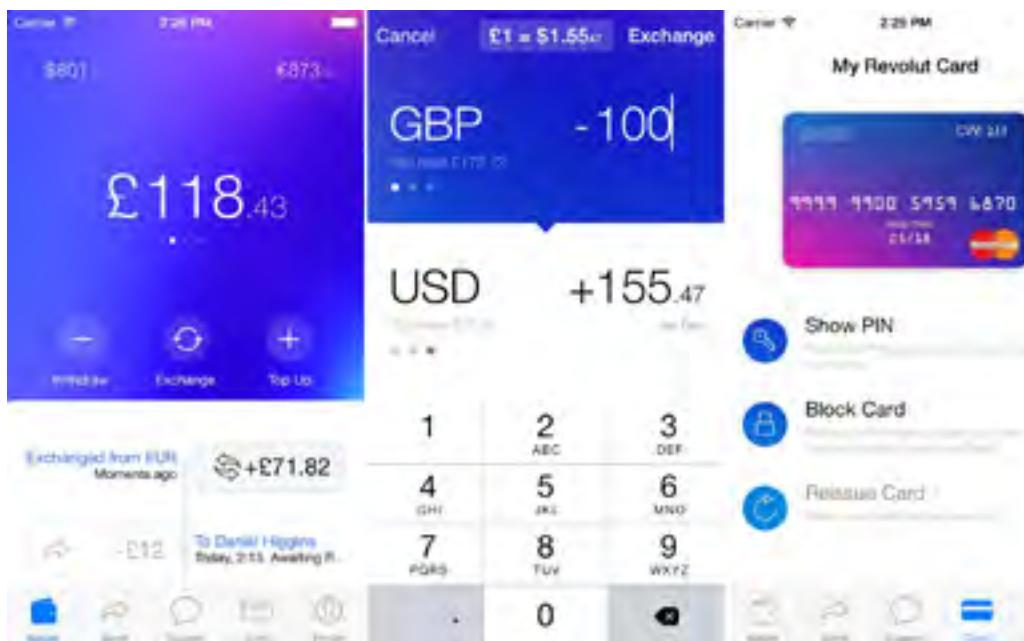
Built on the MasterCard network, the **Curve** card costs £35 (\$50) up front, and can be ordered online or directly through the Curve mobile app. Once you've installed the app, you can manually add or scan an unlimited number of credit cards or debt cards through the Curve app, which in turns syncs them with the Curve card. Curve acts just like a standard bank card because, well, it really is just a standard bank card — it works with chip-and-

pin, magstripe, and contactless technologies. The company raised a \$2 million seed round back in December 2015 from a number of notable angel investors, including TransferWise cofounder Taavet Hinrikus. Curve is soft-launching in the U.K. only for now, for a limited number of users in the business and freelancer realm, before it opens up more widely to consumers in the coming months. Curve will be most useful for those who have lots of bank cards and credit cards. You can essentially leave all your cards at home (apart from the Curve, of course), and if you wish to make a payment through your American Express, for example, you open the Curve mobile app and change the default payment card — this means you can pay with AmEx in places that don't accept AmEx and still collect the usual reward points. On the surface, Curve seems much like the myriad of smart credit card devices to hit the market in recent times, including Stratos and Coin, but they are very different contraptions. Curve isn't a Bluetooth device that connects to your phone — it's a bona fide bank card that slips in your wallet and can be used anywhere MasterCard can be used. No battery or Bluetooth needed, and it's completely phone-independent until you need to change the default card associated with your Curve. Future plans to monetize may also involve cross-selling other related fintech services.

British startup **Revolut just closed its seed round**. After announcing having **raised \$2.3 million** this Summer, the company has added a couple of new investors. In total, the company has raised \$4.8 million (£3.2 million) from Index Ventures, Balderton Capital, Seedcamp and Point Nine, Venrex and business angels. Revolut provides an app to seamlessly exchange or send money in multiple currencies. It also provides a debit card to pay around the world or online. Creating a Revolut account is basically like creating an electronic wallet in three different currencies — USD, EUR and GBP. You can top up your account in

any of these currencies using your credit or debit card, or a bank transfer. After that, you can convert or send money in these currencies using the mobile app without any fee. And it seems to be working as the company now has 100,000 customers who have transferred the equivalent of \$200 million. The company works with Paysafe to accept payments and issue MasterCards.

account. Second, Cookies isn't an e-wallet. You connect your Cookies account with your bank account so that Cookies can withdraw and credit money directly without relying on your credit card. And an API approach makes a lot of sense in the payment space. The service is launching soon and is going to work with all German bank accounts.



OTHER EUROPEAN STARTUPS

Cookies wants to become the Venmo of Europe¹⁹⁶ with a consumer app to pay back your friends in no time and with no fees. The company promises a speedy onboarding experience and a great design. And the company is showing a bit more about the app. It's a messaging-meet-payment app with a lot of emojis. You can send or request money, chat directly inside the app and confirm payments with the Touch ID sensor or a PIN code. It's not groundbreaking if you've been using apps like Lydia in France, but it looks like a polished experience. The two founders, Garry Krugljakow and Lamine Cheloufi, met when they were working for Number26, a German fintech startup that has managed to convince more than 100,000 people to open a new bank

Lydia is a French payment app, a sort of Venmo for Europe like stealth startup Cookies¹⁹⁷. It lets you instantly send and receive money with your friends without paying any fee. The result of the **Slack integration** is a Slack bot. Once you install the bot for your Slack, it will monitor at-mentions and figure out if you're trying to send money.

For instance, you could say «I hope you enjoyed the burgers. @jordan @matt you owe me €10 each. cc @lydia». Then, Jordan and Matt receive a notification on their phones asking them to confirm the payment. They can review and accept and you get back your €20. Non-Lydia users receive a link to pay using their credit cards. They just have to open a web page and enter their credit card information. If you are

collecting payments and don't have a Lydia account, you can enter your IBAN to get the money on your bank account directly. For small companies based in France, this could be a great way to pay for your lunch or even pay back expenses. Instead of having to fiddle with your bank account's web interface, you can mention Lydia on Slack and send payments in no time. In France, wire transfers using someone's IBAN are free. That's why most people still use wire transfers when they need to pay someone back. With Lydia, you can now send money to anyone. If they have a Lydia account, the money will automatically appear in their Lydia account. If they don't, they'll receive a text message with a link. When you follow this link, you can enter your IBAN and receive a wire transfer from Lydia. The company is leading when it comes to smartphone payments in France with 1,000 signups per day, but it has yet to become mainstream. You can pay back your friends, pay for your school parties, pay in some shops, pay online, organize money pots for a birthday and more.

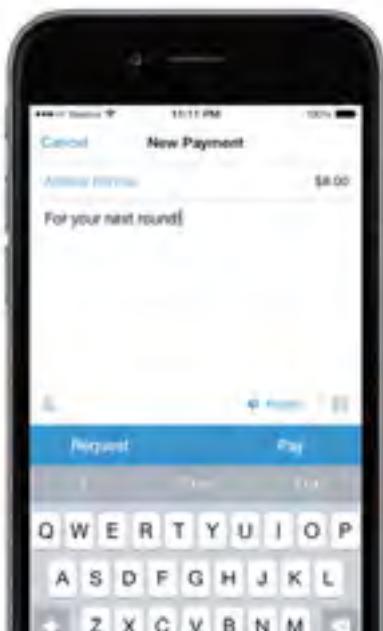
that merchants like food delivery service Munchery and event tickets seller Gametime will soon be able to accept payments using Venmo.

This is not how you run a platform. Developers remember. Pull the rug out from under them once, and they'll be reluctant to stand with you in the future. So despite having a record-setting January with \$1 billion transferred in its peer-to-peer payments app, Venmo just shot itself in the foot. After six years of providing an API for developers to build experiences atop its money transfer system, this month Venmo suddenly changed its dev site to read «The Venmo API is no longer available. We're sorry for the inconvenience, please reach out to our Support team if you have questions».

PayPal said **Venmo processed \$2.5 billion in total payment volume** during the company's most recent quarter (and \$2.1 billion in the third quarter), up 174% year-over-year. Venmo, the peer-to-peer payment service operated by PayPal, has now

working with ticket ordering platform Gametime and food delivery service Munchery, but Venmo hopes to add new users, partners and features soon. The feature represents the first major attempt to monetize Venmo.

Make and share payments instantly



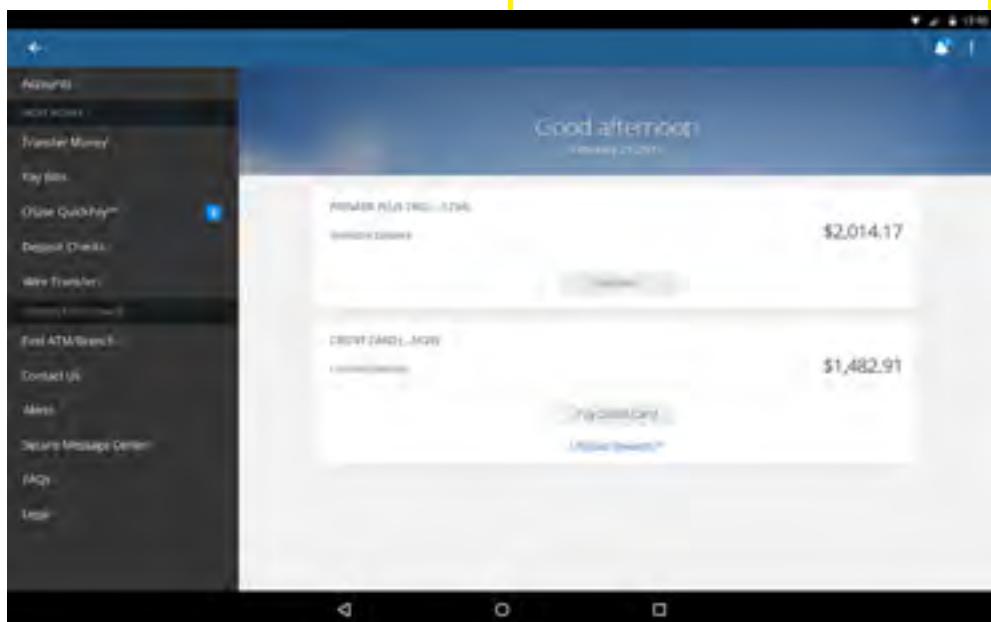
Exploding further in popularity in the past year, the name itself has become a verb—among those under age 30 or so, «**Venmo me**» is a common request¹⁹⁸. Along with other money-sending services like Chase QuickPay and Square Cash, the app has become a welcome solution for common dilemmas like splitting utilities with roommates, dividing cab fares with friends, and sharing the costs of a group brunch. However, some young people are finding that the app's convenience—and the faceless nature of requests—have emboldened the tight-fisted among us to nickel and dime close friends without confrontation. Kristen Chiucarello, a 28-year-old nanny in New York, says she has actively refused to download Venmo, despite pressure from her friends, in order to avoid such uncomfortable situations. «I prefer to stick to cash transactions and transactions in person», she said. «If I buy somebody's beer I just hope the next time that person will

US

Payments giant PayPal saw record usage of its fast growing digital payment app, Venmo, in January. PayPal announced that **consumers used Venmo to transfer \$1 billion in January 2016**, which is two and a half times the volume from January 2015. In February, PayPal revealed

become a payment platform after it opened up to third-party apps and services. Venmo users can pay inside other apps using the service, much like they might shop and pay using a PayPal button on a website. The functionality is starting out slowly though. It will initially roll out to a handful of iOS users and is limited to

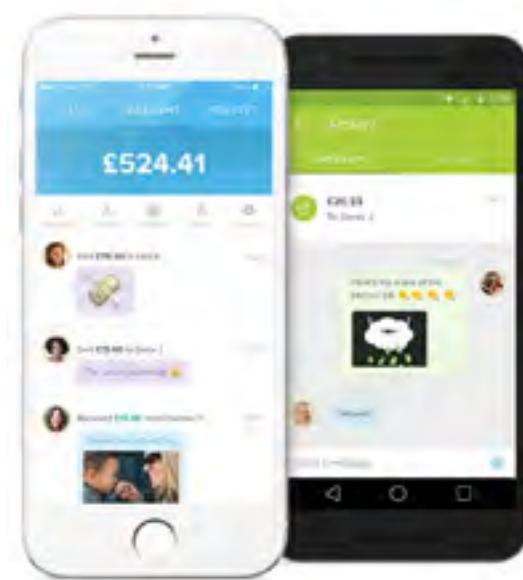
buy my beer—I don't want to invoice my friends for every experience that we share». Now, however, such transactions may be followed with a passive-aggressive charge the next day or even late the following week, sometimes over dollars and cents of differences in price. A friend recently requested \$4 for the difference between a drink she bought me and a cheaper drink I bought her in return. Another friend charged me \$10 for a cab when I had previously bought her a \$12 drink, so I felt prompted to charge her back. One Venmo user told me that a co-worker had invited her to coffee, only to request \$3.79 in reimbursement afterward. Similar stories abound.



JPMorgan Chase has joined U.S. rivals including Bank of America and U.S. Bancorp in letting customers transfer money between the lenders in real time, challenging ventures including PayPal's Venmo. JPMorgan, whose **Chase QuickPay product handled \$20 billion in peer-to-peer transfers last year¹⁹⁹**, began offering the service after customers requested it, said Barry Sommers, chief executive officer of the firm's consumer bank. The PayPal's three digital wallets — PayPal, Venmo and Xoom — handled \$41 billion of peer-to-peer transfers last year. «We welcome any developments that help people move away from the awkwardness of cash», PayPal said.

Remitly — a Seattle-based remittance service co-founded and led by a former top executive from Barclays — has picked up **\$38.5 million in a Series C round** of funding²⁰⁰. Led by new investor Stripes Group, the round also had participation from Vulcan Capital (Paul Allen's investment group) as well as existing backers DFJ, DN Capital, Bezos Expeditions (Jeff Bezos' investment firm), Trilogy Equity Partners, and others. The funding brings the total raised to date by Remitly to \$61 million. Matt Oppenheimer, Remitly's co-founder and CEO, says his company is not disclosing its valuation, but we are trying to find out. but according to filings dug up by VCExperts.com, this

billion abroad to families each year. It's also made moves like acquiring a company — **Talio — to improve messaging communications** from within their app (tapping into the fact that services like Facebook's Messenger are becoming key platforms for people talking and subsequently sending money to each other).



How do you compete with China's homegrown social payments giants? Veteran entrepreneur Jeremy Allaire, co-founder of U.S.-based **social payments app Circle²⁰¹**, reckons you don't; not like for like in the domestic Chinese market. Despite that, Circle is now stepping into China — revealing it's set up a separate company, called Circle China, with the aim of serving Chinese consumers. Also it announced a **\$60 million Series D**, including from a syndicate of Chinese strategic investors, to fuel growth of its global business as a whole. The round is led by existing investor and Beijing based VC IDG Capital Partners, along with Breyer Capital, General Catalyst Partners and what it dubs «a powerful syndicate of major strategic partners» in China, including Baidu, CICC Alpha, China Everbright, Wanxiang and CreditEase. Also investing in a personal capacity: Sam Palmisano, former chairman and CEO of IBM, and Glenn Hutchins, co-founder of SilverLake and also a private equity investor. Circle China has been funded by a separate seed round, of

latest investment was made at a valuation just under \$170 million. While companies like TransferWise have developed platforms that work on the idea of catching as many money transfer opportunities as possible, Remitly has taken a different approach, building its business to target the very biggest corridors first — India, Mexico and the Philippines — which Oppenheimer says account for three of the top-five countries for receiving money transfers (the other two are China and Vietnam). Remitly's existing business has now passed **\$1 billion transferred annually**, and today, to coincide with the funding, Remitly is expanding its sending options to include Canada, where immigrants and others send \$23

a few million dollars raised some six months ago, albeit with that funding also coming from many of the same investors backing Circle's global business. «There is an opportunity to connect Chinese consumers to the rest of the world and to connect to consumers around the world and to bridge the RMB with the dollar, the Euro, pound sterling», says Allaire. «As we went in and spent a lot of time in China it became clear that that was a unique opportunity». He asserts that Circle's intention has always been to establish a global business, albeit the startup wet its feet in **the Bitcoin wallet** space before morphing into what it is now: a p2p payment entity that lets users pay friends via a text message (complete with emoji if they wish) — having taken liberal inspiration from the existing success of just such services in China. (Circle doesn't really talk about Bitcoin these days, but rather points to underlying blockchain tech as the enabler for its vision of a future of open and interoperable global digital payments.) «We don't have any illusion about competing with the large existing players in China», Allaire tells TechCrunch. «Alipay, WeChat Pay, as broader platforms have huge penetration». «What we really found was that one of the most challenging things for Chinese consumers is how can they use their RMB around the world, over the Internet? And it's hard».

MIDDLE EAST

TravelersBox, a Kadima, Israel-based provider of a solution allowing travelers to convert leftover foreign currency into usable digital currency, raised **\$10m in Series A** funding. The round was led by Arbor Ventures. TravelersBox provides kiosks in airports throughout the world enabling travelers to convert their leftover foreign bills and coins into usable digital currency by depositing the funds directly into their PayPal account, purchasing gift cards for iTunes, Starbucks, Skype, Gap, and other retailers, or by making charitable donations.

customers it has, but co-founder and CEO Prajit Nanu said it has already captured two percent of the country's payments corridor **to India** in just over one year of operations. He added that the average transaction size is \$1,800 — multiples higher than typical remittance companies — while InstaRem sees 60 percent repeat trade, and 80 percent of new customer accounts make a transfer within the first five days of registering. It works with mid-size banks which already trade in overseas currencies. It's the financial equivalent of putting a few boxes on a UPS freighter that's about to head out,

YOUR TRANSFER RECEIPT

BANK TRANSFER IN818202	
	Received from InstaRem
	ANU BANK RECEIVED XXXXXXXXXXXXXX1111
	INR 4,591.68 in Indian Rupees
You are receiving InstaRem Bank Bank Transfer IN818202	
AUSTRALIA ➡ INDIA	

PRINT

ASIA-PACIFIC

InstaRem, an international remittance payments startup headquartered in Singapore, has raised **\$5 million** in a round led by Vertex Ventures. The Series A investment included participation from Fullerton Financial Holdings, an investment fund that, like Vertex, is a subsidiary of Singapore's sovereign wealth fund Temasek, and existing investor and Global Founders Capital. The company is focused on serving Asia, and it claims to charge lower fees than banks and traditional remittance service like Moneygram or Western Union — InstaRem's rate is typically less than one percent — while transactions are completed within one day, if not same-day. The service started out serving **Australia**. InstaRem isn't saying how many

and thus paying just a slither of the costs you'd incur if you had to find a boat and ship it yourself. The company holds financial licenses in **Australia, Hong Kong and Canada**, and it said it is in the process of applying in **Singapore, Malaysia, Japan, Luxembourg** (which opens up banks across Europe) and a number of U.S. states. That said, according to Nanu «the focus will largely be on [serving customers in] Asia». InstaRem also works with SMEs, which make up around 20 percent of its customer base. «Some of our SME customers I thought used us for price, but one told us recently that a primary reason is because they can sit on invoice longer than with a bank», he recalled. InstaRem currently has 20 staff and is anchored in Singapore with offices in Sydney, Singapore,



Mumbai and New Jersey. Nanu is targeting volumes of **\$100 million per month** before the end of the year, as the company and its service ramps up to include more markets, which he said will include «more remote places» like **Nepal and Bhutan** as well as more obvious markets.



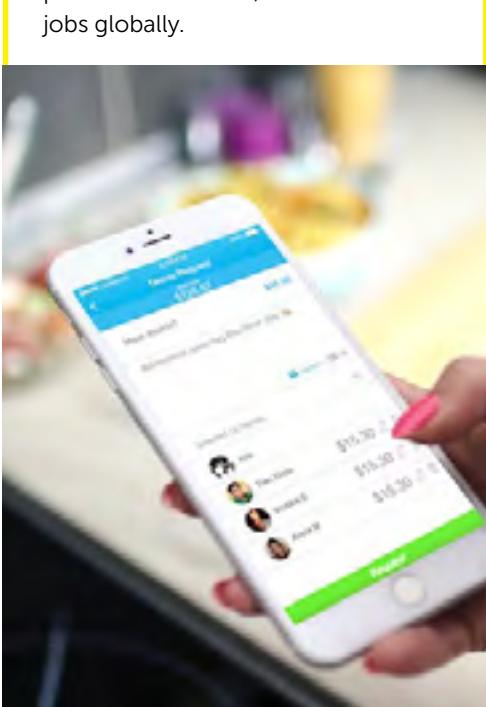
Last year **remittances to Vietnam topped US\$12.24 billion**²⁰², up from US\$6.18 billion in 2007 (the year Vietnam joined the World Trade Organisation), according to the World Bank. These incoming funds, about half of which came from the US, contributed to 6.4 per cent of Vietnam's GDP and solidified the country's status as the 11th biggest remittance recipient worldwide.

WorldRemit, headquartered in London, launched its services in Vietnam, allowing anyone to use the WorldRemit app to send money directly to a Vietnamese bank account.

Filipino maid Nilda Sesaldo bought SMS codes through online portal **BeamAndGo**, which her teenage daughter used to redeem vouchers for groceries at the supermarket and a new phone at a local shop. While the uptake was slow initially, the 1 y.o. portal now has about 1,400 users here, with some \$10,000 transacted a month. Filipinos working in Singapore remitted US\$1.25 billion. Another platform trying to improve foreign maids' financial situation is

employment portal HelperChoice. The site, which started in 2012 in Hong Kong. There are now close to 3,000 maids in Singapore on its LinkedIn-style platform, and 1,100 employers, 250 of whom are Singaporeans. The service is free for helpers, while potential employ-

ers pay a monthly fee. If they find a match, they can talk directly through the site's messaging system and make further arrangements. It has placed more than 5,000 workers in jobs globally.



Kashmi, a Singapore- and Sri Lanka-based startup that facilitates peer-to-peer payments, announced today that it has locked in funding

of S\$700,000 (US\$497,000). Kashmi allows users to sign up using just their name, phone number and email address. This enables them to send or receive money to and from anyone, regardless of the users' bank affiliations. Users top up their Kashmi accounts using their credit cards, debit cards or by wire transfer.

Xfers, a startup that wants to simplify bank transfers, announced today that it has raised a \$2.5 million seed round. Based in Singapore, Xfers plans to use the funding to expand into Indonesia during the first quarter. After Indonesia, Xfers is eyeing expansion into Malaysia, Hong Kong, and Thailand. The Y Combinator alum will also continue building its technology platform, which can be integrated with many banking networks and payment gateways. Investors include Facebook co-founder Eduardo Saverin, Golden Gate Ventures, 500 Startups, etc. Xfers streamlines online bank transfers by giving sellers a one-click payment link that automatically gives buyers bank account information and tracks payments as they process. Since the API first became available in October 2014, it has processed SGD \$5.5 million (about \$3.8 million).

Keeping stock of your money can be a hassle while travelling overseas. Being in a foreign land, it's difficult to find out which money changers or banks offer the best exchange rates. It's very likely that most travellers will simply go to the most convenient outlet, which may not give the best bang for their buck. Malaysia-based fintech startup Intuitive Asset believes that it can tackle this pain point with its mobile app **CurrenSeek**. Malaysia and covers 10 major currencies. It has partnered with 27 bank branches and 88 money changers. It received a grant of RM150,000 (US\$34,000) from Malaysian government-backed investment fund Cradle Fund. It was also recently listed on CrowdPlus.Asia, a Hong Kong-based equity crowdfunding platform (look below). To date, it has raised RM14,244 (US\$3230) of its RM300,000 (US\$68,000) goal. ●

CHAPTER #20



GROWTH OF
MESSANGERS AS
THE FUTURE OF
SOCIAL-BASED
REMITTANCES

WHATSAPP AND FACEBOOK MESSENGER

WhatsApp and Facebook announced their one-billion-user milestone this afternoon in a blog post. If you leave out apps that Google and its partners bundle with Android phones, this milestone likely makes WhatsApp the second-most popular app on Earth after the primary Facebook app. (Google announced that Gmail now has more than 1 billion monthly active users.)

bought FreeCharge in August 2015 in what is believed to be the most expensive startup deal in India's history. FreeCharge then partnered with Fino, which was one of the 11 companies to receive a license to act like a bank and hold money. Since then, FreeCharge has moved fast, and can be used for everything from buying bus tickets to paying for utilities. On the other end is WhatsApp, which announced 800 million active users across the globe in April, and

hopes for, look at Asian messaging platforms. Marcus must begin by winning over the developers. There are so many platforms where they can put their coding skills to work, and so many opportunities for them to build cool things. As they amass in clusters to compare notes on what they hear at F8, he must convince them of the thing he has believed from the start: Chat is the future of the Internet. Messenger is the future of chat.



FreeCharge users in India can now use WhatsApp to transfer money²⁰². If two WhatsApp users have approved a certain setting within the FreeCharge app, they can now transfer money to each other while chatting by typing «FC» after the amount of money. «200FC», for example, will transfer INR200. The feature is activated by tweaking certain privacy settings so FreeCharge can read what's written in a WhatsApp message. While it's something that any developer can include in their Android app, its adoption by a payment enabler the size of Freecharge is what makes it exciting. WhatsApp is the most used messaging app in the country, but most of its Indian users depend on cash so it's never had a distinct way to make money. On the other hand, FreeCharge's goal is to get Indians off cash and using digital payments. Snapdeal, which is a part of the trifecta competing for India's ecommerce customers (the other two are Flipkart and Amazon)

consistently claims that India is its largest market.

Most country-specific stats are speculations, but estimates say that over 50 percent of Indians connected to the internet use WhatsApp every day. Together, the two make quite the power couple.

Facebook believes Messenger will anchor a post-app Internet²⁰⁴. David Marcus tries to explain his ambitious idea for the future. «Everybody wanted websites when the web was launched. And then everybody wanted apps», he says, describing the launch of the iPhone. «This is the start of a new era». Messenger has more than tripled its monthly active users to 900 million, and, says Marcus, they're spending more time on it than ever. What's more, messaging platforms are becoming mini-webs—all-in-one spots for us to do way more than talk to our friends. For a glimpse of the future Marcus

Facebook sends a loud message about Messenger bots, but will we hear it?²⁰⁵ Bots, for those of you who might be unfamiliar with them, are pre-programmed interactions you can have with a business or media inside Messenger, a kind of conversation with a machine. They have the capacity for some intelligence and over time they can learn, based on your interactions, to get better at anticipating your needs (at least in theory). The thing is, if we started using Messenger for everything, how will we get the messages from our friends and family we actually want to see (presumably)? And then there's the whole business of ads or what Facebook calls «sponsored messages», which will mean you have even more extraneous stuff to wade through just to get those meaningful conversations.



TELEGRAM

Reports in the Russian press that **Google tried to acquire the Telegram messaging app last year for \$1 billion have been firmly rebutted by Telegram founder Pavel Durov**²⁰⁶. He said: «I haven't had any

acquisition talks or meetings with Google. I am acquainted to Google people and Sundar of course, but acquisition, 1 billion — all of that is false». Google declined to comment on the Telegram acquisition rumors, with a spokeswoman saying only that: «Google does not comment on rumor and speculation».



Telegram has announced a \$1M giveaway to developers to try to incentivize them to build cool stuff²⁰⁷.

The messaging startup launched its own bot platform back in June last year, long before Facebook started its photocopies in case you're keeping count. The Telegram bot prize will not go to one mega-useful bot but will rather be distributed as a series of grants, starting at \$25,000, to the bot devs whose wares impress. And Telegram's criteria for building great bots? Basically, be fast and be useful.

Telegram's CEO Pavel Durov reports that **100 million people use** the free encrypted messaging app every month, up from 60 million people last May. That growth is coming from all over the world. While that's a small number compared with the billion people who pull up WhatsApp every month, or the 800 million people who go on Facebook Messenger, it's illustrative of the early growth that signaled each of these services had mainstream appeal. «Every day,

350,000 new users sign up for Telegram», Durov said. «And we have zero marketing budget». In other words, Telegram is not going away.

SNAPCHAT

Snapchat raised \$1.8B in a Series F round. In its most recent Series F of \$1.8 billion, \$1.158 billion of that has

revenues in 2015 were \$59 million (recall that there was no real monetization effort in the first part of the year, and only the beginnings of it in the latter part of the year). It also notes that the company has estimated that revenues will be between \$250 million and \$350 million for 2016, and between \$500 million and as much as \$1 billion for 2017.



been raised in the last five months, since January. Investors in this round include General Atlantic, Sequoia Capital, T. Rowe Price, Lone Pine, Glade Brook Capital, IVP, Coatue Management and Fidelity, among others. Sources have told TechCrunch²⁰⁸ that some investments were being taken at about a \$16 billion pre-money valuation. When you add in the \$1.8 billion, it gets closer to the targeted post-money **valuation of around \$18 billion**. If you recall, last year it was reported that Snapchat was in the process of raising \$650 million at a \$16 billion valuation, with regulatory filings showing some \$537 million of that raised already. It turned out that Snapchat did raise the rest of that \$650 million, which became the first part of its Series F. A report in the WSJ from March of this year noted that a \$175 million raise from Fidelity (which is part of this round) was also at that same valuation of \$16 billion. The deck, which dates to the end of 2015, notes that Snapchat's

How to Use Snapchat? We're guessing you don't use Snapchat²⁰⁹. Sure, you've probably downloaded it; maybe you've sent one or two crappy stills to your friends. You think you did everything right, but who knows, because you couldn't really figure out what Snapchat is supposed to be used for. You shrugged and thought: «Well, it's for those damn Millennials and turned it into a punchline for self-deprecating stories about the limits of your technological savvy». Well, here's the thing: You can use Snapchat—and you're going to love it. In fact, your timing couldn't be better. The company recently announced a slew of new features as part of what it's calling **«Chat 2.0»**. The update includes voice chat, video and audio notes, stickers, and a number of changes to the UI. While Snapchat was seen largely as an ephemeral platform for pre-teen communication and raunchy pictures that disappear in seconds, the changes move the company into a much broader competitive space

that includes everything from Kik and WhatsApp to Skype and Facetime.



Now **Snapchat** lets private conversations morph between mediums depending on what users want to show or tell, and whether they can speak up or must stay silent²¹⁰. As WhatsApp focuses on simplicity and Facebook Messenger chases commerce, Snapchat is positioning itself as the most vivid, human way to chat. Snapchat is basically upgrading everything: a special Discover channel video, Snapchat Stories, over 200 Stickers are now available in private chat, Video Notes in Chat let you record and send a quick 10-second max thumbnail-sized GIF-like loop, Audio Notes work similarly, Video and Audio Calls can now be initiated even if the recipient isn't already chatting with you (turning Snapchat into more of a phone). Chat 2.0 lets both conversation partners toggle on the fly between Video and Audio Calls, Video and Audio notes, stickers, and text as their environment or intentions change, so users can start or stop transmitting and just listen or watch. Snapchat has figured out how to pull every way humans communicate into a single interface — video, audio, text, symbols and, drawing. Instead of having to choose how you want to connect before you start, conversations can evolve on the fly. Now, Snapchat serves as a phone.

Snapchat is the closest thing to a direct window from your friends' lives



grantmain
Score: 6

Added Me

Add Friends

into yours. What started as an app for horny high school kids has blossomed into the most vibrant communication platform on the market.

among people who have either not yet downloaded or downloaded and just haven't returned. There is a lot of content that people are creating publicly but have no way to discover. Live Events are a great start. Help people build audiences with hashtags. Snapchat understandably has been focused on growth and engagement, though there was news recently about Snapchat building an advertising API and seeking more ability to provide targeted advertising.

Snapchat announced a new feature called Birthday Party, which is essentially a duet of lenses — one of which can only be used on your birthday, and one that can only be used if snapping friends on their birthday. Snapchat will also put a cake emoji next to the name of friends who are celebrating their special day, essentially serving as a reminder to send them a happy birthday snap. Lastly the company will be updating the time filter, allowing users to tap it so



Snapchat could be used by over 1 billion daily active users in time and substantially accelerate how many videos and photos people share and consume. But there's more to be done and questions to be answered. While Snapchat's core users understand the product, there is a persistent misunderstanding

it displays the day's date instead of current time.

Snapchat is developing a service that would let users invest their money through the messaging app and have it managed by algorithms²¹¹. With the new offering, Snapchat would be entering the increasingly crowded

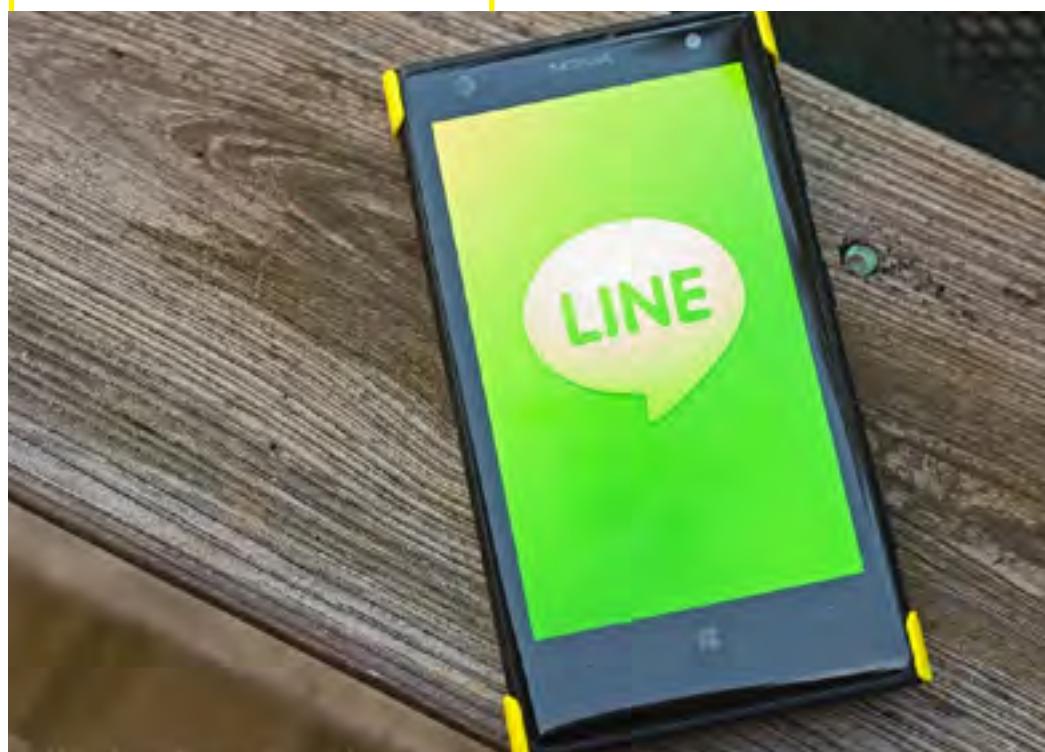
field of «robo-advising», an industry with major players like Charles Schwab and Vanguard, as well as sizable startups such as Wealthfront and Betterment (Betterment's assets under management have swelled by 172% over the last 12 months and the firm now manages over US\$3bn across 130,000 customers. **Wealthfront** manages over US\$2.5bn, a 150% rise since mid-2014. The numbers are a drop in the ocean compared to industry leaders like Vanguard, which manages over US\$3trn.). Payments application Venmo is understood to be creating functionality similar to online and mobile application **Acorns**. The opportunity to deliver financial services for social media platforms is amazing and potentially disruptive — social media platforms have a perceived advantage over financial advisory firms as they already maintain massive user bases. Snapchat says it has 100 million monthly users, but its monetization strategy remains a work in progress. The project comes at a pivotal time for Snapchat. The firm has been rattled by concerns surrounding its ability to create a sustainable revenue model. This isn't Snapchat's first foray into financial services. In Nov. 2014, it started a money-transfer service with Square that lets users send money to each other within the app. Young people would rather bank or invest through a technology company than through the big banks and Wall Street firms that serve their parents. We've already seen Facebook, Apple and Google all enter the payments space, with a focus on younger consumers. Investing represents the next logical step in this progression.

Snapchat is funding a site called «Real Life»²¹², headed by «social media theorist» and Snapchat researcher Nathan Jurgenson, will be posting one article a day on various topics, but not app reviews or hot takes on the latest web drama. «Popular discourse on technology has sustained the idea that there is a digital space apart from the social world rather than intrinsic to it», Jurgenson writes in an introductory

post explaining the mission, structure and conflicts of interest the endeavor comprises. «I've argued that 'online' and 'offline,' like 'body' and 'mind,' aren't like two positions on a light switch — a perspective I've called digital dualism. Instead, all social life is made of both information and material; it's technological and human, virtual and real». As Jurgenson notes in the intro post, Snapchat is bankrolling the whole thing, just as it funds a conference he chairs and at least some of his research.

huge fundraise to take on growth in new markets.

Japanese mobile messaging app Line is banking more than **\$20 million per month selling sticker packs**²¹⁴, which typically trade for \$1-2 for sets of 12-18, according to data from the company. It's not an overstatement to say that Line has single-handedly pioneered stickers, which are now a fairly staple part of most social apps. But, beyond being cute, they generated the company



LINE

Two years after the first reports of an IPO emerged, Japan's Line Corporation — the company behind the popular messaging app Line, and **possibly the first of the big messaging apps to go public**²¹³ — announced that it has filed to go public on the New York Stock Exchange in the U.S. and the Tokyo Stock Exchange in Japan, trading as LN. The company said in a news release that the NYSE listing is planned for July 14 with the Tokyo listing on July 15. It hopes to raise \$1 billion (113 billion yen) in the IPO. The offering values the company at ¥588 billion (\$5.5 billion). The company now has 218 million monthly active users globally, with 152 million in its top 4 countries in Asia. It will be aiming to use the

an altogether-not-too-shabby JPY 28,725 million (\$271 million) in revenue in 2015 — that's up 38 percent on the previous year. Line said that its users send an average of 389 million stickers — paid and free — each day, that's around nine percent of the total number of messages sent on the service daily. The company also disclosed that it made over JPY 2 billion (\$18.8 million) from sales of merchandising and licensing deals last year for its Line characters, the figures who star in its sticker packs and front its brand.

Messaging app **Line**, which has been struggling to grow for years, now has 218.4 million monthly active users (MAUs). That's up from 205 million 12 months before, and from 215

million at the end of 2015. Rival app WhatsApp reached 1 billion MAUs in February, while Facebook's other chat app, Messenger, crossed 800 million at the start of the year. Another problem is that Line is more and more dependent on its four disparate main markets — **Japan, Taiwan, Thailand, and Indonesia**²¹⁵. Those accounted for 69.4 percent of total MAUs in this latest figure for Q1 2016, up from 65 percent in Q3 2015 and 60 percent 12 months ago. Line CEO Takeshi Idezawa mentioned: «Line is focusing its marketing expenditures on these four countries and from among these, Indonesia showed the most notable user growth during the quarter. Line also continues to see user growth in the Middle East». At the Line Conference Tokyo 2016, top executives showed off stores within Line for businesses of all sizes, a mobile internet service, and a **prepaid bank card that ties to Line Pay** (which is a bit like Apple Pay). All of those are only for Japan. Line is also leading the way in terms of chat bots, and is now testing a way for companies to put bots into their Line brand accounts in order to do things like search, recommendations, and automated customer support. But it's too early for Line to see any growth effects from all the new products. Line mostly makes money from ads, purchases in the games that are tied to Line, and from users buying emoji. The company also pulls in some money from spin-off apps like Line News, Line Live, Line Pay, and Line Music. Line Corp pulled in US\$303 million in revenue in Q1 for all its Line-branded stuff. That's up 21 percent from the same period a year prior. The messaging app itself generated US\$275 million of the total for the first three months of the year, up 22 percent from 12 months ago.

Chat app Line runs into trouble in Thailand and Japan²¹⁶, two of its key markets. Firstly, in its home country, Line is under investigation from authorities for the way that it handles virtual currencies with its games. Reuters reported that Japanese regulators visited the company's offices to look into whether it

flouted rules for handling customer money. Over in Thailand, meanwhile, Line is under investigation for allowing stickers that mock the country's royal family to be available. Thailand's lese majeste law forbids insults of the monarchy, and is punishable with up to 15 years in prison. Thailand's junta government, which assumed control of the country via a military coup in 2014, has used the law in recent times to prosecute a man who defamed the king's dog and people who have made comments on Facebook, among other cases.



Line is the latest mobile messaging app to introduce bots²¹⁷. Line is initially capping things with just 10,000 'trial' bots open on a first come, first serve basis. Bots will be limited to 50 friends — or 50 accounts that they serve — which is further proof that this is a very much a test before a wider rollout. There's nothing much to speak of right now for end users, but with the tech now in the hands of developers, we could see the first Line bots roll out soon.

Messaging app **Line** said it will launch a prepaid card — called **Line Pay Card** — for shoppers. The Line Pay Card, made for Line's 68 million Japanese users, is launched in partnership with credit card company JCB. JCB's affiliation with American Express lets people use the card at 20 million merchant locations abroad

in addition to about 9.6 million spots in Japan. The prepaid card ties into the Line Pay app for online and in-store payments using a smartphone, at selected locations. Line Pay first launched at the end of 2014 as a standalone mobile app. The firm also rolled out a new rewards point system that's tied to Line Pay. Japan's average credit card holder has more than three cards, with 86.8 percent of the eligible population owning at least one card. While so many people in Japan have credit cards, they're not actually used all that often. Line may be hoping to fill that gap.

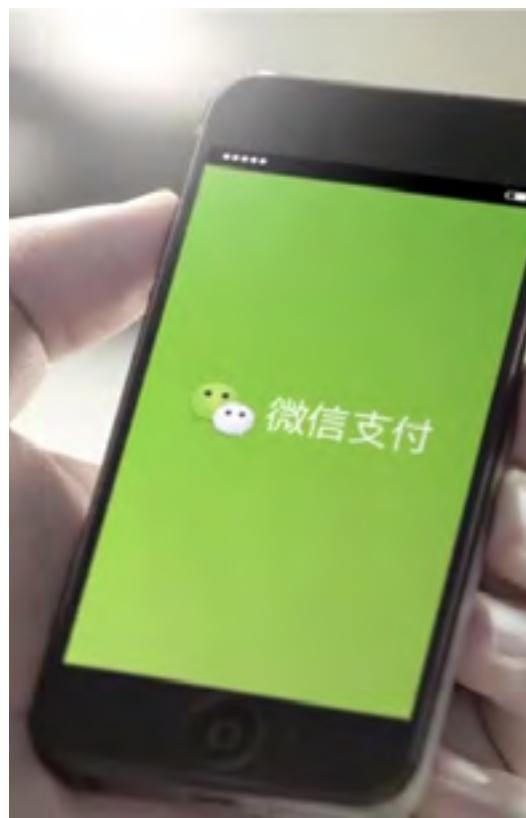
Also messaging app giant **Line** revealed that it's set to launch a mobile internet service using its **own SIM cards**. Called **Line Mobile**, it'll launch in Japan this summer. There'll be no charge for streaming from Line Music. The Line Mobile SIM will give users free access to the messaging app as well as to Facebook and Twitter. Line is partnering with NTT Docomo's cellular network for the new service. An array of plans are set to start at US\$4.40 a month excluding tax.

Line Corp CEO Takeshi Idezawa revealed that Line will become a more open service, focusing on «closing the distance» between businesses and customers. That means a massive new focus on **mobile shopping**. Until now, **Line's APIs** have only been open to a limited number of

large corporations who use the messaging app — which has 215 million monthly active users (MAUs) — to reach consumers. Beginning soon, Line wants to be a single entry point or «portal» for multiple services that huge brands as well as businesses of all sizes can build into their official Line accounts. Users in Japan can also complete payments to businesses through Line Pay. The service will be available to companies for a monthly fee of US\$177 for official Line accounts with up to 100,000 registered customers.

online and with participating offline retailers. Tencent previously disclosed that 200 million user cards were attached to the payment service as of November 2015, thanks to a genius campaign that taps into China's tradition of sending red envelopes during New Year, but now it said the figure is «safely **more than 300 million**». Tencent said that it banked over RMB300 million (**\$46 million**) from bank transfer fees from WeChatPay, almost all of which came from China. (The service did recently go live in **South**

ing them to retain funds in their account, which will presumably then be spent on or distributed to others via the service. Lau argued is that WeChatPay «will benefit our overall ecosystem», such as empowering future advertisements with one-click purchasing from users, and synergies with financial services like Tencent's wealth management fund and online bank.



WECHAT

Tencent, the company behind WeChat (known as Weixin in China), announced impressive end of year financials that included its highest quarterly revenue growth for three years. Among the other items disclosed, **WeChat is now up to 697 million active users** worldwide each month having added close to 200 million to that figure over the past year. Beyond text messaging, voice and video calling, the service includes a social network timeline, branded accounts, shopping, games and more. Payment is another area and over the past year, Tencent has put considerable focus into its China-based service, WeChat Pay, which can be used to transfer money between WeChat users (peer-to-peer) and make payments

Africa via its first international expansion, while Tencent is offering it globally to merchants who can use it to take payment from Chinese tourists.) Pony Ma, Tencent CEO, told that the company took 0.1 percent on transactions, which means the service saw close to \$50 billion in bank transfers that month. At that same pace, that would mean close to **\$550 billion in payments processed** per year — that's close to double the \$282 billion that PayPal processes a year. Tencent is also stoking the fire by dropping fees for peer-to-peer transactions, a move aimed at making WeChat the standard for moving money between friends. Another new policy charges users a fee when they transfer a certain amount from their WeChatPay wallet to their bank account, thus incentiviz-

Tencent's messaging-app-cum-everything-platform announced that support for **WeChat Pay has been added to Apple's official online stores** in China. That means that you can now use WeChat pay for all of your Apple gadget and accessory needs. WeChat Pay isn't the only epayment system Apple accepts, of course. Obviously Apple's buyers can also use Apple Pay, and the Chinese version of Apple's online store also accepts Alipay, Alibaba's epayment platform. Whereas Americans can pay only with PayPal or one of four major credit card providers, Chinese Apple fans can make online payments directly from ten major banks, pay with Visa, Mastercard, Alipay, or WeChat Pay, or even order items for cash-on-delivery. Also WeChat is planning to launch

a new messenger aimed at office workers — and Slack had better watch out. The program will be free, there will be both mobile and desktop versions, and it will include a number of business specific features. Like Slack, WeChat Enterprise banks on employees using the service pretty much all day long — it's not a replacement for email, it's a replacement for constant workroom chatter. As a result, the service has features like «coffee break» mode to indicate that you're away from your desk for a moment — because the presumption is, you're going to be logged on to the service from clock-in to clock-out (and possibly later). The service also promises to expedite office-related tasks that can easily be settled by sending an automated form between workers, like requesting leave or reimbursements.

Pay have taken to the field in China. But **WeChat Pay** is heading in the opposite direction: the service **announced that it's launching support for overseas vendors**. The system will allow Chinese users to put money into their WeChat Pay accounts in RMB (as they currently do). But now WeChat Pay can support paying vendors in nine different foreign currencies (USD, GBP, HKD, JPY, CAD, EUR, AUR, NZD, and KRW). That way, everyone involved with the transaction — the Chinese tourist and the foreign vendor — gets to use a currency that they're comfortable with.

According to **WeChat**, owned by digital media business Tencent, 420 million people sent each other lucky money via the app's payment service on the eve of Chinese New Year. Ac-

January 2016, 12 percent of India's 136 million active social media users were using WhatsApp. Facebook messenger captured 11 percent of the market, while WeChat only took up six percent. Still, naysayers have come up with plenty of reasons why WhatsApp won't be able to transition into the next huge chat commerce app. It hasn't shown any inclination to want to tie up with mobile wallets. The major competitor to chat commerce remains conventional e-commerce sites, with Snapdeal projecting 100,000 independent merchants on its platform in the next two years. Flipkart added a messaging aspect to its site in August, although it's limited to sharing shopping lists with friends and nobody really seems to use it.

WeChat, the messaging app that's absolutely everywhere in China, once had global ambitions. It has «great potential to be popular internationally», said an executive at the Chinese social media giant back in the fall of 2012²¹⁸. The company didn't just sit back and hope it would happen — starting that year it went out and pushed hard so that parent company Tencent, one of China's top web companies with a market value of US\$197 billion, could have its first overseas success. WeChat dispatched marketing teams to a few strategic countries, paid for Facebook ads to woo smartphone-toting youngsters around the world, and even coughed up big bucks to get celebrities to endorse the messaging app. But **WeChat's global expansion has been a disaster**. By the summer of 2013, Tencent had signed up soccer star Lionel Messi to promote WeChat. He appeared in a series of online and TV ads. He popped up on huge billboards alongside the tagline «We love. We share. WeChat». Messi was later that year joined by Brazilian youngster Neymar. WeChat employed different celebs for other markets it considered important, like India. But all the features, fancy footwork, and singing came to nought. Go take a bus in Bangalore or stroll the beaches of Rio and you'll see lots of folks using WhatsApp and Facebook Messenger. Perhaps a



Due to the growing popularity of using WeChat for payments, including for transferring money between friends, the company **choked back US\$46.1 million in bank handling fees** in January alone. The app charges no fee when making payments or doing transfers regardless of whether the money comes from a user's WeChat digital wallet or from an attached debit or credit card. The battle over the Chinese e-payment market is raging fiercely now that Apple Pay and Samsung

cording to WeChat, it has seen a total of 8.08 billion red envelopes sent so far for Chinese New Year, eight times more than last year. That's eight times the 1.01 billion red envelopes sent across the platform during last year's NYE. This year's 8.08 billion number was reached by some 420 million WeChat users.

When WeChat launched **in India** a few years ago, it failed miserably. Smartphone penetration was shallow and internet access was limited. As of

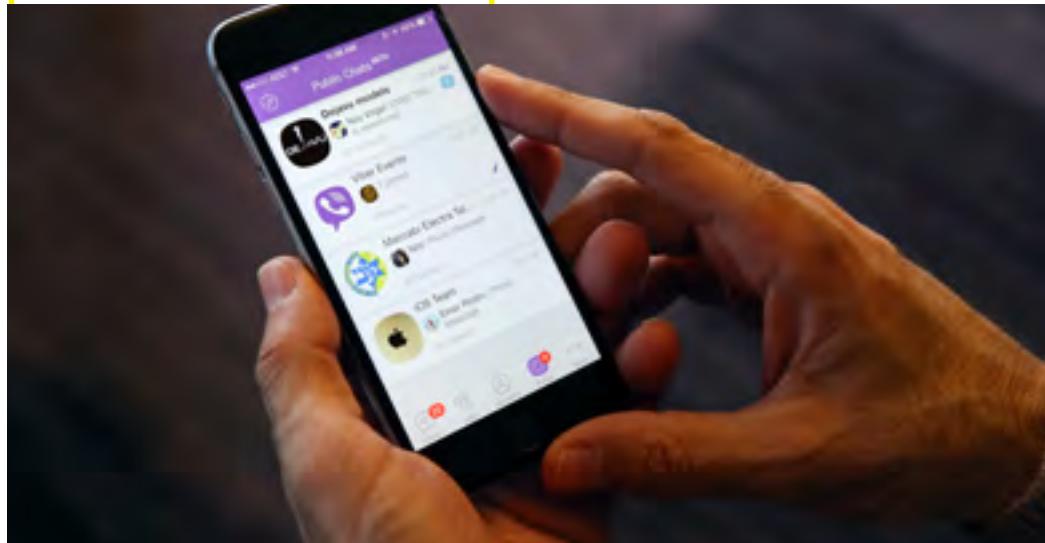
few younger people will be swiping expertly through Snapchat; maybe a couple will be absorbed in Instagram. WeChat? You'll be lucky to find a soul. Of the 15 countries where WeChat's Messi ad was aimed at — Argentina, Brazil, Hong Kong, India, Indonesia, Italy, Malaysia, Mexico, Nigeria, the Philippines, Singapore, South Africa, Spain, Thailand, and Turkey, points out Ad Age — the results look grim for the company. In not one single country does WeChat appear to be ahead of WhatsApp or Facebook. And in a handful of them, like Thailand, WeChat has been beaten by Line.

3 REASONS WECHAT FAILED INTERNATIONALLY²¹⁹:

1. Late to the party. Tencent tried to make up for that with an expensive, star-studded marketing push, but marketing doesn't work that well for chat apps. Ultimately, if your friends use a chat app, you're probably going to use it too. If your friends don't use an a chat app, you're probably not going to use it regardless of how many Messi ads you see. People's friends were already using a chat app that wasn't WeChat.
2. China-first approach. WeChat's second mistake was not offering people any significant reason to switch from whatever chat app they were already using. WeChat's main competition in the early days was another Tencent app, QQ, but that was a holdover from the days of PC-based instant messaging. WeChat was engineered for the mobile world. But while Tencent talked a good game about keeping things equal, those same features came to international users more slowly, if they ever came at all.
3. Poor localization. The US may not have been an important target in WeChat's international expansion, but Brazil certainly was, and Indonesia was as well. Yet even something as simple as sticker availability seems to betray that Tencent wasn't putting as much effort into localizing WeChat in each

international market as it could have been.

send money to Mexico, it says the rate is \$1 USD = 17.8972 Mexican pe-



VIBER

In May 2016 Viber owner **Rakuten** putted **\$15 million** into the London-based remittance startup **Azimo**²²⁰.

Western Union is the best known remittance company, with 500,000 brick-and-mortar locations around the world. But tech startups like TransferWise, Azimo, and WorldRemit are gunning for the business. They hope to increase convenience and reduce fees to lure customers away from Western Union, Moneygram, and other old-school remittance providers. So Western Union is going digital thanks to partnerships with big messaging apps. It launched its Western Union Connect system in October last year, followed by a partnership with WeChat for sending up to \$100. Now it's getting into bed with **Viber**, which has over 664 million «unique» users, though it's unclear what that stat means. The integration allows people to send up to \$100 for \$3.99 plus exchange rate fees, and that fixed fee increases the more they send up the \$499 limit. Users add their debit card, credit card, or bank account, choose where they're sending the money, and the recipient can pick up the cash at a Western Union location or have it transferred to a mobile wallet or bank account. But as with all Western Union transfers, the devil is in the details. So when you go to

sos. But if customers simply Google it, they'd find out the real exchange rate is \$1 USD = 18.17 Mexican pesos. That's an extra 1.5% that families lose on top of the flat fee that Western Union is more up front about.

B2B-(AND HYPERLOCAL) MESSENGERS AS GREAT OPPORTUNITY OF GROWTH

Slack now has 3 million users chatting it up on the service every day²²¹. The enterprise communication app published a little update on its company blog announcing that the service is still growing pretty rapidly, tripling its daily active users in less than a year and doubling its concurrent users in the past 8 months. They've begun adding voice and video chat capabilities and are now working on making «Sign in with Slack» the enterprise-equivalent of Facebook's universal Login. The company is currently valued at \$3.8 billion after raising another \$200 million in funding this past April.

Migme, which calls itself a «digital media company» for emerging markets, is many things. It's a social network, a chat app, and a place to listen to music, engage with celebrities, and play games. The startup announced that it has raised **US\$5.12 million** from Meitu, a Chinese company well-known for its photo and video editing apps. For Migme, the tie-up will lead to integration

of Meitu's products into Migme, with the aim of giving people «an experience set comparable to an Instagram and Snapchat». For Meitu, whose users are mostly in China, it's about acquiring users abroad. Migme has **32 million monthly active users, and they're mostly from Indonesia, Philippines, and India**. Migme founder Steven Goh says that Meitu's investment means it'll own just under 5 percent of his company, giving it a valuation of around US\$102 million. Just a few days earlier, Migme announced growing its revenue by 525 percent year-on-year to US\$8.7 million, trimming its net loss to US\$14.7 million. Its active user base meanwhile grew 220 percent.

THE FUTURE OF MESSengers AND REMITTANCES

«Bots are the new apps», Microsoft CEO Satya Nadella announced²²² at the end of March, during the company's big coder conference in San Francisco, and he was just saying what so many others are saying across the tech universe. Microsoft, Facebook, a host of startups, and an even larger gaggle of tech pundits are trumpeting the arrival of autonomous bots that can carry on conversations inside services like Slack and Skype and Facebook Messenger. The idea is **that these bots will let you interact with businesses much like you trade text with friends and family**, letting you do stuff much quicker than you could using a dozens of disparate smartphone apps. Some people call this «**conversational commerce**». But there are limits to the conversation. Chatbots, you see, don't chat very well. In recent years, deep neural networks have helped automate so many online tasks. They can recognize faces and objects in photos. They can recognize commands spoken into smartphones. They can improve Internet search results. And they've made significant progress in the area of natural language understanding, where machines work to understand the natural way we humans talk. Deep neural networks learn by analyzing enormous amounts of big data. They can learn to recognize a cat by an-

alyzing millions of cat photos. They can learn to understand the contents of an email by analyzing millions of email messages. And they can learn to chat by analyzing chats. But the data needed to drive «conversational commerce» is much harder to come by than cat photos. People don't typically interact with machines in this way. So, companies like Facebook must find other sources of data—or generate data on their own. But maybe we can afford to wait. Maybe we just want to get things done without too much talking.

By using artificial intelligence and machine learning, startup **Azimo is creating a Facebook Messenger bot**²²³ that will let you communicate naturally with it and make transferring money easier. «You would be able to speak to Azimo and ask what the international rates are», company co-founder Marta Krupinska said at the WIRED Money event in London. Krupinska, a Polish expat, added that artificially intelligent bots which are able to communicate in natural language — as if they were a human — will play a role in money transfers in the future. With advances in bots, Krupinska says the AI bot economy will be able to overtake, but not replace, the explosion in mobile applications. Bots aren't the only type of AI Azimo is intending to use. The company says machine learning can be «fully deployed in compliance, risk management, and fraud screening». Among AI deployments already being used by the company is an algorithm that can scan documents to see whether they have been edited. The firm is also able to tell whether bank details have been copied and pasted into its service — indicating potential fraud — or were typed by hand.

The Emoji is the birth of a new type of language (no joke). Tyler Schnoebelen has discovered²²⁴ something curious about why people use the skull emoji. Schnoebelen is a linguist and the chief analyst for Idibon, a firm that interprets linguistic data. So recently he got interested in emoji. He analyzed a million social media posts containing those familiar little pictograms and found that when

people talk about their phones they're 11 times more likely to use the skull. Fully 92 percent of all people online use emoji now, and one-third of them do so daily. Schnoebelen thinks it makes sense. Our phones, he points out, are social lifelines, and when they malfunction—a weak signal, short battery life—we're distraught. «When you don't have access to your phone, or when nobody's texting you, you're socially dead», he says. So we reach for an emoji that's pregnant with that metaphor: the skull. On Instagram, nearly half of the posts contain emoji, a trend that began in 2011 when iOS added an emoji keyboard. Rates soared higher when Android followed suit two years later. Emoji are so popular they're killing off netspeak. The more we use , the less we use LOL and OMG. In essence, we're watching the birth of a new type of language. Emoji assist in a peculiarly modern task: conveying emotional nuance in short, online utterances. «They're trying to solve one of the big problems of writing online, which is that you have the words but you don't have the tone of voice», as my friend Gretchen McCulloch, a linguist and author, says.

Amazon's virtual assistant Alexa, embedded in devices like the Echo speaker and Fire TV, is taking on a new role: she's now a banking assistant, too. **Capital One** announced the rollout of a new «skill» (like an app for Alexa-powered devices), which will allow consumers **to do their banking by voice**, including checking balances, reviewing transactions, making payments, and more. To use the this voice-activated service, Capital One customers have to first add the skill to their Amazon device via the Alexa mobile application, then connect their account by providing their username and password. The Alexa app is available for Fire tablets, iOS and Android. Afterward, they'll be able to manage their finances through their Amazon device, be it the Amazon Echo, newly launched Amazon Tap or Dot, or Fire TV. ●



PRICE-COMPARISSON SITES

CHAPTER #21

Malaysia-based financial comparison startup **Saving Plus has closed a \$3 million Series A** round to move into new digital banking services²²⁵. The company has also renamed itself **Jirnexu**. The company was founded in 2012 by its CEO and former Citi banker Yuen Tuck Siew to provide better financial choices for consumers via banking comparison sites. Jirnexu operates comparison sites RinggitPlus in Malaysia and KreditGoGo in Indonesia, but now it is branching out into services for banks with XpressApply, a platform that lets financial institutions tap the internet and digital media to reach consumers. More specifically, the service, a white-label version of which will launch in the second half of this year, is used to handle credit card, loans and other banking applications online.



This new funding is led by DMP with participation from Celebes Capital, NTT DOCOMO Ventures, Nullabor, Tuas Capital Partners and Anfield Equities, and has been earmarked to develop XpressApply and other digital-first products for banking. Jirnexu is working with banks and financial organizations to offer XpressApply as an online solution that can reduce the process of applications to around 10 minutes. Beyond removing paperwork, it helps consumers get quicker and more accurate decisions and, for lenders, it allows for closer engage-

ment with potential customers. The startup has raised \$4.5 million to date, and Siew is working towards a Series B round later this year that would be used to expand its online comparison sites into more countries in Southeast Asia, and develop other bank-focused products.

Habito, founded by Daniel Hegarty, pitches itself as the U.K.'s «**first digital mortgage broker**»²²⁶ — though Trussle may disagree — and offers a «fully automated» brokering service to help you find the most suitable mortgage and make an application. To do this, it has built tech that claims to analyze every mortgage on the market across 100 lenders to identify the best deal based on your individual circumstances. You're then able to apply via Habito in (they claimed) under 30 minutes. To that end, to help Habito out the gate, the startup has raised just over **£1.5 million in seed funding led** by Mosaic Ventures. A number of noteworthy angels also participated, including Taavet Hinrikus, Samir Desai, **Yuri Milner, Tom Stafford** and Paul Forster. Meanwhile, just like Trussle, the company offers its brokerage service free to the end customer but takes commission from the eventual lender.

CompareAsiaGroup, a consumer finance startup backed by Goldman Sachs, has appointed Sam Allen as its new chief executive officer²²⁷. Allen previously worked at KKR, where he was a director on the private equity investment firm's portfolio operations team. The company runs sites in eight Asian countries (Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, Taiwan, Thailand, and Vietnam) that allow consumers to compare rates and terms on loans, credit cards, insurance plans, and other financial products. It closed **a \$40 million Series A** last year led by Goldman Sachs, bringing its total backing so far, including seed funding, to \$45 million. CompareAsiaGroup monetizes by working with financial service providers and charging them for each user who signs up for its services through its sites.

BankBazaar, a seven-year-old online financial marketplace, **plans to go for the initial public offering (IPO) in 2020**. It also aims to enter the mutual fund segment in the first quarter of FY2017. BankBazaar CEO Adhil Shetty said that the company is expecting a ten-fold growth in the traffic. «At present, we have **5.5 million visitors**. If we bring on board 50 million users, then there will be an exponential growth in our platform..». BankBazaar has three products in investment and savings space like savings accounts, debit cards and fixed deposits. «We are planning to add mutual funds as the fourth product in this segment. We have got a license for mutual fund products and it will be rolled out in the first quarter of FY16. Our MF service will be like a robo adviser. The machine will give you a bouquet of funds that meet your needs», he said. The company has around 200 people in the engineering and product side, and 500 in the BPO segment. «We are planning to increase 100 more in the first segment and similar number in the BPO segment. We want to give thrust to our analytics team», he said.

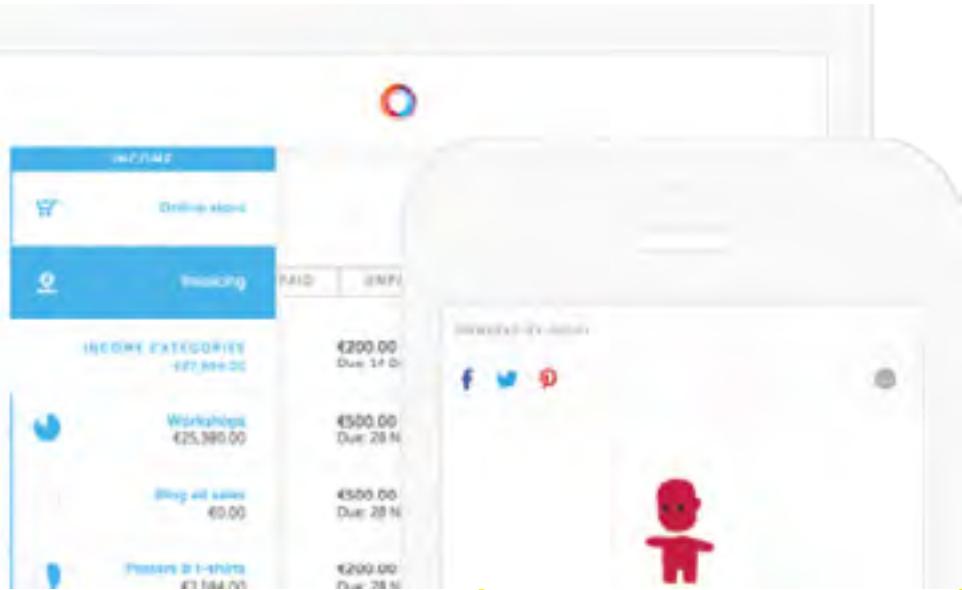
Loan comparison site, **Loanstreet**, is in the midst of transforming into a fintech company, and for that it is **targeting to raise a \$3 million to \$4 million Series A this year**. To get there, co-founders Jared Lim and Robin Ang are first seeking a round of pre-Series A. Loan street is trying to set itself apart from other financial comparison sites like iMoney and RinggitPlus, citing its business model as a key differentiator. Loanstreet was established in 2012, and received its first funding from the now defunct Star Accelerator Fund in September 2013, which was launched by multi-media company, Star Media Group. The comparison site recently launched a mobile app for real estate loan eligibility checking in October 2015 and has garnered 1,200 registered real estate agents. Loan street plans to target 6,000 to 7,000 agents using its app by the end of this year. Malaysia has about 28,000 real estate agents. ●

CHAPTER #22



FINTECH FOR SMEs

NEOBANKS, PAYROLL,
ACCOUNTING, ETC



Spanish banking giant **BBVA** has made another M&A play as it looks for a bigger role in the next generation of financial services: the company has announced the acquisition of **Holvi**²²⁸, **an online-only bank for entrepreneurs and SMBs** based out of Finland. («Holvi» means «vault» in Finnish.) Terms of the deal have not been disclosed but we are trying to find out. Holvi was founded in 2011 and had raised just over \$4 million from investors that included Seedcamp and Speedinvest, according to Crunchbase. For those of you unfamiliar with Holvi, it is one of a league of startups that has been building a range of services for businesses to run their own financial operations and their own banking online. Its products include an online sales platform, an invoicing platform and a cashflow tracker. It's not clear how many customers Holvi currently has. BBVA says Holvi will remain a continuing and separate business, with operations in **Finland, Austria and Germany** with plans to expand to other markets to target what it estimates are some 40 million startups and other small businesses in Europe. The company already had a license as an Authorised Payment Institution, and is currently regulated out of Finland. BBVA is looking to companies like Holvi to help **bring it new business and to build up alternative revenue streams**. «We're excited about Holvi as we share a vision about the benefit of technology for the customer», said Teppo

Paavola, chief development officer and general manager of New Digital Businesses at BBVA, said. «They use digital to bring a new approach to small business banking, where services essential to a business' future such as invoicing are built into their core offer». For Holvi, it will give the company more scale and financial muscle to expand its operations to more markets going down the line.



Singapore lender DBS eyes India expansion through mobile-only Digibank²²⁹. DBS Group Holdings, Singapore's biggest lender, is targeting a hundredfold boost to its Indian customer base within five years after announcing that it is adding a mobile-only banking model in Asia's third-largest economy. It is aiming for 5 million savings accounts in India in the next four to five years through its new Digibank model, which allows customers to open accounts and access services from smartphones

and tablet computers without having to visit a branch. Digibank will offer only savings deposits initially, but will expand to include investments and lending in the coming months. Consumer banking startup venture **Kasisto**, which employs artificial intelligence (AI) to enhance retail and consumer banking, has secured investment from Singapore-based financial services major DBS Bank²³⁰. Financial terms of the DBS investment are undisclosed, though it was described as a 'strategic investment' by DBS. To date, Kasisto, set up in 2014, has secured \$2.25 million in seed funding from New York Angels, Two Sigma Investments and Wells Fargo Startup Accelerator, among others. Additionally, its KAI platform powers the virtual assistant in the mobile-only Digibank service launched by DBS in India. The KAI virtual assistants in digibank are designed to anticipate and answer thousands of customer questions, as well as assist customers perform real-time banking transactions.

Hibob is a new U.K. startup building out a cloud platform that helps businesses manage their people²³¹.

It offers various HR tools, such as management of employee perks, staff engagement and reducing churn, and, perhaps crucially, «auto-enrolment», which relates to recent pension legislation that will see every U.K. employer having to offer a workplace pension scheme. Currently operating an invite-only beta, Hibob is disclosing seed funding ahead of a full launch. The London/Tel Aviv-based company has picked up an impressive \$7.5 million investment in a round led by Silicon Valley VC Bessemer Venture Partners. Also Taavet Hinrikus, co-founder and CEO of TransferWise, is an investor, along with Robin and Saul Klein's LocalGlobe. Also noteworthy is Hibob's co-founder and CEO Ronni Zehavi, and likely part of the reason why the startup was able to raise a relatively large seed round for a European venture. He previously founded CDN Cotendo, which, in 2011, was sold to Akamai for around \$300 million. There are a plethora of startups attempting to make filing company

expenses suck less, such as Belgium's **Xpenditure** or U.S.-based **Expensify**, which focus on capturing expense data and making it easier to file claims. Now a new player **Pleo**²³² is throwing its wares into the ring with a new company expenses card — both virtual and an actual physical card — that claims to automate expense reports and enable SMEs to take more control over their employees' expenditures. Operating in relative stealth mode until now (aside from winning Best Fintech Startup at the Pioneers Festival in Vienna), Pleo consists of the Pleo MasterCard — a prepaid card that can be charged up and handed out to employees, either physically or virtually — but, powered by Pleo's backend system and app, the card is somewhat intelligent, promising to categorise spending automatically as well as capture any receipts associated with each transaction. Pleo is currently targeting businesses with up to 100 employees in the UK and Denmark.

with participation from fellow new investors HSBC, American Express Ventures, CreditEase and Pavilion Capital. Existing backer Notion Capital also took part. The deal values the company at **over \$500 million**. Tradeshift runs a platform that helps companies simplify and improve their expensing systems with external contract partners. It previously raised a \$75 million Series C in February 2014 to expand its reach into Asia, and this latest injection of cash will be used to finance a push into new verticals, such as trade financing, spend and receivables management, lending and payments, and grow in other global geographies. Tradeshift said it now serves more than 800,000 users — that means the total number of employees from its customer base, not actual companies — and it claims to have «dozens» of Fortune 500 clients. The company also revealed that the volume of transactions made on its platform grew 250 percent year-

himself. So he and his wife Alex, a Filipina, went on and built cloud-based software-as-a-service (SaaS) startup Sprout. The company is all about automating the repetitive HR and payroll tasks that eat into your workday, giving you and your team more time to do your real work, which is, well, building your business. Patrick recalls how one client found out they were overspending by at least US\$1,700 per payroll run because they weren't prorating new hires, which means they were paying the employees their salary for the whole pay period instead of only the days worked. Sprout **counts PayrollHero and Salarium** as two of its competitors in Manila, but Alex claims Sprout was the first one to fully automate timekeeping or what she calls «the real beast» behind payroll. She says employee clock-ins/out are recorded directly into Sprout, leaving «very limited intervention» from staff. «At the end of your payroll period, you have to check your logs in our system and if you have missing logs, it tells you and asks you what you want to do about them». Sprout has raised funding from overseas angel investors this year, which brought its valuation to US\$5 million. It's spending the money mostly to grow its team. «At the start of 2015 we had three employees and at the end, we had 15. We want to be at over 30 this year», Alex says.



Tradeshift, the San Francisco-based startup that is trying to change the way companies work with out-sourced clients, has **announced a \$75 million Series D round**²³³. The company, which was founded in Copenhagen in 2010, has now raised over **\$200 million from investors like PayPal, Intuit and Singapore's Scentan Ventures**. This latest round was led by Data Collective (DCVC),

on-year between 2014 and 2015. It didn't provide a raw figure but it did tell the Journal that it is on course for \$50 million in annual (company) revenue this year.

Sprout automates the mundane tasks, giving you more time for stuff that matters²³⁴. Patrick Gentry, an American entrepreneur who's based in Manila, experienced the horror

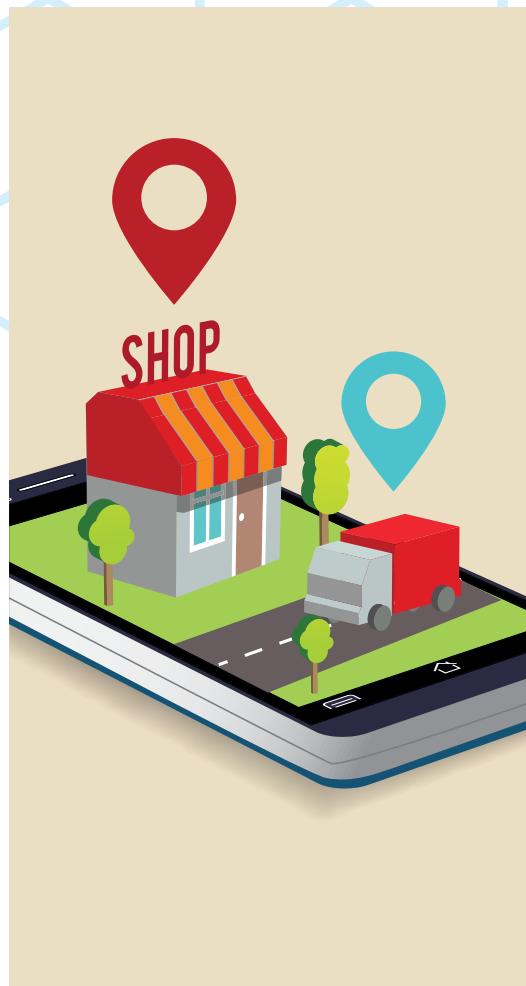


Jurnal is a web-based accounting software for small and medium enterprises, based in Indonesia. The startup announced it raised a series A round of investment led by East Ventures. Fenox VC and angel investor Budi Setiadharma were also part of this round. The amount raised was not disclosed. Founder Anthony Kosasih said the funds will be used to expand the business, in particular through partnerships with companies and government institutions. «It's time the 57 million small and medium enterprises in Indonesia increase their competitiveness in the ASEAN economic community through proper control and management of their finances, which is facilitated by Jurnal», said Willson Cuaca, managing partner of East Ventures. Launched early last year, Jurnal claims to have **7,000 active users**. Its software includes features like invoicing, reporting, and asset management. Other Indonesian startups offering web-based accounting solutions are **Akunting Mudah, Hartkaku, and Kiper**.

make B2B payments more secure. Payoneer has been in business for almost 10 years now and has built up a deep understanding of its market, especially in Asia. Armor Payments is still a relatively new company; its focus was initially on North America, though this will change after the acquisition. Payoneer and Armor Payments will launch their first integrated services soon. This means sellers will be able to get paid from escrow accounts and have their money transferred right into their local bank, for example. The two companies declined to discuss the financial details of the transaction.

The benefits and payroll company **Justworks has picked up \$33 million in Series C funding**, bringing the total amount the company has raised to \$53 million. Redpoint Ventures led the round and had participation from existing investors Bain Capital Ventures, Thrive Capital and Index Ventures. Mr. Oates, CEO of the company, said companies like his that have been lean from the

work as they try to launch their companies. Justworks acts as a collective for these employees, which Mr. Oates says allows the company to offer teams better benefits for less cost. Its clients range from businesses with anywhere from a handful to hundreds of employees.



Payoneer helps businesses and B2B marketplaces move money across borders. It's one of the biggest companies in this space; its customers include the likes of Amazon, Fiverr, Airbnb, Upwork and Taboola. The company announced it has acquired Armor Payments, a digital escrow-as-a-service solution that aims to

start, and carefully managed growth, are benefiting as investors grow weary of over-hyped valuations. «There's more and more focus on real business fundamentals», Mr Oates said. Justworks aims to provide small businesses with payroll, compliance and healthcare so that they are not mired in paper-

Cloud accounting business **Xero and Square now work together in an Australian** first, making it easier for small businesses to accept card payments anywhere, whether it's on the side of the road or at a pop-up market. Combined with Xero, retailers can now get a quick view of all their sales, fees and refunds as soon as they happen, removing all the manual data entry that business owners usually have to do at the end of a busy day. With the launch of Square Reader, small businesses who use Xero will now be able to connect their Square account to their accounting dashboard in less than five minutes, cutting down manual data entry and bank reconciliation. «Our partnership with Square

connects the best of both worlds. Square replaces clunky, expensive cash registers and connects it to Xero, the cloud software that has made accounting software beautiful and easy to use for 600,000 small businesses», said Trent Innes, Managing Director of Xero Australia. «Now businesses can sell to anyone, anywhere with a card, whether it's in-store, at a pop-up market, or on the side of the road. There's no more manual data entry or ensuring their accounting lines up with their point of sale — it's all there at a glance», he added. Proving that retail really can be done from anywhere, Square has also launched Square Market, a pop-up marketplace from 9-11 March at Federation Square in Melbourne. It showcases the very best of Australia's small business heroes — with more than 30 per cent of the sellers also Xero customers (more than any other accounting software provider); it's a great demonstration of how well Square and Xero work together.

for all small-business needs, not just accounting.

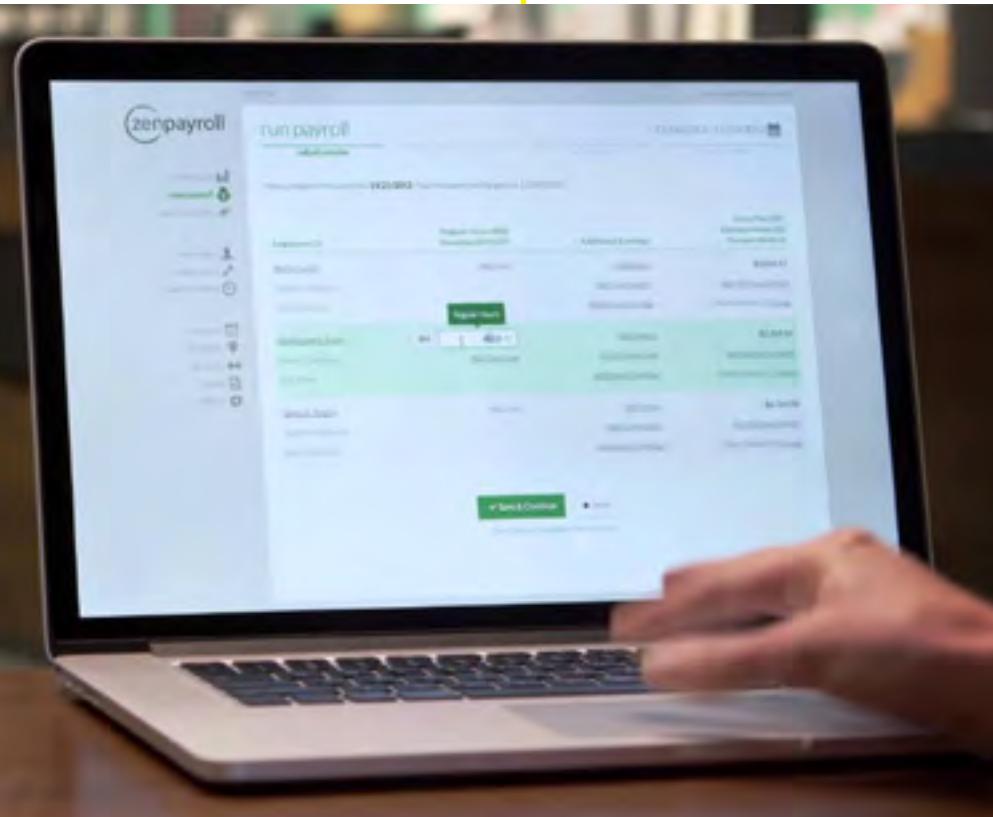
Small businesses will now be able to export content between Xero and Google Sheets in real time and collaborate with customers, suppliers and financial advisers. Last year Xero, which now has 600,000 users worldwide, announced partnerships with major companies including Dropbox, Adobe, Bigcommerce and Insightly.

Sharemarket darling **Xero will move all customers onto Amazon Web Services** over the next three months, in an effort to piggy-back on the US company's giant investments in machine learning and skirt trade restrictions in China.

Shanghai-based **QuanCheng**, a Software as a Service (SaaS) corporate expense management start-up, has completed a series B round of financing **worth tens of millions U.S. dollars** led by Eight Roads. The

business trip expense management tool. Founded in 2013, QuanCheng received an undisclosed series A round led by ClearVue Partners. QuanCheng says it has hundreds of domestic Chinese companies as clients.

Gusto, the payroll and benefits service provider formerly known as **ZenPayroll**, has raised over **\$50 million** in what its CEO calls an «opportunistic insider round». The company also disclosed that it now counts more than 25,000 businesses in the U.S as customers, or 0.5 percent of all U.S. employers. To date, the company has raised over \$116 million in funding. The largest number of its customers are within the tech sector (15 percent), but Gusto has its hands in a multitude of industries, including media (14 percent), consulting (10 percent), healthcare (9 percent), and legal (8 percent). Reeves revealed that his company is now processing several billion dollars in payroll annually.



Also **Xero has secured a significant partnership with Google**, integrating Gmail and Google Apps for Work into the platform, as part of the company's strategy to be a platform

company says it plans to use the proceeds to expand its two B2B products: a business dining and entertainment procurement solutions, as well as an expense management and



Gusto cofounder and CEO Josh Reeves stands in front of the famous «shoe cubby» at the office. Employees work in their socks just like they would at home. You couldn't

find two startup competitors with more starkly different cultures than Zenefits and Gusto – both of which sell similar human resources software to small businesses. And right now Gusto cofounder and CEO Josh Reeves is looking especially wise given that **Zenefits was embroiled in major drama** last month. Zenefits had touted itself as one of the fastest-growing tech startups ever, and, at two years old, raised \$582 million investment which valued the young company at \$4.5 billion. But it crashed last month amid an insurance-licensing scandal that caused its founder and CEO to suddenly

resign, and its new CEO offered some harsh words about its culture. Gusto (formerly known as Zenpayroll) has also raised a lot of venture investment, a total of \$136 million at a \$1 billion valuation as of December. Gusto's flagship product is a payroll system, designed with what Reeves calls a «people-first mentality». It's geared for companies with 100 or fewer employees and currently counts 30,000 companies as customers. It used to be a partner with Zenefits, but Gusto recently started competing directly with Zenefits' flagship product, software that manages a company's insurance benefits.

And Zenefits just recently launched payroll software that competes with Gusto. So his general take about his competitor Zenefits' troubles is: «I am not surprised one iota about what happened». He says, «As a student of Silicon Valley, I call it the 'hype ladder'. You can get caught up in these cycles, in things that should not be the focus and it creates a very short-term mind set. There are no shortcuts. You can't get somewhere faster by spending money. It's like pouring water into a leaky bucket». He adds: «hiring is hard and hiring should always be hard. It's the most important topic».

CB Insights: 125 Startups Transforming Human Resources Across Recruiting, Benefits, Payroll, And More



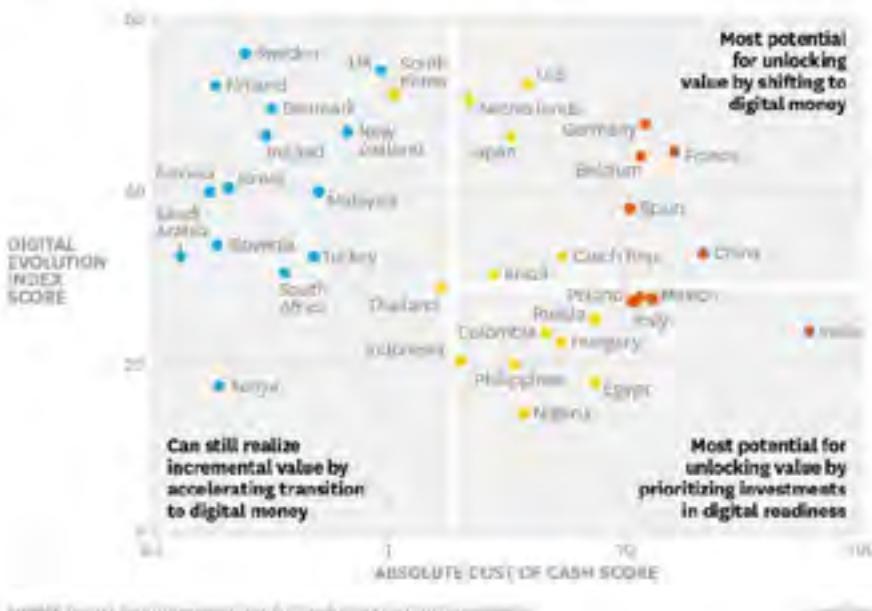
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FINTECH FOR UNBANKED

CHAPTER #23

Which Countries Are Best Positioned to Go Cashless?

Looking at digital readiness paired with absolute costs of cash highlights potential cashless sweet spots.



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The Cost of Getting Cash Around the World

Mapping the level of difficulty, including transportation and ATM fees.



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In developed markets, fintech innovations are primarily aimed at improving the user experience for tech- and financial literacy advanced people. But, for the billions around the world without access to traditional financial services, fintech innovations go well beyond convenience. Fintech could be their ticket to financial inclusiveness and membership in the global digital economy.

Policy makers and economists, such as Harvard's Ken Rogoff, have made elegant arguments for the benefits of a cashless society. Economic uncertainty around the globe has raised concerns that consumers could take cash out of banks — especially in negative interest rate environments — and hoard it. Eliminating cash is one way to reduce that risk. Denmark, Sweden, and Norway are already considering it, while the European Central Bank is considering getting rid of large-denomination bills.

The migration to a cashless society is far from being either uniform or universal. Whereas most Swedes are embracing a cashless future, along with an unlikely peer group, that includes both Somaliland and South Korea, some of Sweden's neighbors, in response to EU's increasing regulations on restricting cash usage, are demanding a «constitutional right to pay in cash» fueled by concerns around negative interest rates and a perceived loss of privacy that comes with digital money.

For some countries, the transition has been very rapid and at a scale that is without precedent. In 2009, over two-thirds of all ecommerce payments in China were cash on delivery. Thanks in no small part to the mobile wallet wars among the BAT — Baidu, Alibaba, and Tencent — mobile payments today account for over 70% of all e-commerce transactions in China.

World Economic Forum wanted to know the answers to some of these questions so we analyzed the cost of using cash using a database extending across 154 countries²³⁵. It doesn't mean that countries with

«low» costs of cash are closer to being cashless societies or that they need to do nothing to change status quo. All the map indicates is that the costs of cash in these countries are relatively lower compared to that of the rest. The cost of cash varies widely across countries and the relative ranking of costs across countries changes significantly depending on whose perspective – banks, consumers or government – you take. The costs do not correlate with levels of economic or political development.

WE Forum propose two factors that are useful in offering guidance to those working to enable cashless societies and allocate resources optimally. WE Forum suggest, first, prioritizing countries where the consumer costs of cash are high, since consumers will be the prime adopters of digital alternatives. Next, WE Forum suggest a focus on those countries that are more digitally ready for a migration to a cashless alternative. To gauge digital readiness, we used our Digital Evolution Index. The combination creates a mapping of «cashless sweet spots». Based on their analysis, the following countries have the greatest potential for unlocking value by policy and innovation led migration to a cashless society: U.S., Netherlands, Japan, Germany, France, Belgium, Spain, Czech Republic, China and Brazil. A second group of countries have higher than average consumer costs of cash, but they would first need to improve their level of digital readiness and become more «digitally inclusive» before they can realize value from going cashless. These include parts of Eastern Europe such as Poland and Russia, and countries with large populations such as India, Indonesia, Mexico, Nigeria, Egypt, and the Philippines.

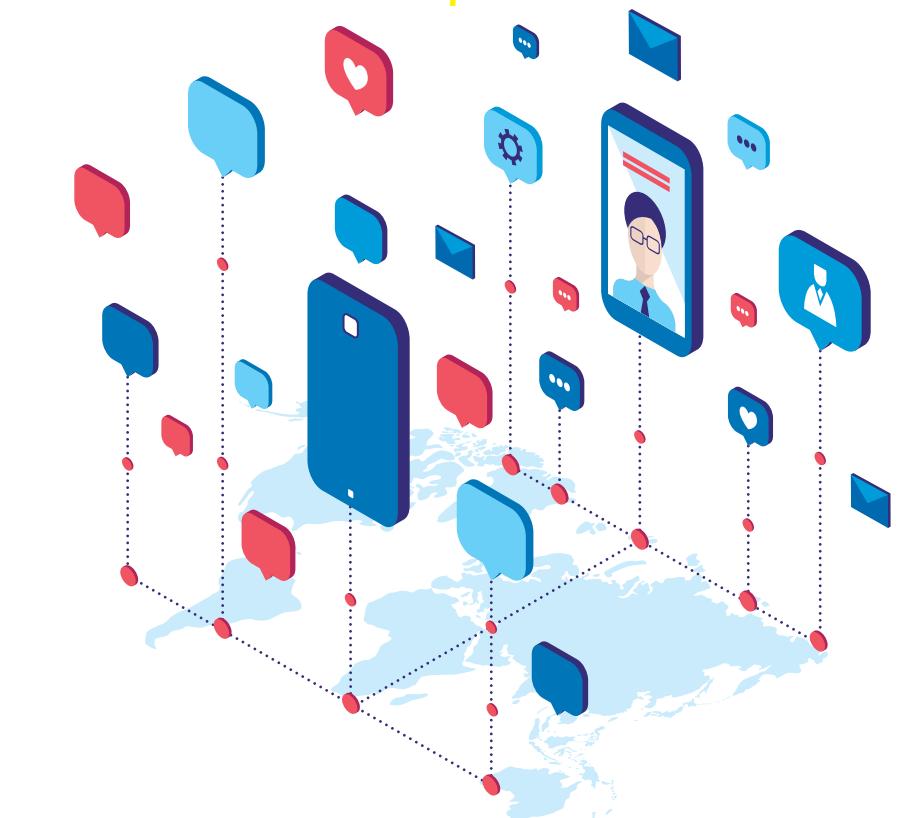
The latest digital money index from Citigroup and the Imperial College London – which counts everything that is not cash or cheques as «digital» – reveals a deepening divide between the most and least «digital ready» countries. Finland topped

the index for the third year running followed by Singapore and the US, which have been in the number two and number three slot respectively since 2014. The UK rose three places in 2015 to fourth. **Citi estimates \$150bn could be saved globally every year by digitising only** a quarter of these payments, by eliminating the cost of cash transactions and reducing fraud.

GSMA released 2015 State of the Industry Report on Mobile Money²³⁶. Now in its fifth year, this report provides stakeholders with a comprehensive quantitative assessment of the mobile money industry for unbanked and underserved people. Mobile money is reaching more than 411 million people globally. Moreover, it is available in 85% of countries where the vast majority of the population lacks access to a formal financial institution.

ship for Financial Inclusion (GPFI) illustrates the five pillars of digital financial inclusion and corresponding risks that require attention:

1. New providers & new combinations of providers. Tech-powered nonbank e-money issuers and limited-service banks are gaining traction around the world and handling quite a significant part of the public's funds. Among the risks that GPFI mentions in regard to partnerships involving multiple providers in the digital delivery of financial services is a lack of transparency, including vis-à-vis treatment of consumers. Data privacy and security is a never-ending issue that becomes especially relevant when it comes to partnerships. The higher the complexity of a partnership «bundle», the more there is to be concerned about in terms of different consumer pro-



Recognizing the importance of financial inclusion for the global population, various international structures are investing efforts into developing strategies for facilitating financial inclusion²³⁷. One of the most recent works published in March 2016 by the Global Partner-

tion rules or supervision.

2. Digital technology and security. «Hacking risks, including the vulnerability of cheap smartphones to malware, give rise to concerns about data security. In addition, mobile networks and digital trans-

actional platforms that are unreliable due to network vulnerabilities or technology quality can result in an inability to transact—for example, due to lack of connectivity or lost payment instructions due to dropped messages».

3. Use of agents. Agents are still an immense part of the financial services industry in developing countries. They serve as a primary connection between remotely located population and basic financial services. However, while it is a way of access to banking, agent-based services carry significant drawbacks. But lack of oversight and effective communication leads to a higher risk of fraud and theft, lack of transparency and may facilitate abusive behavior towards customers.

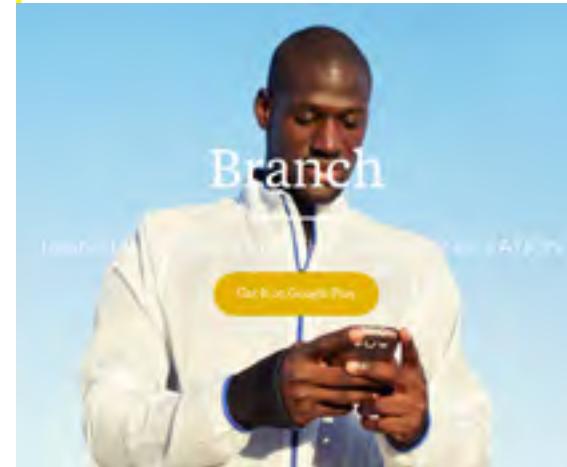
4. New products and services & their bundling. Bundling is one of the common strategies of monetizing digital financial services and it has its advantages as well as challenges. While it often does offer better terms and affordable price in comparison to paying for services separately, bundling often eliminates the choice and potentially a better option for customers. «In addition to lacking choice, customers may not be able to determine the prices of the individual products and may not even be aware that multiple providers are involved».

5. Financially excluded and underserved customers. One of the problems illiteracy can cause is accidental exposure of sensitive information with all outcomes of it. Added to the negative experience with agents and abusive treatment by services providers, customers may consciously choose to be excluded from formal financial services ecosystem and stagnate their own financial prosperity and growth.

US FOR UNBANKED COUNTRIES
Seven years after philanthropic **Bill And Melinda Gates Foundation** cofounded an organization commit-

ted to the financial inclusion of the world's 2.5 billion unbanked people²³⁸, it now stands on its own, **independent of any government** and self-reliant for core funding. In that time, countries that are members of the Alliance for Financial Inclusion have embraced 132 policy initiatives aimed at increasing financial inclusion and half a billion people have taken out bank accounts for the first time. The cost has been just \$63 million of Gates' \$28 billion donation to the foundation. Established at the end of 2008, AFI styles itself as the world's only peer learning platform for financial inclusion policymakers from developing and emerging countries. Now it has reached the landmark stage of leaving government and NGO ownership to become owned by its 95 member countries. AFI was given the status of implementation partner for financial inclusion of the G20 group of developing and emerging countries. The Gates Foundation provided an initial five-year grant of \$35 million, partly matched by \$9 million from the German government. AFI is now in the third year of a second five-year grant of \$28 million to take it to the end of 2018, after which AFI will be funded largely from fees paid by its members. «We became totally independent on January 27, 2016»,. «But we had the intention to make this network an independent organization right from the beginning. «The neutrality of the Gates Foundation enabled us to take a smart approach. They gave us sufficient funding to kick off the initiative and prove the concept. AFI has also moved headquarters from Bangkok, Thailand to the more politically-stable jurisdiction of Kuala Lumpur, Malaysia. AFI, which has 43 staff, has a goal of seeing concrete policy changes in 60 of the countries it is working with, as a result of its activities. More than 85% of the world's unbanked people now live in a country with an AFI member institution. The Gates Foundation counts financial inclusion as an official policy and employs 25 of its 1,200 staff in its Financial Services for the Poor team. Bill Gates is on record as regarding financial inclusion as

«another breakthrough innovation» ranking alongside vaccines and high-yielding crops as a development that can change the future for billions of people.



San Francisco-based **Branch.co** raised **\$9.2 million** to bring digital financial services to mobile phone users in Sub-Saharan Africa. Andreessen Horowitz led the Series A round, was joined seed backers, Khosla Impact Fund and Formation 8. Founder and CEO Matt Flannery plans to use the funding on hiring and to roll out Branch.co in and beyond Kenya. Branch's free-to-download Android app is a kind of **«branchless bank for the next generation»**. The app asks users for permission to **access and analyze data stored in their phones**, like how much money they spend each month on a mobile plan, or who they call most often. From this data, Branch.co learns and predicts who is likely to be a good borrower, and can give users a **credit line from \$2.50 to \$500** in about ten seconds. The app works without asking users for a credit history like they'd need to get a credit card from a traditional bank. Branch.co employs a team of 6 data scientists and engineers in San Francisco with a larger team of 30 employees in Nairobi, Kenya. Its app is gaining popularity with people who are sole proprietors and entrepreneurs, especially farmers, drivers and merchants. Previously, Flannery co-founded and was Chief Executive Officer of the non-profit

lending platform **Kiva.org**. Flannery said he chose to create Branch.co as a for-profit business because philanthropic fundraising can be a huge distraction for tech companies. And top engineering talent is attracted to organizations that offer competitive salaries and benefits, unusual for a non-profit. GSMA Intelligence estimates Sub-Saharan Africa will add more than 400 million new smartphone connections by 2020, bringing the installed base to over half a billion at that point.

PayPal is teaming up with venture development organisation **Village Capital** to back fintech entrepreneurs working to boost **access to financial services for low-wealth people** and businesses. PayPal already works with Village Capital — which finds, trains and funds entrepreneurs working to solve global challenges — but the new deal will see the pair work more closely to operate three fintech programmes — in Latin America, the US and India — this year. The programmes will help approximately **40 fintech start-up** ventures as they seek to increase financial participation, generate jobs and enable households and small businesses. For its part, PayPal will make its employees in each market available to share their skills and expertise with the startups by serving as speakers, ongoing programme advisors and one-on-one mentors. Village Capital has already picked 10 Mexican firms to support.

AFRICA

Two billion people in the world don't have a credit score or any financial identity, preventing them from getting loans. The **Mkopo Rahisi** app, which means «easy loan» in Swahili, aims to give them one²³⁹. Developed by credit-scoring startup InVenture, the app delivers electronic loans based on a user's financial profile, calculated on an average of 10,000 data points, from their mobile phone transactions, social-media activity and web searches. Based in Santa Monica with offices in New York and Nairobi, InVenture launched Mkopo

Rahisi in Kenya in 2014 and raised \$10 million in 2015. According to Siroya, the app has loaned \$6 million (£4m) to businesses and individuals in East and West Africa and Southeast Asia and plans to expand to more countries in 2016.

African fintech startup **Zoona** announced²⁴⁰ that, since going live in 2009, it has processed more than **US\$1-billion in transactions**. Playing in the highly competitive mobile payments space, the service operates predominantly in Zambia and Malawi. Using a network of entrepreneur agents, the Zoona allows ubanked consumers access to money transfers, bill payments and other financial services. The company's entrepreneur agents serve more than one million customers every 60 day, across close to 1 500 locations. «Zoona was born from an idea in a text message», says Zoona CEO Mike Quinn. «Today we have an important milestone on our journey to become a billion dollar business that helps communities thrive».

Nigerian digital payments company **Interswitch** will likely go public on the London Stock Exchange (LSE) in 2016. The Lagos based fintech firm provides much of Nigeria's digital finance infrastructure. Founded in 2002, Interswitch's product platforms process the bulk of the country's growing volume in electronic bank, government, and corporate financial transactions. In personal finance, 32 million consumers use the company's Verve chip and PIN cards, while its Quickteller digital payment app processed \$2.4 billion in transactions. Many point to Nigeria as the continent's greatest revenue opportunity for electronic payments given its dual status as Africa's most populous nation (175 million) and largest economy (\$510 billion). Consumers in the West African country spend \$400 million annually and are projected to generate \$75 billion in ecommerce revenue by 2020. Nigeria's P2P digital payments traffic compared to Kenya, however, has been slower to scale—largely due to entrenched consumer preferences for cash and a more cumbersome fintech regulatory environment.



SOUTH-EAST ASIA

Nearex, a Singapore technology start-up that's rapidly emerging as a category leader in the mobile micropayment domain announced that it is showcasing a breakthrough **mobile payment system for the unorganized public transport sector** at the MWC 2016 in Barcelona. There is a much larger universe of unorganized public transport networks around the world like the auto rickshaw in India, motorbike taxis across Africa, Tuk Tuks in Thailand, Jeepneys in Philippines, Matatus in Kenya, shared taxis across Latin America and buses of various sizes in almost all countries in the world. These face the same problems with collecting and handling cash as their organized counterparts — small cash payments that result in need for small change, theft, pilferage, and accounting. Nearex has developed a stored value solution for the transport sector based on its Xip micropayment platform, which aims to solve these problems. The solution is built around the award winning XipPOS which serves as a low-cost in-vehicle fare collection device which can collect fares even with no connectivity. The customers carry the XipTAG, an NFC card or a sticker, which securely stores value which can be topped up by agents, also carrying the XipPOS. Mayank Sharma, CEO, Nearex remarked «According to the UN there are 3.9 Billion urban dwellers in the world that reside outside of the 28 mega cities that can be considered as well covered for cashless fare payments for public transport. Our research shows that cashless payments will be welcomed by many of these billions who use unorganized transport every day, for the convenience and speed it will provide. We are very excited about the opportunity to make a difference to this large and unaddressed community of transport operators and commuters with the launch of stored value and offline payments support in XipPAY».

Peru has launched a national mobile money network, with the aim of

drawing five million of the country's unbanked into the formal banking system. Dubbed 'BIM', the low-tech mobile money programme has been launched by Peru Digital Payments, a \$10 million special-purpose company created by 34 of the country's leading banks, with the support of major carrier networks. With four-in-five of the Peru's 30 million citizens operating outside of the formal banking system, BIM has set its sights on signing up five million user over the next five years. Designed to work on the cheapest mobile handsets, BIM enables cash transfers between phones for a 15 cent fee.

must be held until the maturity of the venture's financing from the sponsoring bank, with profits distributed on a quarterly basis. With elements of crowd funding and microfinancing, the IAP could raise the profile of Islamic banks as investment houses, complementing their existing credit intermediation activities.

Two companies—MatchMove Pay and Tapp Commerce—are offering new ways for Vietnamese consumers to participate in the growing digital economy²⁴¹. According to the World Bank, slightly less than **27 per cent of Vietnamese consumers had a debit**



A group of six Malaysian Islamic banks launched a **sharia-compliant investment platform** that could shift the role of Islamic lenders to investment intermediaries from credit providers currently. The **Investment Account Platform (IAP)** will serve as a central marketplace to finance small and medium-sized businesses, with the Malaysian government backing the scheme with an initial 150 million ringgit in funds. «We're looking at raising between 200 million and 300 million ringgit (**\$47.53 million to \$71.29 million**) through the IAP over the next two to three years». Under the scheme, Islamic banks vet businesses seeking funds, providing a market for investors while in some cases underwriting part of the transactions. Those investments

card in 2014—and almost 70 per cent did not have a bank account. While these numbers have surely changed since then with mobile payments on the rise and increased access to banking services, cash is still the preferred method of payment in Vietnam. (Even Uber accepts cash in Vietnam, where it saw the highest rates of credit card declines in Southeast Asia last year when new customers tried to sign up.) A Singaporean company called MatchMove Pay saw this gap a few years ago and decided to take the concept of a physical payment card and convert it into a digital format. MatchMove Pay developed a digital wallet which allows any major brand to issue a digital payment card, which can then be used for online purchases

via a consumer's smartphone. In 2015, MatchMove Pay partnered with HD Bank to introduce the first virtual payment card in Vietnam. MatchMove Pay also partnered with TPBank (another local bank aiming to become a regional leader in digital banking), and recently announced a collaboration with VTC Intecom, the largest corporation in Vietnam that specialises in development payment services, e-commerce, media, and online entertainment. This step will enable MatchMove's services to reach more than 30 million users across Vietnam. MatchMove Pay is not alone when it comes to rapidly scaling in a short amount of time: another company looking to connect Southeast Asian consumers to the digital realm is Tapp Commerce, which launched its Tapp Market service in Indonesia last July. Since going live, it has been used to serve over 1.7 million customers via more than 26,000 sales agents. Tapp Market launched in the Philippines last month while Tapp Commerce is currently setting up operations in Thailand and Vietnam for a summer launch, and will enter Myanmar by the end of the year. Currently, the team is comprised of over 65 people in Europe and Asia.

International Finance Corporation (**IFC**), the private lending arm of the World Bank Group, is looking at the disruptive technology space even as it will continue to place its bets on mainstays like manufacturing, infrastructure and **financial services in Vietnam**. Vivek Pathak, East Asia Pacific director for the International Finance Corporation (IFC), said: «One vertical that we have been doing for many years is the financial sector. We have **financed a lot of banks**. We will continue to do that and are looking at a number of proposals to work with banks». «There's a lot of space in both e-commerce, **fintech**, medical technology and e-logistics. This is the space where new things are probably happening on a daily basis across the world. The beauty about it is that a lot of the new things that are happening are easy to replicate. So beyond e-commerce

or e-retailing, it is a completely new ecosystem where you can do a lot more». «A crucial part of the ecosystem is financial inclusion. Today you have technologies to solve and simplify transaction problems, to reach a remote village where there may not be a bank branch. The financial inclusion space is going to be very positive thanks to the technologies that are coming in».

which are a billion dollar business. Getting banks involved in the mobile money business will be important for the sector's growth and to guarantee «financial inclusion» for the vast majority of Myanmar's still unbanked population. The rapid spread of mobile phones suggests the banks stand to benefit from using, rather than blocking, the technology. Getting banks involved in the mobile



The national mobile phone penetration rate in **Myanmar** is estimated at 62 percent, of which 80 percent are smart phones, show figures from telecom operators. An analysis of the figures shows that the three providers –MPT, Ooredoo and Telenor – have sold about 34 million SIM cards. Mobile penetration was about 10 to 13 percent. Some industry sources estimate it will reach 90 percent by the end of this year. The telecom hype was all about «financial inclusion», and taking services such as bill payments to the people in rural areas who account for 70 percent of Myanmar's 53 million people. ConnectNPay is not the only service that is starting to turn hype into reality. During its first year of operations in 2015, Red Dot Network established a network of 10,000 retailers nationwide. Some surveys estimate that only 6 percent of the population use more than one financial service and 24 percent use only one, most likely for remittances,

money business will be important for the sector's growth and to guarantee «financial inclusion» for the vast majority of Myanmar's still unbanked population. The rapid spread of mobile phones suggests the banks stand to benefit from using, rather than blocking, the technology.



The Central Bank of Myanmar has awarded preliminary operating licenses to four more foreign banks, all from Asia, — Bank for Investment and Development of Vietnam, State Bank of India, Taiwan's Sun Commercial Bank and South Korea's Shinhan Bank. With this move, the total number of foreign banks that are allowed to operate in the frontier market touches 13. The bank received 13 applications for the second round of licence issuance of which eight were shortlisted in the earlier round in 2014. These include State Bank of India, State Bank of Mauritius, South Korea's Kookmin Bank and Shinhan Bank, Taiwan's Cathay United Bank, E.SUN Commercial Bank and First Commercial Bank, and Vietnam's BIDV. The new applicants in this round were CTBC Bank, Mega International Commercial Bank, Taiwan Business Bank, Taiwan Cooperative Bank and Taiwan Shin Kong Commercial Bank. The four banks are among the thirteen banks that applied to the Central Bank of Myanmar to open a branch in the country. The first batch of banks that were awarded licences around late 2014 include Bangkok Bank, Australia's ANZ, Japan's Bank of Tokyo-Mitsubishi UFJ, Mizuho Bank, Sumitomo Mitsui Bank Corporation, the Industrial and Commercial Bank of China, Malaysia's Maybank and Singapore's Overseas-Chinese Banking Corporation and United Overseas Bank.

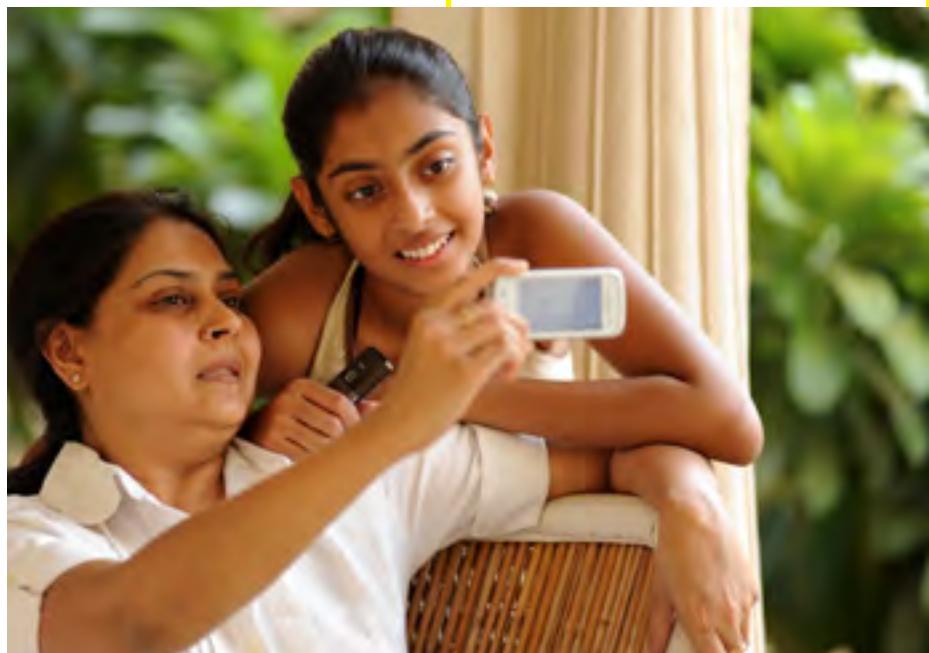
INDIA

Amazon predicts that India will be its biggest market after the U.S. within a decade and that the Indian e-commerce market as a whole will ultimately be gigantic²⁴². India's population of 1.25 billion is four times as big as the U.S.'s and more than double Europe's. And since the median age is 27—a full decade younger than Americans'—the trajectory will be steep. India will overtake China as the world's most populous country in just seven years. The language of business here is English. One reason for India's huge potential is that it starts from such a small base. Barely one-quarter of India's population has access to the Internet at home, whether on a smartphone or computer, and only a small fraction of those have ever shopped online. For e-commerce, that means explosive room for growth. Morgan Stanley estimates that revenue could soar to \$137 billion by 2020, more than 10 times the 2013 level of \$11 billion. That is partly thanks to plummeting prices for smartphones. Google and Facebook are among those investing heavily in increasing Indians' online access, having concluded that their future growth—like Amazon's—depends on massively expanding the world's Internet users from the current 1 billion or so. **Amazon faces a far bigger logistical hurdle than addresses, however: getting paid.** Barely 60% of Indians have bank accounts, and only a fraction of

those have credit cards. So Amazon's payment systems in India are drastically different from any the company has attempted before and involve the kind of hand-holding that would be unimaginable to U.S. customers. About half the customers pay cash only when their purchases are delivered. Amazon has partnered with thousands of small shop owners across the country to act as pickup points in exchange for receiving a small commission per package.

The Indian government has a massive problem with an opaque, cash-based economy that has dominated the country for decades²⁴³. With the majority of its citizens lacking access to formal banking services, India had nothing to lose by encouraging out-of-the-box innovation that would seem insane to the U.S. financial services establishment.

The only benefit of having poor infrastructure is that once in a generation — when people, policy and timing align — a country can reboot and leapfrog the developed world because there is no material incumbent investment or scale to protect. The fintech innovation in India today has been built completely outside the established «way of how things work», and with minimal concern for which incumbents may suffer or go out of business as a result. Today, the situation in India is much different. Google, Amazon and a set of private sector companies poised to launch 4G services next year have made a mobile-internet world not only a reality, but a certainty on which private sector companies and the country can base 10- to 20-year business models. India is now the world's third largest market for smartphones and will reach 314 million mobile web users by 2017. Over the last 24 months, the government has made financial inclusion and transparency a stated priority — and there is proactive policy and pressure to empower the private sector to help deliver results. More than 200 million bank accounts have opened in the just one year and more than 300 million new debit



and credit cards have been issued in the last four years, bringing the total number of cards to more than 600 million. In the last 12 months, more than 100 million new mobile wallets were created, from a base of almost zero, mostly driven by startups that didn't exist five to 10 years ago. More than 1 billion citizens came onto the digital grid through India's Universal ID project in five and a half years, making it the fastest digital service growth in history. India also granted a slew of new banking licenses this year to promote competition, expansion and faster deployment of new digital services. What was interesting is that most of these banking licenses were not given to traditional banks, but primarily telecom, software and IT services companies — most of whom have a strong track record of scaling by dramatically lowering operating costs and disrupting existing business models. The «spark» that will unleash the WhatsApp-like disruption is the **«India Tech Stack»**, a unique suite of API-based services that lift the veil off every major government-mandated customer service.

India will consider merging some of its more than two dozen state-run banks, the finance minister said on Saturday, as the government seeks to improve efficiency at the ailing lenders that dominate the nation's banking sector. Bankers have «strongly supported» the idea of consolidation, suggesting the government form a panel of experts to devise a merger strategy, Arun Jaitley said after a two-day annual brainstorming event of industry leaders and officials from the central bank and finance ministry. State-run lenders hold more than two-thirds of assets in India's banking industry. But they also hold about 85 percent of non-performing loans after adding toxic assets at a faster pace than their private sector rivals, hurting profitability. About 40 percent of Indians have little access to formal banking channels yet industry analysts question the need to have

more than two dozen government-owned lenders. «You need strong banks rather than numerically a larger number», Jaitley said.

er in payments, lending or remittances. Companies like **Suyo** in Colombia and **Landmapp** in Africa are using innovative technologies to



India's telecom regulator has blocked the company's **Free Basics** service as part of a ruling that supports net neutrality²⁴⁴. The decision follows nearly a year of escalating conflict between Facebook and the country's net neutrality activists, who argue Free Basics violates neutrality by favoring some services over others. It also undermines founder Mark Zuckerberg's larger Internet.org efforts to bring the entire world online.

BLOCKCHAIN OPPORTUNITIES FOR UNBANKED

How can the **blockchain begin to have real meaning in the lives of the two billion excluded individuals around the world?** Bitcoin ends up being a complicated concept that, unless attached to a trusted fiat currency or local mobile money system, has no value. Unless there is an ecosystem in which bitcoin is accepted ubiquitously in an underbanked person's world, is a regulated and trusted form of value and is easily accessible, it will mean very little to those without access to financial services. Companies — like BitPagos, Bitex.la, Bitso, Volabit, Wayniloans and Blinktrade in Latin America; BitPesa, Atlas and Switchless in Africa; Coins.ph in Asia; and Abra and Allaire in the U.S. — are trying to tackle real problems and inefficiencies in the market, wheth-

bring down the cost of land titling and formalization. Decentralized record-keeping startup **Factom** has partnered with the government of Honduras on a new land title registry initiative to develop «a permanent and secure land title record system» using the bitcoin blockchain, the distributed ledger that tracks all land title transactions across the Central American nation. At **Onename**, usernames are created within an open namespace and user data is embedded directly into the blockchain to help individuals who want to voluntarily identify themselves, even when local governments make it difficult to do so.

On January 20, 2016 at the World Economic Forum in Davos, during the panel on Transformation of Finance, the International Monetary Fund (IMF) released a paper titled **«Virtual Currencies and Beyond: Initial Considerations»**. «Virtual currencies and their underlying technologies can provide faster and cheaper financial services, and can become a powerful tool for deepening financial inclusion in the developing world», said IMF Managing Director Christine Lagarde. «The challenge will be how to reap all these benefits and at the same time prevent illegal uses, such as money laundering, terror financing, fraud and even circumvention of

capital controls».

The term «financial inclusion» is a new buzzword in the fintech space. With the rise of **services like Abra and MPesa, we are convinced that bitcoin is the solution to the problems of the unbanked**. With bitcoin, we say, the house cleaner in Dubai can get her money home and the refugee can get his money over the border into a safer place. Still, this doesn't solve the problems of the unbanked. Here are some pressing issues: 1, The unbanked want to remain anonymous. 2, The unbanked live in places where predatory banking is more convenient. 3, The unbanked are difficult to address.

Another blockchain-based payment transfer network has launched instant money transfer in **Nigeria**. And there are two parts to the news that should excite a person. First — logically — is the fact that it is blockchain-based. And the second is the location. Two companies, Stellar, the Stripe-backed open-source payment network, and Oradian, a cloud-based software provider for microfinance institutions in developing countries, have partnered to bring instant money transfers to Nigeria. The new payment-transfer network inside **Oradian** is built on top of Stellar's platform and will allow 300,000 Nigerians (90% of them women) to cheaply transfer money between microfinance institutions. «With the Oradian integration, communities that primarily relied upon cash for money transfer in and out of their villages can now transfer money instantly and safely, regardless of their location». Stellar was founded by Mt. Gox/Ripple Founder Jed McCaleb a couple of years ago and operates as a decentralized protocol for fund transfers in any pair of currencies. It is a non-profit foundation that aims for financial inclusion by connecting different financial systems around the world. Oradian has shared its inspirational insights on the country choice, saying that Nigeria is the largest econ-

omy and most populous country in Africa (174 million people). Moreover, a diverse nation full of ethnic and socioeconomic contrast, Nigeria is the seventh most populous country in the world and has one of the world's largest youth populations. The port city of Lagos is home to one of the fastest-growing middle classes. At the same time, almost half of Nigeria's population is unbanked, with 80% of those people living in rural areas. The initial pilot will focus on connecting MFIs in Northern Nigeria, a region where 68% of the population is financially excluded. These are not the only significant moves by international FinTech companies around the world in an attempt to change Africa and empower financial inclusion of the continent. However, they signify the importance of the region and the fact that FinTech can truly change the world and connect previously isolated financial systems and populations. Rapidly growing financial inclusion in rural African regions may soon make Africa one of the hottest markets in the world. ●



Business Insider: The Financial Inclusion Report

The study from the National Foundation for American Policy, a non-partisan think tank based in Arlington, Va., shows that immigrants started more than half of the current crop of U.S.-based startups valued at \$1 billion or more. These 44 companies, the study says, are collectively valued at \$168 billion and create an average of roughly 760 jobs per company in the U.S. The study also estimates that immigrants make up over 70% of key management or product development positions at these companies.

<http://goo.gl/Lfaenn>

BLOCKCHAIN



A hand wearing a black glove holds a smartphone. The screen of the phone displays a complex, glowing blue and white network of interconnected nodes and lines, representing a blockchain or peer-to-peer network. The background of the phone's screen is dark.

CHAPTER #24

A new UN working paper²⁴⁵ argues that the bitcoin community has a tendency towards «techno-colonial solutionism» and «techno-libertarian evangelism» in proposing the digital currency as a solution to issues in the developing world. Authored by independent researcher and consultant Brett Scott for the United Nations Research Institute for Social Development, the paper provides a primer on the basics of bitcoin and discusses the technology's potential applications for remittances, cooperative structures and micro-insurance systems.

A new Morgan Stanley report²⁴⁶ aimed at assessing whether blockchain is a threat to big banks argues that the short-term benefits of the technology are likely minimal, but that future growth is likely. For instance, the report pegs the banking industry's current proof-of-concept phase as completing in 2018. The next phase of blockchain adoption by financial institutions overlaps slightly with the current phase, running from 2017 to 2020. The final phase of the report picks up where the previous one left off, in 2021, and continues to 2025²⁴⁷. During this «Assets Proliferate» phase Morgan Stanley predicts that more assets will move onto a blockchain «as efficiencies prove out».

Blockchain Fund», or «BB Fund²⁴⁸, the new fund will provide startup capital for early stage blockchain companies that have use cases relevant to banks. Starting with an initial capital infusion of \$5 million from Life.SREDA, the fund is seeking additional backing from financial institutions to expand its capital base to \$50 million by the end of 2016, then to \$100 million in 2017. Life. SREDA indicated. Igor Pesin, a Life. SREDA partner and CFO of the new fund, told East-West Digital News that the fund will start investing after first closure in Q3 2016. To operate the new fund, Life.SREDA has attracted such blockchain and fintech experts as **Chris Skinner²⁴⁹** — an author and blogger who founded the Financial Services Club and was recognized as one of 40 FinTech leaders by the Wall Street Journal's Financial News²⁵⁰ — **David Brear and Thomas Labenbacher**. The new fund will be headquartered in London and target mainly European and Asian companies. One of the cofounders of Mondo and Gartner's former head of global digital banking, David M. Brear, also cofounder of 11FS and partner of Life.SREDA's BB Fund, tells: «A lot of people have interests in this but there are a lot of banks that are spending a lot of money without really knowing that they're doing. Nobody really has the answer. Most

efforts on blockchain, left the bank to join startup fintech consultancy 11:FS and The BB Fund.



The blockchain sector has been showing a rapid evolution over the last few months. The technology, which underpins bitcoin, is now attracting more interest than the virtual currency itself. The bitcoin and blockchain startups have already raised more than \$1 billion from investors. Goldman Sachs, Barclays, JP Morgan and other major banks are currently investigating the potential uses cases of the distributed ledger that is believed to disrupt the financial services industry. «The blockchain dialogue is pretty complicated. In financial services, there are five main areas of early use cases: smart contracts; digital identity; clearing and settlement; asset tracking; and supply chain finance and payments. There are at least 10 or 12 interesting companies in each of those high priority areas», Skinner added²⁵². Skinner, who has advised large financial institutions like Lloyds on emerging technologies, clarified that the Banking on Blockchain Fund will ease investor fears by doing thorough due diligence on all fintech firms the fund invests in, «We will also provide the banks with research outputs and consulting based on the knowledge gathered from the firms we invest in», he said²⁵³.

Ripple, the interbank payment solution using distributed ledgers, has announced the names of seven banks on its network, the first in the world to move real money across



BANKING ON BLOCKCHAIN

Life.SREDA, a Singapore-based venture fund with Russian origins, is launching a new venture fund dedicated to investing in the blockchain ecosystem. Christened «Banking on

suppliers are only one or two steps ahead of clients». His cofounders include Jason Bates, a cofounder of app-only banking startup Mondo. Later, **Simon Taylor²⁵¹**, a Barclays executive who helped lead the bank's

borders using any kind of block-chain-based technology²⁵⁴. Santander, UBS, UniCredit, ReiseBank, CIBC, National Bank of Abu Dhabi (NBAD), and ATB Financial are the first to be announced. In addition, Ripple said it has some 90 banks in the pipeline, 30+ pilots completed and 10 banks in commercial production deal phases. Blockchain banking consortia enthusiasts will no doubt watch with interest as Ripple's banking network grows to rival that of the mighty R3 group. In fact the two networks complement one another. Ripple CEO Chris Larsen has said he believes sorting out interbank payment plumbing is a rising tide that will help other forms of settlement. «So we can rethink how money moves across borders; it goes by SWIFT these days, but essentially the same model is happening as the Medicis had back in the dark ages. This technology is just as powerful – maybe even more powerful – than completely replacing the track for the Eurostar into London from Paris».



Bank of Tokyo-Mitsubishi UFJ confirmed it is conducting experiments on a digital currency utilizing block-chain-technology²⁵⁵. «Regarding the speculation (in) media reports, these reports are not based on any announcement by MUFG, and the details have not been decided», the bank's spokesman said in an emailed statement to Reuters. MUFG is an abbreviation of Mitsubishi UFJ Financial Group Inc, the parent company of the bank. «However we can only say that it's true that MUFG is conducting demonstration

experiments on the 'Coin' within the company utilizing a block chain technology». The report originally published in Japanese also said users will be able to withdraw money from their bank accounts into an app on their smartphones. The money will be converted at a rate of one MUFG coin to 1 yen. The MUFG coin system will work much like prepaid electronic money, such as «Suica», already widely used in Japan. However, users will be able to remit MUFG coins to others through the internet at a low commission.

The Diet in Japan (the legislature consisting of the Lower and the Upper Houses) has passed a bill that mandates the **regulation of bitcoin and virtual currency exchanges by the Financial Services Agency (FSA) in Japan²⁵⁶**. The revised law will see virtual currency exchange operators mandated to register with the Japanese Financial Services Agency. The bill also enables the agency to have the authority to conduct on-site inspections and will require operators to follow know-your-customer (KYC) practices. The new rule and law will define virtual currencies like bitcoin to have «asset-like values», legally permissible to be used in making payments and an asset that can be transferred digitally.

China's Central Bank announced 20 of January at an event in Beijing that it is working **to create its own self-distributed digital currency**, and plans to release it as soon as possible. The bank believes that a digital currency would help cut the high costs of making and circulating paper money, increase the convenience and transparency of financial transactions, aid in the development of new financial infrastructure and payment systems, and reduce the ease of money laundering and tax evasion, among other things.

German insurer Allianz expects the **technology underpinning virtual currency bitcoin to encourage trading in catastrophe bonds²⁵⁷**, which transfer the risk of natural disasters such as hurricanes to investors. «Cat

bond» payments between insurers and investors can take weeks or even months after a storm hits, but the use of «smart contracts» – agreements that are automatically executed via the blockchain when a set of predetermined conditions are met – could cut this down to hours or a few days, Allianz said.



The blockchain could save banks 'billions' of dollars in regulatory capital charges. Overstock.com and its free-thinking CEO, Patrick Byrne, announced that the **Securities and Exchange Commission had approved its plan to issue stock over the blockchain**, the vast online ledger that drives the bitcoin digital currency. It was a significant moment. Using cryptographic algorithms running across a vast network of independent computers, the blockchain can more efficiently, accurately, and openly track the exchange of stocks, bonds, and other financial securities—at least in theory. But in the suddenly enormous and widespread movement towards this powerful idea, the bigger moment may not have arrived until about a month later. Over the years, Wall Street has employed a single organization to oversee the truth. With the blockchain, this truth can be controlled by an open network.

China's second-biggest insurance company, **Ping An Group, has become the first Chinese member of a global consortium led by fintech firm R3²⁵⁸** that is working on ways blockchain technology can be used in financial markets. Ping An joins a group of more than 40 of the world's

biggest banks and other financial institutions, such as Barclays and Goldman Sachs, brought together last year by New York-based R3 to work together on using the block-chain technology. Chinese financial firms — some of the biggest in the world — had been conspicuous by their absence in the consortium. «We are excited about joining R3 and look forward to developing and using blockchain technology to create a more efficient way of managing financial assets digitally end-to-end», said Ping An Group's Chief Operating Officer Jessica Tan.

Forty of the world's biggest banks have tested a system for trading fixed income using the technology that underpins blockchain, fintech company **R3 CEV** said. The banks are part of a consortium of 42 major lenders, brought together last year by New York-based R3 CEV to work on ways blockchain technology could be used in financial markets — the first time so many have collaborated on using such systems. For this experiment, the banks tried five different blockchain-technology providers to test trading fixed income: Ethereum, often considered the most advanced and ambitious, Chain, Eris Industries, IBM and Intel. Chain's CEO Adam Ludwin said: «R3 is further accelerating the adoption of blockchain technology by demonstrating, instead of simply asserting, the commercial advantages of this emerging approach to financial services».

cessful test of transactions between 11 of the world's largest financial institutions. This represents a big step forward in bringing blockchain, the foundation for Bitcoin, to traditional banking. R3CEV announced its first members less than six months ago, and already has 42 members in its consortium. Test involved Barclays, BMO Financial, Credit Suisse, Commonwealth Bank of Australia, HSBC, Natixis, Royal Bank of Scotland, TD Bank, UBS, UniCredit and Wells Fargo.

Digital Asset Holdings LLC, a startup trying to develop mainstream uses for blockchain technology and led by star banker Blythe Masters²⁵⁹, has **raised more than \$50 million** from 13 investors including J.P. Morgan Chase & Co., Citigroup Inc., BNP Paribas SA, CME Group Inc. and Accenture PLC, the company said.

ASX Ltd., operator of Australia's largest stock exchange, said Thursday it had chosen to hire Digital Asset to develop a distributed ledger for clearing and settling stock trades. Australian markets operator ASX Ltd said it has bought a minority stake in a U.S. blockchain developer, positioning itself to become the first stock exchange in the world to use distributed ledger technology for public companies. The A\$14.9 million (**\$10.43 million for 5 percent equity interest**) investment in Digital Asset Holdings would help to cut costs, speed up transactions and make them more secure. **JPMorgan Chase** is partnering with start-up Digital Asset Holdings to launch a trial project using blockchain technology that could reduce the cost and complexity of trading. One potential use for the technology is addressing liquidity mismatches in some of JPMorgan's loan funds. Also Digital Asset Holdings is opening **an office in London**. The company says in an emailed statement that «London is a global center for finance and a leading hub for innovation. Opening an office in the UK is a natural extension of our commitment to wholesale financial markets across the globe».

The opening of the London office comes amid reports that the com-

pany is struggling to raise funds. The company is trying to raise \$35 million (£24 million). The funding round, if successful, would value Digital Asset Holdings at \$100 million (£67 million).

PayPal has made a notable move to position itself for the future of money and currency after it added seasoned fintech figure and bitcoin entrepreneur **Wences Casares** to its board. Argentina-born Casares has packed a lot into his 41 years. He's currently CEO and founder of **Xapo**, a bitcoin payments startup that has raised \$40 million to date, but his past ventures include digital wallet company **Lemon** (acquired by LifeLock for \$42.6 million in 2014).



BLOCKCHAIN-STARTUPS

A coder named Jed McCaleb built **Ripple** as a better bitcoin²⁶⁰. Then he built Stellar as a better Ripple. And he's not the only one. Now, there's a movement to create a technology that would let all these online ledgers talk to one another, that would let you send money between these systems. Dubbed the «interledger protocol», the project began at the company that oversees Ripple. But in recent months, after the company publicly shared the idea, it has also won the support of several other notable names, including Microsoft and the World Wide Web consortium, the organization that sets the technical standards for the web. The idea is to create a single worldwide network that can not only unite all digital currencies, but all companies and individuals who use those currencies.

R3 CEV prin blockchain

R3CEV, a startup dedicated to bringing blockchain technology to traditional finance, 20.01.16 ran a suc-

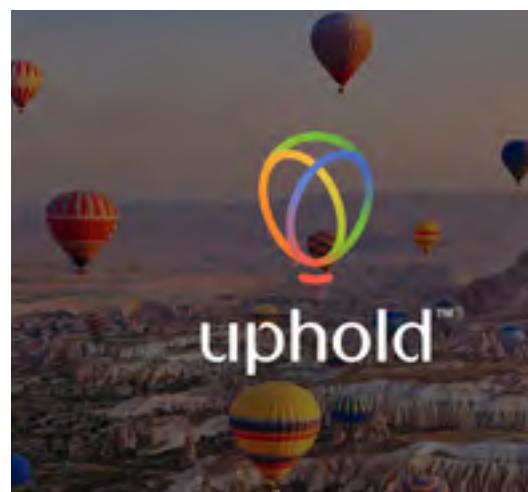
Given its early emphasis on distributed ledgers in what was then widely described as the digital currency ecosystem, **Ripple has long held a unique market position in the industry**²⁶¹. In the age of «block-chain», the startup remains one of the few holdouts to describe its offerings as «distributed financial technology». Since it was founded in 2012, Ripple has garnered a track record of success with major banks, which have viewed bitcoin and its largely anonymous transaction validators (miners), as a potential liability. Ripple and its permissioned network, in turn, emerged as a 'safe' alternative for incumbent firms, one that wasn't colored by high levels of more negative press. The positive market momentum would help the startup **raise \$38.6m** from investors including Andreessen Horowitz, CME Group and Santander InnoVentures. At the end of 2015, financial incumbents began seeking to build private blockchain solutions and consortium models to further investigate the technology behind Ripple's offerings. In the process, some believe concerns are being raised about Ripple's target market and whether it would continue to find value in the Ripple consensus ledger. Gartner Research vice president Ray Valdes explained: «Certainly they were the early mover in this wave of trying to take bitcoin technology and make it palatable to traditional financial institutions, and I think they were successful in getting some mindshare. But, now people are talking about R3 and not talking so much about Ripple». Still, there are signs Ripple is still of interest to this market, even as the number of participants multiplies. The startup's technology is now being used in proofs of concept (PoCs) on trial at Royal Bank of Canada, which is leveraging the technology for remittances. Standard Chartered and Development Bank of Singapore (DBS) have also begun using Ripple's tech for trade finance applications. «The banks trust Ripple», CGI's O'Loughlin explained. «[But] the feedback they got from the banks is stop trying to be everything to everyone». This year, Ripple has shown a willing-

ness to prioritize two efforts: the Interledger Protocol (ILP), an effort the startup is spearheading as part of the W3C that finds it using escrows to move value between distributed and non-distributed ledgers; and the Ripple consensus ledger, its original permissioned network that facilitates the movement of the digital asset XRP. The firm published estimates declaring that, by using XRP, banks would save 42% in cross-border payments costs, a figure that was higher than the 33% that using Ripple without XRP would save.



Colu, the Tel-Aviv based startup, which currently employs 21 people and hopes to double its staff by next year, announced a seed round of \$2.5M in January 2015 from Israeli venture firm Aleph and Spark Capital, BoxGroup and Bitcoin Opportunity Corp. The latest funding round, which Colu co-founder and CEO Amos Meiri announced²⁶² at WIRED Money on June 23, is much bigger. Colu covers anything from cars to concert tickets. It creates the equivalent of a digital ID for the asset, and the buyer receives an encrypted token. As the details of the transaction are stored on the blockchain, this token is more secure than a piece of paper or printed ticket. The token, which can be scanned using a QR code, can be easily stored on a phone or computer and can be instantly transferred to anyone without cost. Users can load money (linked to a local currency), manage currencies and create transactions via Colu's consumer app. «Merchants accept transactions through the app», he

explains. According to Meiri, 10,000 developers currently use Colu. And Colu is starting right there: at a local level. Local currencies have a broad range of positive effects on local economies, says Meiri. By keeping the money in the area, local currencies have positive effects on local economies: they support small and medium-sized businesses, increasing economic growth and creating jobs. «It also helps to build deeper connections between locals, which in turn leads to increased social capital and community involvement. Colu's technology allows for this model to be scalable globally».



Uphold, the fintech startup he founded in 2013, allows anyone to store, convert or move money and commodities instantly at no cost²⁶³. Users store value on digital cards representing different currencies or commodities and can easily switch between these or send money anywhere in the world via email. «We want to be able to remove all the costs and charges from the global financial model», Uphold CEO Anthony Watson tells WIRED. Unsurprisingly, there are growing numbers of users out there who find that an attractive proposition. In 181 countries around the world, 75,000 people are using Uphold to send or store money. So far, its members have made nearly \$1 billion (£700,000) worth of transactions on the platform. But since joining the fintech firm, Watson has expanded its focus beyond bitcoin and it now allows members to hold, convert and trade 22 currencies, four commodities and

two other cryptocurrencies: litecoin and ethereum. And like many fintech firms, Uphold is working to bring down the cost of personal finance. Uphold members pay nothing to send money instantly to another member, no matter where they are in the world or what currency they are paying in. The platform only charges members (0.5 per cent) when they transfer money onto or off of the platform altogether. But money transfer is only the start of what Watson has planned for Uphold — he wants to turn it into a «universal financial service platform» that members use for all their normal banking needs without having to shift money onto and off the platform. Uphold, he hopes, is about to usher in a new era of «ethical finance» that redresses that balance for good.

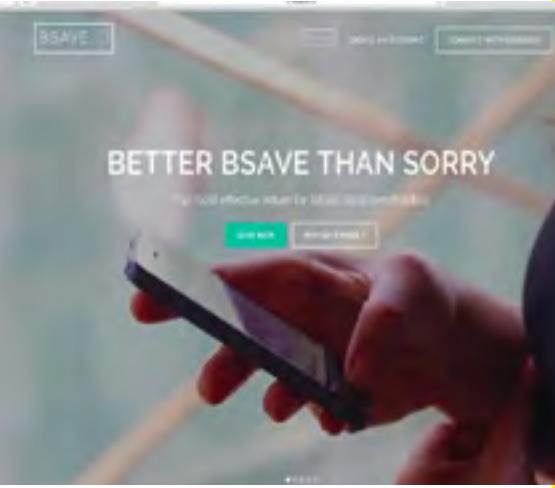
Philippine Bitcoin startup **Satoshi Citadel Industries (SCI)** has raised²⁶⁴ an undisclosed amount of seed funding from Korean web giant Kakao's venture capital arm, KVG. SCI says the investment is part of a «strategic partnership» with KVG, which has been actively looking at global investments. KVG will support SCI through synergies with Kakao and its other assets.

Coinbase is finally letting you instantly buy Bitcoin with a debit card²⁶⁵. The company announced that instant buys from debit cards are now available to all users in the United States. This is a big deal, mainly because of the increasing amount of consumers in the U.S who solely rely on debit cards. And since waiting 3-5 days to receive Bitcoin kind of defeats the purpose of buying it at all, many consumers shied away from Coinbase's platform, turning instead to companies like Circle. For the privilege of using your debit card, Coinbase will charge a 3.75% fee, compared to the 1% fee they charge for purchases funded by your bank account. In addition, the company is requiring all users who use debit cards to verify their identity before making their first purchase. One more downside; the company will be limiting debit card purchases

15 BLOCKCHAIN-POWERED WALLETS²⁶⁷:

1. **Coinprism** is a free online bitcoin wallet allowing users to store and create their own coin (by coloring bitcoins).
2. **Xapo** is a Switzerland-based company that provides a bitcoin wallet combined with a cold storage vault and a bitcoin-based debit card.
3. **breadwallet** is a real standalone bitcoin client.
4. **Pi Wallet** is a secure Raspberry Pi-based hardware wallet that separates bitcoins from direct Internet access in order to ensure safety and protection from hacks.
5. **KeepKey** is a bitcoin hardware wallet that protects bitcoins from thieves and virtual attackers like malware and viruses.
6. **Coinkite**, with its Web wallet system, empowers customers and merchants to buy, sell, accept and store bitcoins and other cryptocurrencies in both the online and physical worlds.
7. **My Wallet** by Blockchain is a free online bitcoin wallet, which can be used to make payments worldwide for free.
8. **Case** is a bitcoin hardware wallet, which allows users to send, receive, and securely store their bitcoins.
9. **Airbitz** is a mobile bitcoin wallet and developer platform. The API provides a toolset for developers to bring out the true potential of bitcoin technology for the masses.
10. **Coinbase** is a bitcoin wallet and platform where merchants and consumers can transact with the new digital currency, bitcoin.
11. **Ledger** is a hardware wallet. The company offers a range of services and products transfiguring payment methods and the use of digital currencies, including bitcoin wallet.
12. **Armory Secure Wallet** is an open-source cold storage and multisignature support.
13. **Mycelium** is a cryptocurrency platform that provides a bitcoin wallet as well as trading & payments solutions to the customers.
14. **MultiBit** is a secure, lightweight, international bitcoin wallet for Windows, MacOS and Linux.
15. **TREZOR** is a hardware bitcoin wallet that offers an isolated environment for offline transaction signing and uses a small display that allows to visually verify the contents of the transaction.

to just \$250 worth of Bitcoin per day, compared to \$10,000 per day when using your bank account. But even with the additional verification and low purchase limits, the acceptance of debit cards should still lead to a flood of new users signing up to purchase Bitcoin on the platform. The company says the feature is coming to other countries soon, although most European users have been able to use a debit card on Coinbase since late last summer.



BSAVE announced its Bitcoin savings account for **Coinbase** wallet users. This new feature allows Coinbase clients to receive daily interest payments. Jonathan Azeroual, CEO of BSave, said they want to integrate their system with as many wallets as possible to expand their market, for example in Asia. Bsave algorithms has been developed to optimize the number of bitcoin and the rate they lend and the algorithmically-calculated interest will be paid on balances stored with the service, each day. The interest earned is the score of the client divided by the total score times the total interest earned for one day.

Social payments startup Circle rolls into Europe²⁶⁶. It may have started as a Bitcoin wallet but veteran entrepreneur Jeremy Allaire's fintech startup Circle has since shifted focus to social payments, launching an app in Q4 last year that lets users send U.S. dollars to settle IOUs between each other, with its pitch being it makes payments as easy as firing off an SMS (and perhaps cheaper, given there's

no fees involved for Circle users). Circle does still offer the ability to feelyless pay people elsewhere in the world, in some 150 countries — and for that it needs to loop Bitcoin into the mix, turning dollar payments into BTCs deposited into the recipient's Bitcoin wallet. But Allaire prefers to talk now about the other, more fashionable 'b' word — blockchain — asserting that Circle is utilizing blockchain technology to «build a model for money that works over the open Internet». Today Circle is adding support for its second fiat currency — UK sterling — so it can now offer its users feeless cross-border payments between US dollars and UK pounds (or vice versa), as well as Bitcoin payments. Circle is having to build its network from scratch — rather than leveraging an existing and highly popular messaging platform. It is trumpeting having gained an E-Money Issuer license from the UK's FCA, which also extends to operating in a third fiat currency (Euros), claiming it's the first time the financial regulator has issued such a license to a consumer Internet firm for cross-border payments with blockchain technology.

Stratumn, a Paris-based startup that wants to create a **platform-as-a-service for developers** interested in the blockchain. With Stratumn, you can build, deploy and run applications on the company's platform, and these applications can communicate with the blockchain. The company raised **\$670,000** (€600,000) from Otium Venture and business angels, such as Ledger Wallet CEO Eric Larchevêque. For instance, Stampery wants to replace notaries with the bitcoin blockchain. The service can issue legally binding proofs for all your sensitive documents, and these proofs live on the blockchain. Stratumn has built an open specification called Chainscript. You send data to the blockchain using Stratumn. And later, you can retrieve and audit these packets of data if you follow the Chainscript format.

UK fintech startup **Elliptic's \$5M Series A** round was led by Washing-

ton-based Paladin Capital Group, with participation from Santander InnoVentures, KRW Schindler, Digital Currency Group, and existing investor, Octopus Ventures. The company said the round will be used to expand the team, with key hires planned for the product and technology side. Its transaction-tracing technology mines the public Bitcoin ledger to identify and flag up suspicious transaction patterns within the distributed digital currency — offering the promise of combating Bitcoin-powered **money laundering and other criminal activity**. Elliptic was founded back in 2013, amid much Bitcoin hype, and initially launched a Bitcoin storage product, in July 2014, taking in \$2 million from Octopus Investments at the time.

One year ago this month, Hong Kong's Bitcoin scene was rocked by scandal. One of the region's Bitcoin exchanges, **MyCoin**, evaporated, taking hundreds of millions of dollars with it. The entire operation turned out to be a Ponzi scheme, and more than 3,000 victims lost a fortune. In the end, half a dozen people were arrested. Bitcoin businesses in Hong Kong have spent the past year rebuilding trust in the technology. Around the same time MyCoin burned to the ground, Aurélien Menant, a Hong Kong-based former investment banker, launched **Gatecoin**. With its emphasis on security and transparency, Gatecoin seemed like an antidote to the worry that gripped the region's Bitcoin scene. More than just surviving, it's seen monthly user growth figures of 25 percent over the last year, according to Aurélien, who says that the platform has around **5,000 active traders**. Gatecoin has raised about **US\$700,000**, and is currently closing a series A round to help with its expansion plans. The platform has also started trading in Ethereum, a new technology sometimes referred to as «Bitcoin 2.0».

Are you a bitcoin trader looking for a way to short the inaccessible Chinese stock market? BitMEX now offers a way. **BitMEX (Bitcoin Mer-**

cantile Exchange) has announced this week they are launching the world's first bitcoin denominated futures contract on a Chinese A Share index. The new instrument from the bitcoin derivatives focused venue allows cryptocurrency investors to access the walled-off equity market in China and trade with up to 25 to 1 leverage.

The creators of a new bitcoin alternative dubbed **Zcash** say that currency—currently in pre-release alpha testing—will make that identification effectively impossible. Zcash will rely on algorithms known as zero-knowledge proofs that will allow users to prove they actually have the money they're sending, without needing to reveal their identities or how much they're sending at any given time. «Unlike bitcoin, Zcash transactions automatically hide the sender, recipient, and value of all transactions on the blockchain», according to the Zcash website. «Only those with the correct view key can see the contents. Users have complete control and can opt in to provide others with their view key at their discretion». Wilcox and his startup Zcash are launching the first public alpha release of the cryptography world's best shot yet at perfectly untraceable digital money. Using a mathematical sleight-of-hand known as a «zero-knowledge proof», Zcash (until recently known as Zerocoin or Zerocash) offers the same anti-forgery assurances as bitcoin: No one can counterfeit Zcash, or spend the same Zcash «coin» twice. But thanks to its zero-knowledge feature, any spender or receiver can also choose to keep their Zcash payment entirely secret.

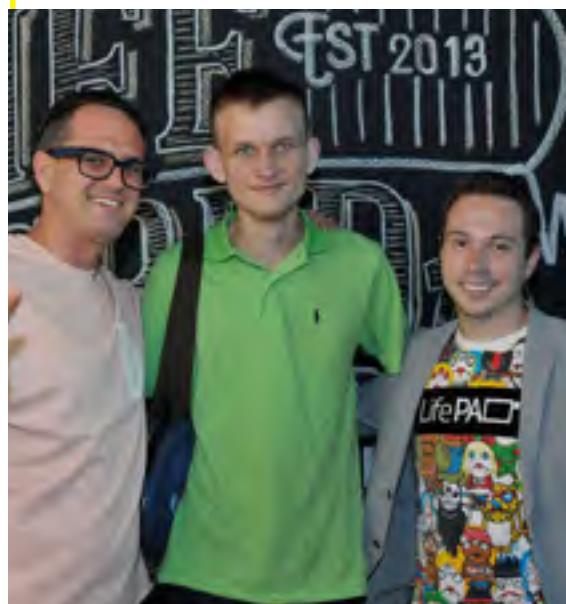
Tokken (pronounced token), is one of several recently created companies looking to solve one of the most vexing problems facing marijuana businesses in Colorado and several other states: the endless flow of dirty, dangerous, hard-to-track cash. Tokken and others start-ups, with names like Hypur and Kind Financial, have been putting together software that helps banks and dispensaries

monitor and record transactions, with the long-term goal of moving transactions away from cash. Careful record-keeping can answer the concerns of banks worried about violating anti-money laundering laws. The start-ups hope their software can allow banks to open up their accounts, and their payment networks, to cannabis businesses. The special sauce that sets apart Tokken is that every transaction will be recorded on the ledger underlying the Bitcoin system — known as the blockchain. Because transactions on the blockchain are irrevocable, pot dispensaries and banks will have a reliable and complete record of all Tokken transactions, including the specifics of each transaction — without requiring any Bitcoins to change hands (a tiny portion of a Bitcoin will be sent between Tokken accounts in order to record the transaction on the blockchain). **Hypur**, a two-year-old company based in Arizona, has built software for banks that uses GPS to geo-locate each purchase and prove it was done in an authorized dispensary. That has been enough to allow Hypur to raise more than \$5 million from investors. The California-based start-up **Kind Financial** is offering software as well as hardware, in the form of kiosks that can go inside dispensaries. Customers can deposit cash in the Kind kiosk to pay for their purchase, removing one headache for the dispensary.

Kraken is the largest EUR bitcoin exchange in the world with Bit-x and Gatecoin not far behind. But Kraken has one weakness — there isn't much volume when it comes to other currencies. The company is trying to fix that by acquiring Coinsetter to expand to the U.S. and Canada — for real this time.

Singaporean-based Bitcoin startup **BitX** has raised an undisclosed new round of funding from South East Asia investment fund Venturra Capital. Prior to the new round, BitX had raised \$8.8 million from investors, including Naspers Group. Founded in 2013, BitX provides a variety of Bitcoin-related services, including

Bitcoin wallets, a Bitcoin exchange and Bitcoin business integration. Based in the Southeast Asian financial hub of Singapore, with offices in Cape Town, South Africa, and Jakarta, Indonesia, the company currently offers a mixture of services in various countries. On top of the global provision of both wallets and their API, BitX offers additional services in Indonesia (instant buy and sell), Kenya, Malaysia and South Africa (buy and sell and exchange) and Nigeria (exchange). Millions of people in the region, in particular in the Philippines and Myanmar, do not have access to traditional financial services, and yet many of them have access to smartphones and Bitcoin services like those provided by BitX, and others have the potential to fill a hole in markets where there are currently no alternatives.



Vladislav Solodkiy, Vitalik Buterin and Igor Pesin at public talk organized at Life.SREDA HQ in Singapore

RAISE OF ETHEREUM AND PHILOSOPHICAL QUESTION OF THE DAO'S THEFT

If you haven't heard yet about the **biggest crowdfunding project in the history²⁶⁸**, hurry up to get to know **DAO**: Decentralized Autonomous Organization. **Stock.it**, the company that merges blockchain and IoT, introduced a new method that for the first time allows the

creation of organizations in which (1) participants maintain direct real-time control of contributed funds and (2) governance rules are formalized, automated and enforced using software. Although the idea of the DAO is built on leveraging the benefits of crowdfunding, it is not another crowdfunding platform, it is an organization. Written with code in the cloud, the non-legal entity of individuals (which Tim Swanson, Director of Market Research at R3CEV, calls «design-by-giant-nerd-committee»), the DAO does not create anything and does not employ anyone in a traditional sense. The **DAO is like a democratized version of a virtual hedge fund** outside of the regulatory zone where membership means pooling personal funds (exchanged to ETH) to get DAO tokens and the right to participate in governing the investments. The DAO is closed and self-governing—its software operates autonomously and its by-laws are immutably ‘carved’ into the Ethereum blockchain. The organization brings together groups of like-minded individuals with specific projects and goals in mind. Those individuals may never meet in real life and stay anonymous to each other, but connected by DAO, they can order to create something meaningful together. And the strangers have already come together. In fact, more than **20,000 investors already fueled DAO with over \$150 million.**

Sometime in the wee hours Friday, 17th of June 2016, a **thief made off with \$50 million of virtual currency**²⁶⁹. The victims are investors in a strange fund called the DAO, or Decentralized Autonomous Organization, who poured more than \$150 million of a blockchain-based currency called Ether into the project. The first large-scale experiment with a leaderless distributed autonomous organization (DAO) is winding down, according to at least one prominent member²⁷⁰ of the decentralized project, saying the **«experiment is over. Vitalik Buterin released**²⁷¹ a plan of action, which will ensure no funds are ultimately stolen. The people who created the DAO saw it

as a decentralized investment fund. Instead of leaving decisions to a few partners, anyone who invested would have a say in which companies to fund. The more you contributed, the more weight your vote carried. And the distributed structure meant no one could run off with the money. That was the plan, anyway. Its creators hoped to prove you can build a more democratic financial institution, one without centralized control or human fallibility.



Instead, the **DAO led to a heist that raises philosophical questions about the viability of such systems**²⁷². Code was supposed to eliminate the need to trust humans. But humans, it turns out, are tough to take out of the equation. DAO developers and Ethereum enthusiasts are trying to figure out how they might reverse the theft. The good news is that time is on their side. The thief transferred the stolen funds into a clone of the DAO that likely includes code that, as in the original system, delays payouts for a few weeks. The Ethereum team is now debating how, and whether, to refund the stolen funds. Machines will always be subject to the messy politics of the human world. But that also might end up saving the project. The heist has divided people and exposed the inevitability of human weakness. But it's also bringing people together to fix things. Humanity is making that possible, not mathematics.

However, according to the DAO's

own legal contract, there is no such thing as theft and the intent is completely unimportant—the only important and relevant thing are the smart contracts themselves. Consequently, there is no real legal difference between a feature and an exploit. It is all a matter of perspective. The descriptions didn't matter; only the code did. The descriptions didn't allow for today's hack, but the code did. If the code could be hacked, the code allowed for the hack. Any vulnerabilities in the DAO's code were not flaws in the code; they were flaws in the descriptions—which were purely for entertainment purposes. Using it isn't a «hack», and using it to take money isn't a «theft»; it is just using the DAO as intended. Where the only measure of intent is what is allowed by the «immutable, unstoppable, and irrefutable» code. The words «hack» and «theft» make human, normative presumptions about how you're supposed to use the DAO code. But the code doesn't care. The code can't be «hacked». It can only be used; its use has no normative implications. It isn't how human institutions operate.

But it is very much how **«smart contract» utopians want future institutions to operate, or how they think they want those institutions to operate**²⁷³. Human expectations are irrelevant, except to the extent that they are correctly translated into code. If you invest your Ether in a smart contract, you'd better be sure that the contract says (and does) what you think it says (and does). The contract is the thing itself, and the only thing that counts; explanations and expectations might be helpful but carry no weight. It is a world of bright lines and sharp edges; you can see why it would appeal to libertarians and techno-utopians, but it might be a bit unforgiving for a wider range of investors. While cryptocurrency/blockchain/smart-contract fundamentalists have a tendency to think that they can place themselves outside of national legal systems just by saying that things happen «on the blockchain», the national legal systems have a tendency to disagree.

You can't really base the financial system of the future on computers rather than humans, on trusting to immutable code no matter what happens. Financial systems are supposed to work for humans. If the code rips off the humans, something has gone wrong.

BLOCKCHAIN BEYOND PAYMENTS AND FINANCE

ShoCard and SITA, the IT company for the air transport industry, have been looking at ways to store your ID details on the blockchain to manage traveler identification²⁷⁴. This way, anyone can retrieve and prove your identity whenever they need to. The startup was part of the Battlefield at TechCrunch Disrupt NY. Working with SITA seems like a good fit as SITA is always looking at ways to make it easier to go through a border at airports. As airports get clogged up anything that can speed up passport check is a good thing. Passengers would generate a Single Travel Token with all their travel documents using ShoCard. Behind the scene, you seal your scanned documents with a public and private key. Your documents are encrypted, hashed, and anyone can verify their authenticity using the public key. Passengers could share this public key by scanning a QR code for example.

This way, border protection staff could retrieve your passport, visa, biometrics details or ESTA application without having to manage traveler identifications. Maybe border protection staff will want to check the real copy the first time, but frequent travelers could rely on this sealed digital copy. Moreover, it seems like authorities around the world all have their own way of storing traveler identifications. ShoCard and SITA could create a decentralized standard. Given that SITA works with 90 percent of the airline industry, you need to be perfectly sure that it's a viable solution before rolling it out to SITA's customers.

Britannia Mining, Inc., announced the formation of a strategic alliance with **Everledger** Ltd ('Everledger'). Everledger is a UK based company

that is capturing the full DNA of certified diamonds and uploading that to its ledger stored on the Blockchain. The ledger is immutable and functions as a secure, verifiable information source that makes it possible to track the provenance of diamonds. In January Everledger has won \$10,000 in prize money at the FinTech Finals 2016 in Hong Kong. The startup also awarded a €30,000 prize (\$33,939) on **BBVA's European Open Talent** competition (September' 2015) as well as an invitation to develop a project with the multinational bank. Everledger launched in 2015 which took part in the **Barclays Techstars accelerator** ending in June. Everledger began with diamonds, but they have far larger ambitions. The startup is looking to move into other luxury goods, she says, and is speaking with select retailers with an eye to including high-end watches in the next 100 days. Again, the benefits are obvious: proof of ownership, tackling fraud, and a deterrent to theft. An API could also be offered to online retailers like Amazon or eBay to help prevent stolen goods being resold through their platform. Everledger, the London-based start-up known for uploading specifications on 980,000 diamonds onto the blockchain, has announced a partnership with **Vastari, a fine art and exhibition database**²⁷⁵. «Everledger and Vastari are a natural fit as we're both in the business of protecting provenance», said Leanne Kemp, co-founder and CEO of Everledger. «For us it's about creating a permanent record to protect authenticity of an item, for Vastari it's guaranteeing an item's provenance while it's mobile». Vastari acts as a middleman between art museums that are looking for new pieces and private art collectors that want to increase the value of their art by getting it exhibited in public.

IBM laid out its claim for some of that new business: the IT giant announced a new set of blockchain services running on **IBM Cloud and Docker**²⁷⁶, along with standards to run those services to meet security

and regulatory compliance. The advances come two months after IBM made its first waves with blockchain technology. First, it emerged that IBM is now investing in startups building blockchain-based services — coming in on a \$60 million round for Digital Asset Holdings. Then weeks later, IBM announced its intentions to work with blockchain technology itself, committing to launch a «blockchain-as-a-service» across its «IBM Garage» network of developer centers (now in New York, Tokyo, London and Singapore); and donating 44,000 lines of code to the Linux Foundation's Hyperledger Project, effectively giving it a place at the heart of how it will be built. There are already some organizations working with IBM on projects, including a Finnish shipping company, the London Stock Exchange, the Japan Stock Exchange and ABN Amro. IBM's new offering will feature a dedicated environment on the IBM Cloud that the company says «will allow production blockchain networks to be deployed in minutes». Users will also have the option of using Docker containers by way of Docker Hub, featuring dashboards and analytics to monitor them, and also support and consulting services from IBM alongside that.

Experts have suggested a number of niche industries that will be made more secure by the untamperable data record provided by blockchain technology — including international art dealing, pharmaceuticals and international trade of high-value goods — but to date, very little attention has been given to the **potential effects on the real estate market**²⁷⁷. Buying a home is the biggest investment that most people will make in their lifetimes, yet, to date, there have been few technological advances to expedite the process and make it more secure for buyers, lenders and homeowners alike. There are three ways that blockchain could disrupt the real estate market: by speeding up the system, providing more transparency and offering safer investments to everyone involved. ●

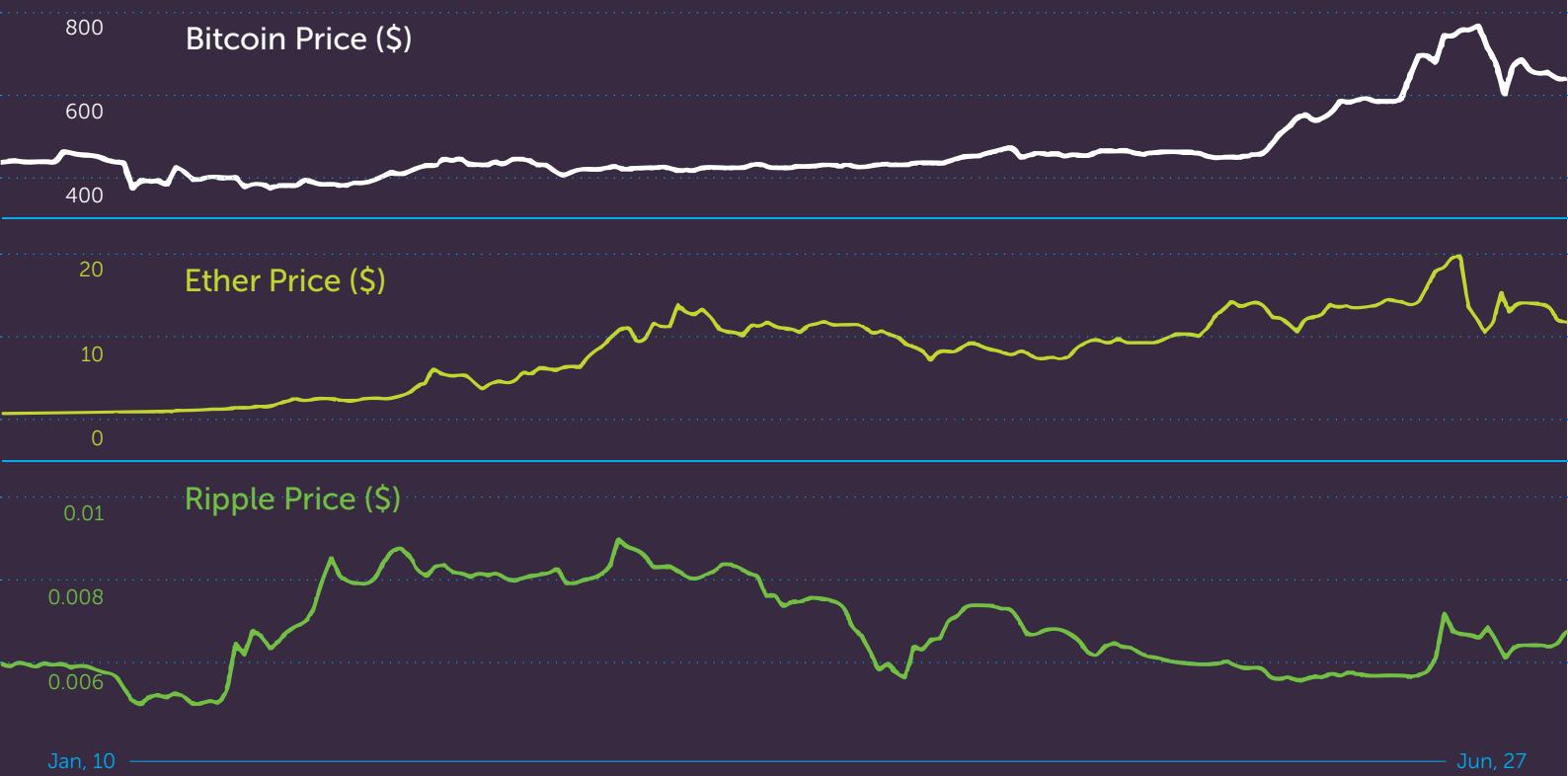
Top 20 blockchain financing transactions making more than 95% of value in H1 2016

#	Name	Overview	Found-ed	Stage	Investors	Total funding amount	Date of the last funding	Region	Sectors
1	Circle	Money transfer service using blockchain	2013	Late	Accel partners, Breyer Capital	\$110M	22/6/16	\$60M Boston	Bitcoin, remittance
2	Blockchain	Technology to extend bitcoin's functionality into things like stock trades or contracts	2014	A	AME Cloud Ventures, AXA, Blockchain Capital, Digital Garage, Horizons Ventures, Max Levchin	\$76M	3/2/16	\$55M Montreal	Bitcoin, finance, security
3	Bitflyer	Japanese bitcoin exchange	2014	C	Dentsu Digital Fund, Digital Currency, GMO Venture Partners, Mitsubishi UFJ Capital	\$32M	25/4/16	\$27M Tokyo	Bitcoin /exchange
4	Gem	Developer of API platform that simplifies integrating bitcoin into apps and services	2014	A	Amplify LA, Baroda Ventures, Bitcoinshop, Blockchain Capital, Digital Currency group, Kec Ventures	\$10.4M	6/1/16	\$7.1M LA	Bitcoin /developers
5	Simplex	Enabling crypto currency businesses to accept credit cards with zero Chargeback risk	2014	A	Agile Wings, Bitman, DRW Venture Capital, Founders club	\$8.4M	5/2/16	\$7M Tel Aviv	Bitcoin /payments
6	Symbiont	A platform that allows financial market participants to create programmable versions of traditional securities	2015	A	Celeridem FinTech Fund, Duncan Niederauer, MattAndresen, Scott Carmilani, Wicklow Capital	\$8.3M	12/1/16	\$7M NY	Bitcoin /software
7	Lisk	Platform for decentralized applications and side-chains written in Javascript	2016	Pre A	n/a	\$5.7M	30/3/16	\$5.7M Aachen	Bitcoin /developers
8	Elliptic	Digital currency services	2013	A	Digital currency group, KRW Schindler Ventures	\$7M	20/3/16	\$5M London	Bitcoin /software
9	KnCMiner	Mining software	2013	B	Accel partners, Creandum, GP Bullhound	\$32M	4/1/16	\$3M Stockholm	Bitcoin
10	Streami	Blockchain based solutions for remittances	2015	Pre A	Shinhan Capital	\$2M	2/1/16	\$2M Seoul	Blockchain
11	Bitso	Mexican Bitcoin exchange	2014	Pre A	Digital currency group	\$1.9M	28/4/16	\$1.8M Puebla	Bitcoin /exchange
12	Ribbit.me	Blockchain technology developers	2014	Pre A	Hayaat Group	\$1.5M	26/2/16	\$1.5M NY	Blockchain
13	Coinsecure	Bitcoin service provider in India	2013	A	n/a	\$1.2M	18/4/16	\$1.2M Delhi	Bitcoin /payments
14	RSK Labs	P2P platform payments built of bitcoin	2015	Pre A	Bitman, Digital Currency group	\$1M	21/3/16	\$1M Argentina	Bitcoin /payments
15	Tierion	Verification for businesses based of blockchain protocol	2015	Pre A	Blockchain capital, Digital Currency Group, Fenbushi Capital	\$1M	15/4/16	\$1M Hartford	Bitcoin /security
16	Zebpay	Bitcoin wallet	2014	A	Amit Jindal, Arjun Handa, Nagendra Chaudhary	\$1M	5/1/16	\$1M Singapore	Bitcoin /payments
17	Stratumn	Blockchain enabled application in PaaS	2015	Pre A	Eric Larcheveque, Otitum Capital	\$684K	30/3/16	\$684K Paris	Bitcoin /developers
18	Satoshipay	Bitcoin micropayments	2014	Pre A	Pug and play accelerator, Coinsilium	\$390K	25/1/16	\$210K London	Bitcoin /payments
19	Raisstone	Blockchain based digital asset transfers	2015	Pre A	n/a	\$100K	14/4/16	\$16K LA	Bitcoin /developers
20	Kraken	Bitcoin, cryptocurrency exchange	2011	B	Blockchain Capital, Digital Currency Group, Hummingbird Ventures, Jimmy Furland	\$6.5M	12/4/16	n/a Bay	Bitcoin /exchange

Selected Bitcoin market moving events, 1H 2016

5/1/16	Mike Hearn, former bitcoin core developer, claims bitcoin is a "failure"	-13.1%
19/1/16	China's central bank discusses the launch of a digital currency	+9.1%
22/1/16	Digital Asset Holdings raises \$50m, announces blockchain project with the Australian Stock Exchange	-6.6%
2/2/16	Goldman Sachs and IBM add money to Digital Asset Holdings round, raising total to \$60 million USD	+1%
10/2/16	IBM Director declares his company "all-in on blockchain"	+4.2%
23/2/16	Japan considers regulating bitcoin as a currency	-4.6%
26/2/16	Prominent hedge fund manager Mike Hart from Coriente Advisors reveals buying bitcoin as a hedge against Chinese devaluation and capital flight.	+2.2%
05/3/16	Coinbase CEO: Core Developers may be Bitcoin's "biggest systemic risk"	-2.5%
14/3/16	USAA expands bitcoin integration to all members	+1%
29/3/16	10 new firms join Hyperledger project including itBit	-2%
20/4/16	Bitstamp secures European license for bitcoin exchange, SWIFT developing a distributed ledger platform	+1.5%
21/4/16	Code released for Segregated Witness	+2%
29/4/16	Blockchain data platform Tierion raises \$1m USD	+1.3%
6/5/16	Evidence mounts that Craig Wright is not Satoshi Nakamoto	+3%
19/5/16	Sydney Stock Exchange announces it will be developing Blockchain Trading System	-4%
28/5/16	The DAO starts trading after raising ~\$180 million of Ether	+12.1%

Note/source: Source: Mattermark, Live SREDA API analysis, Coinmarketcap.com for the price information



CHAPTER #25

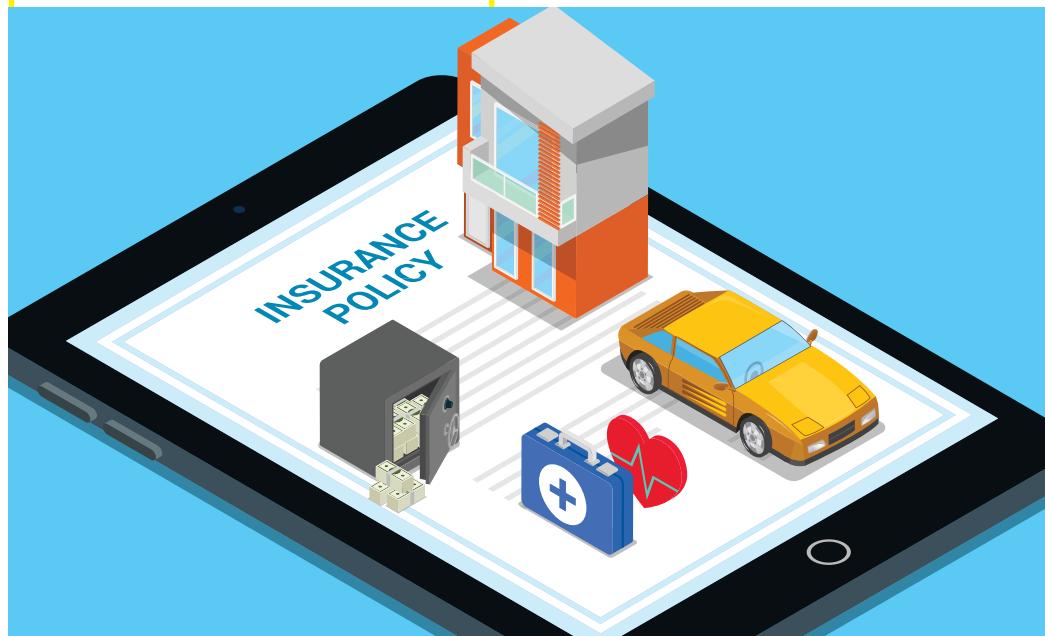
Fintech has seen a huge amount of investor attention, and dollars have flown into some bold, high-profile insurance companies. Many entrepreneurs are waking up to the fact that **insurance is arguably one of the most old-fashioned**²⁷⁸, analog consumer services in existence, and they are creating companies to upend this premise. The \$1.1 trillion in insurance premiums recorded in 2013 by the U.S. Department of Treasury represented approximately 7 percent of the U.S. GDP. And, as everyone is fond of pointing out, it's an industry dominated by very old institutions. Processes at the carrier level have, for the most part, been relatively unchanged by recent technology innovations, and many can seem almost comically dated. The average age of life insurance agents is 59 years old, and it's estimated there are an average of three duplicate processes in each customer sale. It's not out of the realm of possibility that your insurance company will at some point ask you to fax them something. Auto insurance companies spend a combined total of \$6 billion in advertising each year, but customer satisfaction is low. Today's consumers want to be able to get educated, get a quote and buy a policy from the comfort of their home (or cell phone) in less than 15 minutes. Today's world is driven by data, and there is a huge opportunity for insurance to leverage data platforms to help improve their operations in everything from sales to underwriting. Real-time and near real-time data streaming — everything from environmental sensors to connected devices and wearables — will allow insurers to better manage risk, improve subscriber loyalty and optimize sales opportunities.

«It's abundantly clear that today's **health insurance market is broken**», First Round Capital founder Josh Kopelman wrote this past September when his venture firm poured \$4 million into Clover Health. «When it comes to technology, the giants shaping the industry are trailing 20 years behind. They have vast stores of data, but aren't leveraging them

to improve the standard of service or care». «There's a big difference between spending a lot of money on technology and being a technology company», said Vivek Garipalli, CEO of Clover Health. New health insurance investments «are really quite speculative», said Scott Harrington, a healthcare management professor at the University of Pennsylvania. «And in many instances, they are not likely to bear fruit». One branch is composed of actual insurance companies that pay medical claims, contract with hospitals and doctors, and take on some kind of risk on behalf of their members—all with a bigger emphasis on consumer-friendly technology and data. Those include Oscar, Zoom+, Clover Health, Melody Health Insurance and Beam Dental. The second branch comprises purely tech-focused companies that are involved with buying, selling or managing health insurance. These include Zenefits, Collective Health, Stride Health, GetInsured, SimplyInsured, Gravie and Picwell.

relevant to insurance. And so did among others Allianz, MetLife and PingAn. Mark Wilson, CEO Aviva, said 'the industry is in the stone age' and started hiring staff from Google and Amazon to update Aviva's technology. Startupbootcamp announced its first insurance accelerator program in London, backed by Allianz, Admiral and Lloyds.

Venture capital-backed insurance success stories have risen at a regular drumbeat over the last few years: 2011 brought the billion-dollar Esurance acquisition, 2012 brought the wildly successful Guidewire IPO, 2013 brought the large Climate Corporation acquisition and 2014-2015 brought Zenefits to prominence. Each of these companies pulls a piece of the insurance industry kicking and screaming into a more modern age. This year, many more of these companies are poised to succeed. Insurance carriers have moved from resisting online and direct insurance sales to partnering



According to CB Insights VC investments in insurance fintech firms quadrupled compared to 2014. NYC health insurance start-up Oscar became the posterchild for customer engagement, the proof that insurance can be made sexy. AXA launched AXA Strategic Ventures, a 200 mio euro corporate venture arm for emerging strategic innovations

with and investing in companies like CoverHound, Metromile and PolicyGenius. Complex data analytics tools like Hadoop and Spark now enable the use of more sophisticated datasets in real-time underwriting. Perhaps most importantly, consumers are increasingly open to interacting with financial institutions online. There has never been a better time

for talented entrepreneurs to build companies that change the insurance industry. There are three types of companies effecting this change: 1, new insurance carriers innovating on the full stack; 2, brokers reshaping insurance sales; 3, managing general agents offloading risk but advancing product and distribution.

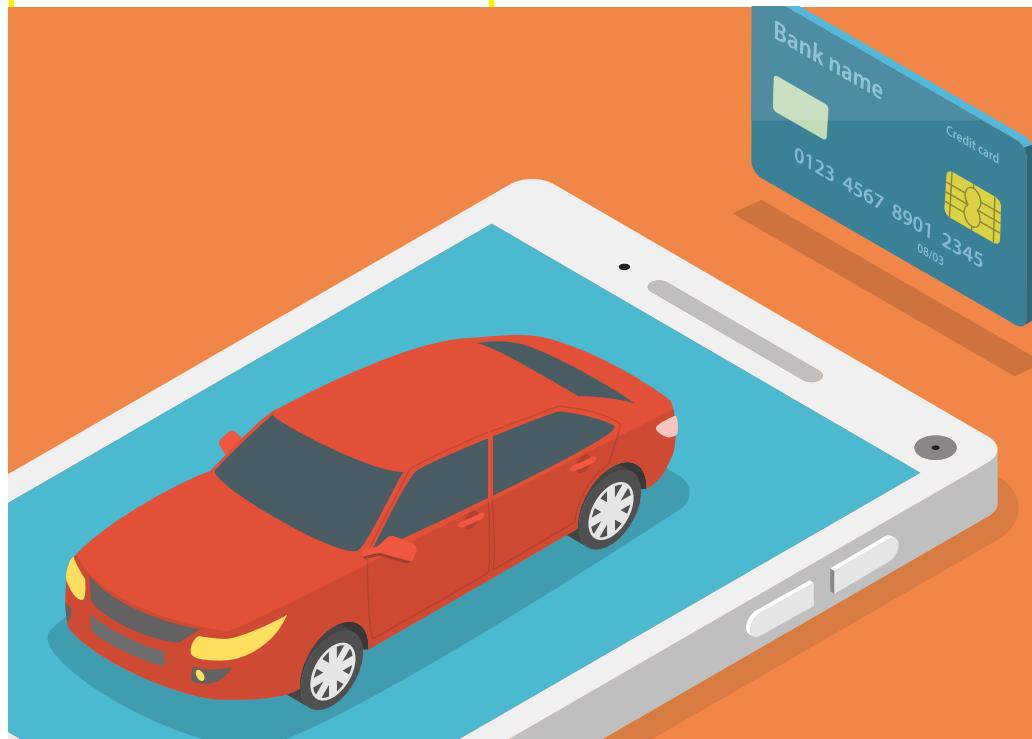
Real-time access to data, combined with a digital interface, also presents the opportunity for reaching new customers with new product types in a way that is sustainable for insurers²⁷⁹. A perfect example of this are the **micro-insurance policies for agriculture in countries like Kenya** that utilize real-time weather data and mobile money transfer to create affordable and accurately priced micro-insurance policies for farmers. The Internet of Things (IoT) and wearables have already seen rapid adoption for insurance applications, with carriers offering discounts to customers who provide data from wearables, like **Fitsense** or car plug-ins. Startups like **Safesite**, for example, are building tools for the construction industry to incentivize more diligent adherence to safety practices on build sites, and, in doing so, are lowering insurance premiums for these projects in the process. We have seen a few different insurance startups, like **Next Insurance** (small business insurance) and **Lemonade** (peer-to-peer online P&C insurance carrier), raise large rounds recently, which has garnered a fair amount of attention for some of the unique challenges of starting a new insurance carrier in the U.S. **Cyber insurance policies** for companies at risk of cyber attacks or data leaks, drone delivery, new auto policies for the world of autonomous vehicles – both for consumers and in industry – as well as issues like identity theft all present very tangible risks in our society and opportunities for legacy (but also upstart) insurance companies.

PolicyBazaar is an Indian startup that can sell policies direct-to-consumer²⁸⁰. They recognized that only 4 percent of Indian consumers have

any non-health insurance and only 2 percent of that 4 percent bought their insurance online. **Cover** (a graduate of the 2016 Y Combinator batch) built an app that quotes insurance for any personal property (jewelry, car, house, drones, etc.) based on a picture of the object. **Trov** is building a cloud-based, end-to-end mobile insurance platform, scheduled to launch later in 2016. Today, the Trov app keeps track of your valuable possessions (bicycle, skis, laptop, etc.). **Embroker** is a tech-enabled commercial broker built on the premise that it can serve small and medium businesses better than the status quo insurance broker. «Broker workflows and processes are all manual in nature. Because manual processes don't scale, smaller customers receive worse service outcomes», says CEO Matt Miller.

insurance to the bottom of the pyramid; to 20 million customers in 15 countries on three continents), Qiy Foundation (provides a groundbreaking structure to identity and personal data protection), Traity (creates a network that allows people to owe their reputation while increasing trust and transparency in doing business online), **Trov** (enables consumers to insure just the things they want—exactly when they want—entirely from their mobile phone), TrueMotion (creates solutions that enable insurance carriers to implement usage-based insurance concepts at much faster speed to market).

The Floow gathers data from phones and in-vehicle 'black boxes' to help make insurance premiums more accurate and even reduce the likelihood of a driver ever having an



INSURTECH-STARTUPS: US AND EU

The recently concluded **DIA Barcelona 2016** saw the DIAMond Awards²⁸¹ being awarded to InsurTechs with the most strategic impact. Here are the six companies that were awarded: BigML (democratizes machine learning solutions that enable insurance companies to build analytics capabilities faster than ever before), BIMA (offers mobile

accident. «Insurers are looking to telematics to increase the fairness of prices», the founder and CEO of The Floow, Aldo Monteforte, told²⁸². When it comes to gathering data, Monteforte considers every single element which influences road safety. The Floow monitors smoothness of driving, weather conditions, other road users and multiple other data points to tailor insurance premiums to each individual. Smartphones

have been able to track telemetric data for a while — the same technology lets us play motion-controlled mobile games — but the insurance industry is only just waking up to the usefulness of that data. Reducing insurance premiums is only the start; The Floow is helping make sure drivers never have an accident in the first place. The company's algorithms can detect high-risk drivers and offer to help them drive more safely. Drivers that take up the offer often move out of the high-risk category and become much less likely to ever be involved in an accident.

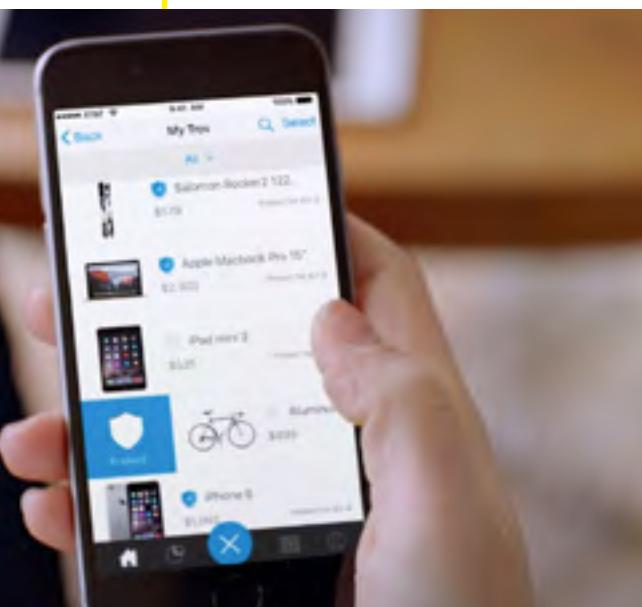
ance «incumbents» and those new startups, there's one big difference, he says. «Incumbents have historical claims and cost data». This means they are able to utilise the data to make predictions and know everything about their customers. According to Miller, this will see new companies that develop machine learning and artificial intelligence competing with legacy firms.

With \$25.5M in new funding, Trov launches on-demand insurance for individual items²⁸⁴. Insurance isn't necessarily an inviting word,

ners with a certain insurance carrier in a particular geographic region to set up this bridge. The carrier offers balance sheet and regulatory risk, but all premium payments and claims are filed through the app. However, the company recently received \$25.5 million in Series C funding to launch on-demand insurance. The funding was led by Oak HC/FT, with participation from Suncorp Group, Guidewire, and existing investor Anthemis Group. The company is launching in Australia (in partnership with Suncorp Group, and the UK, with Axa as an insurance provider. Trov has plans to launch in the United States and other territories following this pilot launch.

Quartet Health, a company that wants to close the gap between physical and mental healthcare, has raised a **\$40 million Series B led by GV²⁸⁵** (formerly Google Ventures). Existing investors Oak HC/FT Partners, F-Prime Capital Partners, and Polaris Partners also returned for the round. This marks the first time that GV has invested in a mental health startup. Founded in 2014, Quartet's platform make it easier for primary care doctors and mental healthcare professionals, like therapists, to work together. Many psychological conditions have physical symptoms (and vice versa), but they can be difficult to identify if a patient's providers don't communicate.

Hong Kong-based Horizons Ventures, a private investment arm of Li Ka-Shing, has led a **US\$15.3 million** funding round in Berlin-based P2P insurance startup **Friendsurance**. A few strategic investors and business angels from Asia and the US also participated in the current round. «We intend to use the fresh capital to grow further in the German market and expand internationally. Our first expansion target for 2016 will be Australia. We are presently considering expansion opportunities for further markets», said Co-founder Tim Kunde. Founded in 2010, Friendsurance operates an innovative peer-to-peer insurance model. The model rewards small groups of



The CEO and founder of **Guevra, a peer-to-peer based insurance company**, believes the future for insurance startups lies in decentralised systems²⁸³. Guevra itself has raised £3m, Miller says. The company is currently going through the process of being approved as an insurance carrier. This will mean it is able to focus on other general insurance areas other than vehicles, which its UK focus is based on at the moment. «Instead of taking all of your money each year, we let drivers pool part of their premium together in groups», the company explains on its website. Miller admits most customers don't want to hear from their insurance companies — ideally, he says, they wouldn't want to pay either — unless they've been involved in an accident or need to get in touch with them. In the battle between old insur-

especially for millennials. Not only do young people have fewer items to insure, but the process of getting insurance for those items is entirely foreign to folks who order their cars, food, cleaning services and more from an iPhone app. That's where Trov comes in. Trov is an on-demand insurance platform that lets users buy insurance for specific products, for a specific amount of time. When a user inputs a certain product (a television, appliance, phone, laptop, musical instrument, surfboard, etc.), Trov simply needs the make and model to generate all the metadata necessary to insure that item. Alongside information about the insurance purchaser, Trov can then generate a to-the-second price for insurance. That user can then turn protection on and off for their various items through a simple swipe. Trov part-

customers with a cashback bonus each year if their group remains claimless. Customers with the same insurance type form small groups, where a part of their premium is paid into a cash back pool. If no claims are submitted during the year, the group members get their cash back in the following January. In property insurance, the average cashback is 33 per cent of the original premium paid. Friendsurance operates as an independent insurance broker in the German market with approximately 70 domestic insurance partners. The startup currently employs more than 80 people.

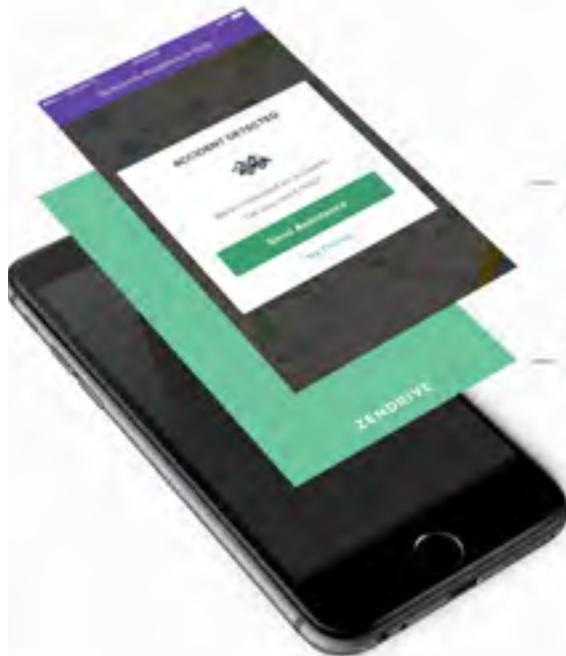
In situations where you aren't worried enough to call the police, but where you do want to reach out to a friend and say «something's not right here», freshly launched **Guardian Circle** has your back. The idea is simple: You add your friends and local contacts to an alert list on the app. If something happens and you need a pair of helping hands, you can send an alert with varying degrees of urgency. The alerts range from a «request» (say, you're at home recuperating from a broken leg and you need one of your friends to pick up some chicken soup), right up to «emergency», where you think you may have had something slipped into your drink, or you're worried someone might be following you. The clever innovation Guardian Circle brings is that every alert creates an «alert room», so your friends and family can coordinate their efforts to ensure that whoever is best positioned to do so can attend to the alert. The app is free to download and use, but it's possible to upgrade to a «gold» plan for \$99 per year, which will include «alert room operators» for emergencies. The current version is iOS-only, with an Android version to follow «by the end of March».

Lemonade continues to build out an impressive team giving some hope that its new model for insurance (the company's tagline is «Insurance that doesn't suck».) will live up to its promises. Its most recent hire is Dan

Ariely, the famous behavioral scientist, who will serve as the company's Chief Behavioral Officer. Ariely is tasked, in part, with helping design systems and processes that ensure that the interests of the insurer and the insured are aligned. «This was an idea of a financial institution with no conflicts of interest». Ariely firmly believes that insurance is a key part of people's financial and social well-being. Lemonade, with Ariely, will try to bake honesty into the process of filing claims — in part by using Ariely's own research. «We will try to use all kinds of things we have done that we have learned on the research of dishonesty to promote people to be honest», he said. For instance, the Duke University professor has found that when people sign forms at the top of a document it encourages them to be more honest — so Lemonade may use that policy in its own applications. Since its public launch with a **\$13 million investment from Sequoia Capital** and Israeli venture investor Aleph late last year, Lemonade has amassed a series of impressive wins. The company lined up Berkshire Hathaway's National Indemnity, Lloyd's of London, National Indemnity, Everest, Hiscox, Munich, Transatlantic, and XL Catlin as reinsurers. In all, the firms have \$100 billion in surplus capital to pay out to policy holders. What's more, the company lined up an impressive roster of executives to support its mission. New hires include the former president of product development at insurance behemoth AIG, Ty Sagalow; the former chief underwriting officer of ACE, Robert Giurlando; James Hageman the senior vice president of claims at ACE; and the head of AIG's financial planning and analysis group in the US, Ron Topping.

Zendrive, a startup that uses smartphone sensors to measure drivers' behavior, has **raised \$13.5 million** in Series A funding led by Sherpa Capital. Zendrive has now raised \$15 million altogether. Zendrive is hardly alone in offering safety tools to customers in both emerging and established transportation indus-

tries. Just one of its competitors is a four-year-old hardware and software company called Automatic that sells what it calls a smart driving assistant. Another flavor of company selling telematics tools and services is 18-year-old Omnitracs, which sells fleet management software.



Data is hot right now. We generate tons of it, but most of it sits there, latent, unused and useless. This is particularly pronounced when it comes to health and fitness data, where we strap on our fitness trackers and expect the pounds to melt away with each step passively logged. But we haven't seen a dramatic improvement in our nation's health with the emergence of the «quantified self movement» and the pervasiveness of wearables. We still live in a country where two-thirds of us are overweight or obese and 80 percent of adults do not get the recommended amount of exercise. One example of a tool doing just this is **Moov**, a wearable fitness device that doesn't just track movement, it demonstrates tangible ways to make a workout better. Programs like **Prevent** from OmadaHealth, which coordinates for people at risk for chronic disease everything they need to embrace lasting change, are successfully bridging this gap.

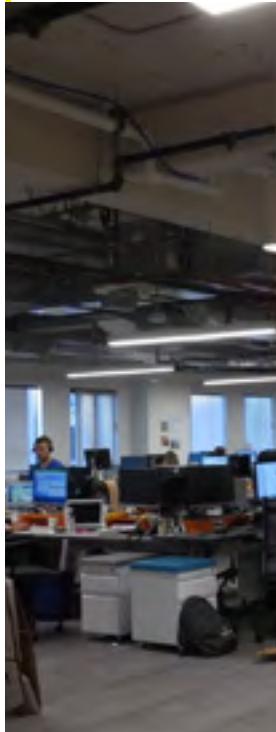
between what we «should do» and what we're actually doing.

Austin-based The **Zebra**, a startup that's something of a «Kayak for auto insurance», has been working to bring the process of shopping for insurance online, where consumers can more transparently compare quotes and understand how insurance companies determine rates. Now the company has raised an additional **\$17 million in Series A funding** led by Ballast Point Ventures. With The Zebra, the idea is to offer a way for consumers to get real-time quotes from car insurance companies by filling out a simple online form. Today, drivers who complete the process can compare side-by-side quotes in a matter of minutes from over 200 insurance companies across all 50 states. The technology on The Zebra's back-end uses public state filing data and data from insurance companies, along with machine learning, to arrive at its quotes. Over the past year, The Zebra has expanded its direct relationships with over 40 of the top insurance companies in the U.S. In addition, the company delivered 3.5 million quotes last year, saving drivers an average of \$368 per year, he notes, and has been growing at 35 percent month-over-month in 2015. To date, The Zebra has raised over \$21 million in outside investment.

Like Knip, **FinanceFox** is another startup founded in Switzerland that is moving the insurance brokerage process online. To help with that mission, the startup — which is based in Berlin, Zurich and Barcelona — has raised a **\$5.5 million** round of funding led by Salesforce Ventures, with participation from AngelList, Idinvest, Seedcamp and Speedinvest. The new capital will be used to expand its marketing and sales activities in Switzerland and Germany as well as enter new markets. Not only is all your insurance paperwork digitized, offering the ability to compare competing products, but the app is also the interface to a «personal consultant that compares your life situation and your current coverage and sends

you offers to digitally sign right on the app».

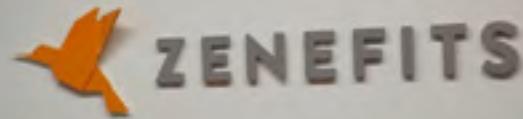
Brooklyn-based **PolicyGenius** has **raised \$15 million** in a new round of funding to expand its price comparison insurance brokerage service. Founded by a former McKinsey consultant who worked with the insurance industry in 2014, PolicyGenius provides users with price comparison information on life insurance, long-term disability insurance, renters insurance and pet insurance. Offering content and advice, online quotes for policies, and an easy application process for consumers to get insurance, PolicyGenius has already reached **800,000 users** by the end of 2015.



ZENEFITS: PROBLEMS OF HYPERGROWTH

Zenefits is laying off another 9% of its staff — or 106 additional people — and offering its existing employees a buyout offer as it continues its transition following former CEO Parker Conrad stepping down amid a ton of turmoil²⁸⁵. The news was in a memo issued by David Sacks to the company's employees. In February, the company said it was laying off 250 employees, largely concentrated in its sales division. This time around, the layoffs are in

conjunction with the closure of the company's sales office in Arizona and including other operations people, Sacks said in the memo. Perhaps the more interesting news is an offer to buy out existing employees with a two-month severance package ominously named «The Offer». The goal of «The Offer» seems to be to reset the company's culture and bring it in line with a more focused startup. Zenefits employees have two days to decide whether to accept the offer. Sacks pulled no punches in his explanation for the move: «If you can't get excited about [the new Zenefits], then frankly we need you to make space for someone who will».«We want the best of you. We want you winning core value awards. We want



you prototyping a great idea at Hackday. « Zenefits offers small- and medium-sized business simpler human resource management tools, and also payroll services. The company offers its software for free and makes money through commissions.

The company had to ban office sex after used condoms were found in the stairwells, telling its employees in a company-wide email in June to tone down their lewd behavior. A Zenefits spokesperson told: «As Zenefits' new CEO has made clear,

it is time to turn the page at Zenefits and embrace a new set of corporate values and culture. Zenefits is now focused on developing business practices that will ensure compliance with all regulatory requirements, and making certain that the company operates with integrity as its number-one value».

New CEO David Sacks has **been roiled by a series of allegations about fraud and a disastrous company culture**. «It's no secret that Zenefits grew too fast, stretching both our culture and our controls», Sacks wrote in an email to employees. «This reduction enables us to refocus our strategy, rebuild in line with our new company values, and grow in a controlled way». In November, a Buzzfeed investigation said that the company's salespeople were acting as insurance agents without proper licensing in at least seven states. California regulators are investigating whether Zenefits helped some of its agents illegally obtain their insurance licenses.



Zenefits is a canary in the coal mine for hypergrowth startups — or at least that's how the story of the company's skirting of regulations and subsequent resignations and layoffs is generally conveyed. But

500 Startups CEO **Dave McClure is a little more optimistic about the future of the human-relations startup**²⁸⁶. «Zenefits is still a promising company, said McClure. «During my years in Silicon Valley, I've seen a number of attempted tech turnarounds. Frankly, they don't have a very good track record», he wrote. «But that's because those companies had become obsolete technologies; they had lost their product-market fit. That is not Zenefits. Zenefits has made mistakes but it never lost its product-market fit». McClure said, «I know the company definitely has customers and definitely has revenue».

consult with doctors through text, pictures and video. It also provides pharmaceutical online-to-offline service and runs an online store for healthcare products. The app creator Wang Tao, said, the proceeds will be used to improve online consulting services including online appointment booking, chronic illness management and medicine delivery as well as recruiting more full-time doctors to the platform. A part of the funding will go toward helping the government build up healthcare clouds to maintain files on local citizens and **create an incubation fund** to invest in healthcare-related companies. It claims that the app has



INSURTECH-STARTUPS: ASIA-PACIFIC

Shanghai-based **Ping An Health Cloud**, operator of mobile healthcare app **Ping An Haoyisheng**, has completed the latest **\$500 million funding round**²⁸⁷, resulting in boosting the company's value up to **\$3 billion**. The identity of the investors was not disclosed. Ping An Health Cloud, founded in August 2014 with registered capital of RMB350 million, is a wholly-owned subsidiary of China's insurance conglomerate **Ping An Insurance**. Eight months later, it launched Ping An Haoyisheng, an online platform that allows users to

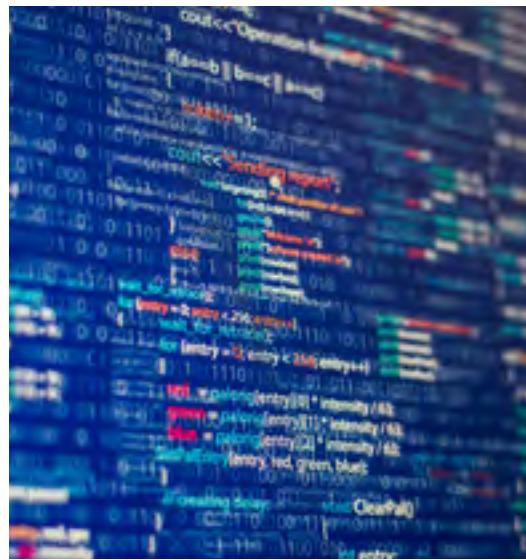
77 million registered users, up from 10 million last June, and provides 250,000 peak daily consultations.

PolicyBazaar is an Indian startup that can sell policies direct-to-consumer. They recognized that only 4 percent of Indian consumers have any non-health insurance and only 2 percent of that 4 percent bought their insurance online. **A young startup Coverfox is changing the rules of the game in India's insurance market**²⁸⁸ **too**. Serial entrepreneurs Varun Dua and Devendra Rane set up insurance portal Coverfox in 2013, hoping to change the archaic ways

of the insurance industry in India. The Mumbai-based insurance broking firm allows a user to compare policies from top insurance brands in one go and then buy a policy online. Offering over 100 products and with 25 insurers on board, it is doing brisk business in Delhi, Mumbai, Bangalore, Pune, Lucknow, Chennai, and Hyderabad. The company settles 150 to 200 claims a month and has sold around 120,000 policies to date. The firm has found backing from Accel India, SAIF, and Infosys founder N.R. Narayana Murthy's Catamaran Ventures. Coverfox considers Policybazaar its biggest competitor, apart from the online portals of insurers themselves. Its biggest draw is auto insurance, though it also offers health, travel, and term life. «We are already the second largest online auto insurance player and aim to be the largest in the next six months. Sixty percent of the portfolio is auto, and health is a majority chunk of the remaining 40 percent», says Varun. Coverfox is not a web aggregator, and has a broking licence from the Insurance Regulatory and Development Authority of India.

confusion at best and a complete gap in protection at worst. The good news is that change is coming (and in some cases is already here). And the opportunity is too big to be ignored for long. Beginning in 2016, we'll start seeing established companies and newcomers alike move to fill insurance coverage gaps being created by new technology and industries. Take Airbnb, for instance. Many people don't have liability coverage through their homeowner's or renter's insurance. Or look at Uber. There used to be a gap in insurance coverage where an Uber driver would be covered by their own auto insurance when they were off the clock, covered by Uber's insurance when driving a passenger but covered by neither when they were looking for a customer. Even a sector that has a long history — auto insurance — could be due for a shake-up. Self-driving cars are taking a huge part of the insurance equation out of play by removing drivers, and a whole host of questions pops up with that: Who's liable for damages? What will an auto insurance policy actually cover? A seemingly persistent problem for people across the

will offer **insurance for on-demand workers and providers**, starting with rideshare drivers and then homeshare hosts. The startup announced today that it has raised **\$3.9 million in seed funding** from Horizon Ventures and XL Innovate. Don't companies like Uber and Airbnb provide insurance already? They do, but Attia (who's spent more than a decade in the insurance industry) argued that there's still a significant amount of risk. Slice, on the other hand, aims to offer new kinds of insurance products designed for on-demand workers. These products will be available on a transactional basis — so a ridesharing driver should be covered from the moment they start driving or get into the car, but they're only paying for coverage during the time that they're working (making it more affordable than just taking out a pricey commercial insurance policy). Technically, another firm is providing the actual insurance, but it sounds like Slice is doing most of the actual work. «Our product — we price it, we issue it, we bill, we manage claims, but we're not taking risk», Attia said. Attia plans to launch Slice's first products in June.



CYBERINSURANCE

The Verizon 2016 Data Breach Investigation Report²⁸⁹ confirms that companies large and small, across all industries, in all geographies, are at risk of being targeted by a cyber attack; in fact, it is estimated that **62 percent of cyber breach victims are small to mid-sized businesses**. The average total cost of a breach,

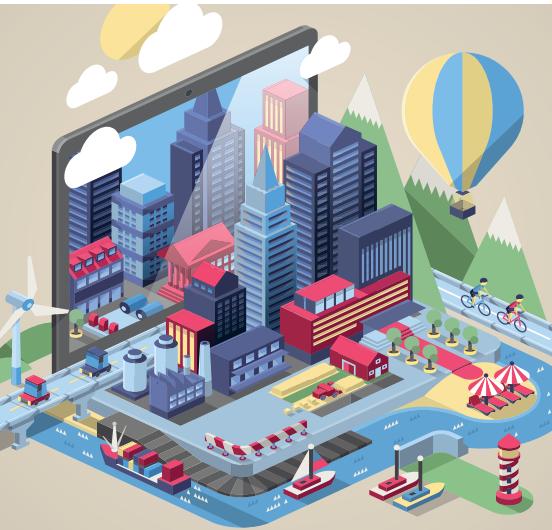
INSURTECH FOR UBER- AND AIRBNB-LIKE SERVICES

The industry is slow to react, and when finances, security and safety are on the line, you don't want to be playing catch-up. Do I need insurance for my drone? What does a driverless car mean for auto liability? When the lines of coverage are blurred, it leaves a grey area of

globe are data breaches that put our sensitive personal data into the wrong hands. As more and more devices connect online, the so-called Internet of Things, we find ourselves giving to cloud platforms more and more private data ripe for the taking.

Tim Attia is co-founder and CEO of New York based **Slice Labs**, which

according to the 2015 Cost of Data Breach Study: Global Analysis, is now at \$3.79 million. If, or more accurately, when your company is hit by a cyber attack, do you have what you need to recover? Do you know what kind of losses you can afford to absorb in your bottom line? How do you manage your risks? Have you thought about whether you need cyber insurance? A recent 2016 survey found that 59 percent of organizations incorporate **cyber insurance** into their strategic plans to manage cyber risks, with the highest rate among large corporations. Cyber insurance is a sub-category within the general insurance industry, offering products and services designed to protect businesses from internet-based risks. Although forms of cyber insurance policies have been around for the past 10 years, market awareness has recently increased exponentially, in part because of the headline-grabbing cyber breaches that have hit almost every industry. In just a couple of years, the U.S. cyber insurance market has **grown from about 10 insurers to 50** that provide stand-alone cyber insurance policies. In 2015, these providers generated \$2.75 billion in premium revenues in the U.S. According to a recent study by PwC, **this number is set to triple to \$7.5 billion by 2020**. Most cyber policies currently on the market offer a combination of two types of insurance coverage: First-party coverage: covers direct losses to the organization; Third-party coverage: protects against claims against the organization by third parties, such as customers or partners.



Can startups disrupt the \$20 billion cyber insurance market?²⁹⁰ Over the past few years, cyber insurance markets have been growing at between 25-50 percent CAGR each year. According to The Betterley Report 2015, annual policy premiums are approaching \$2.75 billion. The ecosystem of insurance underwriters, intermediaries/brokers, analysts/management consultants and compilers of insurance market information is evolving rapidly, trying to make the most of this rising tide. As large insurance underwriters try to grapple with cyber insurance, newcomers aim to disrupt this ecosystem. And the battle has just begun. According to Allianz 2016 Risk Barometer, cyber incidents are considered the No. 1 emerging risk for the long-term future. According to AIG, insurance underwriters collected \$1.6 billion in premium income in 2015. Allianz projects premium income to grow to \$20 billion by 2025. The average take-up rate for cyber insurance is 24 percent across U.S. businesses. Only ~40 percent of Fortune 500 companies have procured insurance against cyberincidents, and those with insurance typically purchase limits that do not cover the full extent of their cyber exposure.

ing their risk factors. According to a NetDiligence 2015 Cyber Claims Study, 48 percent confessed to a lack of understanding of complexity of risks, preventing them to be better prepared against such risks. And as much as 46 percent did not have concrete assessment of costs of risks involved. The key questions enterprises struggle with are: (a) What is at risk for our enterprise — is it business continuity? Will we be DDoS'ed? Or experience intellectual property theft? Do we hold consumer/financial/patient data?; (b) What is the probability of an event occurring?; and (c) What are the estimated damages? Like most nascent arenas, development of a common taxonomy and risk assessment framework is much needed.

NEW INSURTECH ACCELERATORS

Insurance giant **Allianz announced it is opening Asia Lab**²⁹², a space for digital innovation and advanced analytics in Singapore. The lab will start with a team of 10 technology specialists and data scientists. The lab is established with the support of the Monetary Authority of Singapore and will be housed in Allianz's Asia headquarters in the city's central business district. The company wants to de-



There are more than 18,000 mid-market companies with revenues from \$250 million upwards in professional services, retail and manufacturing verticals that will need insurance coverage. Enterprise customers are eager to buy coverage, but struggle with understand-

velop solutions in connected health care, mobility, and smart city living. It will start with a team of 10 technology specialists and data scientists and will collaborate with startups and institutions to share insights and expertise. AIA has already launched a health-focused startup accelerator

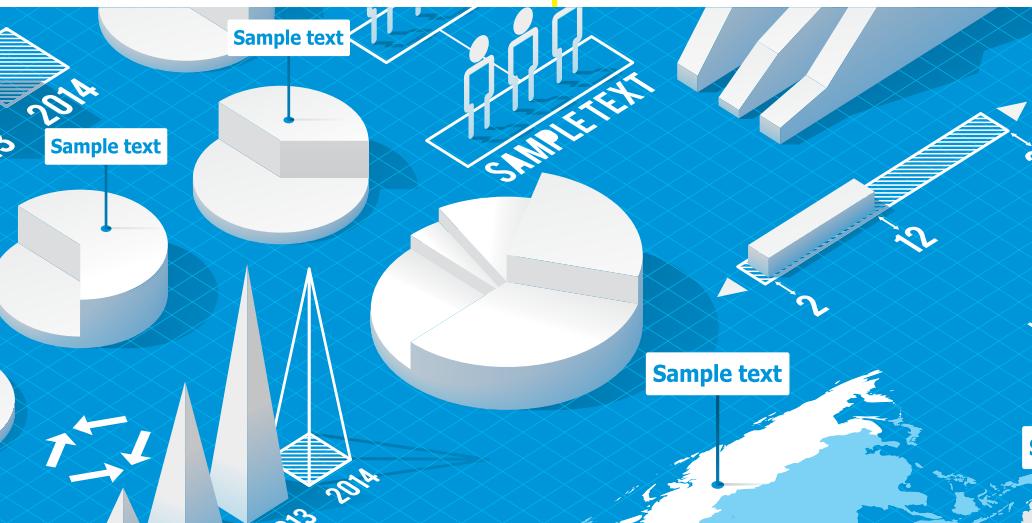
with Konica Minolta, while AXA is working with ride-hailing app Grab to develop telematics solutions for passenger and driver safety.

The Global Insurance Accelerator (GIA) in Des Moines, Iowa has launched its second program for insurance technology startups. This year's program attracted twice as many applications as last year's. The GIA chose six startups across auto, property and health insurance to participate 100-day program which offers each team \$40,000 of seed capital, office space, one-on-one mentorship, business development training and access to the GIA's extensive and diverse network of insurance executives and carriers, investors and industry leaders. In exchange, the GIA receives a six percent equity stake in each company. «Insuretech is where fintech was 10 years ago». Investors backing the GIA (all returning from 2015) include the following insurance carriers: American Equity Investment Life, Delta Dental of Iowa, Farmers Mutual Hail, Farm Bureau Financial Services, Grinnell Mutual Reinsurance, IMT Insurance Company and Principal Financial Group.

ple Watch. GoPro launched a host of new action camera products. FitBit went public with a market cap of over \$6B. And Oculus and Microsoft solidified their plans for Rift and Hololens, respectively. Battery life is by far the biggest obstacle preventing broad market adoption and retention. Our wearable devices should last weeks and months, not hours and days. Virtual and augmented reality headsets also suffer from power consumption issues. Companies developing processors, new memory technologies, new displays and next generation connectivity are well-positioned as key enablers for next generation wearables. After the hardware matures, the innovation moves to software and services. Over the next ten years, we can imagine a world where instead of wearing a smartband or smartwatch to track activity and heart rate, we could just put on our favorite shirt. The buttons on that shirt would capture data from our bodies and source power from the ambient environment. These buttons would communicate to the world around us, and would never need to be recharged. Software and services would tell us when to hydrate, when to get out under the sun, when to

and transportation. With the emergence of IoT devices, the healthcare industry will benefit from always-on connectivity, increased data and information and decreased unnecessary interactions between healthcare professionals and patients. It is provide great opportunities for **insurtech** too. The Food and Drug Administration (FDA) reported that approximately 500 million smartphone users around the world will be using a mobile medical app this year. This number is expected to grow to 1.7 billion smartphone and tablet users by 2018. From hospitals testing «smart beds» to connected electrocardiograms and connected patient badges, there are endless efficiencies that the Internet of Things can provide to hospitals, doctors and many other players in the healthcare ecosystem. It is too early in the innovation cycle to choose or rank the greatest impact that the Internet of Things will have on the healthcare industry, so here are just a few of the identified areas: Telemedicine and patient monitoring; Better drug delivery and management; New data and discoveries. With increased connectivity of glucose monitors, heart monitors and so many other tracking devices, there are bound to be new discoveries from the data we collect, analyze and benchmark against patients around the world.

The Internet of Things (IoT) has metamorphosed over the last few years. In the future, its applications will no doubt impact industry, urban development, **healthcare**, agriculture and other major ecosystems. Gartner projects there **will be 6.4 billion connected things in use worldwide in 2016** (a 30 percent increase from 2015), and that the market will grow to 20.8 billion by 2020. While IoT will undoubtedly affect all sorts of global infrastructures, one of its prime applications is within the private home. By definition, a «smart home» is a house that incorporates advanced automation systems to provide the inhabitants with sophisticated monitoring and control over the building's functions. A smart home may provide its own-



HOW BIG DATA AND IoT IS IMPROVING INSURTECH AND HEALTHTECH?

According to venture capital firm Kleiner Perkins Caufield & Byers (KPCB), **2015 was a very important year for wearables** as the market took several important steps. Apple released their much anticipated Ap-

take it easy, and when best to sleep. That's the pervasive computing world of the future.

There are **five major battlegrounds for IoT** and hardware innovation and market growth in the consumer space: connected homes, wearables, healthcare, robotics and drones

ers with control of lighting, temperature, multi-media, window and door operations and security, as well as the ability to automatically replenish various supplies. True replenishment automation depends on the manufacturer's ability to incorporate secure payment options within a preset refill process, enabling the system to complete the entire acquisition cycle without any user involvement.

Speaking at WIRED Health, Jen Hyatt described²⁹³ the «intractable problem in healthcare» of focusing on illness rather than on healthy behaviours. But she also feels that technology could have a transformative role. When Hyatt heard the figure, in 2006, that 50 per cent of people with a diagnosable mental health problem didn't even reach their primary care doctor, she decided to do something about it. She founded **Big White Wall** in 2007 in an attempt to reach out to these people, as well as to «shift from a model of illness to one in which people who need help are supported». The online community, one of few approved by the NHS, helps users anonymously seek support from peers and therapists. «We engage in an exercise of co-creation», explained Hyatt. «And digital allows us to co-create because we can see how people are engaging online». Big White Wall gives people «a choice» in the kind of treatment they get, said Hyatt. Cognitive behavioural therapy, while often successful, is not a panacea. Hyatt is now working on a **new app for teenagers, called amo**, that draws on positive psychology, behavioural psychology and neuroscience.

HEALTHTECH INFLUENCE TO INSURTECH A LOT

Uber, Facebook, Alibaba and Airbnb all have something in common: none of these companies owns the asset that generates its unprecedented revenue (taxis, content, inventory and property rental). What is the equivalent in healthcare? **Healthcare is an ecosystem mired with inefficiencies**²⁹⁴. The US healthcare industry costs a whopping \$2.9 trillion (£2tr) annually, eating away

at 18 per cent of GDP. There are a number of moonshots — large-scale government or enterprise-backed initiatives — promising to revolutionise the sector, such as gene therapies, with powerful gene-editing technologies like CRISPR promising to transform medicine. But it's not only grand initiatives that are transforming healthcare. There is a swarm of digital healthcare startups that is seeking to unbundle specific health challenges. So, for example, a startup called **Tissue Analytics** lets you take pictures of a wound over time on your smartphone, allowing doctors to determine whether it's healing or festering. **AliveCor** lets you capture an electrocardiogram at home and alerts doctors if something is wrong with your heart. **Netra Labs** lets you take eye tests at home using mobile technology. China's internet giant Tencent recently acquired a major stake in **Guahao**, a startup that grew a massive user base as it enabled real-time geolocated physician appointments. And there's a hardware and medical device arm — evident in the company's recent unveiling of its own glucometer.

in review, revealing that more than one-third of their investments are in the life sciences and healthcare. (They currently have \$2.4 billion under management.) «I can think of no more important mission than to improve human health and global quality of life», CEO Bill Maris said in a recent announcement. Big companies around the world have made — with varying degrees of success — plays at breaking into the health sector. Google and Apple are prime examples. Today, there are several technology and retail giants moving into health and healthcare that will surely cause disruptions, and push the sector further faster towards healthier populations that are being cared for in cost-effective, high-quality and accessible settings. Silicon Valley's failures are often linked to illiteracy about how clinicians and patients interact, and how individuals think about their health: lack of communication, cooperation or respect for the clinical community, underestimating the depth of regulatory hurdles, over-estimating healthy individuals' willingness — or need — to actively use IT in main-



Healthcare investments — in particular, investments in digital health — are booming, and don't seem to be slowing down. According to CB Insights, digital health funding hit nearly \$5.8 billion in venture funding last year, surpassing the previous record of \$4.3 billion in 2014. One of the top venture firms, GV (previously known as Google Ventures), recently came out with their year

taining their health, and impatience in understanding how IT needs to function within the patient-clinician relationship. Healthcare is complicated, because people are complicated. The tech giants with massive stores of data on consumer behaviors and trends — from what we eat to where and when we eat — could also position themselves as personal health coaches. Several startups are figuring

out how to take existing shopping behavior data and use it to influence health status.

Period tracker **Clue** has become the world's fastest growing female health app (or so it claims), with four million monthly active users²⁹⁵. But according to director of scientific research Verdrana Höggvist Tabor, its real purpose is much broader. Clue, which raised \$7m in Series A funding in October 9, 2015, helps women keep track of their menstrual cycles — and by feeding this anonymised information to academic researchers helps improve diagnosis of complex diseases.

Px HealthCare's mobile apps provide people with cancer with personalised information and tools to manage their condition. They're also data collectors, giving clinicians a way to track their patients, both as individuals and as anonymous sources for large-scale studies. **Revere Care**'s app lets people in need of care book a carer, a doctor or a nurse «at the click of a button» by connecting them via what CEO and founder Marek Sacha calls a «digital carer marketplace». Since the 1950s, doctors have found that playing people with Parkinson's regular beats can help them overcome difficulties with movement. «It's called auditory cueing», explains Ciara Clancy, founder and CEO of **Beats Medical**. «It's been proven by decades of research, and collective meta-analysis of the data, to significantly improve stride length, walking speed and overcome freezing symptoms». When Jose Antonio Bastos's son found it difficult to get over fever, he realised just how difficult it was to get a doctor to visit his home. So he came up with **Knok** (pronounced «knock»), a platform — powered by an app — that lets people book face-to-face appointments with GPs, paediatricians and psychiatrists. **TalkLife** is a peer-to-peer support network for youth mental health. Its 300,000 active users around the world help each other deal with depression, self-harm and suicidal thoughts. «A place that's fun and clinically grounded», is how founder and CEO Jamie Druitt describes it.

With **healthcare, we have a very outdated and inconvenient system**²⁹⁶: We need to call a doctor 2 weeks in advance for an appointment, wait 30 minutes in a waiting room and then talk to a doctor for only 15 minutes while he types away on a laptop, only occasionally making eye contact with us. And, all of this for a huge cost that is growing at an unsustainable rate. Uber and Netflix are successful because they have streamlined the time it takes to get a job done. But healthcare is not a transaction business; it is a relationship business. One cannot «get healthy» with a one-time, immediate transaction. Instead, positive health outcomes are achieved over a long time period through a treatment plan developed in conjunction with a trained physician with whom a patient has a strong relationship. For comparison, healthcare is more similar to education or a sports team than it is to getting a ride or renting a movie.

Europe's DocPlanner, **an online booking platform for healthcare appointments, has raised a \$20 million Series C round**²⁹⁷, and at the same time is announcing a **merger with Spain's Doctoralia**. The new funding, which was led by Target Global, will be used for further international expansion and development

of the company's online practice management software solution. ENERN Investments and EBRD also participated, bringing total raised by DocPlanner to **\$34 million**. That the acquisition of Doctoralia is being billed as a merger is interesting and apt, although no further details are being disclosed. Doctoralia claims **9 million users monthly and is available in 20 countries**, including Spain, Brazil, Mexico and Argentina. DocPlanner on the other hand, claims **8 million monthly users and is available in 25 countries**, with a HQ in Poland and 200 employees based in offices in Warsaw, Istanbul and Rome. The idea is to make the combined company the market leader in healthcare online booking. To that end, DocPlanner operates both a consumer-facing marketplace, and cloud software for private healthcare providers, including individual doctors, dentists and other healthcare professionals (such as dietitians and psychologists), as well as small and large clinics. Behind the scenes, DocPlanner offers calendar management and various other clinic administration/office features, including a personal tele-assistant, and automatic appointment reminders. It claims to process 200,000 bookings per month. ●

99 hottest Insurtech Startups

http://insurtechtalk.com/wp-content/uploads/2016/05/99-Hottest-Insurtech-Startups-You-should-not-miss-by-insurtechtalk_com.pdf

Tracxn Healthcare Report (129 pages)

Finds that the sector has seen a spike in the number of companies founded during 2014, with 77 companies being formed during the period. 2015 saw a drop of 27% in the number of new companies being founded, compared to 2014. 2014 also witnessed a peak in funding with more than \$1.6B being invested. An investment of \$400M in Privia Health by an affiliate of Goldman Sachs accounts for almost 25% of the investment in 2014.

https://gallery.mailchimp.com/c8f11e463fad001a2b061f1f1/files/Healthcare_Analytics_Report_March_2016_Bd_Half.pdf

BANKS IN FINTECH

CHAPTER #26

Why big banks won't be able to join the fintech boom? Banks and corporations helped push financial technology start-up funding to an all-time high, according to a joint report by **KPMG** and CB Insights. **Corporate investors participated in 1 in 4 U.S. fintech deals**, according to the report. In 2015, the value of fintech deals and the number of investments hit all-time highs as investors clamored to buy into budding start-ups. The report suggested that even more fintech funding may come from corporates. «While corporate investors will likely continue to invest in fintech in order to drive their own internal innovation and ability to compete with non-traditional market entrants, some institutional investors may shift away from fintech investing in the short term due to lower perceived rates of return», the report said.

Perhaps slightly late in the day, the major banks have woken up to that threat, and have started to respond with a hurricane of investments, either trying to create their own platforms, or else partner with one of the fast-growing new challengers²⁹⁹. The strategy is fairly clear — if you can't beat them, join them. There is a problem, however: it is not going to work. The existing players are too big, too burdened down by costs, have operated in an over-regulated market for too long, and are unlikely to pick the winners anyway. In reality, the major banks are in more trouble than either they or their investors yet realise. It is not hard to see why so many entrepreneurs and venture capitalists are rushing into the space. The internet is very good at ripping out the middlemen, and there is probably no industry with more of those, and better paid ones, than

funds, and layers of management that were built up in a different era.

- 2.** Second, banking has for a long time been so heavily regulated that it is virtually an oligopoly.
- 3.** Third, the chances of picking the winners are slim. There are dozens and dozens of fintech start-ups out there.
- 4.** Finally, the weight of history is against them. All the evidence of industrial innovation suggests that legacy companies can virtually never transform themselves. Railway companies didn't make successful cars. Film companies didn't create the giants of the TV industry. It wasn't the established electronics manufacturers that thrived in personal computers. The real disruptors are always new companies. They start with a clean slate, and a new way of thinking, and that is a big advantage.



According to a recent report from Accenture, **big banks should view fintech startups as enablers** rather than competitors²⁹⁸. Accenture encouraged banks to strategically integrate these fintech start-ups into their current frameworks. As a result, banks will be in a better position to compete in the ever-evolving finance industry. Banks that are still futilely providing platform services, instead of sourcing them from the better and more efficient providers, will struggle to compete in the long run.

finance. When your industry is being turned upside down, it makes sense to try to invest in the future. And yet it is going to be far harder than it looks — for four reasons:

- 1.** First, the traditional banks are weighed down by down by huge costs accumulated over decades. All those branches on the High Street are horribly expensive compared to running a simple website. They have tens of thousands of staff, and even bigger pension

McKinsey wrote³⁰⁰: «We estimate there are today more than 2,000 start-ups offering traditional and new financial services. Here's how **banks should respond**». The last period of significant technological disruption, which was driven by the advent of commercial Internet and the dot-com boom, provided further evidence of the resilience of incumbent banks. In the eight-year period between the Netscape IPO and the acquisition of PayPal by eBay, more than 450 attackers—new digital currencies, wallets, networks, and so on—attempts to challenge incumbents. Fewer than 5 of these challengers survive as stand-alone entities today. In many ways, PayPal is the exception that proves the rule: it is tough to disrupt banks. This may now be changing. «Our research into financial-technology (fintech) companies has found the number of start-ups is today greater than 2,000, compared with 800 in April 2015. Fintech companies are undoubtedly having a moment». «We believe the attackers best positioned to create this kind of impact will be distinguished by the following **six markers**: 1, Advantaged

modes of customer acquisition; 2, Step-function reduction in the cost to serve; 3, Innovative uses of data; 4, Segment-specific propositions; 5, Leveraging existing infrastructure; 6, Managing risk and regulatory stakeholders.



Banks should be less preoccupied with individual fintech attackers and more focused on what these attackers represent—and **build or buy the capabilities that matter for a digital future**: 1, Use data-driven insights and analytics holistically across the bank; 2, Create a well-designed, segmented, and integrated customer experience, rather than use one-size-fits-all distribution; 3, Build digital-marketing capabilities that equal e-commerce giants; 4, Aggressively mitigate the potential cost advantage of attackers through radical simplification, process digitization, and streamlining; 5, Rapidly leverage and deploy the next generation of technologies, from mobile to agile to cloud; 6, Rethink legacy organizational structures and decision rights to support a digital environment. **The age of fintechs is here.** Will this time be different from the dot-com boom? Will most fintech attackers fail? Will the few attackers who succeed fundamentally reshape banking? Regardless of the odds of success for individual fintech attackers, banks must seek important signals amid the fintech noise

in order to reposition their business models and cultures for success. There is no time to lose.

THE LATEST FINTECH VC FUNDS AND ACCELERATORS:

Banks and corporations rush to seize the opportunity to harvest the best solutions available. Innovation hunters have been looking for opportunities in different ways, one of which is to set an accelerator, innovation lab or some sort of a startup program. Let's look at some of the latest accelerators³⁰¹ and the freshest VC funds³⁰² launched across segments:

- German international financial marketplace operator Deutsche Börse announced the launch of a dedicated corporate venture capital (CVC) platform — DB1 Ventures, which will focus on fostering strategic investments in FinTech firms. DB1 Ventures will invest only in areas that are strategic to Deutsche Börse. The focus will primarily be on early- to growth-stage FinTech firms in order to establish mutually beneficial partnerships.
- Recently, the State Bank of India was launched InCube, a specialized branch to understand and address banking needs for setting up a startup. The branch will provide suitable solutions in banking transactions and investments on a robust technology platform for particular business models.
- Singapore's VC firm Life.SREDA launched the Banking on Blockchain fund, a new €100-million FinTech fund specifically targeting innovations in blockchain technology in Europe and Asia. To launch the BB Fund, Life.SREDA has partnered with financial expert and FinTech specialist Chris Skinner, and blockchain-specialists David Brear and Simon Tyler.
- At the end of May, international law firm Simmons & Simmons announced the launch of the first fund of its kind designed to help early-stage FinTech busi-

nesses solve the legal problems they encounter. According to the official press release, the firm has set aside £100,000 a year for the Simmons & Simmons FinTech fund to provide legal advice up to the value of £33,000, free of charge, to three or four businesses each year.

- A new €500,000 Enterprise Ireland Competitive Start Fund (CSF) was established to stimulate startup activity in the FinTech sector. The fund, which is a part of the IFS2020 strategy, is reported to provide up to €50,000 in equity support by Enterprise Ireland for each successful applicant.
- China recently witnessed the launch of the first angel fund and accelerator focusing on FinTech. Backed by the Fugel Holding, FinPlus is aimed to push the development of financial technology in China.
- Mambu, the SaaS banking platform provider, announced the launch of its FinTech Startup Program, allowing companies to bring their innovative vision to market faster by leveraging the Mambu platform.
- Flat6Labs in cooperation with Barclays Bank Egypt has opened the doors for participation in its one-of-a-kind 1864 Accelerator Programme launched for the first time in the Egyptian market.
- Ryerson Futures announced the launch of Rise Mumbai Accelerator, a partnership with Barclays that will focus on FinTech startups.
- IBM opened The Watson Centre at Marina Bay in Singapore, an incubator designed to bring together organizations of all sizes, business partners and IBM experts to co-create business solutions that leverage IBM's cognitive, blockchain and design capabilities.
- At the end of May, Intel announced that it would launch a FinTech In-

novation lab in collaboration with The Floor, a FinTech hub based at the Tel Aviv Stock Exchange.

- RBC wants to team up with Silicon Valley's brightest talent to position itself at the forefront of new financial technologies. According to the source, RBC set aside \$78 million as «seed money» to invest in startups and talent.
- In June in a speech prepared for the Lord Mayor's Banquet for Bankers and Merchants of the City of London at the Mansion House, Mark Carney, governor of the Bank of England (BoE), revealed³⁰³ that the BoE is launching a fintech accelerator. «The accelerator will work with new technology firms to help us harness fintech innovations for central banking. In return, it will offer firms the chance to demonstrate their solutions for real issues facing us as policymakers, together with the valuable 'first client' reference that comes with it. With time, the accelerator will build a network of firms working in this space for the benefit of us and them alike». Distributed ledger technology is an important aspect of emerging fintech.

The INV Accelerator program began in January 2016³⁰⁴. Each class of companies will spend six months as part of the program. It is the result of a joint effort by Fiserv a financial services technology company that enables services such as online and mobile banking and Bank Innovation, a digital trade forum and trade publication for the industry. Fiserv is providing startups with technology (it already provides this technology to banks). Bank Innovation hosts events for banks throughout the year –and those will give startups a place to network and talk about what they are doing.

US AND EU BANKS IN FINTECH

«Does anyone know on average what it costs to build a drone?» a young man asked a group of twenty-somethings gathered in a colorful coworking space in Manhattan's

Flatiron District³⁰⁵. This sort of scene is not unusual at Barclays' Rise New York facility, where entrepreneurs regularly come together to brainstorm business ideas or participate in a 13-week accelerator program. The half-day «ideation workshop» was a new event designed to provide freshly-promoted associates an unusual setting for developing problem solving, presentation, and teamwork skills. It also showed **how seriously investment banks like Barclays are looking for creative ways to remain attractive career choices for millennial employees**, who tend to seek a sense of purpose in the workplace. When it comes to the battle for top young talent, Silicon Valley is shaping the conversation. Bright-eyed business school grads are increasingly looking to build careers as entrepreneurs, rather than on Wall Street – and investment banks are sitting up and paying attention.

bank's teams. Largely closed from the press, the event took place in Menlo Park, Silicon Valley, right next to some of the most successful venture capitalists. Bank of America, however, is not the only one actively seeking for collaboration with FinTech startups. **JPMorgan Chase** is a founding partner at the Financial Solutions Lab, a \$30-million, five-year initiative managed by the Center for Financial Services Innovation (CFSI) that launched its first competition in February 2015. The bank also recently announced about collaborating with lender OnDeck to fuel small business loans. Moreover, **JP Morgan, BofA, BNP and Credit Suisse** are actively sourcing talented students through various initiatives to embrace the innovative spirit. Another banking giant, **Wells Fargo**, launched its innovation lab to help FinTech startups and entrepreneurs work more closely with the bank.



With the financial industry heating up, banking giants are looking to catch the innovation wave and leverage the opportunities FinTech startups create. One of the largest American banks, **Bank of America**—along with other banking industry giants—is taking steps to embrace FinTech and innovation in a wide range of financial services. One of the ways Bank of America is looking for prosperous partnerships is the annual Bank of America Merrill Lynch Technology Innovation Summit in the Bay Area, which is aimed to provide an opportunity to have entrepreneurs meet with

US small town banks are prodding regulators to get tough on «fin-tech» companies³⁰⁶, in a move that betrays traditional lenders' fears of the young upstarts taking their business. In a no-holds-barred letter to bank regulators, Independent Community Bankers of America, a trade group for more than 6,000 small banks, raised questions over the solidity of some fintech businesses and called for them to be fully regulated.

Finance is where they built their careers. Now some of banking's

former stars are pouring millions of dollars — and in some cases staking their careers — into new technologies that are shaking up everything from lending to payments to investing. The list of investors is practically a Wall Street who's who³⁰⁷: Vikram Pandit, former chairman and chief executive of Citigroup; John J. Mack, a former chief executive of Morgan Stanley and Credit Suisse First Boston; Jon Winkelried, former president of Goldman Sachs; and J. Christopher Flowers, a former Goldman Partner. From the payments industry, Hans Morris and Joseph W. Saunders, both former chief executives of Visa, are among the prominent names.

The news that Anshu Jain, the **former co-chief executive of Deutsche Bank, Germany's biggest bank, is to join the online lender SoFi** is further evidence of the inroads «fintech» start-ups are starting to make in traditional financial institutions. Jain's move to the San Francisco-based business is just the latest in this direction by former executives of big banks. For example, former Citigroup head Vikram Pandit and ex-Morgan Stanley chief John Mack have each developed investments in small business taking on the traditional bricks-and-mortar banking giants. Mike Cagney, chief executive of SoFi and a former banker himself, has been reported as saying that the traditional players have become «commoditized utilities of questionable value and little trust» and that smaller, nimbler groups such as SoFi are better equipped to meet customer needs.

Joerg Asmussen, the former European Central Bank executive board member and senior German policymaker, is becoming the latest financial leader to join a technology startup seeking to reshape lending. **Funding Circle**, which arranges loans online for small businesses in the U.S., U.K. and Europe, said he will join its board. Asmussen served as deputy finance minister and Chancellor Angela Merkel's troubleshooter during the euro-area debt crisis until

she nominated him to the ECB in 2011. He later returned to government and served as a deputy labor minister.

«Joerg is one of Germany's most respected economists and has spent a lifetime shaping government and central banking», Matthias Knecht, co-founder and managing director of Funding Circle Continental Europe, said in a statement. «As we accelerate our growth across Europe, his experience in European regulation and unique insights into the challenges faced by small businesses will be an invaluable asset».

Another day, another highly able young analyst has decided to leave investment banking for the more vibrant world of peer-to-peer lending. First was Hugo Davies, a Loughborough University graduate, who **quit Goldman Sachs to become a 'capital markets associate' at LendInvest Capital**. Now it's Elisabeth Webb, a former hedge fund rates saleswoman at **UBS, who's quit to become a business analyst in risk and capital markets at Funding Circle**, the peer-to-peer lending website co-founded in 2010 by Sam Hodges, a former associate at Pequot Capital Management.

Banking group **UniCredit has committed approximately €200m** to invest in fintech companies worldwide. The bank has signed a partnership with Anthemis Group, a London, UK and NYC-based venture capital and advisory firm that focuses exclusively on fintech. According to a note, Unicredit aims to invest in fintech companies in order to turn a threat into an opportunity, enriching the business proposition and speeding up the digital evolution program of the group. UniCredit will invest through two dedicated vehicles, as follows: a €175m equity fund focused on established startups and follow-on investments, with , and a \$25m fund investing in early stage startups, where the bank will act as anchor investor. In December 2015 digital financial services investment and advisory firm **Anthemis Group**

was in the process of raising a \$100 million venture capital fund to back fintech start-ups.

Canadian banks also are actively pursuing opportunities to play an integral part in the growth of fintech, despite the fact that 81 per cent of global banking CEOs see the pace of technological change as a threat, PwC says in a new report. The consulting firm says the big banks in Canada are «laser-focused» on responding to both threats and opportunities presented by fintech companies, many of which combine technology and readily available online data to offer competitive products and services such as personal and business loans. There are now more than 80 fintech companies in the country, mostly headquartered in Toronto, Waterloo, and Vancouver, which have attracted investments of about \$1 billion since 2010, according to PwC. Some fintech firms are working with banks on innovation, while others are bound to present «a series of disruptions and threats» as they make inroads into banks' traditional territory, PwC says. «If Canada's banks don't keep up, they run the risk that outside competitors will bring their proven, successful offerings to Canada and slowly erode market share», the report warns.



ASIAN-PACIFIC BANKS IN FINTECH
Mizuho Financial Group is building a pot of money for global acquisitions of financial technology companies as Japan's second-biggest bank attempts to leapfrog its

local rivals after years of industry torpor³⁰⁸. Despite its strong position in consumer technology, **Japan has lagged behind its global peers in harnessing the so-called «fintech» wave** of digital disruption in banking. The country's lenders, felled by the bursting of the bubble in the 1990s, have long lost their appetite for risk and continue to struggle as negative interest rates erode profits from bread-and-butter lending. Mizuho's president Yasuhiro Sato described plans to build the next generation of consumer lending on smartphone services and using «big data» analysis to manage credit risk. Further down the line targets include peer-to-peer lending and investment «robo-advisers», he said. Mizuho is targeting US acquisitions in the fields of artificial intelligence and big data processing. «We currently have several targets...some of the deals will be done this year», said Mr Sato. The bank's advantages, he said, include its ability to move fast and a **close working relationship with SoftBank**, the tech and telecoms group, which has provided access to fintech players. «The key issue is speedy decision making, and the fact that I myself will decide on the acquisition. That is a weapon for us», said Mr Sato.

1. BondIT (Israel) is an algorithm-based advisory SaaS product;
2. ChromaWay (Israel/Sweden) uses blockchain technology for both smart asset transfer and the development of smart contracts;
3. Cognicor (Spain/India) is an intelligent customer service company;
4. Coins.ph (Philippines), a mobile wallet, is Philippine-based company connects users directly with «life expenses» like paying bills and sending money;
5. Fincast (Australia), a wealth management company that provides automated applications for financial institutions and investment advisors;
6. Onelyst (Singapore) is an online marketplace for loans;
7. Quantifeed (Hong Kong), an online wealth management software, allows users to explore, customise, invest and manage equity, bond, and fund portfolios with full integration into a client's back end system;

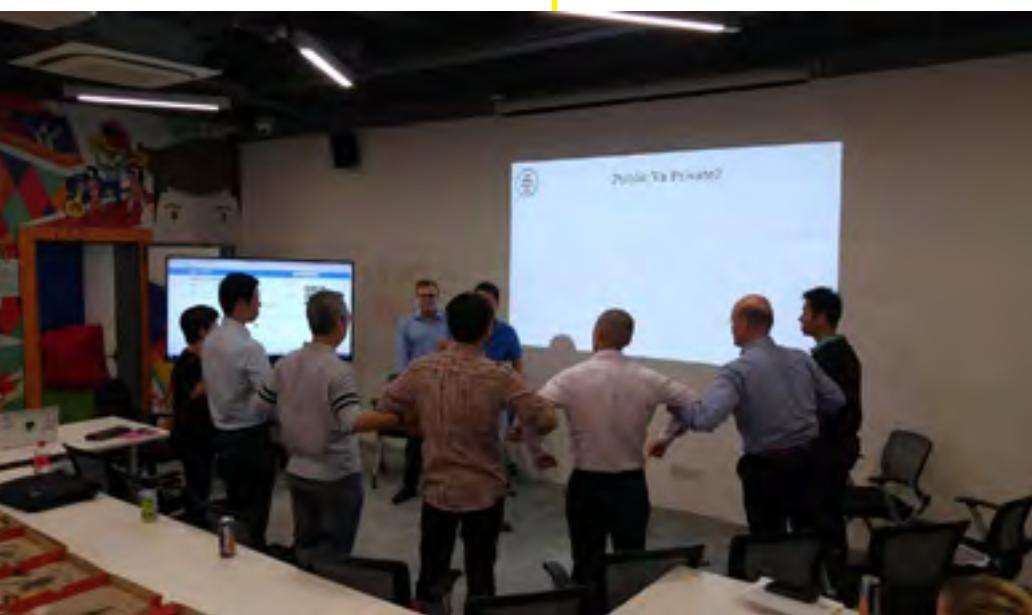
have one more place to turn to for help in developing their ideas and seeking funding and partnerships: Singaporean **bank OCBC announced its new fintech «innovation center»**, called The Open Vault. It aims to find fintech start-ups and help them make products and services that the bank can add to its digital banking arsenal or bring to the market. Open Vault is interested in five areas: wealth management, credit and financing, insurance, cyber security, and artificial intelligence — particularly in regard to data analysis and automated advisory services. The center will be housed in a dedicated 2,400-square-foot space located on Singapore's New Bridge Road.

Standard Chartered is the latest bank to jump on the fintech crazy train in Singapore. It announced the interestingly capitalized **eXcellerator**, a new enterprise acceleration and innovation hub located in the city state. The new lab will build on established infrastructure and know-how from Standard Chartered's Silicon Valley-based technology hub, SC Studios. In Singapore, the lab will be located in the bank's main offices at Singapore's Marina Bay Financial Center. As part of its operations, the new initiative will explore «the use of emerging technologies and data science for sustainable business solutions».

Southeast Asia's leading lender **DBS committed S\$10 million (\$7.1 million) for Singapore's startup ecosystem** over the next five years, and a bulk of this amount is slated to go into programmes run by the bank such as its partnerships with local accelerators and incubators.

Another Singaporean-based bank **UOB kicked off its inaugural The FinLab accelerator programme**³¹⁰, with nine companies participating in a three-month camp focused on the financial sector:

8. Wealth Objects (UK), the automated advisory company, allows companies to customise investment portfolios to suit a client's needs. Fintech startups in Singapore now



Singaporean-based **OCBC Bank has kicked off its 'The Open Vault'** fintech accelerator programme in Singapore and announced³⁰⁹ the eight companies participating in it:

1. Co-founded by a relatively well-known name in Singapore's block-chain circle, David Moskowitz,

Attores is building smart contracts for the industry.

2. Cardup is allowing users to use their credit card to make large payments that previously required bank transfers or cheques (the company uses rent payment as an example).

3. FinMitra is, in a word, a goal calculator and wants to be the go-to source for a client's financial decisions and actions.

4. FinReg Technology provides a solution for banks to adhere to compliance requirements when they are recording messages on WhatsApp and WeChat, as they are obligated to do so in the US and Europe.

5. Nickel has developed a proof-of-concept mobile technology using the blockchain to help migrant workers send remittances to their family.

6. SsinoConnect is a P2P car financing platform that opens up access for retail investors to invest in collateralised asset, while at the same time, reduces the down payment requirement for potential car owners in Indonesia.

7. Stock2Day wants to socialise and gamify the stock exchange for the mom-and-pop investor.

8. Tuple Technologies, the Big Data and analytics consulting company, targets medium-sized companies facing challenges in leveraging data to gain an advantage in the business world.

9. TurnKey Lender has built a cloud system for borrower evaluation aimed at non-bank lenders.

The rise of the **Thai** digital industry has led to more government and corporations participation — including a surge of **banks setting up investment arms to fund fintech**³¹¹. Siam Commercial Bank (SCB) and Kasikornbank (Kbank) are two local

banks which had set up their own fintech-focused VC firms, followed by Bangkok Bank (BBL) which announced their foray into fintech investment in Startup Thailand 2016 event. According to BBL Senior Executive VP for Commercial Banking Virasak Sutanthavibul, the company's board approved an initial investment budget of THB2 billion (US\$56 million). He also stated that the company is currently considering to set up a VC business unit. SCB CEO Arthid Nanthawithaya stated that the bank had set aside US\$50 million to invest in tech startups locally and overseas.

The Siam Commercial Bank (**SCB**) is **setting up its first venture capital fund**, with a target size of up to \$50 million, focussed on startups raising Series A or higher stage capital. «SCB will also set up a new subsidiary, which will focus on doing Fin-Tech-related research. The research budget will come from 1-1.5 per cent of the bank's net profit».

Due to the financial services sector from 2015 to 2020.

A surging appetite for digital-led transformation has seen **Australia's industrial giants poaching talent from digital businesses rather than promoting from within**, underlining the importance of online business to companies. The trend was highlighted by this week's decision by the **ANZ** Banking Group to appoint Maile Carnegie, Google's head of Australian operations since 2013, as the bank's head of digital. In recent years, fierce competition between Australia's big four banks has centred on their ability to embrace new transaction models, such as mobile payments, as well as the strength of their online and retail offerings. For example, ANZ's rival, the **Commonwealth Bank of Australia**, recently overhauled its point-of-sale payment strategy with a programmable POS terminal called Albert, while Westpac Banking Group was an early



Australian bank stand to lose up to A\$13 billion in aggregated revenue to fintech startups, according to research from Frost & Sullivan³¹². The study forecasts that the Australian fintech market will reach over A\$4 billion in revenues by 2020 including A\$1 billion in completely new added value to the nation's economy. The standout figure concerns a potential loss of A\$13 billion in aggregated revenues as the fintech sector strips A\$10 billion in revenue streams away from the big Australian banks and contributes A\$3 billion of new reve-

leader in allowing users of many Android-based phones to use their devices to pay with Westpac credit cards. Innovation has become a buzzword for Australian industry and government alike since prime minister Malcolm Turnbull launched the AUD \$1.1bn National Innovation and Science Agenda to promote entrepreneurial thinking within industry and government.

Newly-launched **Mandiri Capital Indonesia**, the venture capital arm of the country's largest banks in terms

of assets Bank Mandiri, is eyeing investments in the fintech space with its initial capital of close to \$37 million (Rp500 billion). The firm had earlier indicated that it will target the payments space in Indonesia particularly given the transactions that are taking place through e-commerce and a variety of technology-enabled services like ride-hailing apps. «We have several missions. First, seeking necessary investment for Mandiri Capital. Then, we will find potential startups that we can finance, mentor and help them to grow. We will also nurture incubators and

New venture capital firm PT Mandiri Capital Indonesia (MCI), owned by state-run Bank Mandiri, has been launched to provide alternative financing for the country's potential start-up businesses. For the first phase, Bank Mandiri has injected fresh capital worth Rp 350 billion (US\$25.2 million) into MCI and controls 99 percent of the company's equity, while the remaining 1 percent is held by its securities subsidiary Mandiri Sekuritas. Bank Mandiri is committed to increasing the company's total capital to Rp 500 billion. The company will provide financing through private placements in prospective startup companies, especially «financial technology» (fintech) firms that have recently become popular. «At least 80 percent of the startups that we seek will be fintech companies».

Malayan Banking Bhd (**Maybank**) has teamed up with Malaysian Global Innovation and Creativity Centre (MaGIC) to boost start-ups in the financial services industry in ASEAN. **State Bank of India (SBI)** chairman Arundathi Bhattacharya announced **Intech, an initiative to team up with startups to create financial technology (FinTech) solutions for banks.** Intech will a space within SBI's start-up bank InCube where interested startups with knowledge on financial sector problems will be given access to SBI's Application Programme Interface (APIs) to experiment. «And these people (startups) with the APIs and with the knowledge of some of

the problems that the financial sector is facing can actually experiment and come up with solutions. Initially maybe for the bank (SBI) and then obviously in many other financial institutions».

In recent months we've seen two mega deals that everyone should be paying attention to. The scale of these deals puts the strategic ace card of most multi-national corporate at threat³¹³. It is about the one billion dollar acquisition of a controlling stake in **Lazada**, and US\$4.5 billion dollar in capital raised by **Ant Financial**. Both deals had one thing in common: Alibaba Group. When many of them have struggled to penetrate, or grow, in the Chinese market, — now the Chinese market is coming to them. **Many incumbent industry dominators have rested on their laurels, choosing instead to stick to what they know, and what is 'safe'.** Executives remain confident their dominant market position or superior capital reserves would eventually grant them a strategic option in the future. However, by looking closely at any company that has dominated a market for more than 20 years, very little of their growth over the past decade has been organic. Instead, they leap into mergers and acquisitions, too often buying companies that look very similar to themselves. As a result, the top decision makers have been isolated from market pressures as they pay their 'strategy' hand. These two deals should make those decision makers sit-up, if not getting very nervous.

An expert on geopolitical problems Haydn Shaughnessy, author of the upcoming «Platform Disruption Wave, that tackles these issues head on», and «SHIFT: A Leader's Guide to the Platform Economy», mentioned³¹⁴: «If you are banker and you are in transaction banking, you are foolish if you think in five years' time the majority of your customers' transactions will be conventional supply chain transactions, or conventional trade transactions. They and a growing host of new

businesses, often global SMEs, will be trading through platforms like Alibaba. So the banking side of the business will gravitate towards Alibaba, and there may be one or two other platforms competing alongside them». Shaughnessy pointed out that Alibaba has established all the necessary trust factors after being in that business for 15 years and is now an integral part of what China is trying to achieve politically. «So you should see Alibaba being a platform for Chinese soft power developing the Indian small business community, incentivising the Indian small business community to sell into China, helping the Indian small business community to grow». «You could see that bilateral trade corridor being incredibly effective for China as a power base as well as for becoming a more powerful economic engine for the region». «I mentioned India, and I could have mentioned Africa, and you might also think of other parts of Asia. China has these as captured markets now». «And that's a platform that takes business off banks».



TELcos in Fintech

Many companies have transformed and realigned their focus with great success. Avon transitioned from peddling books door-to-door to marketing beauty products. Wrigley started as a soap and baking soda company. IBM originally sold massive mainframe computers and calcula-

tors. Now, telecom companies are making similar pivots into a lucrative industry.

From fixed line to digital mobile service provider, **PLDT Inc now aims to become the «digital telco»** in the Philippines³¹⁵. PLDT chairman and CEO Manuel V Pangilinan, who also heads the company's wireless arm Smart Communications, made the disclosure during the firm's announcement of its net income and financial results for the first quarter of 2016 with targeted consolidated core net income set at \$597 million (P28 billion) for the year. He said PLDT's plan in making the digital pivot include investing heavily in its network, promoting the usage of smartphones and web-connected devices, tapping internal innovation, and forging partnerships with global tech leaders to deliver compelling digital services.

China Bank Savings (CBS) has partnered with PLDT unit Voyager Innovations to service loans through Lendr, the country's first online marketplace platform for consumer loans. CBS is the first thrift bank to join the fast expanding partners for Lendr which was initially introduced last month. With Lendr, any consumer can apply any time whenever they need money for emergencies, minor house repairs or school tuition via SMS, mobile app or online with any device or telco provider.

PLDT Global Corp (PGC), a unit of Philippine listed telecom and digital services provider PLDT, has partnered with US-based international remittance network UniTeller Financial Services to develop a new online remittance platform. The goal is to enable Filipinos in the USA to send money to their families and friends in the Philippines easily and at affordable rates via an online portal and mobile application. The new remittance platform works by registering to the online portal, then key in the bank account, credit or debit card details, including the Philippine beneficiary, and send the money instantly.

SO MANY CORPORATE INNOVATION LABS, SO LITTLE INNOVATION

These days most banks seem to have an innovation lab, accelerator or a venture capital fund to encourage tech experimentation³¹⁶. But these corporate startup programs are driven by either hope, fear or a herd effect. That is, if their banking competitors have a vehicle to promote innovation, they need one too. Traditional banks battling against digital disruption openly admit that they're willing to try just about anything to help them win and retain customers. They've heard the fairy-tale success stories of accelerators, both those that are started by incumbents or that launch independently. The success of a standalone accelerator like Y Combinator is in part because it has funded more than 500 startups since 2005. By comparison, the innovation labs at some of the biggest banks house no more than a handful of startups at any given time. The energy and expense required to run a full-scale startup program are difficult to justify for most banks, especially if the outcomes are so uncertain. This struggle will ultimately cause banks to abandon their innovation labs and replace them with more sustainable approaches to nurturing innovation.

As Saul Kaplan wrote³¹⁷, «Innovation labs will launch with lofty rhetoric from CEOs about transformation and thinking out-of-the-box. But as soon as line executives and business unit leaders get control of the lab's agenda, it is destined to produce only tweaks. This shouldn't be a surprise, because corporate innovation labs are structured, resourced and governed to produce incremental improvements to today's business models. Lab projects are prioritized and funded to produce new products, services and tech-enabled capabilities that will improve performance of today's business. The projects compete for resources based on financial metrics relevant to the current business model».

9 REASONS WHY CORPORATE INNOVATION LABS PRODUCE ONLY TWEAKS:

1. Innovation lab mandates aren't clear. Incremental versus transformational innovation require very different organizational approaches and support.
2. CEOs must own the transformational agenda. Instead they cede authority to line executives who are accountable for the performance of today's business model.
3. Innovation labs overemphasize the production of a better mousetrap, as opposed to a better business model. Potential innovation projects that may cannibalize current business are taken off the table, severely limiting the innovation lab's scope.
4. Requiring a financial forecast for an innovation project—before exploring it in the real world—only works for tweaks, never for transformation.
5. Corporate innovation labs see emerging technologies through the lens of today's business model, as opposed to a catalyst for an entirely new model.
6. Corporate innovation labs have difficulty shifting their perspective to see opportunities through the lens of customer experience and jobs-to-be-done.
7. Corporate venture funds are not innovation labs. They may provide startup capital to entrepreneurs, but withhold the company's most important assets: scalable capabilities and market access.
8. Innovation labs aren't organized as a connected adjacency to the core, a sandbox where capabilities can be combined and recombined, to change how customer value is created, delivered and captured.
9. Companies lack the talent systems to develop future leaders with ex-

perience working both in the core and in the innovation lab.

Transformation, disruption and reinvention don't have to be scare words. We can create the conditions to explore and test entire new business models while we are still pedaling the bicycle of today's models. An important mandate for these new innovation labs is to do R&D for new business models, the same way we do R&D today for new products, services and technologies. R&D for new business models is the new strategic imperative. Corporate innovation strategies must create discrete approaches to deliver incremental improvements to today's models, while also enabling the exploration of entire new models.

At least two dozen accelerators and incubators have been launched in the past two years by banks looking to identify and co-opt future disruptors and engage with innovative startups³¹⁸. The energy and expense entailed in running a full-scale accelerator programme is misplaced. «A fully fledged, multi-startup incubator is expensive to run. The cost of searching, selecting, and providing seed investment for startups could easily reach \$1 million a year. And yet many incubators aren't focused enough on customer problems and business objectives to deliver return on that investment». Instead, **Forester expects digital executives at banks to leave incubation of startups to governments, universities, and venture funds and instead turn to targeted acquisitions and strategic partnerships.**

BBVA AS ONE OF THE BEST PLAYERS INNOVATIONS ADOPTION

BBVA, one of the 50 biggest banks in the world, knows it's facing a potentially devastating upheaval – technological «disruption». «What's happening is the way we relate to our customers is changing, it's changing very fast, and it's happening because of the innovation technology allows and the way people embrace it», CEO Carlos Torres Vila told³¹⁹. Consumers are reinventing

the way they interact with banks thanks to the smartphone. And a surge of new fintech – financial technology – startups are making use of cloud computing, APIs, and other technology advances that reduce costs to offer leaner and meaner (read cheaper) services to consumers. Torres Vila has seen the changes in the industry first hand. He was head of BBVA's digital banking operations prior to being appointed CEO last May. He says: «A lot of the startups choose one very thin slice of what a bank does. But there's just so many of them that they encompass everything we do. In every little slice, you have like 10 companies that just do it better. They do it cheaper and they do it with better value for the customer».

BBVA – the Spanish banking giant – is shutting down its in-house venture arm, **BBVA Ventures**³²⁰; and it is taking BBVA Ventures' portfolio, the \$100 million fund it had allocated to the group, and another \$150 million, and putting all of it into a new VC called **Propel Venture Partners**, based in San Francisco and London. BBVA will be a limited partner in Propel, a fintech VC that will focus on payments, credit, insurance, wealth management, e-commerce, security and compliance. Propel is not announcing any new investments today alongside those BBVA made in the past, but there is one – in lending startup Earnest – which had never been disclosed before but is quietly being made public now. Other investments include Prosper, wealth management advisor Personal Capital, and Taulia.

So if BBVA is still clearly interested in investing in startups, why the move to a separate entity? Two reasons, it turns out. The first has to do with the mindset of working with corporate venture funds. BBVA was finding that some startups believed that they could get better support from the traditional VC structure than working with a large banking entity. The other is that in the U.S., BBVA's previous Ventures fund was structured to that it was limited to

investing only up to 5% in any given round. «The SBIC gives us flexibility in stake size, which we didn't have when we were a corporate fund». Bank venture arms, despite the clout they carry by having the brand of a major global bank in their name, are often hamstrung by the complexities of being part of such an institution. Those complexities include the bureaucracy of any large organization, the limits put in place by regulation and the trepidation entrepreneurs may have about pairing with an incumbent they are looking to displace. «This makes us a much more attractive investor», said Jay Reinemann, a managing partner of Propel, who also co-managed BBVA Ventures. Of course, various banks have structured their investment arms differently as they look to evaluate ways to partner with the tech sector that is looking to disrupt them. While BBVA believes an arms-length approach might be best, others say that a mix of autonomy and interconnectivity is the way to go. Indeed, some startups are worried about becoming intertwined with a bank, said Oliwia Berdak, a senior analyst at Forrester Research. Some startups see having big banks invest in them as limiting other investments in future. They worry «no one will touch them» if they are seen as associated with a bank, said Berdak. «Most startups are really worried about independence».

Spanish bank BBVA now has 500 staff members working in small **scrum teams** to rush through the development of new projects, representing a five-fold increase over the past year. The bank is adopting agile methodologies borne in the tech sector as it pushes ahead with its ambitious digital transformation strategy and stated aim to behave more like a software company. The agile concept marks a break with traditional bank IT development projects, which typically worked on a two-year waterfall cycle to deliver a polished end-product. ●



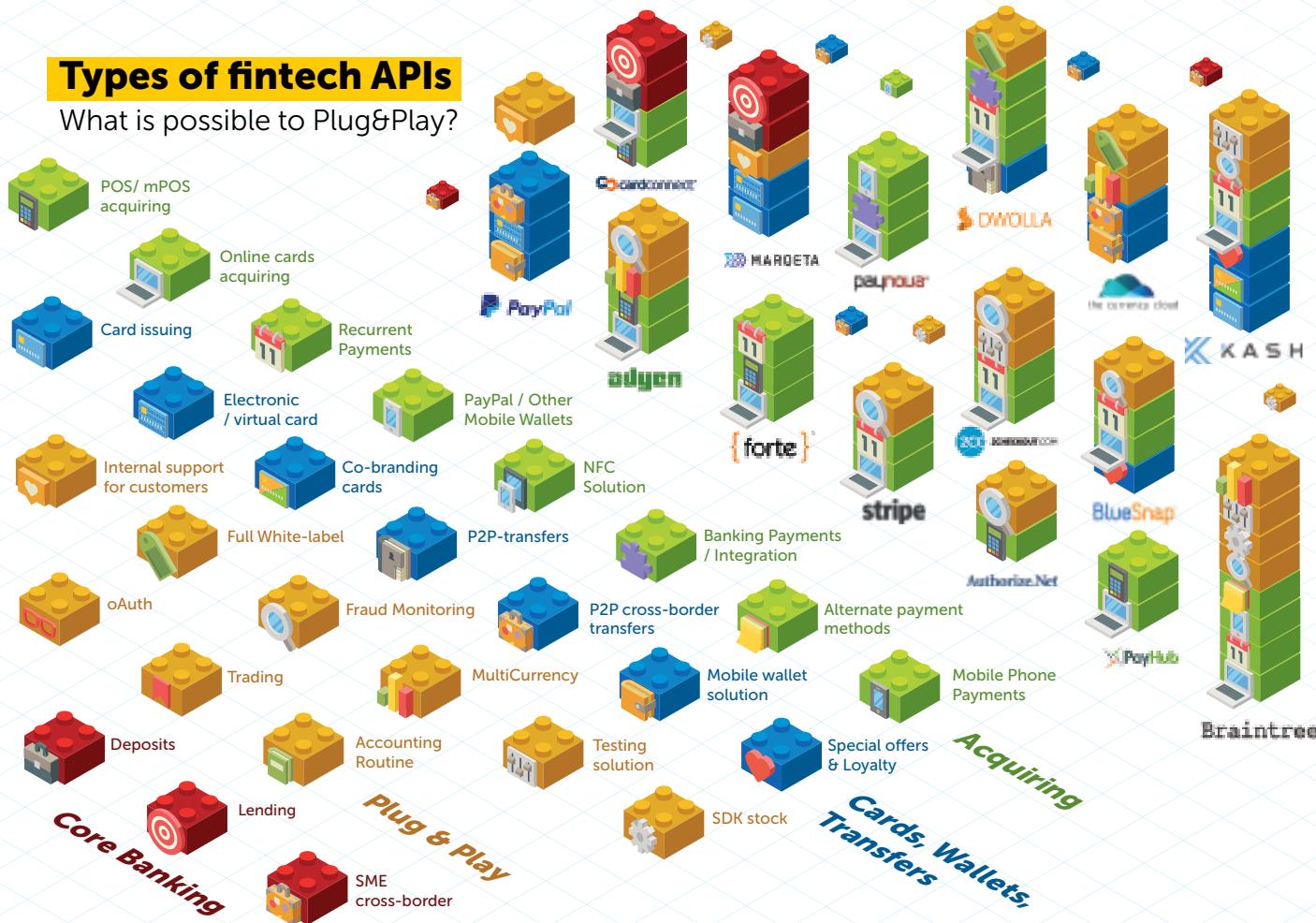
CHAPTER #27

BAAS

BAAS-PLATFORMS
and OPEN APIs

Types of fintech APIs

What is possible to Plug&Play?



The application programming interface (API) has been a key part of software development for decades as a way to develop for a specific platform, such as Microsoft Windows³²¹. More recently, newer platform providers, from Salesforce to Facebook and Google, have offered APIs that help the developer and have, in effect, created a developer dependency on these platforms. Now, a new breed of third-party APIs are offering capabilities that free developers from lock-in to any particular platform and allow them to more efficiently bring their applications to market. As a result, developers can focus on their own unique functionality and surround it with fully functional, distributed processes developed by other specialists, which they access through APIs. Developers realize that much of the functionality they need to build into an app is redundant to what many other companies are toiling over. They've learned not to expend precious resources on reinventing the wheel but instead to rely on APIs from the larger platforms. Another advantage is third-party APIs are often flat-out better. They work

better and provide more flexibility than APIs that are built internally. Finally, third-party API developers have more volume and access to a larger data set that creates network effects.

APIs are being used to build next-generation products and allowing developers to reduce the time to market. Banks will take a very long time to open up their APIs. Open APIs would allow third-party developers to create helpful services and tools that customers can utilize. Some banks have started this journey. But to be technically accurate, right now, **banks are just looking to expose their APIs** to some startups and companies that are working with them closely. In simple words, **they aren't like Stripe or Facebook APIs which are completely open and fully self-serve**³²². Think about the startup contests, accelerators that banks sponsor. Also, think about Silicon Valley and London startup visits by banks and other engagement models. Now that every now and then they are narrowing down on new startups to partner, they need to make available their banking

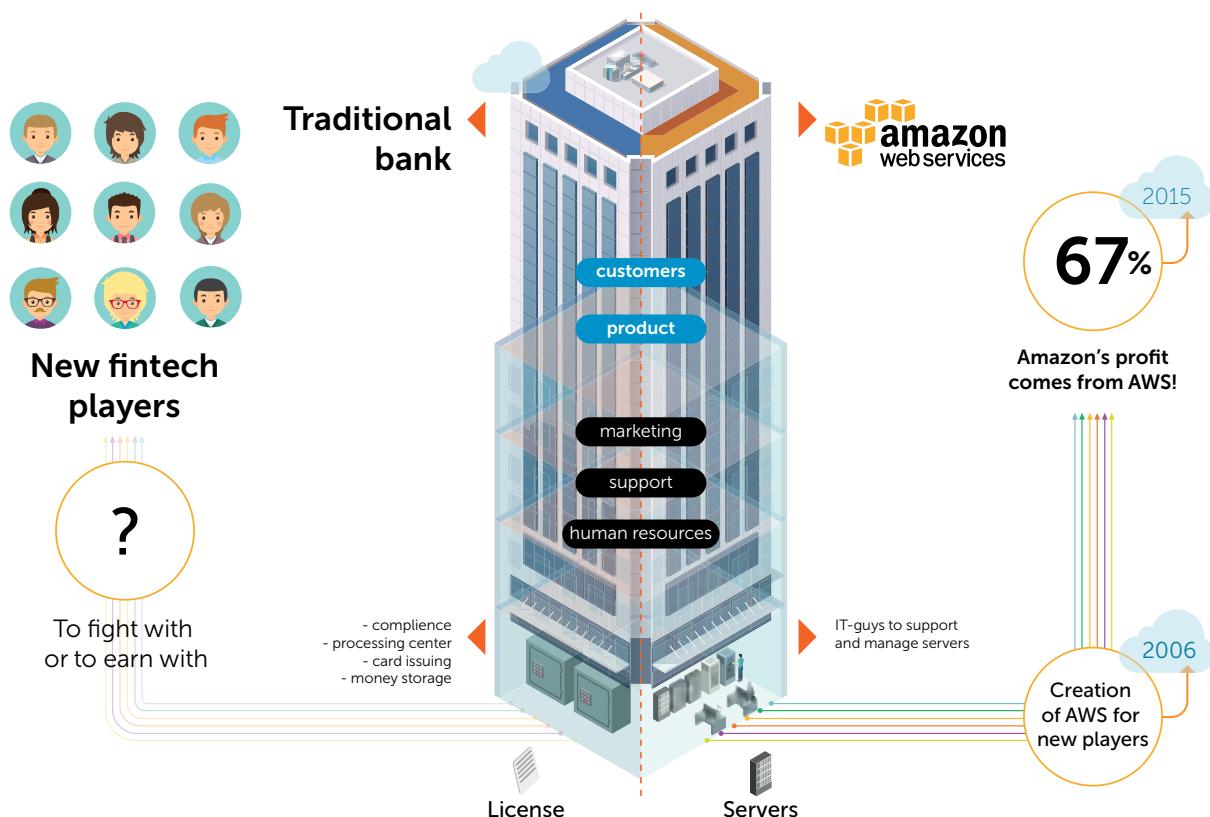
APIs that the startups can integrate with and/or use for their applications. On this scale, **things such as these would take years to implement**. Let's get to the «Doers» who are making their APIs available. Here is a curated list by segments ↑

Why banks can't work in 99% cases directly with fintech-startups? Global banking giant HSBC is just one of several major banks that have had intermittent problems with their technology, leaving customers unable to access online bank accounts and other services. Bank of America, Commonwealth Bank of Australia, ANZ Bank, Royal Bank of Scotland and NatWest have all suffered similar issues.

And these **IT-system failures**³²³ — or outages in the jargon — undermine confidence in traditional banking and encourage more competition from nimbler start-ups.

The problem is that the old mainframe computers — the workhorses of the global banking industry — have been chugging away keeping

BaaS for banks as Amazon Web Services for e-commerce



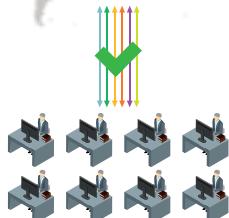
You may write off infrastructure investments or use them as new revenue streams

Value for banks from BaaS / third-party developers

Case study:



(\$5B valuation)



Main value:

creation of a new platform & best APIs for third-party developers

Cannibalism-

New competitors-

New revenue streams

Cost reduction
(for development of APIs, new services and products)

New services and products
(by third-party developers)

This platform needs only one bank in each country
(better competition with others)

Are there any other banks in your country?

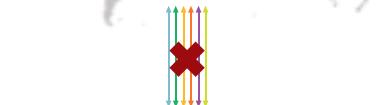
YES

You will become the best of them instantly

NO

You don't need this platform

Traditional bank



Hundreds of startups from all over the world will create new products for your customers and new revenue for your bank

tabs on all our transactions for decades now. They're slow and reliable. But the world has changed. We've gone mobile and online. We expect real-time transactions and access to financial services around the clock. The new computer systems and programming languages designed to cope with this fundamental shift in our behaviour don't interact well with the old, slower back-office systems. Layers and layers of IT have built up over the years, gradually hobbling banks' ability to innovate and respond to this new world. «Very often banking groups that have grown by acquisition have never fully integrated their systems», says Accenture.



«When a bank reaches a certain size it becomes too risky to change the core technology, so you build layers on top, and that adds complexity». «If a bank needs to change out its core accounting platform it can take years to upgrade». Not to mention the hundreds of millions of dollars it can cost. Alistair Newton, research vice-president at tech consultancy Gartner, says: «These legacy systems brought scale and stability to big banks, but now they need flexibility and speed. This is because app-only banks like Atom Bank and fledgling start-up Mondo are unencumbered by old tech and building responsive,

agile systems for the smartphone generation, with modish features like «authentication by selfie» and video chat customer service.

Berlin-based **FinLeap**, which is a German-style company builder specialising in fintech, has **raised €21 million** in new funding from original investor HitFox Group along with institutional investors from the insurance industry, including Hannover Re, the third largest worldwide reinsurer. FinLeap's latest round gives the company a **post-money valuation of €121 million³²⁴** (based on a €100 million pre-money valuation). «In the last 20 months, **we built nine new companies**

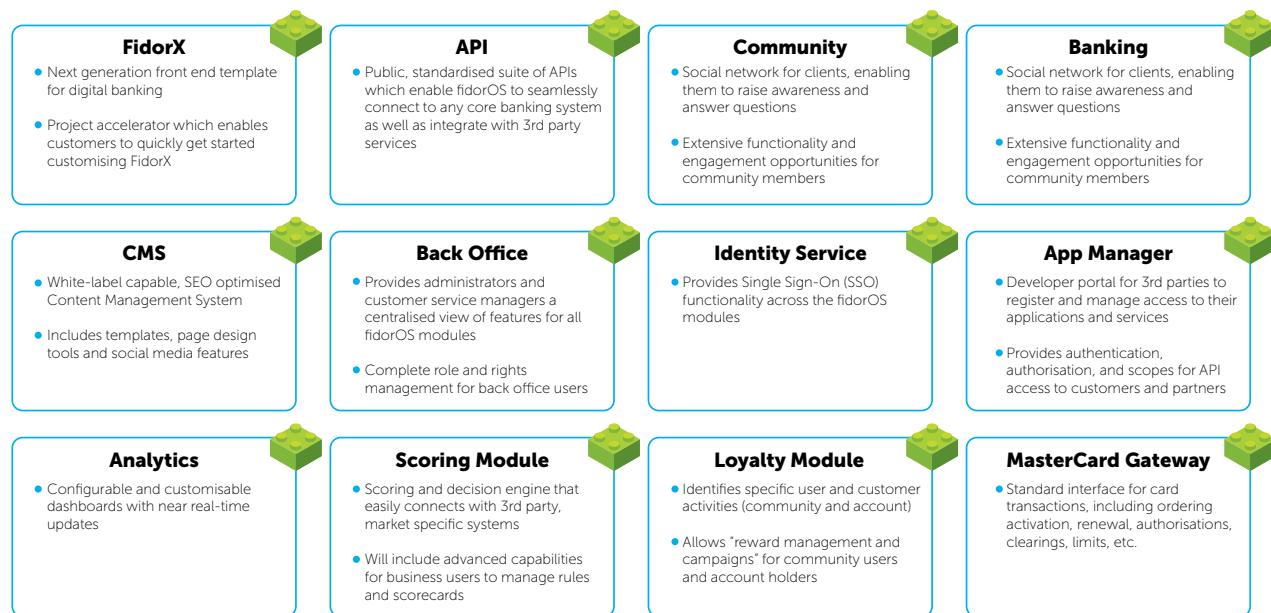
include **Savedo**, a marketplace for investment products; **FinReach**, a software-company that has created an automated account switching kit; **Valendo**, an asset-based lender; **Pair Finance**, an online debt collector; and zinsbaustein.de, a digital platform for real estate investments. Each newly formed FinLeap startup typically receives seed investment of between €500,000 and €5 million, companies get access to its network of investors, operational talent and customers, an integrated technology platform. In total, FinLeap and its portfolio startups employ over 250 people.

The Berlin-based company builder (to use the preferred terminology) **FinLeap** is investing and betting on the underlying regulatory and financial technology infrastructure — the picks 'n' shovels, if you will — in the form of **solarisBank**, a **fully licensed digital bank designed to power an array of fintech services³²⁵**. Born out of the frustration experienced by FinLeap's own startups when faced with the need to piggybank an existing banking license and technology in order to be able to offer various financial services, solarisBank has developed what is described as a modular-based banking toolkit, including, and crucially, various modern banking APIs. This means that it's able to offer other fintech businesses various services that, in turn, they can offer to their own customers. These include account and transaction services, compliance and trust solutions, working capital financing, and online loans. Those services not only require a technology solution, but in many instances, a banking or e-money license too. «We are confident that most major Internet companies will want digital banking solutions that expand their product range and offer it within a challenging regulatory environment», says FinLeap Chair Jan Beckers in a statement. «We haven't seen a bank that offers a technology platform like ours and can partner with so many different kinds companies and business models». The frictionless and straight-forward integration enables

and typically invested between 500,000 and 5 million euros», says FinLeap co-founder and managing director Ramin Niroumand in a statement. «The first companies will become profitable this year and we are excited to be a key player in driving the digitalization of the European financial market forward». Jan Beckers, CEO of the HitFox Group and chairman of FinLeap, talked up the successful launch of **solarisBank**, which holds a full banking license and is offering banking as a platform so that other startups can jump on the fintech gravy train. Other FinLeap created startups

fidorOS Modules in Detail

fidorOS is a suite of white-label ready, API-enabled application modules for digital banking designed to work seamlessly with an existing core banking system



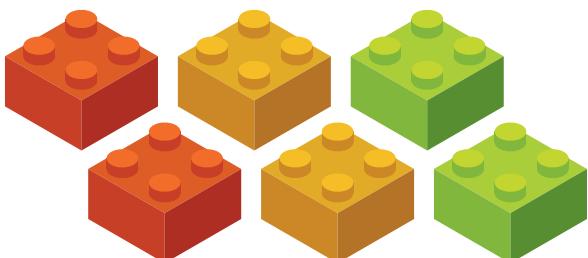
Fidor's APIs

- Fidor provides public, standard APIs which are modular and extensible, which makes them future-proof and enables agile development based on customer demand, national requirements and international regulation
- The standard nature of the APIs enables clients to rapidly connect their systems to fidorOS
- Fidor's APIs form the foundation of its unique "banking as a service" white label cloud banking solution

40+ open APIs are developed by Fidor

Selected fidorOS APIs by Function Endpoint

Account	List accounts of a customer, view an account, create an account, update an account
Customer	Create customers, update customers, view customer data, view the FIN, update the FIN
Card	List all cards of an account, order a card, view card data, PIN services, lock / unlock / block, and activate a card
Short-Term Loan	Request a short-term loan for an account, create a short-term loan, and show the current short-term loan
Overdraft	List overdrafts for an account, create overdrafts, update overdrafts
Global Money Transfer	Allows customers to make Global Money Transfers via The Currency Cloud Service
Blocked Amounts	Enables services to block an amount in an account for a specific period of time (i.e. for card authorisation)
Transactions	Access transactional data
Transfer APIs	Access transactional data



solarisBank partners to launch quickly and concentrate on their core business. In addition to the focus on technological innovation, we meet or exceed all regulatory requirements with our full bank license».

Namely, banking services via a mobile app and additional services from an O2 mobile contract.

Fidor says it will take a «few minutes» to open an O2 bank ac-

the «Fidor Operating System» (FOS). FOS is a modular program that includes communications platforms for direct interactions with customers via web or mobile apps, data analysis, customer loyalty programmes, forecasting models, payment solutions, banking, community solutions, content management systems, and more.

Innovative German bank **Fidor** has opened an office in Dubai as a base for an expansion of its services to companies in Asia, Africa and the Middle East³²⁸. Founded in Germany in 2009, Munich-based Fidor has established a reputation in European banking circles as a disruptive innovator, utilising a full range of social media, crowdfunding and P2P lending techniques and digital currency services to build its business.

Wirecard AG is in talks with Alipay English as it eyes a 25 percent stake acquisition by the Chinese mobile payment platform. According to reports³²⁹, the two are in confidential discussions with a view of inking a deal in the coming days. Wirecard is eyeing a much bigger stake acquisition by the Chinese firm having seen its share price crushed in the market in the recent past. With the backing of the Alibaba-backed platform as a majority shareholder, the German firm believes it could be able to fend off the threat posed by short sellers on its stock price. A deal for a 25 percent stake in Wirecard will allow Alipay English to gain access to the German firm expertise. Such an agreement will also enable it to pursue new opportunities for growth abroad, as mobile payment services continue to take over the financial space. A deal for Wirecard would be the latest investment by a Chinese firm in Germany after Midea completed a €4.5 billion (\$6.06 billion) takeover of robot maker Kuka. ●



OCBC Bank (Singapore) introduced an open application programming interface (API) platform that enables third party developers to have easier access to data, so that they can build new apps for customers to use³²⁶. Becoming the first bank in Southeast Asia to do so, the bank is offering four basic APIs for developers to tap on: Branch locator API which lists location and opening hours; ATM locator API which lists where the machines are installed; Smart Card Advisor API that gives recommendations on where and what kind of perks OCBC credit card holders can enjoy; Foreign exchange rates API that gives updated exchange rates, which is particularly useful for online shops. The APIs are available on the Connect2OCBC website, with the bank planning to introduce more APIs by end of year.

Telefónica Germany, in association with **Fidor Bank**, will be launching its mobile banking offering, «O2 Banking»³²⁷, in Germany in late summer 2016. Matthias Kröner, CEO of Fidor Bank, says the collaboration offers «the best of two digital worlds».

count — and it's all done online. The identity check is via a video link using a smartphone. To transfer money, customers have to enter the mobile phone number of the recipient in the address book and select it for a transaction. The bank says the security standards for O2 Banking are the same as for a «normal» current account. The O2 Banking MasterCard can be activated or deactivated directly at any time via the app, and the card details can be presented for online shopping, without having the physical card in hand. A financial planning tool gives customers an overview of their spending and on request they can be notified in real-time of transactions and events by app push messages sent to their smartphone. Smaller consumer loans will be available directly via the app. Fidor's technology runs on a proprietary cloud-based infrastructure called

Deloitte: open APIs is a great way to diversify bank's revenue streams — download as pdf: <http://goo.gl/pXfsdZ>



Download the new H1'2016 issue of «Money Of The Future» report on www.fintech-research.com (English, Chinese, Korean, Japanese)

BANKING WITHOUT BANKS

API platform
as a banking service

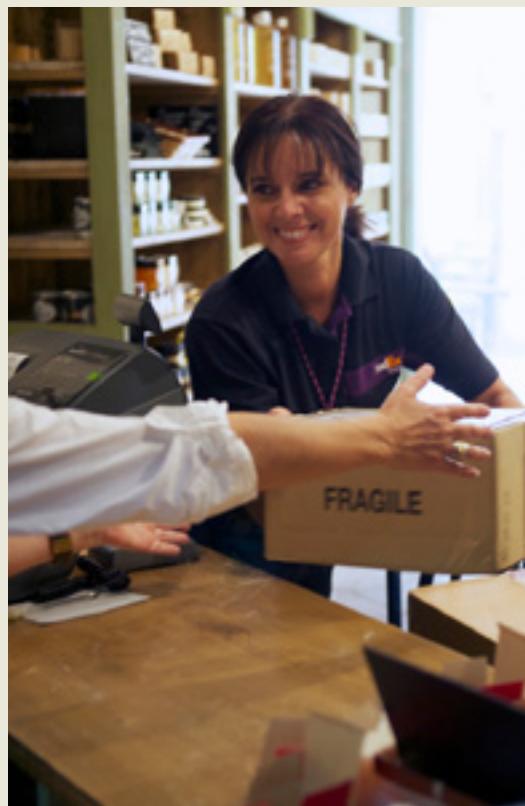


Dr Alex Lin

BANKS TODAY

It is known that about 90% of small and medium-sized enterprise (SME) trade are open trade. That is, trade exposed to potential gains or risks that SMEs have to bear. And of these open trade transactions, approximately 10% use letters of credit issued by banks to ensure that goods are received and payment is made. While letters of credit play an important part in international trade, it is also an area where fraud is not uncommon.

Development, the top barrier ranked by SMEs is the shortage of working capital to finance exports³³². This huge gap in the area of underserved and underbanked SMEs presents an undeniable market opportunity. So let's digest this. SMEs seek financing in small amounts of less than \$500,000; with the majority typically in the range of \$50,000 and \$200,000. These amounts are low risk but are also low, unsecured credit for banks.



As SMEs become increasingly active in cross-border commerce, their role in the economic and banking space is not to be underestimated. Opportunities in trade finance abound, with revenues reportedly hitting \$100 billion in 2012, as cited in a McKinsey report³³⁰. Here in Singapore, SMEs account for about half of Singapore's GDP in 2014³³¹. Yet, it has also been acknowledged that SMEs have been underserved, where many are not able to secure money to finance their trade (purchase of raw materials).

In a report published by the OECD (Organisation for Economic Co-operation and Development) Centre for Entrepreneurship, SME and Local

Unsecured simply because SMEs are traditionally not able to put up sufficient collateral by banks' standards and requirements. What results is a widening of collateral-based lending and alternatives in the form of Government bodies stepping in to provide guarantee so that banks are willing to finance SMEs.

There is an evident market failure here where current major banking services are inefficient and not performing optimally by the fact that those (SMEs) who need the services are not serviced.

THE MARKET OPPORTUNITY

What presents is an opportunity for start-ups and businesses. If this market gap is plugged, SMEs will be able to carry out more trade and in turn create more jobs, greater economies of scale and an overall better and more efficient economy.

To understand how that can be achieved, let's first look at the challenges and hurdles that banks and other accredited lenders face in this conundrum:

Compliance

Lenders have to comply with Money Lending Acts in their respective jurisdictions and that has proven to be the cause of huge legal and administrative difficulties.

Accreditation

There is an inexistence of an accreditation body of SMEs, whereby lenders are able to legitimately identify a bona fide SME to transact with.

Matching

Of lenders to SMEs for the most optimum transactions based on needs and requirements.

Resistance to change

Innovation in the financial industry currently only takes place when pure-play FinTech start-ups connect to financial institutions (FIs) to deliver the innovative banking service(s) they offer. There is however a cumbersome on-boarding process for that, which takes up 80% of the time and effort on the parts of both the FIs and the start-ups. It is not hard to see then, the strong inertia and reluctance (of people) to move for change to happen.

But with all problems out there, solutions have arose in a bid to overcome these challenges.

On the issue of compliance, creative instruments such as convertible notes and crypto-coupons (which are not exactly a currency) are employed, to circumvent the need to contend with relevant legislations around the world. For example, the Securities Future Act in Singapore.

easily be resolved with a market platform that aggregates the demand and supply. And with the issue of accreditation addressed, this platform would function as required.

Tackling human psyche however, the problem becomes a bit more challenging. But there's one thing that underlies all the above-mentioned solutions and eases this hurdle of man's resistance to change – an API Platform.

BANKING WITHOUT BANKS — THE API PLATFORM

An API platform, as I'll illustrate, is the most feasible, viable and efficient solution. Beyond overcoming the hurdles and plugging the clear market gap of SME trade financing, this API platform can be applied to other industries such as logistics and oil trading, and eventually evolve to a be-all, end-all platform that any and all industries can tap into.

value on this platform.

For practitioners, an API platform for the banking industry introduces the idea of a «FinTech-Bank» — the concept of unbundling the banks' traditionally owned business stacks and replacing it with a bundle of an assortment of FinTech startups. Pascal Bouvier talks about a new model for the banks — Banking as a Platform (BaaP) which covers various levels of FinTech platforms³³³.

For the serious technical professionals, the Bank for International Settlements released a report on Principles for Financial Market Structures³³⁴ that bears weight on API platforms in the financial industry.



The push for API platforms

It is known that regulations can be the number one source of contention for innovation. I'm proud to say that Singapore is highly forward-looking and nurturing on that front. The Singapore Government, beyond its regulatory role, has been taking initiative steps towards encouraging and supporting innovation in its economy.

Starting with the FinTech and Innovation group set up within the Monetary Authority of Singapore (MAS), Singapore's central bank; to a financial sector technology and innovation scheme that commits to invest S\$225 million to encourage FIs to collaborate with fintech start-ups. And most recently, the launch of the FinTech Office³³⁵, a one-stop platform led by MAS and SG Innovate³³⁶, to help start-ups navigate the intricacies of Government administration.



On the challenge of identity authentication, block chain ledger certification is an increasingly viable alternative in place of the lack of an official entity.

Probably the easiest problem (of those mentioned), match-making lenders and borrowers can quite

Understanding API platform, as the new banking service

For the uninitiated, think of an intermediary where data is made available for interaction through a consumable service (in a structured fashion) or what is known as Application Programming Interface (API) such that users can create shared

The push continues on to the Singapore FinTech Festival happening this 14 – 16 November 2016. Leading up to this inaugural week of activities is the Global FinTech Hackcelerator (www.fintechfestival.sg/hackcelerator) which aggregates 100 problem statements put forth by the global FinTech community and the financial industry³³⁷. The problem statements cut across areas of trade finance, KYC/identity authentication, and regulation tech amongst others. A catalogue of these problem statements has been published³³⁸.

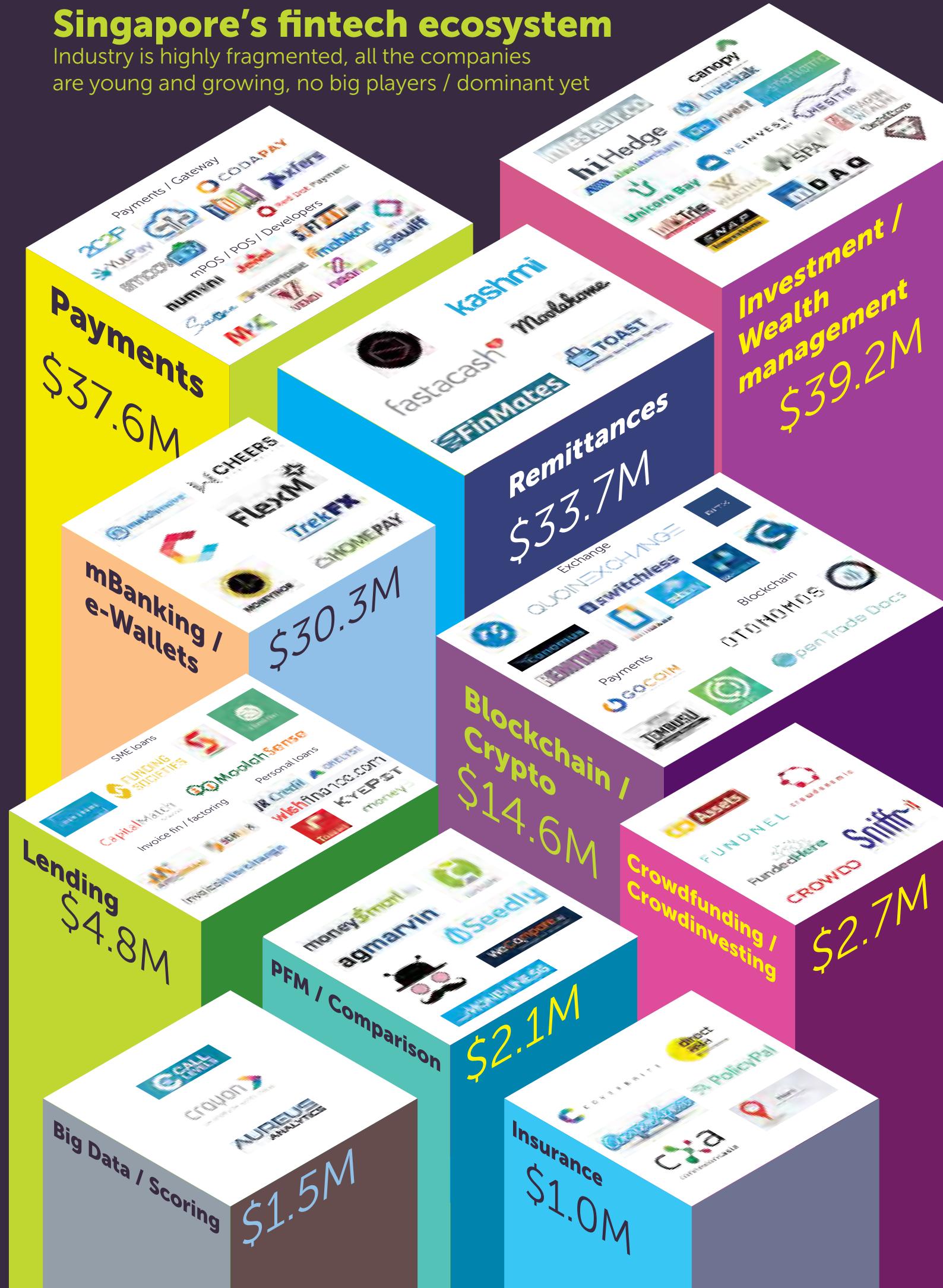
Take a look at problem statements #10, #64 and #70 which talks about requiring flexible platforms that illustrates the API platform I described above.

At the end of the day, people need banking services; but whether this comes through banks or an API platform is anyone's guess. I, for one, bank on the latter. We're all on the front seat to how technology and innovation can shape the financial industry. And I look forward to the unravelling of this story. ●

The screenshot shows the homepage of the Global FinTech Hackcelerator. At the top, there's a navigation bar with links to 'SINGAPORE', 'OUTREACH PARTNERS', 'PARTNERS', 'SPONSORS', 'MEDIA PARTNERS', and 'TOP SPONSORS'. The main title 'GLOBAL FINTECH HACKCELERATOR' is prominently displayed in a large, bold font. Below it, a sub-section titled 'CREATE MARKET-READY SOLUTIONS TO 100 INDUSTRY PROBLEM STATEMENTS' is shown. It includes a brief description of the initiative, stating that it has collected 100 technology problem statements from the financial industry, and that selected solutions will be showcased at the festival. A PwC logo is present, indicating its role as a sponsor. The page features a timeline at the top showing key milestones: 'Problem Statements Published' (May 2016), 'Global FinTech Hackcelerator Kick-off' (Aug 2016), 'Global FinTech Hackcelerator Final Pitch' (Sep 2016), and 'Global FinTech Hackcelerator Awards' (Oct 2016). Below the timeline, there's a section titled 'BENEFITS' with five icons: 'Market Validation', 'Local Partners', 'Global Exposure', 'Tech Connect', and 'Meet Our Partners'. Further down, there's a section titled 'INDUSTRY PROBLEM STATEMENTS CATALOGUE' with a note about the catalog being open source. A link to 'VIEW THE CATALOGUE' is provided. The bottom of the page has sections for 'GLOBAL CALL FOR IDEAS', 'HAVE QUESTIONS?', and 'SUBSCRIBE TO OUR UPDATES' with a newsletter sign-up form. Logos for various outreach partners like CityFellows, Collision, General Assembly, and others are listed. The footer contains links to 'Event Calendar', 'Meetups', 'Pitch Events', 'Conferences', 'Networking', and 'Festival Info', along with social media icons.

Singapore's fintech ecosystem

Industry is highly fragmented, all the companies are young and growing, no big players / dominant yet





VENTURE DEBT

CHAPTER #28



Silicon Valley Bank (SVB), a company with a range of financial services tailored towards technology and life science businesses, announced that it is «significantly» **expanding its UK³³⁹** operation as it looks to capitalise on the growth of the UK tech sector. The company – launched in the UK in 2012 and now with 1,200 UK-based clients – said it is hiring «extensively» to support the UK's «thriving tech scene». The slowdown in the availability of equity funding and a downward pressure on valuations in the venture capital ecosystem in the country has emerged as a business opportunity for firms which lend to technology start-ups. Lending to start-ups is referred to as venture debt, and is substantially different from regular corporate lending which is generally asset-backed and provided to profit-making companies.

Venture financing has helped support startups for decades particularly in Silicon Valley. However, this form of financing is becoming popular in Southeast Asia as financial institutions try to engage with emerging companies³⁴⁰.

Venture debt often supplements an equity round by providing additional capital – but with the upside of limited further dilution. It is senior debt that typically includes the issue of warrants (a right to subscribe for shares in the future at a fixed price). Venture debt should be distinguished from convertible instruments, i.e.

unsecured debt which converts into equity on the next financing round. Venture debt, on the other hand, is not convertible but will be secured against the assets of the company. Whilst it is called venture debt, the commercial terms presented are not necessarily startup friendly. You can expect fully secured loan documentation with terms and covenants similar to that issued by traditional debt providers.



After completing more than 100 venture debt deals in India, **InnoVen Capital has expanded to Southeast Asia**. The first two deals it has signed are with KFit in Malaysia and Pomelo in Thailand. They will receive US\$5 million in loans from InnoVen Capital. InnoVen Capital COO Ajay Hattangdi, says: «Having one unified platform across the region helps us to work seamlessly with clients who are increasingly looking to expand beyond just one market and therefore have requirements for risk capital across geographies. We are seeking to leverage our experience of working with high-growth startups and close relationships with VC investors in creating a regional platform for InnoVen Capital». In India, InnoVen Capital invested over US\$40 million in 27 venture debt deals last year. In 2016, it expects to invest over US\$65 million.

Venture debt firms lend to new economy start-ups which are high-growth companies, asset-light and might have cash burn. Typically venture debt firms charge interest rates in the mid teens, while equity investors look for returns which are above 25%. Temasek-backed

InnoVen Capital closed 2015 with a lending of Rs.275 crore to 27 start-ups, the best year for the non-banking financial company (NBFC) since it started operations in India in 2009. The firm has lent close to **\$150 million since starting operations here, having backed 70 start-ups**

so far. «Recently, we have seen that equity capital is not easy to come by, so this (venture debt) becomes an important diversification tool for founders, said Vinod Murali, managing director at InnoVen Capital India, adding that there is a growing realization among start-up founders that equity is not the only source of capital. «In the global arena too, venture debt has taken off with a lag with venture equity, I think even in India we are seeing that happen at this stage».

Trifecta Capital, which is registered as a category II alternative investment fund with the Securities and Exchange Board of India (Sebi) and has raised over Rs.200 crore from investors such as RBL Bank Ltd and others, is a relatively new company involved in the business. Since starting operations in October, the fund has already lent Rs.50 crore to four start-ups and is witnessing a strong pipeline of deals. **InnoVen Capital is targeting to lend around \$65-70 million** (approximately Rs.350-400 crore) this calendar year. According to Khanna, **Trifecta is looking at making one or two investments every month**, going ahead, with a ticket size ranging from Rs.5 crore to Rs.25 crore. ●



CHAPTER #29

FINTECH HUBS
AND CASHLESS SOCIETIES

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US: NEW YORK TOPPED SILICON VALLEY FOR FINTECH VENTURE FUNDING

In Q1 2016 raking in \$690 million in investment flows in NYC compared to \$511 million from the San Francisco Bay area³⁴¹. The data, compiled by Accenture (ACN) and the Partnership Fund for New York City, highlights the city's rapid rise as a fintech hub and a shift in emphasis away from startups that compete against financial institutions to those that partner with them. Last year, fintech investment in New York tripled to \$2.3 billion, accounting for nearly 10% of all cash splashed in the sector globally.

The White House took it a step further by inviting some of those regulators and key players «to discuss how fintech can help advance critical economic policy priorities», Adrienne Harris, special assistant to the president for economic policy, wrote³⁴³. «Technology isn't just changing the financial services industry, it's changing the way consumers and business owners relate to their finances, and the way institutions function in our financial system». Commerce Secretary Penny Pritzker led a panel discussion on the government's role in fintech and how those firms are partnering with

some are already declaring financial technology dead as a space for the near-term». «These signals are actually the chaotic realities of a space that is maturing. Yes, government regulation is on its way, but **that doesn't mean the sky is falling**».

Compliance and transparency within markets are good things. Consumer protections are good things. So while many have focused on the role that regulations may play in the industry – with clear fears that government may stifle innovation in the face of this turmoil – the truth is much more complicated.

«At heart, the competitive advantages in fintech are the same as the rest of the startup world, with the same power and purpose of «disruption» — better technology, faster iteration and more empathy for users. Regulatory arbitrage, if it ever truly existed within finance, is not a defensible business strategy: product quality, customer outreach and lower cost structures are».

As a category, **fintech has more than 60 million users**. Many startups are focusing on millennials; with 60 percent thinking big banks are not designed to serve their generation, it is not surprising that 73 percent are more likely to be excited by a new financial service from a tech company than a nationwide bank. Simplicity, transparency and consumer-focused experiences are key.

«Many companies have taken advantage of this opportunity, helping to make financial services more accessible — ranging from payments to student loans and savings to remittances. **These are the companies government regulations need to help protect and in which they should encourage greater investment**. Doing so not only benefits the consumer, but also the market».

The future of our vibrant economy and the reformation of the financial services industry depends on striking a balance between growth and citizen protection. And how do we make sure the path does not



In the beginning of June'2016 White House officials met privately with regulators and leaders in the financial technology industry to discuss how the government can work with innovators³⁴². The half-day event called the «FinTech Summit» largely focused on how government agencies can tap into the innovation, in which new firms are offering small-business owners and consumers faster forms of loans and digital payments. Federal regulators have been studying the industry to determine how it can be regulated while still encouraging innovation.

each other and banks. The event concluded with a discussion on how fintech firms are a «potent enabler» for developing countries.

Caitlin Klevorick and Zachary Townsend wrote on TechCrunch great words³⁴⁴: «You would be hard pressed to read the news and not know that fintech is seemingly at a crossroads — from Lending Club's CEO resigning to reports of other peer-to-peer lending platforms reducing their workforce to headlines that state that, after a boom in funding, venture capitalists are looking to other sectors out of fear. Indeed,

simply focus on the big banks, but understands the importance and value of newer and more specialized companies?

Regulators can start by being more open to experimentation and alternative business models. **And open to coordinating among themselves.** Too often guidance from a department will clash with a project in another part of the government. The end result tends to be a fractured, unnecessarily complex and (likely) unintentional hampering of innovation.

One more big pain for US-startup ecosystem us immigration. Uber has transformed local transportation in American cities and SpaceX aims to enable Americans to travel to Mars. Oscar Health Insurance makes healthcare more accessible for Americans while ZocDoc simplifies making doctor appointments. Razer has created gaming products loved by gamers around the world and FanDuel created a fantasy sports platform enjoyed by sports fans. What do these innovative companies share in common? **They were all founded by at least one foreign-born entrepreneur**³⁴⁵. In a study by the National Foundation for American Policy, it was shared that immigrants founded 51 percent (44 out of 87) of U.S. billion-dollar startups and are key members in more than 70 percent (62 out of 87) of these companies. The research also found that among the billion-dollar startup companies, they have collectively created more than 65,000 jobs. Immigrants clearly play a significant role in job creation, entrepreneurship and the startup ecosystem in the U.S. However, the U.S. has a strict immigration policy and has yet to pass the bill for the «startup visa» and, in the current political climate, it seems increasingly unlikely to do so. For the aspiring entrepreneur who wants to work at an early-stage company or start their own company, it is important while deciding the proper next step in your career to comprehend the myths, lies and half-truths of immigration policy.

Information about this subject tends to be opaque and online sources are often not comprehensive. However, one thing is for sure: If you are genuinely passionate about your next startup idea, don't give up on figuring out your immigration challenges and learning the truth.

UK's world-leading position include: creating a FinTech «delivery body» to drive policy initiatives; building FinTech «bridges» to support FinTechs expanding internationally; collating FinTech sector growth metrics; and strengthening the tech talent pipeline.



UK/BREXIT COULD DISRUPT FINTECH BUSINESS

In August 2014, the Chancellor of the Exchequer, George Osborne, announced the UK Government's ambition to make the UK the «global capital of FinTech». Now the UK FinTech sector generated £6.6b in revenue in 2015, attracted £524m in investment, and employs a FinTech workforce of 61,000³⁴⁶. A competitive advantage is the UK's world-leading FinTech policy environment, which stems from supportive regulatory initiatives, tax incentives, and government programmes. The UK ranks second for its availability of technical, financial services and entrepreneurial talent, and has unrivalled access to financial expertise, employing 1.2m people in financial services. California dominates FinTech investment, with £3.6b invested in 2015. The UK appears to have robust access to early-stage capital, but growth capital appears constrained. E&Y's recommendations to maintain the

Why Britain is beating the U.S. at financial innovation?³⁴⁷ Legislation allowing ordinary American investors to invest in the shares of startups and small businesses was first introduced in the U.S. Congress in 2011. Despite bipartisan support and the approval of President Obama, it is only now becoming a reality. The U.K. has embraced not only equity crowdfunding, but innovative finance generally, and now has a thriving industry that is benefitting small businesses, investors and the economy alike. The United States, on the other hand, has gotten so bogged down in the strictures of an outdated regulatory system that it is lagging far behind — and is likely to continue to do so. Innovation will always move faster than legislative processes, and a system of financial regulation that requires a new statute every time an innovation emerges will never be able to keep up. Until — and unless — the United States builds a level of future-proofing into its financial regulation — perhaps

through a principles-based regime like that in the U.K., or perhaps some other way — Britain's lead over the United States in innovative finance will continue to grow.



In February 2016, the Open Banking Working Group set out its plans for the creation of an **Open Banking Standard in the UK**. This will entail banks opening up their application programming interfaces (APIs) to allow third parties to access their data, including, where permissions have been granted, customer transaction data. The Open Banking Standard will be implemented over the next five years. The best case scenario sees consumers enjoying access to enhanced, tailored services, banks benefiting from more engaged customer relationships, and fintechs finding it easier to achieve scale. However, to achieve this outcome, banks need to embrace change, consumers have to become more willing to share their data, and regulators must strike the right balance between maintaining security and encouraging innovation.

Britain has become a «cash-second» nation, claims Visa Europe, which saw an explosion in contactless payments drive an 11.5% rise in the number of transactions it recorded in the country last year. In a year when more UK payments were made

electronically than with cash for the first time, Visa Europe saw point-of-sale spend rise 9.6%. More than £1 in every £3 spent in the country is now on a Visa card.

Payment Services. That initiative is setting policies for how fintech firms and software developers can build applications that pull data from bank accounts.

E&Y:

UK FinTech: On the cutting edge. An evaluation of the international FinTech sector

The study aims to assess how the UK FinTech ecosystem compares to that of California, New York, Germany, Singapore, Hong Kong and Australia, regions selected by HM Treasury because of their status as notable FinTech hubs. Across the seven regions, the report considers four attributes essential to a FinTech ecosystem: talent, capital, policy, and demand.

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EUROPE

Fintech attracted the most investment for the first time in the **Nordic region**³⁴⁹, more than any other vertical. Between January 1, 2014 and end of March 2016, 51 fintech investments were made in companies in Sweden, Finland, Norway, Denmark and Iceland, totaling \$390.17 million. The Nordics are following a global trend which saw year-on-year investments in fintech companies increase by 106% in 2015 to \$13.8 billion, according to a KPMG report. «The Nordics lend itself particularly well to fintech for a few reasons. Stockholm has a strong financial history, mobile adoption is rife, and fintech lends itself well to mobile solutions, meaning Scandinavia is a good user market. What's more, the success of Klarna and iZettle has meant more interest in fintech in the region.

With oil prices plummeting, **countries blessed with natural resources are feeling the heat and Norway is no exception**³⁵⁰. Norway has seen the value of its state-owned oil and gas fields fall by more than \$50 billion, or nearly a third, in the last two years, according to a report by Rystad Energy. Over 36,000 oil jobs have disappeared — not a small number for a population of 5.1 million. Anita Krohn Traaseth, the CEO of Innovation Norway, the Norwegian government's instrument for innovation and development, says that it's time for **Norway to look beyond oil**. «Norway needs to develop and build several growth sectors to contribute to a more diversified and sustainable national economy». Compared to its startup-breeding Nordic neighbours — Sweden (in a league of its own), Denmark, Finland, and even Iceland — Norway is faring poorly. «One of the main challenges for the local startups is the lack of private capital towards for startup and growth companies», said Karen Elisabeth Ohm Heskja, Chief Startup and Growth Officer at Nordic Edge Expo. One of the central players driving Norway's startup scene Innovation Norway, headed by Krohn Traaseth. The fund invests on behalf of the government and its ministries, with a total value of 25.3 billion NOK (\$3 billion) and in 2015 distributed 6.1 billion NOK (\$729.5 million) to Norwegian businesses of which 30 percent were startups.

The French government organized French Tech Ticket³⁵¹, a startup competition aimed at entrepreneurs all around the world. If you have ideas in the areas of big data, internet of things, fintech, and cleantech, you could work on them in the City of Light. French Tech Ticket has already enabled 23 teams from as many countries to go to Paris, and now it's gearing up for a second «season». This time, the program will accept 70 teams. They will be hosted in over 40 incubators all over the country for 12 months, starting January 2017. Applications are already open and the deadline is August 24. The winning teams will be announced in

December. The winning teams will get funding to the tune of US\$51,000 each, access to mentoring and networking, and assistance in relocating to France and obtaining residence permits. The funding will cover both personal and professional costs for the startups. No equity stake will be taken in return. Paris was ranked number 11 in the Startup Ecosystem Ranking 2015 report by Compass — one place lower than Singapore. According to European tech outlet Tech.eu, France saw 115 funding deals in 2015 worth US\$1.1 billion in total, while merger and acquisition deals generated another US\$1 billion across 40 deals.

drove the value of exits to C\$4.26 billion from C\$1.46 billion in 2014, the Canadian trade group said.

But... There's an epidemic in **Canada**³⁵². That epidemic is a mentality that leaves top talent with no option but to flee the nation's borders and take with them everything they've learned. It's a mindset that resents the success of others. It's a bad case of tall poppy syndrome. Canada's problem isn't lack of talent, or an inability to create innovative, world-changing technologies. In fact, Canada's proven time and again that it can do that (Nortel, BlackBerry, Shopify to name a few).



CANADA

Canadian venture investment rose 12 percent to \$1.7 billion in 2015, thanks partly to sizable rounds for payments startup Lightspeed POS Inc. and messaging app maker Kik Interactive Inc., according to data from the Canadian Venture Capital Association. The growth rate approached that of the U.S., where venture funding increased 16 percent to \$58.8 billion in 2015, according to data from the National Venture Capital Association and PricewaterhouseCoopers LLP. While financing for Canadian companies is much smaller overall, deals such as the initial public offering of Shopify Inc.

Rather, it is Canada's inability to support those innovative technologies locally, tell its stories globally and legitimize products and ideas in Canada first without needing the stamp of approval from neighbour to the south. This is not to say that everything good leaves Canada, but there are certain realities about living there. If any company or person wants to achieve something of global consequence, they cannot just be a Canadian story. They need to have a global context and traction to make it happen. However, too often that value leaves Canada because they don't believe that is possible to create it there.



SOUTH KOREA

South Korea has a 83 percent smartphone penetration rate, one of the world's highest, an estimated \$23.6b ecommerce market and a high \$31.7k GDP per capita³⁵³. The South Korean economy attributes its success to the chaebols (Korean conglomerates), which were no doubt effective in driving the South Korean economy in the 1960s-1990s. But since the Asian financial crisis in 1997, only 19 of the 30 largest chaebols remain. Did this lead to the **beginning of a new startup ecosystem, where rising entrepreneurs helped fill the gap in driving economic growth for the country?** Mindsets are changing in the industry, Koreans still have a deep-seated cultural aversion to risk. Nathan Millard's presentation attributed this as the «Ajumma factor», where the maternal advice to young adults is, «Get a nice job in Samsung and a good wife, son». Daniel Chan elaborates further, «Talent is difficult to recruit as everybody dreams only of Samsung and LG, and social pressure from friends, family, and significant others further prevent them from walking a more (fulfilling) entrepreneurial path». Large amounts of resources from the government and corporates go into supporting this band of entrepre-

neurs. According to reports by Seoul-space and G3 Partners, Korea has built a fast growing ecosystem that is well backed by 20 well-established accelerators, 40 high level Korean investors, over 14 government related agencies, 1,000 angels and many startup events to entice the budding entrepreneurs. However, Sun Ung also highlights that applying for government funds takes an incredible amount of time and manpower, given that the process often requires a full-time staff member dedicated to the application. This sentiment is echoed by David where «an abundance of seed funding seems to be a defining characteristic of the Korean ecosystem, coupled with the temptation to take on generous government subsidies and grants». His company, Shakr, has avoided accepting government support as the strict compliance will quickly become an administrative burden.

The government in Korea is expected to pay closer attention to facilitate the growth of FinTech ecosystem in the country. As Yim Jong-yong, Chairman of the Financial Services Commission, commented at the Korea Capital Market Conference 2016 in Seoul, «As capital markets have large potential in innovation and change, the government will make sure that startups with creative

ideas get enough venture capital». Yim also stated that the **government will play a vital role in providing venture capital to FinTech startups**³⁵⁴. Some particular areas of interest mentioned at the conference by professionals included blockchain, bitcoin, crowdfunding and robo-advisors. Recognizing the importance of international networks, the South Korean government has put an effort in building connections with global FinTech hubs. Although the South Korean government clearly works on developing a strong startups ecosystem to bring FinTech innovation into the country, some professionals believe the government needs to redefine its role in that process to being a referee, not a player. Another interesting point brought up along with the excessive participation of the government is that «South Korea's current regulatory scheme is a major obstacle to the creation of an innovative ecosystem. It should build a new regulatory system from scratch to adjust to new environments».

Fintech Center of Korea has signed an MOU with the Singapore FinTech Consortium³⁵⁵, under which the two institutions will provide proper aid to fintech companies from the partner country. Hak-kyum Kim, Standing Commissioner of the Financial Services Commission of Korea, and Gerben Visser, Co-founder and Managing Partner of Singapore FinTech Consortium, participated in the signing ceremony. The Fintech Center of Korea also held a demo day to promote co-operation of Korea and Singapore in the fintech industry and also to pursue globalisation of fintech innovation. Eleven Korean fintech companies participated in the event (Paycock, FM Soft, KTB Solution, O2O CM, BSMIT, Fintech Magic, Power Voice, Irisys, Korbit, and JY Tech and ForCS, which partnered with Standard Chartered Korea Bank).

Can South Korean startups (and the government) save its flailing giant tech conglomerates? With 17 percent of the GDP, it's fair to say

that Samsung is South Korea, or at least has represented it on the global business stage for the last decade or so. But for the last year or so, with the contraction of the global economy and the dynamism of Chinese (Xiaomi) and Indian (Micromax) competitors in the smartphone industry, the giant chaebols of South Korea — Samsung first, then Hyundai and a few others — have experienced difficulty. Not only did their profits stop increasing, but for some like LG, they have been «bleeding money, and subsequently talent». It's partly because of the investments driven by the government, and, in a new era of trouble, it again put a huge stack of money on the table to transform the country. Not everyone seems to like the current president, Park Geun-hye, but, without exception, everyone has «give credit» to the way she has been driving quite a revolution via her «creative economy» plan. This costly bet on entrepreneurship and creativity is still amazing in a country where the professional and social life have long been exclusively dominated by the large conglomerates known as chaebol. Now, thanks to this support, most of them have opened labs and accelerators — it's a big change for their usually secretive culture. So can South Korea be the «convergence capital of the world», acting both as a test-bed for the future of mobile and a launchpad for Asia? In the last two years, the government started to deregulate parts of the finance industry, and P2P lending platforms have been opening, such as PeopleFund, which processed \$13 million in 2015. O2O is the second field where lot is happening, due to a combination of dense cities (Seoul-Incheon is the world's fourth largest city, with 23 million inhabitants), high technology and need for convenience. South Korea will also face strong competition from nearby China, whose tech giants and startups now openly expand overseas.

<http://techcrunch.com/2016/05/17/can-korean-startups-and-government-save-its-flailing-giant-tech-conglomerates/>



South Korea is trying to attract international startups to the country through the K-Startup Grand Challenge project, aiming to transform itself into a startup hub of Asia³⁵⁶. K-Startup Grand Challenge is calling for applications to be submitted by June 14, following which, there will be first elimination round to select 80 teams. The top 20 startups to emerge from the next round will be in the six-month acceleration programme, and also receive \$33,000 support each. Meanwhile, the final four from the demo day will receive up to \$100,000 additional funding. During the nine-month span of the project, startups will have the opportunity to be invested-in by the accelerators and the venture capital firms based in South Korea. In addition, selected startups will also receive sponsorship and mentoring from large incubators and conglomerates in the countries, such as ActnerLab, SparkLabs, Samsung, LG, Lotte, Hanwha, Doosan and Kakao.

HONG KONG

Cybersecurity, blockchain, e-payment and regulatory technology among top niches being targeted as **Hong Kong** looks for greater recognition as financial technology hub. InvestHK will build a team dedicated to bringing financial technology

(fintech) companies to Hong Kong, with representatives in London and New York hunting out start-ups and established firms. «Promoting Hong Kong as one of the world's fastest-growing fintech hubs is one of the major thrusts for us. The other one is attracting fintech talent, and we want to continue to attract the best and brightest», Charles Ng said. Government support for fintech start-ups in Hong Kong is growing as the sector is seen as complimentary to the city's strength in financial services and its existing talent pool. On a broader scale, the city mapped out plans for its first Innovation and Technology Bureau late last year, while chief executive Leung Chun-ying announced a HK\$2 billion fund to boost investment in innovation and technology during his policy address in January. Hong Kong's Secretary for Financial Services and the Treasury Chan Ka-keung said in Wan Chai last October that the government was focusing on measures needed to promote fintech in the city.

Hong Kong's financial secretary John Tsang Chun-wah reserved a special mention for fintech in his budget speech, promising to pump cash into the startup ecosystem and create a dedicated space to support up to 150 new financial tech-

nology companies over the next five years. Under the proposals, a dedicated team, under Invest Hong Kong, will be set up to organise international events and encourage fintech start-ups, investors and R&D institutions to set up in Hong Kong. An additional 3,000 square metres of co-working office space will also be made available to fintech firms at the Cyberport digital hub.

Angel investors, venture capitalists, and wannabes have flocked to Hong Kong as investment opportunities have increased. Every day in Hong Kong seems to witness the opening of a new cowork space, and every evening it feels as though there are 10 startup launch parties or other startup related events. **Fintech and IoT are what's hot in Hong Kong**, which shouldn't surprise anyone who knows the city. Hong Kong is one of the few world financial centers that can be mentioned alongside New York and London. It's also next door to the largest collection of manufacturing talent in the world.



SINGAPORE

Innovation and enterprise were some of the keywords in **Singapore's** finance minister Heng Swee Keat's speech during the **2016 Budget announcement**. A big part of the speech focused on the need for Singaporean businesses to grow, embrace modern technology, and grow beyond the country's borders.

Under the general heading Industry Transformation Program, the minister outlined a S\$4.5 billion (US\$3.3

billion) range of tax incentives, grants, and support schemes aimed at small- and medium-sized enterprises (SMEs) that are supposed to foster growth and global expansion, including incentives for mergers and acquisitions (M&A) and automation. When it comes to research, technology, and tech startups, the government wants to continue promoting growth and diversity. To that end, it will set up a new entity called **SG-Innovate** that will match entrepreneurs with mentors, introduce them to venture capital firms, give them access to talent in research institutes, and help them expand to new markets. SG-Innovate will work with SPRING Singapore and EDB to build on the support that has been offered by Infocomm Investments (IIPL), the investment arm of Singapore's Infocomm Development Authority (IDA). Sectors of focus will be emerging tech like internet of things (IoT), smart energy, **fintech, digital health**, and more.

Up to S\$4 billion (US\$2.9 billion) will go toward collaboration of industry and research, the minister announced. The National Research Fund (NRF), which has made considerable investments in startups in the past, will be topped up with S\$1.5 billion (US\$1.1 billion) this year. The Tech Skills Accelerator will be the government's response to the current scarcity of techni-

cal professionals in Singapore. As the need for engineers, coders, data scientists, and cybersecurity specialists increases, the Accelerator will identify ICT skills in demand and provide training, as well as certification on those skills. SG-Innovate will be formed as a company under the National Research Foundation (NRF); Steve Leonard, currently executive deputy chairman of the Infocomm Development Authority of Singapore (IDA), will assume role of chief executive. IIPL will be re-organised as the first pillar (ICT) within SG-Innovate. Other pillars will include fintech, smart energy, digital manufacturing, digital health and Internet of Things. The **FinTech Office**, co-led by the Monetary Authority of Singapore and SG-Innovate, was formally announced by Mr Heng earlier. Launching on May 3, 2016, it will be a one-stop virtual entity – in a whole-of-government approach – to promote Singapore as a fintech hub; its tasks include reviewing and enhancing fintech-related funding schemes, and proposing strategies to boost the local fintech ecosystem.

A generational shift is taking place in the way **Indians** make payments. Fund transfers through mobile are growing much faster than other payment modes and payments through cheques continue to fall. Mobile wallets transactions -- from phone recharges to paying for



cabs or shopping online -- trebled to almost 400 million during April–November 2015. Mobile banking, where the number of transactions more than doubled from 98 million during the first eight months of 2014–15 to 265 million during this fiscal year appears to be a laggard. At the current level, mobile-based transactions add up to 602 million, which is 83% of the 723 million cheques cleared during April–November. A year ago, this proportion was less than 30%. With Airtel, Vodafone and Vijay Shekhar Sharma's Paytm bagging payments bank licence and the sharp rise in bank accounts due to the Jan Dhan scheme, experts predict m-banking transactions to grow much faster. The rise of mobile-based financial transactions coincides with the rise of smartphones, whose demand has gone up exponentially. Platforms such as Paytm, MobiKwik and Free Charge are popular, especially among youngsters who are savvier and are just entering the financial system. Paytm founder Vijay Shekhar Sharma said that, led by the smartphone revolution, digital payments have become a mainstream phenomenon in India. «We have seen large amount of consumer payments now being done through mobiles», he said.

As part of Singapore's plan to become the world's first Smart Nation, the city-state's financial regulator and central bank has announced a series of initiatives aimed at fostering the fintech sector and build its Smart Financial Center³⁵⁷. The Monetary Authority of Singapore (MAS) announced that it will start regulating fintech companies only when they grow to a sufficient size to pose risks to the wider financial system. Speaking to reporters during a visit to New York, MAS' managing director Ravi Menon said: «If you start regulating every one of those, you stifle a lot of innovation, and they don't get a chance to grow. So only when they grow and reach a certain critical mass, which then poses a significant impact on the system, or it can affect a large number of con-

sumers, then we step in to regulate. It's always a fine balance». One of MAS' latest initiatives to foster the fintech ecosystem is the inaugural Singapore Fintech Festival, a five-day event from November 14 to 18, 2016, that promises to bring together the global financial community to celebrate fintech.

- 3.** For each sandbox, MAS will decide which regulations to relax and which to uphold. The applicant will be in charge of operating the sandbox and creating safeguards to limit the consequences of failure.
- 4.** Not all sandbox applications will be approved.



The Singapore government recently talked about creating a «regulatory sandbox» for fintech³⁵⁸.

«You will not be smothered by regulations; until you become big enough to actually be a threat to the financial system, but at that point you would already be considered a success», said Vivian Balakrishnan, the minister in charge of Smart Nation. The Monetary Authority of Singapore (MAS) took a step closer towards building the sandbox by releasing a consultation paper detailing what it could look like:

- 1.** Fintech startups or financial institutions must apply to create a sandbox.
- 2.** Whether you are a bank or a fintech startup, every applicant must be approved by the MAS. Also, there isn't one sandbox for the entire industry but many sandboxes customized to each applicant.

Yours may not get approved if: your fintech product isn't innovative or beneficial to society; you have not done «due diligence to test and verify the viability» of your product; your product doesn't require a sandbox to be tested effectively; you have no intention to deploy your product in Singapore on a broader scale after exiting the sandbox.

A growing number of governments are deciding to take actions to foster innovation and create welcoming national environments for startups to grow and bring the latest technological advancements into countries. **FinTech sandboxes are being launched by governmental structures steadily** and are looking for innovators to take risks in safe and welcoming environments³⁵⁹.

- 1.** One of the most recent initiatives was launched by The Financial Services Regulatory Authority (FSRA), one of three divisions of the Abu Dhabi Global Market

(ADGM). Almost a month ago, ADGM released a consultation paper «to invite public feedback and comments on the proposal to establish a regulatory framework to support participants deploying innovative technology within the financial services sector». In order to bring innovation to the country and region, FSRA has proposed to create a «Regulatory Laboratory» (RegLab) — «a tailored framework that provides a safe environment, within controlled boundaries, for businesses to test, develop and provide innovative FinTech products and services without immediately being subject to all the normal regulatory requirements».

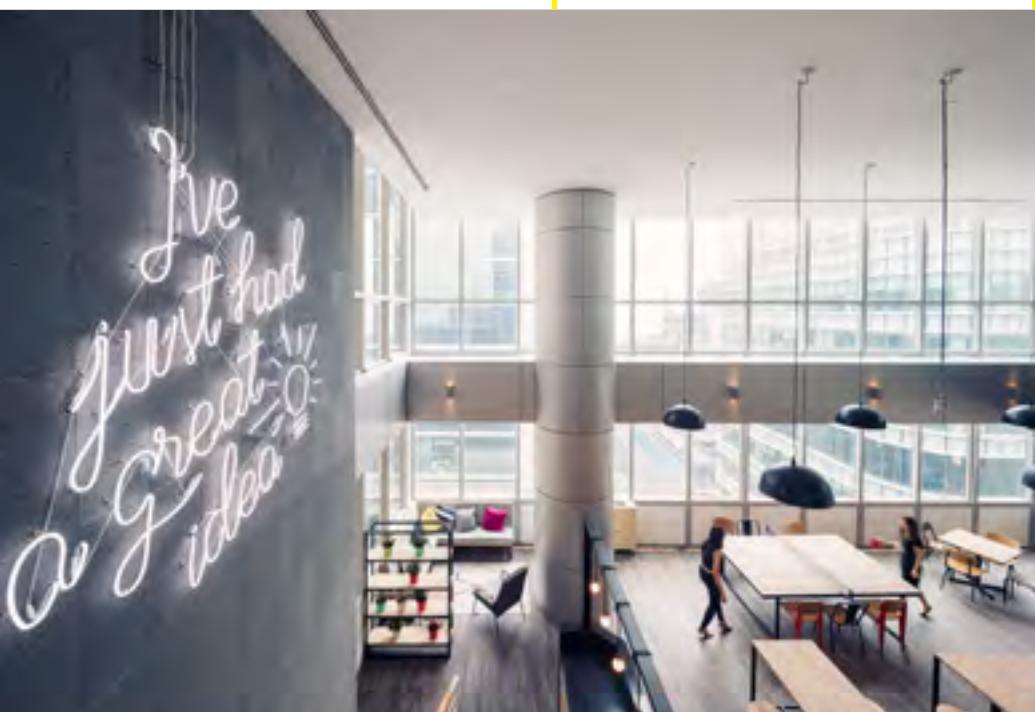
2. The Monetary Authority of Singapore released a consultation paper on the FinTech Regulatory Sandbox Guidelines explaining the importance of building and growing a smart financial center with a regulatory environment that is conducive to the innovative and safe use of technology.
3. In March, the Australian Securities and Investments Commission released an announcement that in collaboration with the government, ASIC will be working on the development of a 'regulatory sandbox' for Australian FinTech.

4. In May, the Financial Conduct Authority opened its regulatory sandbox for applications. The regulatory sandbox is part of Project Innovate, an initiative that kicked off in October 2014, to help us encourage innovation in the interests of consumers and promote competition through disruptive innovation.

Singapore must support overseas entrepreneurs to drive local startup ecosystem³⁶⁰. To develop an ecosystem like Silicon Valley, where most tech vendors hail from outside the US, Singapore needs to make it easier for technopreneurs from other parts of the world to set up shop and work in the country. Some 60 percent of technology vendors in the flourishing US environment are not from America, hailing instead from a myriad of different nations including India, Estonia, Russia, and China. According to Jamie Camidge, head of strategic partnerships and alliances at Telstra's accelerator programme, muru-D, it was not as easy to do so in Singapore, particularly for entrepreneurs from the region such as Vietnam, Indonesia, and the Philippines who might need to bootstrap their startups. It could prove challenging for these entrepreneurs to obtain visas and have to pay themselves a minimum sum to qualify for an employment pass.

Singapore ranks as the top app-based economy in Asia, but the city and other regional leaders must address market gaps or see themselves leapfrogged by up and coming ecosystems like China, Indonesia and India, according to a new study by CA Technologies, one of the largest independent software companies in the world. The report was focused exclusively on mobile applications and analysed three main pillars — government support, infrastructure and business agility. Singapore, Australia, South Korea, Japan and Hong Kong were pegged as the leading app economies. «China, India and Indonesia have the potential to leapfrog to the top three places if they capitalise on the opportunities before them. And, the earlier leaders of Singapore, Hong Kong, South Korea, Australia and Japan run the risk of falling behind in this next evolution of the Internet if they do not take actions to address the gaps in their markets quickly», the report said.

Fintech firms are not a threat to Singaporean banks but «enablers» whose success will **lie in partnering with banks**, and enabling them to succeed, said a senior regulator from the Monetary Authority of Singapore (MAS). «The initial euphoria that (fintech firms) will eat their lunch and eat their dinner has gone away», Mr Sopnendu Mohanty, MAS chief fintech officer, told. Their disruptive new business models could upend the old financial order, pushing out banks that are slow to innovate, observers have warned. But collaboration is the way forward for the financial sector in Singapore, said Mr Mohanty, a former Citi banker. «MAS' approach to fintech is to use the power of technology to help banks to succeed», he said. «It's not a game of disruptors versus enablers. We see fintech as an enabler... The good news is fintech companies by design are creating far superior technology products, and where success lies is in partnering with banks, and enabling banks to succeed». Mr Mohanty also promised that this year would be an exciting one for fintech



in Singapore. «The only way (to help banks innovate faster) is through what I call the democratisation of banking services through API, that allows third party developers to work with the banks to bring out that unique product.».

«Fintech start-ups are beginning to attack various parts of the financial services value chain. In such an environment, our future success depends on our ability to harness the digital revolution and completely re-imagine the banking experience», noted DBS Chairman Peter Seah and CEO Piyush Gupta in a letter to shareholders. «Fintechs are beginning to unravel the financial services value chain, and we need to be able to respond», Seah and Gupta stated. This sentiment was echoed by OCBC's Chairman Ooi Sang Kuang and Group CEO Samuel Tsien. In a similar letter to shareholders, they noted that the bank is closely watching the rise of fintech startups, as they have the ability to disrupt traditional banking practices. Meanwhile, United Overseas Bank (UOB) set up The FinLab venture, which explores possibilities with FinTech startups through prototypes in payments and collections, wealth management, big data analytics and risk management.

technology with finance to provide new services for customers, Minister in the Prime Minister's Office Chan Chun Sing said. «This is something that we think is growing, and we think we have some competitive advance that we can build on», he said. «We want to see how we can better connect Singapore to the rest of the world, not just as an end, but also a means for the rest of the economic activities that this will catalyse», Mr Chan said.

INDONESIA, THAILAND, JAPAN, TAIWAN, INDIA

Indonesia saw the launch of a government-backed initiative called the «**1,000 startups movement**».³⁶¹ The program's goal is to grow 1,000 startups until the year 2020. Together, they will amount to a valuation of US\$10 billion. It's designed as a roadshow consisting of a series of workshops, hackathons, bootcamps, and incubation programs that will roll through ten large Indonesian cities in the coming months. From June to September, the «movement» will take off in Jakarta, Yogyakarta, and Surabaya. From September to December, it'll focus on Bandung, Semarang, and Malang. By early 2017, the program will arrive in Medan, Pontianak, Denpasar, and Makassar. Initiators of the program

self a tech startup ecosystem builder. The goal is to have 200 new startups across the 10 cities emerge from the funnel each year, starting now — which would amount to 1,000 startups by the end of 2020. But so far, in Indonesia's entire startup history, it has only produced a handful of companies that might have reached unicorn status. Online travel agent Traveloka could be one of them, as could C2C marketplace Tokopedia. That's from a larger pool, grown over a period of more than five years. Tech in Asia's database now counts 2,262 Indonesia-based startups. The 'movement' faces another big challenge: **it doesn't have any monetary support from the government**.

Thailand is getting serious about establishing a startup ecosystem as the government announced it would launch a **US\$570 million venture fund** for this purpose³⁶². The fund will finance some 2,500 existing startups in Thailand. The aim is to raise the number of startups in the country to 10,000 in two years. The fund will be split between two ministries: the ICT and Finance. The country hasn't figured prominently on the radar of investors, who often go first to more advanced neighbors Singapore or Malaysia, or one of the world's most populous nations, Indonesia.

It is regarded as a small market that is dwarfed by its giant neighbors of Japan, China and Philippines. But despite its small size, **Taiwan's**³⁶³ population of 23 million grew economically in the 1960s to 1990s and was dubbed as one of the four Asian Tigers with strong economic growth. Can Taiwan's startups be the shining light in the midst of economic challenges? Is the startup ecosystem ready to support new innovation? Cate of SkyRec agrees that the ecosystem is developing and lists down active community evangelists. «We have more resources compared to three years ago. There is the Startup Stadium, or TSS for short, where a startup community thrives and where regular pitch events are held. iii is also pretty active, where they work with foreign startup events like B



Singapore could carve a niche for itself in financial technology (fintech), in combining information

are Indonesia's ministry of communication and information technology and Kibar, an organization calling it-

Dash Camp, Slush and Echelon, and provide support to startup companies. Meet Club helps to report on Taiwan's startup circle, and accelerator AppWorks has helped several companies grow to go to international market». Ken Chen, cofounder and CMO, iChef, a Restaurant POS app which recently raised US\$5.6m, concludes by saying that the startup scene is the silver lining in the dark clouds. He gives his hopeful assessment, «In Taiwan, due to the depressing economic status, startup entrepreneurs are more likely to share the social mission of bringing new hope into the Taiwanese economy. And that mindset grows from building achievements with the startup team to showing achievements to the community. I would say it is exciting. More junior and senior talents are joining the startup community, either to start their own business or work as professionals». Ken of iChef observes that there are many startups seeking funding, and there are many investors, but there seems to be mismatch. 'Go Global' is the mantra for Cate of SkyRec and Ken of iChef. For Ken, going global should start from day one and all stakeholders should focus on that, especially the founder. For Cate, it is about dreaming big. She gives her take, «If you have a good idea, don't just keep it to yourself; make good use of the resources to promote it. To get more opportunities, get connected to the world either for investment or the big market out there».

Strict regulation, easy access to credit due to rock-bottom interest rates, and weak demand for innovative financial services from a risk-averse population that still prefers cash to credit cards, have strangled fintech's advance in Japan (with \$9 trillion in individuals' cash deposits). Investment in Japanese ventures reached only around \$44 million in the first nine months of 2015. Now, Japan's financial industry regulator hopes **relaxed rules on investing in financial ventures**, and a new system for regulating virtual currency exchanges will pass through parliament by May — a first step in kickstarting the fintech revolution in

the world's third-biggest economy. «The law changes aren't a goal, but a first step», Norio Sato, a senior official at the Financial Services Authority (FSA), told. «Fintech will have a big impact on financial services». The changes, which will allow banks to buy stakes of up to 100 percent in non-finance-related firms, will free up Japan's three megabanks to enter into tie-ups with fintech ventures developing services including robotic investment advisory and blockchain. Mitsubishi UFJ Financial Group, Mizuho Financial Group and Sumitomo Mitsui Financial Group have said they are eyeing such investments, having previously been restricted to holding stakes of only 5-15 percent in start-ups. Under pressure from weak loan demand, the megabanks see an opportunity to earn money through fintech, but are also aware of its potential to disrupt traditional business models. «Japan hasn't previously been enthusiastic about fintech», said Sato. «But creating these rules this fast could gain the world's attention».

The National Payments Corporation of India (NPCI) — essentially the guys who run all of the retail payment systems in India — hosted a hackathon for developers to work with their latest release, the **Unified Payments Interface** (UPI). The UPI is a technology that allows bank-to-bank and bank-to-mobile wallet transfers with minimal identification. It is open source, which means that competing banks can include it in their apps and transfer money between each other. The UPI is set to officially launch in April.

The NPCI runs India's RuPay system, a scheme similar to that of MasterCard or Visa. The NPCI mandates that all mobile wallets adopt the UPI within three years and it will earn US\$0.01 for every transaction conducted on the platform. The API, once integrated into apps, can also be adapted to allow wallet-to-wallet transfers. Rumor has it that many of India's major mobile wallet players like Paytm and Freecharge have already jumped on this wagon.

Indian Prime Minister Narendra Modi launched a number of initiatives on Saturday to support the country's start-ups, including a 100 billion rupee (\$1.5 billion) fund and a string of tax breaks for both the companies and their investors.

AUSTRALIA

One commentator referred³⁶⁵ to **Australia's deeply risk-averse business community, dominated by rent-seeking oligopolists** who influence policy makers, as a key reason behind why the country will never become the next Silicon Valley. Innovation is supported by taking lots of small bets, embracing and celebrating smart failures that come with these bets and iterating towards a successful formula, which flies in the face of a conservative 'avoid failure and looking stupid at all costs' mentality. As PayPal, Tesla and Space-X founder Elon Musk says, «if things are not failing, you're not innovating enough». Australia's conservative nature is perhaps best exemplified by the heavy hitting hand of the law which in some jurisdictions has resulted in the shutting down of an 11-year old girl's lemonade stand for not having a permit. Changing business regulation to support behaviours underlying innovation, such as speed and failure, will take time — especially when parliamentary proceedings are often akin to a professional slanging match with no resolution in sight.

Despite the conservatism and regulatory burden, Australia's startup and innovation ecosystems have been punching above their weight in recent years. Just some names to come out of this island nation include Campaign Monitor, Canva, Atlassian, Freelancer, OzForex, Shoes of Prey, Deliveroo, DesignCrowd, 99Designs, Airtasker, Expert360, Envato, Vinomofo and The Iconic, not to mention the old guard behemoths such as Seek, Carsales and REA. Alongside them is an impressive community of coworking spaces, educators, incubators and accelerators, angel investors and a fast growing venture capital ecosystem

that will do its best to ensure the rapid rise of Australian innovation isn't stifled. Perhaps the most important factor inhibiting the government's ability to spur innovation might be speed, or the lack thereof.

Australian stock market becomes haven for tech startups³⁶⁶. Over the past year, the number of tech equity funding rounds concluded on the ASX has kept pace with the exchange's U.S. and Canadian counterparts, at a rate of roughly one per week. With a median deal value of about \$4 million, the ASX is providing a viable middle ground between the United States (\$20 million) and Canadian (less than \$1 million) exchanges and represents the only fertile listing ground for pre-revenue tech ventures in the Asia-Pacific region.

Australia's Minister for Industry, Innovation and Science Christopher Pyne announced that his government **would be funding the establishment of a number of key technology locations around the world**, including in Israel, as a part of Australia's big push to ramp up their startup ecosystem. Calling them landing pads, the centers will be the home bases for Australian entrepreneurs, investors, and others traveling abroad. Visiting Australians can use the office spaces and services to establish connections on the ground, breaking through many of the initial barriers that can be an impediment to making good use of their time abroad. The landing pads are one of the latest moves that signal change on the part of the government to better accommodate and nurture their still fledgling startup sector. While a bit of a late comer to the party, a combination of political will from the government is starting to align with an increasingly organized effort from the private sector, potentially leading to newfound opportunities for growth. Australia is an attractive place to live, with great weather, food, a rich multicultural society, and other advantages that could draw in outside tech talent in search of greener pastures. Australia's startup scene is very much still a

work in progress, but it feels like they are moving in the right directions to set themselves up for success.

Australia's prime minister Malcolm Turnbull and treasurer Scott Morrison jointly announced the launch of a new **fintech advisory panel**, bringing together bankers and fintech leaders, and tasking its members with the job of making Australia the leading force in financial technology within the APAC region. The initiative follows in the footsteps of similar patterns of increased government participation in countries such as the UK, Singapore, Hong Kong and the US. If Australia's advisory panel can challenge itself to uncover the root causes of the financial sector's woes, then it has a unique opportunity to shape an economic landscape that addresses these specifically, to the benefit of the ultimate consumers of the financial system: everyday Australians.

It is entirely possible that **Australian dollars will come in digital form** in the future, breaking the link entirely between material notes and coins, the Reserve Bank says. In a speech where he also flagged the end of the cheque, Mr Richards said the RBA had been watching the growth in demand for privately-established virtual currencies like Bitcoin, and believed there was a place for a central-bank-issued digital currency in Australia. ●

Australian government getting serious about FinTech now with this comprehensive report: <http://fintech.treasury.gov.au/>

The 10 fintech-persons in Japan you need to know³⁶⁴:

- 1. Katsuaki Sato**, founder and CEO of Metaps (Metaps is the only publicly traded company on our list. It was previously Japan's most funded startup before going public in 2015 with an initial market capitalization of over US\$350 million.)
- 2. Takako Kansai**, founder and CEO of Zaim (financial app for household budget management).
- 3. Yoshi Yokokawa**, founder and CEO of AlpacaDB (online-trading).
- 4. Daisuke Sasaki**, founder and CEO of Freeee (wants to raise the potential of small businesses).
- 5. Nao Kitazawa**, COO of Money Design (an investment robo advisor for individuals).
- 6. Yuta Tsuruoka**, founder and CEO of Base (allows anyone to host an ecommerce site for free and Pay.jp is Base's online credit card payment system for merchants).
- 7. Yuzo Kano**, founder and CEO of Bitflyer (the largest bitcoin exchange in Japan).
- 8. Yosuke Tsuji**, founder and CEO of Money Forward (provides personal financial management services and cloud-based accounting software for businesses).
- 9. Masa Nakatsu**, founder and CEO of Orb (developed a blockchain technology with data finality, meaning transactions can be confirmed with 100 percent confidence).
- 10. Paul Chapman**, founder and CEO of Moneytree (an app for personal financial management, expense tracking for small businesses, and bank account aggregation for enterprises).



BREXIT

What does #Brexit
mean for the City
and #FinTech UK?



Chris Skinner



Simon Taylor

The UK has had a long weekend considering the consequences of the Brexit.

Chris Skinner has had a long weekend considering the consequences on London, the banking industry, Fintech and more ... and I have to say that I'm quietly positive. I don't think we're going to see the meltdown the doomsayers are rumour mongering, and I don't think we're going to see the end of passporting our bank services across Europe. Instead I see two scenarios most likely to play out.



SCENARIO ONE

David Cameron stepped down in a brilliant move that leaves Boris in Catch22. The expectation had been that David Cameron would use Article 50 of the Lisbon Treaty on Friday, the day the vote came in, and then would stay until the process was completed. There were many declarations of support made on Friday morning for David to Remain as PM. But he stepped down saying Why should I do the hard shit? apparently.

This was a tactical move as, by not filing for Article 50, he's left it to his successor to deal with the hard shit. That's going to most likely be Boris and his position is best summarised by a comment by Teebs in the Guardian's live coverage of developments during the weekend. Teebs believes that Cameron's

resignation has Boris «out-maneuvered and check-mated. If [Boris] runs for leadership of the party, and then fails to follow through on triggering Article 50, then he is finished. If he does not run and effectively abandons the field, then he is finished. If he runs, wins and pulls the UK out of the EU, then it will all be over — Scotland will break away, there will be upheaval in Ireland, a recession ... broken trade agreements. Then he is also finished. Boris Johnson knows all of this».

This is why Boris was really subdued on Friday and rather than looking smug, proud and a winner, he looked worried, concerned and a bit of a loser.

There's already been mention that the vote does not force us to Leave, but that it's a general wish which can be over-ruled by a Parliamentary vote and is not legally binding. This would be awkward but I think that the following events are most likely:

- Boris Johnson becomes Prime Minister
- Boris does not trigger Article 50
- Boris goes to Brussels and begs for Reform
- Boris returns with two key concessions that the Leave campaign demanded and Europe hasn't given: allowing the UK to leave the free movement of European people structures, and bring in domestic control of our own borders, therefore limiting migration movements; and exemption from the Common Agricultural Policy, which the campaign claims costs the UK billions and all goes directly into French Farmers pockets based upon a rule from 1957 that is out-of-date and unfair.
- Boris returns with said reforms and announces a second Referendum before he will trigger Article 50, based upon the achievement of these key concessions.

The second referendum results in Remain gaining a resounding win,

now that the leaders of the Leave campaign back the Remain vote.



SCENARIO TWO

It is viewed as unconstitutional for Britain to have a second referendum, and European leaders place immense pressure on the country to fast track their exit from the Union, whilst shoring up the structure for the remaining 27 countries by giving key concessions and reforms being demanded by the likes of France, the Netherlands and Italy.

This results in many key questions:

- Will Brits need new passports?
- Will they still be welcome in Europe?
- Will taxes rise?
- How will places that receive EU subsidies be funded?
- What about all the promises that were made that are now nought?
- What about my European [name country] better half?
- and more.

Then we come to banking, and there's a whole raft of other questions: what about MiFID, PSD2, passporting, capital requirements, solvency, governance, structures etc.

Now here we have all the hysterical media writing about doom for Fintech London, doom for Banking Britain and doom for the UK economy.

Yea, yea, yea. Sorry, but this doesn't wash and is the reason why the Remain campaign lost. David Cameron and his cronies became unbelievable as every day someone warned that Britain was doomed economically if they voted to Leave. In fact, even those who wanted to Remain got fed up with each daily headline from the IMF, the Bank of England, the Institute for Fiscal Studies and the Monster Raving Looney Party all saying the world would collapse if we voted to Leave.

What's the reality? Nothing has changed. All the rules and regulations of Europe are in place today, just as they were on Wednesday before we voted to Leave. Therefore, what changes now is how we negotiate the Exit after Article 50 is triggered, and what we choose not to keep and what Europe determines not to deal with in a non-EU member state.

In other words, it would be Europe's choice to punish Britain for choosing to Exit by withdrawing bank passporting. Will they do that? If they were led by the French yes, but they're not. They're led by the Germans and Angela Merkel has already tried to calm the waters by saying this will not be a nasty Exit.

So this is the key question: will Europe choose to ruin London, the British economy and Fintech by using the one card they hold that could possibly do that: removal of bank passporting.

This is the critical question. If they don't, then London remains the global centre it always has and nothing changes. If they do, then most banks will need to relocate to Europe and will probably choose Dublin, as it's nearest to US shores and almost speaks the same language. Something like that anyway.

However, if European leaders choose to punish the will of the British people by purposefully choosing to trash the one industry we believe we do well and that contributes one of the largest portions of GDP, taxes

and employment in this island country, then we will know it's war.

Do we really want that? Does anyone? Bear in mind that, as of today, we are compliant with all EU laws and — like Switzerland, Norway, Iceland and Lichtenstein — can continue to do so for the long-term if allowed, is this really worth such pettiness.

Let's watch, wait and see as Scenario One would be the preferred result for Europe, Boris and all but hey, I bet my house that we would Remain so I wouldn't listen to me.

THEORY 1: RATE CUT HITS BANK PROFITS

The devaluation in the sterling and depressed economic activity immediately following Brexit will lead to a rate cut at the BoE. Rate cuts are bad for banks, since their business is predicated on lending against money held in deposit accounts. The higher rate they can lend at, the more money they make, and vice versa. Low interest rates = low profits.

Impact: There's likely to be a short to medium term sell off of UK bank shares. Monetary policy response will be key, but banks are generally better



HOW WILL BREXIT IMPACT BANKS AND FINTECH IN THE UK?

It may not have escaped your attention that the British Public voted to leave the EU. Although in the aftermath it's still unclear quite what that actually means, this morning bank shares have taken a significant hit with Lloyds off 8%, Barclays 10% and RBS down 15% leading the LSE to halt trading in those stocks. There are a number of theories about what happens next. Are people concerned about retail banking operations, corporate banking, investment banking or all of the above? Here are some ideas.

capitalised than they were in 2008. Liquidity will likely remain strong, but the question now is contagion globally.

Response: Banks will need to weather this storm and look for profit centres away from net interest income. Banks may also look to promote higher margin products in different geographies / sectors. The need for innovation in banking has never been stronger, especially in business model.

THEORY 2: UK NO LONGER EU GATEWAY

UK banks position as a gateway to Europe for international banks and corporates will be threatened because they will be removed from various legislations or passporting

agreements. This one is a little trickier. London has been a global finance and trade centre for centuries owing to its position in the world (time zone), talent pool and unique position as capital city, financial centre, tech hub with very strong universities (LSE, UCL, ICL). Specific legislations such as MiFID 2 and Basel III are still likely to apply to investment banks being already committed to them. Corporate banks are likely already and will continue to be SEPA compliant.

The question comes with, what happens next? What happens when the EU passes new legislation for which the UK banks had very little lobbying influence and are bad for London? A UK alternative would require a strong and articulate response from UK authorities, and what's scaring markets is that at the moment there appears to be a vacuum of leadership. If there's one thing markets hate it's uncertainty.

Impact: Banks have a strategic option to consider, do they start hedging now, or do they focus on being compliant with all existing legislation and look at contingencies for staying in the UK. We will likely see a split depending where a bank is Headquartered. A number of global banks have R+D centres in Dublin which as Chris pointed out on CNBC, shares a language and is fully in the Eurozone.

Response: There may be different good answers for different banking divisions. My own view is that I wouldn't bet against London coming back strong and whilst there is still a strong likelihood Britain negotiates a «Good Brexit» banks should take some time to consider these options.

THEORY 3: BAD LOANS AND TIGHT LIQUIDITY

Traditional Banking will be impacted as the UK Economy falters in the coming years. Higher unemployment, lower wages and more bad loans is a risk, albeit we will have to see what the impact is on the real economy outside of the banking sector. Some areas appear resilient (Pharma, consumer goods), al-

though the weak pound will impact the UK as a net importer. The impact on small businesses and corporates in the coming quarters may well be reasonably significant. As significant as 2008? By the look of the FTSE and sterling yes, construction appears to be taking a hit but there is a question if this is the Brexit that broke the camels back rather than a direct result of Brexit.

The market may have been in need of a correction, after 8 years of low interest rates most UK corporate and Retail banks have remained strong, whilst the investment banking division has suffered.

Impact: Investors and banks will be looking at their loan books more tightly, with some RWAs no longer looking attractive.

Response: It may be hard for banks to avoid tightening on lending, but this is an opportunity for a fintech approach. Identifying bad loans in banks is an exercise in drawing a line on a spreadsheet, below which everything is bad and above which everything is good. This is a poor response and will restrict growth in the real economy. Banks should consider how technology can help quickly identify performing loans vs non performing, regardless of rating. There are ways to ingest this data as spreadsheets or from core systems and quickly, rapidly respond to the change in market. An ability to show strength in a loan book will make a significant difference to market sentiment about bank stocks.

THEORY 4: FINTECH LEAVES LONDON

London loses its position as global fintech hub because of Brexit. If there's one thing I think highly unlikely it's this. There is a concentration of talent based in London that I believe is a mix of tech and former banking talent that chose London for more reasons than it being a good place at a point in time. The access to universities, to policy makers and to the local regulator (FCA) will all continue.

PSD2 is still likely to apply to UK Financial Services provided the UK stays in the single market (which nearly all indications suggest it will), and fintech continues to exist in a global market.

Impact: Whilst uncertainty looms about new legislation, a potential round of headcount reductions at banks will mean more talent flooding the Fintech market.

Response: I suspect Treasury and HM Govt will look at all policy options to keep Fintech stable in the UK. Whilst fintech broadly has cooled since last year, it's here to stay and growing. PayPal is now larger than 3 of the big 4 banks in the UK. FX businesses will watch the Euro trading piece closely, and passporting licences will be critical (again, likely possible in the single market). However, Fintech businesses want to be where the buzz is, and for the foreseeable future, that's London.

SUMMARY: FINTECH TO THE RESCUE!

For those of us in Fintech Brexit has been seen as universally horrible, now it appears the task is shoring up the dam and avoiding it breaking. The opportunity for fintech in moments of urgency is often overlooked, but a volcano always lays fertile soil.

There's a real opportunity to support banks by

1. Identifying ways to shore up loan books.
2. Identifying new profit centres for banks that can be delivered quickly.
3. Regtech that can arbitrage old and new regulations between UK/Europe.

Banks in the UK have a rocky few weeks ahead, but the rank and file within banks and those in the fintech community can start the fight back now. We need a good Brexit, Brexit light and we need to solve the real challenges banks face. Call me an optimist, but I think we can. ●

Life.
SREDA

About Life.SREDA VC

2012 - 2014



13 investments
(US, UK, Germany, CIS)

6 successful exits

London

Moscow

2015 -



6 investments
(South East Asia)

Singapore

2016 -



A new venture fund
dedicated to investing in
the blockchain ecosystem



InspirAsia

Own acceleration program
and fintech co-working space
in Singapore

Life.SREDA VC team consists of best fintech minds and influencers globally



Vladislav
Solodkiy



Igor
Pesin



Chris
Skinner



David
Brear



Thomas
Labenbacher



Simon
Taylor

www.lifesreda.com



www.fintech-research.com

**FINTECH
RANKING**

All You Should Know About Fintech

www.fintechranking.com

FEMTECH & FINTECH

15.5%

of the US based startups that received funding during 2009 – 2014 had at least one female founder

▲ 16%

of newly launched venture and micro-venture firms had at least one female founder

2012

– 61 Female CIO

2014

– 81 Female CIO
(43% growth)

The latest funding stage of startups founded by women:

Seed/Angel

19.4% **women**

80.6% men

Early stage **A, B rounds**

13% **women**

87% men

Late stage **C rounds**

11.8% **women**

88.2% men

10

FEMTECH-LEADERS
IN FINTECH

Girl's power:
why do girls have
to start coding?

CHAPTER #30

Girl's power: why do girls have to start coding?

The new-generation of tech-entrepreneurs are becoming the new rock-stars in the eyes of modern society¹. Being one of the founders of the PayPal eWallet, a head of Tesla automotive company, Solar City energy provider and SpaceX aerospace manufacturer, **Elon Mask** has become a prototype of a modern-age «Iron Man» character. Together with his first wife Justine he studied at Queen's University in a Canadian city of Kingston. Once Elon saw a beautiful girl out of the window and approached her. He immediately lied that they had already met at a party and invited her for the ice-cream. Justine recalls: first, she agreed, but then she decided to get rid of the admirer. So she put a note on her room's door, asking not to disturb her anymore. But once she walked out of her door, and there was Elon with two cones of ice-cream. Perseverance conquered the girl. They got married in 2000 and got 6 boys (one of them died in his babyhood).

A divorced bachelor and egoist **Steve Jobs** met Laurene Powell (and later made her one of the richest women in the world) after his famous speech at Stanford. She was a post-graduate student and asked him several questions after he had left the stage. As Jobs says: «I was sitting in my car, the engine was on, and suddenly I thought: 'If this was my last day on earth, would I rather spend it in a business meeting, or with this woman?' I left my car, crossed a parking lot and asked her if she would have dinner with me. She said yes».

Three years ago **Marc Zuckerberg** surprised everyone when he married his Harvard girlfriend Priscilla Chan. One of their wedding guests – Priscilla's ex tennis coach – recalls visiting the couple soon after the ceremony in their house in Palo-Alto: «**When I entered, Marc was sitting at a kitchen table working on**



All You Should Know About Fintech

his computer. Priscilla introduced me, he smiled and said: 'Behind every successful man there is always a great woman'».

But... It's not a secret that a tech industry has a diversity problem. Certain giants such as Apple and Google, and startups like Slack are already opening their employee demographics to public scrutiny. Even venture capital firms are making an effort to be more inclusive — earlier, Monique Woodard joined VC firm 500 Startups as her first African-American partner. Still, the tech-industry (and fintech too) clearly have a long way to go to represent a full range of voices. The problem comes down to attitude. It's not that the tech industry doesn't want to become more diverse. It's just going about fixing the problem the wrong way. «The industry sees diversity and inclusion primarily as a human resource issue», according to the Project Diane report, «but not a market opportunity».

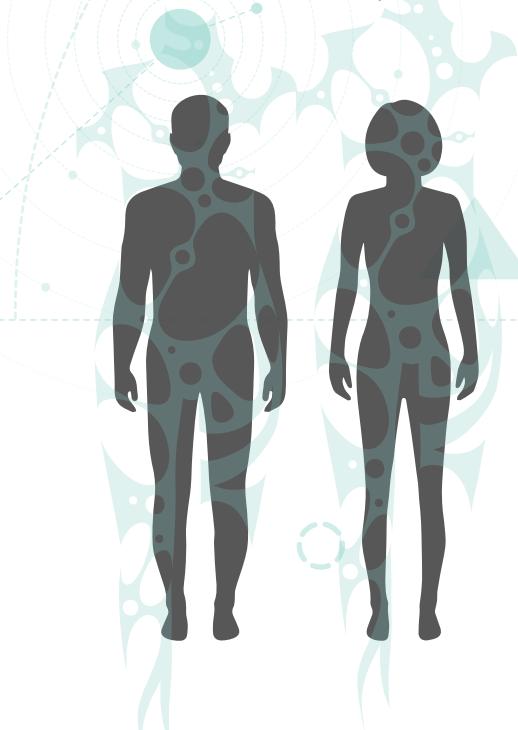
I am guilty too – Life.SREDA VC doesn't still have female-as-partner and we invested only in one female-co-founded startup.

We've got used to startups coming along and disrupting paradigms. This time, a startup is simultaneously shaking up a persistent struggle for diversity by being transparent and taking a page from the NFL's playbook to implement a rule that's over a decade old.

Karlie Kloss made headlines last year when she announced she was not only a high-ranking model but could also code in Ruby, and launched #KodewithKarlie (and after that - Kode With Klossy), a scholarship program for teen girls. It is one of a few best examples, how successfully people (and companies too!) can support tech inclusion and inspire young female-talents to choose tech-industry as an area of their future.

Women's participation in patenting has been quite low for the past two decades

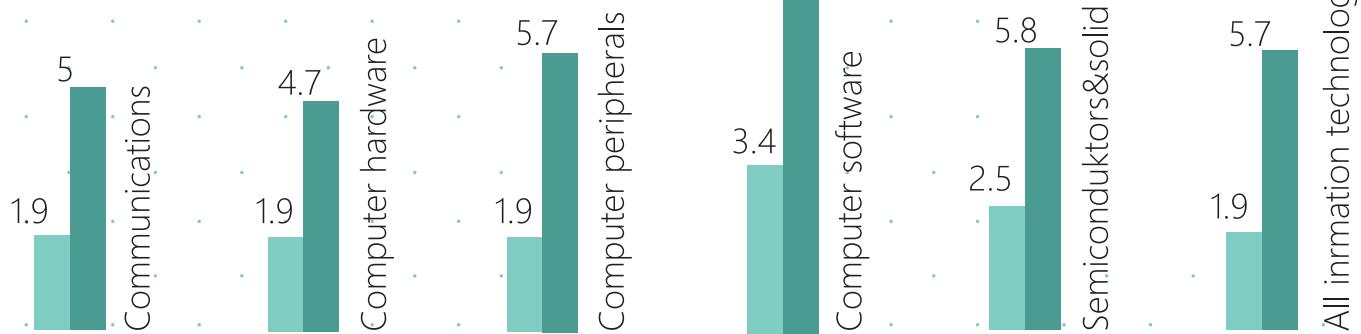
of US – Invented IT patents 1980 – 2005 (by Gender)



331,454 96%
MALE

13,790 4%
FEMALE

— 1980 - 1985 — 2000 - 2005



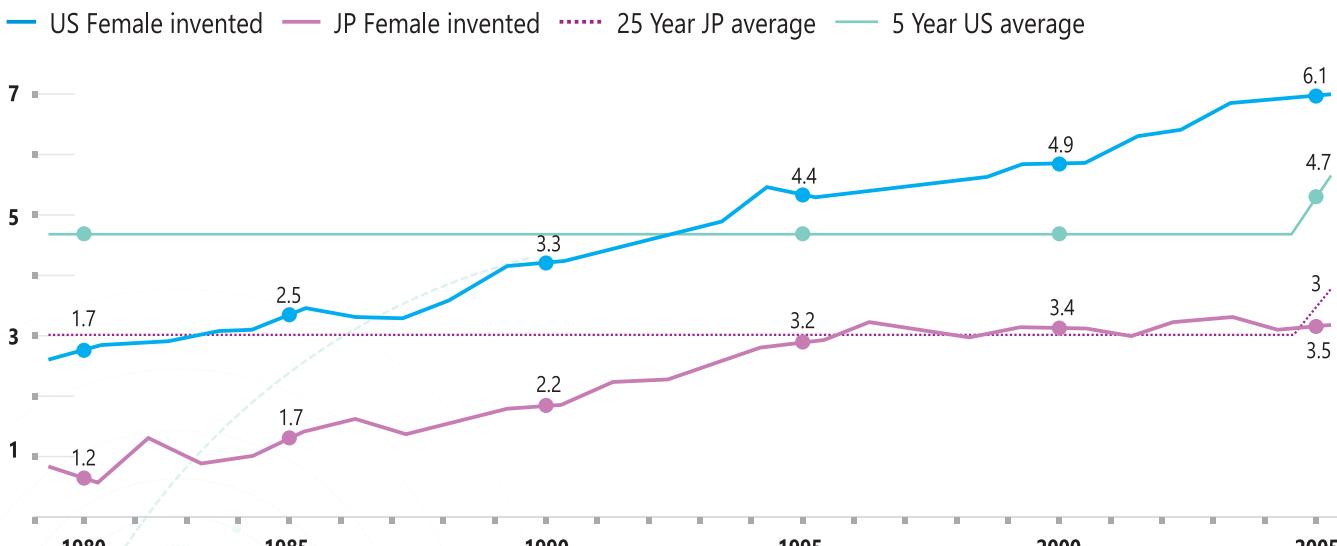
Key Message:

The overall rate of patenting by females in IT is relatively low. But the trends are positive with a growing share

In some companies the female inventorship in IT is quite high

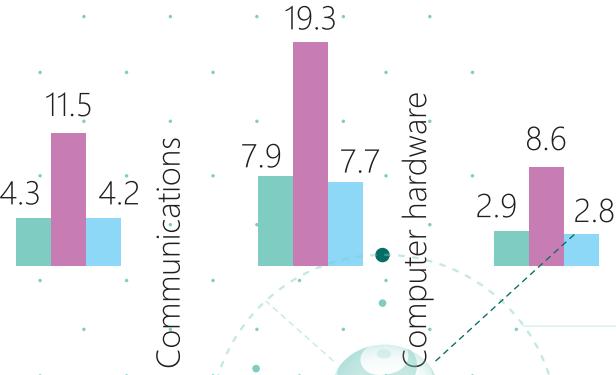
Source: NCWIT, College Board, 2007 College Coard Seniors, Total group profile report; Bureau of Labor, Current population Survey 2008; Dice Holdings Inc.

Percent of Female invented IT patents over time (%)

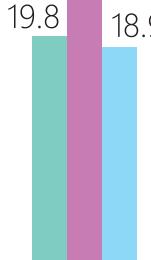


Growth multiples. US invented IT patents

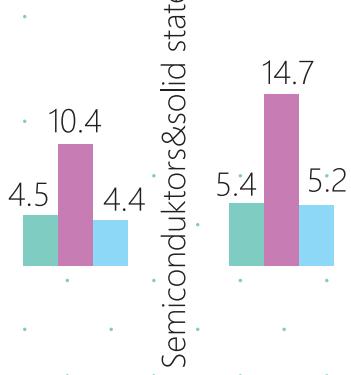
- Patent growth multiply
- Female invention multiple
- Male invention multiple



45.4



10.4



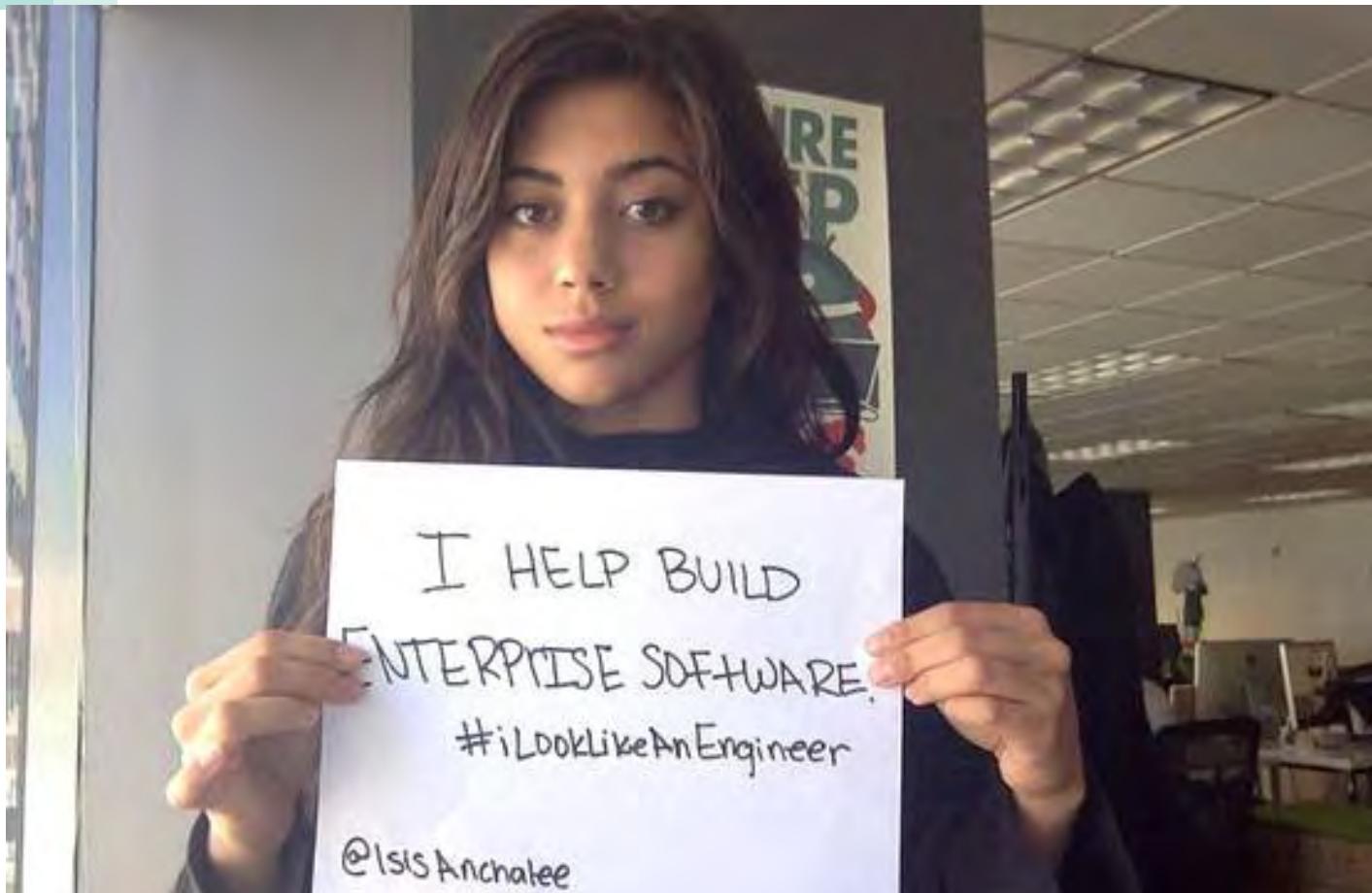
All information technology



Source: NCWIT, College Board, 2007 College
Coard Seniors, Total group profile report.
Bureau of Labor, Current population
Survey 2008; Dice Holdings Inc.
Holdings Inc.

PART I

WHY IS DIVERCITY SO IMPORTANT?



Computer code written by women has a higher approval rating than that written by men - but only if their gender is not identifiable, new research suggests². The US researchers analyzed nearly 1.4 million users of the open source program-sharing service Github. They found that pull requests — or suggested code changes — made on the service by women were more likely to be accepted than those by men. Researchers considered various factors, such as whether women were more likely to be responding to known issues, whether their contributions were shorter in length and easier to appraise, and which programming language they used, but they could not find a correlation.

Women control \$11.2 trillion of investable assets in the United States, according to a study by Sylvia Ann Hewlett and Turner Moffitt at the Center for Talent Innovation³. «Where investing

is made accessible and approachable for women, women do not only invest more but are better investors», said Sallie Krawcheck, the former top Wall Street executive now working on an online financial advisor called Ellevest, aimed for women, which is set to launch this year.

Women basically are as financially literate as men: 35 percent of U.S. women and 39 percent of men have passed a literacy assessment. But American women, despite being among the most financially literate women in the world, are 44 percent less likely to consider themselves knowledgeable than American men, according to Hewlett's and Moffitt's study. Women's biggest mistake as investors is self-doubt: a lack of confidence that can lead to inaction. Some of the self-doubt is internal; some from cultural factors, and experts argue that some comes from the mindset of the financial services industry, which

has been slow to adapt the rise of women as an economic force.

Krawcheck and others have long observed that male-dominated investment industry isn't particularly welcoming women. Only about 3 out of 10 financial advisors are women. For instance, women are considered to be more goal-oriented around the idea of taking care of loved ones and see themselves as savers rather than investors. But the investment industry often focuses its marketing on the idea of returns. In another example, investment company marketing often focuses on what the investment company provides rather than what the client needs.

The tech industry is growing so quickly that it is outpacing the number of qualified technical employees available to fill open positions. According to the U.S. Bureau of Labor Statistics, the United States will have nearly 1.4 million job openings in this industry by 2020⁴. However, more than two-thirds of these positions could go unfilled. While efforts are needed **to encourage more women to enter the tech**, it is also effective to take steps to ensure that talented women remain at their positions and eventually take on leadership roles.

This is not only important for staffing, but also for health and innovation of technology companies. According to a study by NCWIT, teams that comprise both men and women produce technology patents that are cited 26%-42% percent more often. Another study of more than 100 teams at 21 companies showed that those with equal numbers of men and women were more likely to experiment, be creative and fulfill tasks. Companies will simply perform better if they are able to develop and sustain a diverse team.

But it's not just about current employees, it is also vital for companies to find ways to parlay the most successful and talented women into the leadership and executive pipeline. Fortunate 500 companies with at least three female directors have seen their return on invested capital increase by at least 66%. This is further supported by a study from Dezsö and Ross of 1,500 U.S. firms in the S&P, which showed that female representation at the top management positions improved financial performance of organizations where innovation is a key piece of the business strategy.



Women are only 79% as likely to reach that level, compared to 100% of men.

The tech industry is growing, but the only way it will be able to keep that growth is by creating an environment, which is open for women. This can be done by eliminating unintentional bias in compensation and promotions, while also recognizing the contributions of women at work, and praising them for their accomplishments. This will in turn lead companies to be more dynamic, diverse and would force to take on creative challenges.

The new study⁵ conducted by **DDI** is a synthesis of assessments taken by 15,000 participants being considered for leadership from the front lines to executive levels at 300 companies in 18 countries. DDI's report (like others) suggests that gender equality in leadership still has a long way to go, despite the equity in scores. Their findings show that the ratio of men to women chosen to complete these assessments was weighted in favor of male participants. According to the report's authors, because these assessments represent investment, they are a reliable indicator of gender diversity among high-potential leaders. **«Far more women are chosen as candidates for assessment at lower leader levels than at senior levels»**, the authors write. «This conveys a message for women: It's okay to be a lower-level leader, but you're not yet ready to rise to the top». But maybe not even that. At the operational level, the gender split is 75% men to 25% women.

This plays into findings from the recent **McKinsey/LeanIn.org** study, which revealed that across the advancement board, from entry level to manager and from SVP to executive rank, women are less likely to advance, with the greatest disparity occurring between manager to director. **Women are only 79% as likely to reach that level, compared to 100% of men.**

But a **Deloitte** study revealed that even **among lower-ranking millennials, the disparity was evident**. Twenty-one percent of millennial men said they lead a department or are members of their organization's senior management team vs. 16% of women.

A study in 2014 based on LinkedIn data shows⁶ the percentage of women who work in software engineering across industries. Whatever industry you look at, the number is bleak. Even in the field that can boast the highest number of female software engineers, **financial services and insurance, a sobering 23 per cent of them are female**. The numbers for high tech software and hardware companies are especially troubling – only 16 per cent and nine per cent respectively of their software engineers are female.

«It is often conceived that software engineers need to undertake heavy workloads, meaning we'd need to work long hours late into the night, and most females don't enjoy having this lack of work-life balance. Many of my female engineering schoolmates didn't choose the engineering profession after graduation, and they cited that as the case», says Huifan , a female engineer at ViSenze. «It's true, many of my fellow female engineering students chose to go into other professions upon graduation, such as HR-related and consulting roles, where the gender gap is not so wide», says Huifan.

She's not alone in that. Researchers at Stanford University recently published new findings that women engineering students perform as good as men, but are more likely to switch to a different major. These women switch because they don't believe that their skills are good enough and they don't feel like

they fit in engineering.

Professor Chua Tat-Seng, Chief Scientist and Co-Founder at ViSenze, and also currently the KITHCT Chair Professor at the School of Computing, National University of Singapore, offers some insights: «I think it is more the upbringing that makes the difference, rather than the inherent capabilities of being males or females. In that sense, males are brought up to think that it is cool to be able to solve deep technical and engineering problems, and cool to spend hours buried in a room to find technical solutions; whereas females are brought up more to leverage on their soft skills which tend to highlight more of their feminine side of characters. Hence, while it is common to see male hackers, female hackers are rare».

Nelly Yusupova, the CTO of Webgrrls International, had this to say, which is right in line with this point: **«I believe the problems start in a girl's early teen years when they are most influenced and I think it comes down to not having enough positive role models,** negative pop culture imagery, and not having access to mentors. Most actually grow up with a negative stereotype about the technology industry and being a geek. They tend to imagine that, computer professionals and those who work heavily in IT live in a solitary and antisocial worlds, which is not a very appealing image for a young girl growing up».

«Rather than think of engineering capabilities as gender-related, it is more person-related. I know excellent female CTO and tech leaders who are even sharper than their male counterparts. So there is no doubt that female engineers can do an excellent job in the tech industry», says Guangda Li, CTO and Co-Founder at ViSenze.

What's keeping women out of Silicon Valley — and away from the tech industry in general? Is the male-dominated environment intimidating talented women? While women represent more than half of the college graduates in the United States, they make up only 30 percent of workers at large technology companies⁷.

This should be alarming to an industry so desperate for talent that its hiring practices have led to much-publicized «talent wars» and legal action. At the same time, women are taking legal action for being pushed out or passed over at major tech companies.

While some of the Silicon Valley giants have had to answer for their lack of diversity, many companies still think their hiring policies are fair and work environments are just fine for women. Yet, the numbers show we're losing women at an alarming rate. In fact, 50% of women with careers in STEM fields will eventually leave because of hostile work environments, according the Harvard Business Review.

Most of women don't feel obvious forms of

discrimination or sexism. Instead, they face an undercurrent of condescension that leads to a feeling of isolation. It's time for all tech companies to admit there's a problem and tackle it head-on. That means implementing policies that create cultures that are open to women and support their career advancement — and getting men to buy in, too.

Providing innovative maternity leave policies with a flexible return to work can ensure that talented women stay in the workforce, and can mitigate burnout after returning from leave, as well as having to choose between a career or having children. There are also needs that make a conscious effort to get women into leadership positions, which can help to lead to more female-friendly environments. Not mentioning that technology is better for everyone when it is designed by everyone (half of the tech-companies' market is female).

Male VCs invest in male-led startups, and then end up on the boards of these startups, which then grow into major male-led tech companies. To break the cycle of male-dominated tech companies, we need to look also at this male-dominated VC cycle. By bringing women into the fold, VCs can diversify investments that serve the other half of the population.

We need to change the perception of science and math as masculine fields by providing girls with female role models, and giving them hands-on experience with all different kinds of technology. Great organizations like **Girls Who Code** and **TechGirlz** are already making a dent with these problems, and future tech companies will be able to reap the benefits.

In February 2016, six months after Valley tech veteran **Sukhinder Singh Cassidy** announced a database to help place qualified women on startup boards, the **Boardlist** stepped out of beta with a European launch⁸, a freemium business model, a new boot camp for would-be board members, and its first official placement. «We want to use diversity to drive business performance», says Cassidy. The **Boardlist** is a **marketplace for female board talent**. Designated endorsers, who are mostly tech investors and executives, recommend women who are qualified to serve on corporate boards; startups can cull the database to find candidates. «Most startups have independent board seats, and too often those board seats go empty because founders don't get around to filling them», says Cassidy, who also is a CEO of the video-shopping startup Joyus. She wants to make it easy for founders to fill those seats by selecting from more than 1,000 qualified female candidates. There are now 200 endorsers drawn from companies like Airbnb, Lyft and eBay as well as venture outfits like Greylock Partners and Accel Partners.





THE PROBLEM OF GENDER DISCRIMINATION

STARTING SINCE COLLEGE TIME

In May 2016 **Ellen Pao**, a former Silicon Valley venture capitalist, announced⁹ the launch of **Project Include**, an advocacy group aimed at improving diversity in the technology industry. The group was started by Pao and fellow female engineers and executives, including members of Slack, Pinterest, and other Bay Area VC firms. The initiative will focus on providing startups and established tech companies with information on making hiring more inclusive, improving retention, and examining bias in the workplace.

«Project Include started as dinner brainstorming sessions on how to make tech meaningfully more diverse», Pao said in a statement. «Today we've joined forces to provide CEOs with comprehensive tools—frameworks, research, metrics, and recommendations—for diversity and inclusion. And the early feedback we've heard repeatedly from CEOs is, 'I wish I had had this earlier.'»

16% reported they had experienced penetration or attempted penetration without their consent during their years in college

Pao became embroiled in one of the most divisive debates in tech last year after suing her former employer, VC firm **Kleiner Perkins Caufield & Byers, for gender discrimination**. She lost at trial and, later, stepped down from her position as interim CEO of Reddit following a severe harassment campaign. The harassment stemmed both from management decisions made at the site and opposition to her discrimination suit. Nonetheless, the episode became a telling example of how combating abusive behavior online and campaigning for diversity in tech can take a serious toll, especially on women who speak publicly about their experiences.

20% of female undergrads polled had been victims of sexual assault and misconduct

Project Include is also accepting as many as 18 startups, who can apply to receive recommendations through a program called Start-Up Include. «The CEO can't do it alone. We want to give employees — including Diversity & Inclusion and People Operations leads — ways to convince others, especially CEOs who have not yet made diversity a priority», reads the project's website. «We want every tech

employee to understand how diversity and inclusion helps everyone when designed thoughtfully. We also urge VCs to use their considerable influence to lead change in their firms and their portfolio companies».

In September 2015 Harvard President Drew Faust detailed the initial results of a survey completed by Harvard students which asked about individual experiences with sexual assault¹⁰ and campus perceptions of sexual assault . Of female Harvard College seniors, 62.8% responded. And of those, **16% reported they had experienced penetration or attempted penetration without their consent during their years in college**. 31% said they had experienced some form of nonconsensual sexual contact since starting college. Both the rates of reported rapes and other sexual assaults were significantly higher than the average in a recent survey of 27 schools.

The results were collected in April 2015 as part of a broad survey of students across Harvard's schools, which included undergraduate, graduate, and professional students. Harvard was one of the schools that conducted sexual assault surveys on behalf of the Association of American Universities (AAU); the research itself was conducted by social science firm Westat. In aggregate, the AAU found that over **20% of female undergrads polled had been victims of sexual assault and misconduct**, while 11% had experienced incidents of attempted or completed penetration. Of all the schools surveyed, Harvard had the highest participation rate: 53% of all degree-seeking students across Harvard schools responded. This was significantly higher than the 19% average across all the schools surveyed.

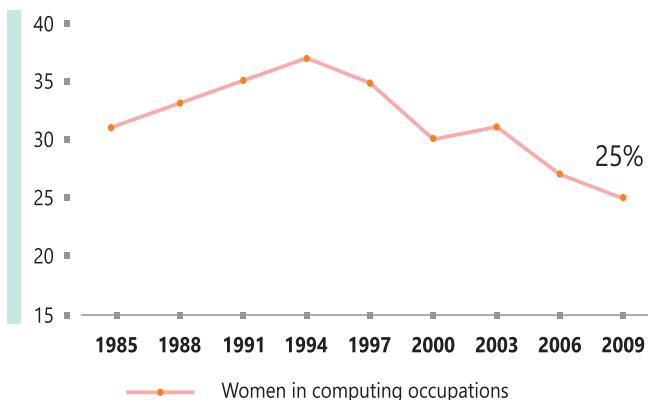
Faust recently launched a website called Sexual Harassment/Assault Response and Education, or SHARE, to aggregate resources, among other initiatives to prevent sexual violence on campus, but this report will no doubt accelerate the university's response. Faust has convened a Task Force on the Prevention of Sexual Assault that will be led by Steve Hyman, Harvard's former provost, to examine the AAU results and provide recommendations. She has also invited interested members of the community this evening for a university conversation to gather ideas about how to tackle sexual assault on campus.

In 2011, Dr. Kate Clancy, an assistant professor at the University of Illinois and regular blogger for Scientific American, sat down for a talk with a friend that she now remembers as a «wake-up call». From across the table, the friend, a female PhD student, confessed running into problems while finishing her dissertation. When Clancy asked why, the friend revealed that she had been sexually assaulted while doing her dissertational fieldwork¹¹. The dissertation was stalled because the friend had trouble looking at the data gathered from that time. It triggered flashbacks.

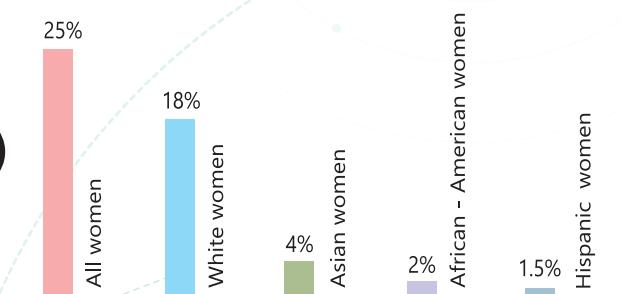
As Clancy continued to explore issues related to the inclusion of women in STEM careers, she only came across more stories similar to her friend's. She and a group of three other collaborators were able

In 2009, women made up only 25% of the IT workforce. Representation varies by race/ethnicity

The % of computing jobs held by women has been declining



Percentage of computing occupations held by women, 2009



Salary gap between Men and Women



Salary Gap by industry

Industry	Salary gap between man and woman
Bank/Financial/Insurance	10.28%
Computer Hardware	10.15%
Computer Software	10.93%
Government/Defense	15.70%
Internet Services	13.53%

Key Message:

The % of computing jobs held by women has been declining since 1991, when it reached a 36%.

Meanwhile, the percentage of jobs held by women in almost all other sciences has increased significantly.

The salary gap between women and men declines slightly in the first 5 years of their careers, then spikes for the next 5-7 years quite high.

Source: NCWIT, College Board, 2007 College Board Seniors, Total group profile report. Bureau of Labor, Current population Survey 2008; Dice Holdings Inc.

to publish real, hard data about the incidence of sexual harassment and assault on scientific field sites in journal PLoS One. Out of a survey of **more than 600 field scientists, ranging from high school students to retired faculty, more than two-thirds reported sexual harassment**, with women 3.5 times more likely to report sexual harassment over men. Women were also more likely to report having been sexually assaulted: 26% of women in the sample reported the experience, as did 6% of men.

Hostile workplaces are often cited as one reason, among many, that could explain the perplexing drop-off in women pursuing STEM courses and careers past high school and college. But until Clancy started looking into the data, she never imagined sexual assault might play a role. If it does, it's no wonder: It's difficult to «lean in» when your entire sense of self-preservation is screaming at you to lean out. The number of field scientists who indicated that they had been sexually assaulted was shockingly high, adds study co-author and Skidmore College assistant professor Robin Nelson.

Emily May had been street harassed since the age of 18 and knew countless women who'd been catcalled, followed, subjected to masturbating strangers¹². In 2010, after five years of running a blog that gave women a platform to post their street harassment experiences, May founded Hollaback! as a full-fledged nonprofit. In the absence of institutional funding, she raised more than \$13,500 on Kickstarter instead. Today **Hollaback!** has grown to include local chapters in 92 cities and 32 countries around the world and has expanded its mission with help from the Knight Foundation, creating an app called Heartmob designed to combat online harassment.



INTERN-GIANTS GO RIGHT WAY TO IMPROVE THE DIVERCITY

Within the last six months, **Dropbox, Pinterest, Airbnb, Twitter and Intuit have all hired employees charged with correcting their diversity problems**¹³. The first step is an admitting that you have a problem. Most industry-leading companies have already made that first uncomfortable admission in the past year, releasing statistics on the lack of women and people of color in their workforces. Now, instead of transparency reports, the trend has shifted to hiring diversity chiefs to fix the problem — preferably from within the communities these leaders will be given a task to represent.

Dropbox has had **Judith Williams** as its global head of diversity since October; Pinterest added **Candice Morgan** as head of diversity four months ago; Airbnb hired **David King** as director of diversity less than three months ago, **Jeffrey Siminoff** joined Twitter as vice president of inclusion and diversity five months ago, and Michelle Angier has been chief

diversity officer at Intuit since December 2015.

The most urgent task, of course, is boosting their companies' embarrassingly low percentages of minority employees. But a hiring surge alone isn't enough to trigger a culture shift — and fixing the culture that allows women engineers to be harassed out of their jobs or managers to suggest building a tool to guess the ethnicity of job applicants by their last names will take more than just a fresh group of new hires.

Gender plays no role in compensation for technology professionals, according to a salary analysis by Dice, a careers site for the industry¹⁴. The wage gap is rarely as clear cut as the 77¢ for every dollar figure most often cited on the issue. It's no less complex in the tech industry, according to Dice's data. In its latest Salary Survey, men on average made nearly \$10,000 more in 2014 than women during the same year. What's missing in the straight salary data are two factors that influence pay: years of experience and level of education. Dice analysts found that, controlling for these variables, average salaries for male and female tech professionals with parallel job titles are relatively equal.

Apparently, **Facebook, which is just 32% female worldwide, doesn't have a gender pay gap**, according to Lori Goler, head of people at Facebook¹⁵.

In the United States, **women make about 76 cents for every dollar men earn**, according to a 2016 Glassdoor study. The tech industry's gender gap is close to the U.S. average (5.4%), falling in the middle among industries. That said, the tech occupations with significant gaps include computer programmers (28.3%), computer aided designer (21.5%) and video game artist (15.8%). But, it seems that those stats don't apply to Facebook.

«We regularly review our compensation practices to ensure pay equity, and have done for many years», Goler wrote on the Facebook blog. «We complete thorough statistical analyses to compare the compensation of men and women performing similar work. I'm proud to share that at Facebook, men and women earn the same».

In March 2016 **Microsoft hired a bunch of women wearing very little clothing** to dance and socialize with people at the company's official Game Developers Conference after-party in San Francisco¹⁶. It's crazy that Microsoft would so blatantly sexualize women — for a few reasons. For one, don't tech companies realize that it's not okay to do that anymore? Over the last couple of years, conferences have gotten better about not using «booth babes» to get people to check out their products. Secondly, Microsoft hosts a women in gaming luncheon every year at GDC. Thirdly, Microsoft CEO Satya Nadella said Microsoft is «very focused» on diversity, and even welcomed Rev. Jesse Jackson's push for inclusion in tech, he said at the company's annual shareholders meeting in December. He also noted that Microsoft has deployed unconscious bias training to more than 100,000 employees. What's



problematic is that Microsoft chose to throw a party that clearly caters to heterosexual men by hiring women as objects of sex. Microsoft's latest diversity report cited a workforce that is 73.1 percent male, 59.2 percent white, 5.4 percent Hispanic and 3.5 percent black.

Airbnb hired David King III, a former Peace Corps and State Department official, as its first head of «diversity and belonging»¹⁷. But the challenges ahead for King are about more than making the company itself more diverse.

Even as **Airbnb** seeks to portray itself as an ally of the middle class, making it possible for families to make ends meet by renting out space in their homes, the company's platform itself has a diversity-related image problem. Critics claim the short-term rentals at the heart of Airbnb's service eat into long-term housing stock, raising housing prices and driving low-income and minority residents out of the cities. The company was also stung by research that showed guests with stereotypically «black-sounding» names have a harder time booking a reservation on the platform. At Airbnb, «belonging» isn't just about who works there. It's about the company's product itself.

At Airbnb, King says he'll consider implementing the Rooney Rule, a hiring approach pioneered by the NFL that requires at least one person from an underrepresented minority to be interviewed for every open executive position. He's also open to the idea of «blind résumés», that is, résumés that have been stripped of details that might suggest an applicant's gender or race. That's in addition to training, outreach, recruitment, and retention efforts that King says are already under way at the company.

According to the company's equal opportunity filings with the US Department of Labor, Airbnb's US staff is 63 percent white, 22.3 percent Asian, 7.1 percent Hispanic, and 3 percent black. At the executive and managerial level, 70.7 percent of Airbnb is white, while 56.5 percent of that leadership is male. Looking specifically at the tech workers, the company is 5.7 percent Hispanic and 3 percent black. The gender breakdown, at least, shows a better split: 47 percent of US employees at Airbnb are women — much better than the industry average of 29 percent.

Airbnb has announced also two new initiatives with female-focused nonprofits — **Global Fund for Women and Vital Voices** — to support travel for women leaders and activists so they can attend trainings, speaking engagements, and other similar events around the world. They hosted, for instance, Global Fund guests attending the United Nations' 60th Commission on the Status of Women in March. As for Airbnb's broader image problem, King doesn't have specific answers. But he does say he wants to learn more.

In March 2015 **Pinterest made public¹⁸ its ambitious plan to boost diversity**, which seeks to hire a greater percentage of women and underrepresented minorities for engineering and leadership roles at the company. Pinterest chief creative officer

Evan Sharp, one of Fast Company's most creative people, outlined the company's specific goals for the next year in a blog post:

Increase hiring rates for full-time engineering roles to 30% female.

Increase hiring rates for full-time engineers to 8% underrepresented ethnic backgrounds.

Increase hiring rates for non-engineering roles to 12% underrepresented ethnic backgrounds.

Implement a Rooney Rule-type requirement where at least one person from an underrepresented background and one female candidate is interviewed for every open leadership position.

Engineer **Tracy Chou**, one of our most creative person this year, who called the tech companies to step up and reveal their diversity numbers in a Medium post back in 2013, influences the changes at Pinterest, partially.

In summer 2015, Pinterest CEO Ben Silbermann and cofounder Evan Sharp gathered the majority of their more than 600 employees in the office cafeteria to discuss how to make their workforce more diverse¹⁹. Facing a room filled largely with white and Asian men, Silbermann and Sharp made a case for the importance of diversity in fostering creativity. More varied teams are more creative, they argued, and more creative teams lead to better products and greater success. With Pinterest rapidly expanding — it added more than 150 new employees in the first half of 2015 — they had to move quickly to change the composition of the company.

The gathering should have been a celebration. Nearly two years earlier, Tracy Chou, a female Asian-American programmer at Pinterest, had disclosed in a much talked-about blog post entitled «Where are the numbers?» that almost 90% of her engineering colleagues were male.

Chou had spent much of the year watching with disappointment as she received email after email introducing a new Pinterest to colleagues, most of whom did little to move the diversity needle. It wasn't for lack of effort. Pinterest had mentored female programming students, recruited at events for female, African-American, and Latino engineers, and instituted training in unconscious gender and racial bias. But none of it had made a difference.

Pinterest's experience resembled that of many other tech companies. Sharp says he and Silbermann realized that they had neither given employees enough reason to care about diversifying Pinterest nor defined their goals. As many other companies, their efforts just hadn't received the same staff-wide attention and careful tracking that, say, launching a big product or meeting a sales target. And while Sharp is personally passionate about the societal benefits of making Silicon Valley more inclusive, he had to make a case to employees that was less about ethics and more about the bottom line: «This is not a charity; it's a business».

In 2016, they declared, 30% of their new employees in engineering roles would be female, and 8% would be from underrepresented ethnic minorities, such as African Americans and Latinos. They took pains to emphasize that these numbers were guidelines, not quotas—but semantics aside, the priority was clear. As Sharp points out, the company faces a simple math problem: «As the absolute number of employees grows, each new hire will have a smaller impact on Pinterest's overall composition. The problem will only get harder to solve». Says Sharp, «It's kind of now or never».

In February 2016 **Slack** published an update based on its internal data on diversity and inclusion among its rapidly growing staff²⁰. The last time it posted such numbers wasn't that long ago, but the company reasoned that the expansion of its staff between mid-year 2015, when there were 170 employees, to this month, where they now count nearly 370 employees worldwide, warranted another look. As with the swelling of the ranks, there are some shifts in the numbers of women, underrepresented minorities, and LGBTQ staff members—and they weren't

always on the plus side.

43% of managers identify as women, and 40% of Slack staff are managed by women, down slightly from the last report. In the U.S., 24% of people in Slack's global engineering organization identified as women, up from 18% in September. Across all departments globally, women are currently 43% of the entire workforce, up from 39% in its September post. The black engineering population at Slack has grown to 8.9% of the overall U.S. engineering organization (and over 7.8% globally, compared to just under 7% globally in the last report). The LGBTQ population has grown from 10% of Slack's global workforce in June to 13% of its global population in December. What it shows is that Slack is better than some of its peer tech companies.

Over the last year, Slack engineer **Erica Baker** has become a well-known advocate for diversity and inclusion in the tech industry²¹. Although she started at Slack as a building and release engineer, her role has since evolved to include some work around diversity and inclusion.

CODING SCHOOLS AND BOOTCAMPS HELP GIRLS TO START CODING

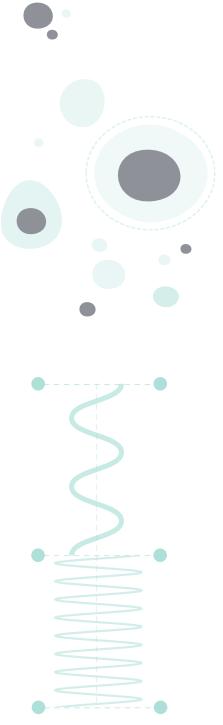
Karlie Kloss made headlines last year when she announced she was not only a high-ranking model but could also code in Ruby²². Kloss, who says she's always been interested in math and science, started learning to program a couple of years ago.

The supermodel collaborated with the Flatiron School in New York City last year to launch #KodeWithKarlie, a scholarship program for teen girls. In April 2016 the supermodel started Kode With Klossy, a coding summer camp for girls ages 13-18. The two-week camp will provide scholarships to 80 young women from New York, Los Angeles and Karlie's hometown of St. Louis, Missouri.

«I grew up in St. Louis and didn't really know anything about fashion until I walked in a charity fashion show at my local mall and was signed to a modeling agency. Before my modeling career took off, I really loved my math and science classes at school. My dad was an ER doctor and as a girl, I dreamed of following his footsteps. Taking coding classes brings me back to the excitement I felt as a kid in first-period biology. I'm a curious person and coding allows me to think about how our world is built».

«People have been really supportive and excited about Kode With Klossy. **Ten years ago, it might have been this weird thing for a model to be taking computer science classes, but the industry is very tech friendly today.** When I started modeling, fashion week was this very exclusive thing. You weren't allowed to say anything about the designer's collections to anyone. Now, I walk in shows





that are live-streamed on Periscope and teased out on Instagram. The fashion industry has changed a lot over the last few years because of technology».

«Since I started coding, I've learned a lot that feeds back into my work in the fashion industry. The magazines I shoot for and the brands I work with are driven by what's happening in the tech world. When I'm in a meeting with one of my fashion partners, having a technical understanding of how it all works makes me a stronger businesswoman».

«Ruby on Rails is what I've been learning in my classes at the Flatiron School. During the Kode With Klossy camp, the students are going to get to learn the fundamentals of Ruby on Rails too. They'll be able to apply that knowledge to build an app based on whatever they're excited about or interested in. It's fast paced, but coming away from the course with something that's your own is a really empowering thing».

«If you can learn how to write code, or at least, gain an understanding of how it works at a high level, then you open yourself up to more opportunities in your career and life. We need more women stud-

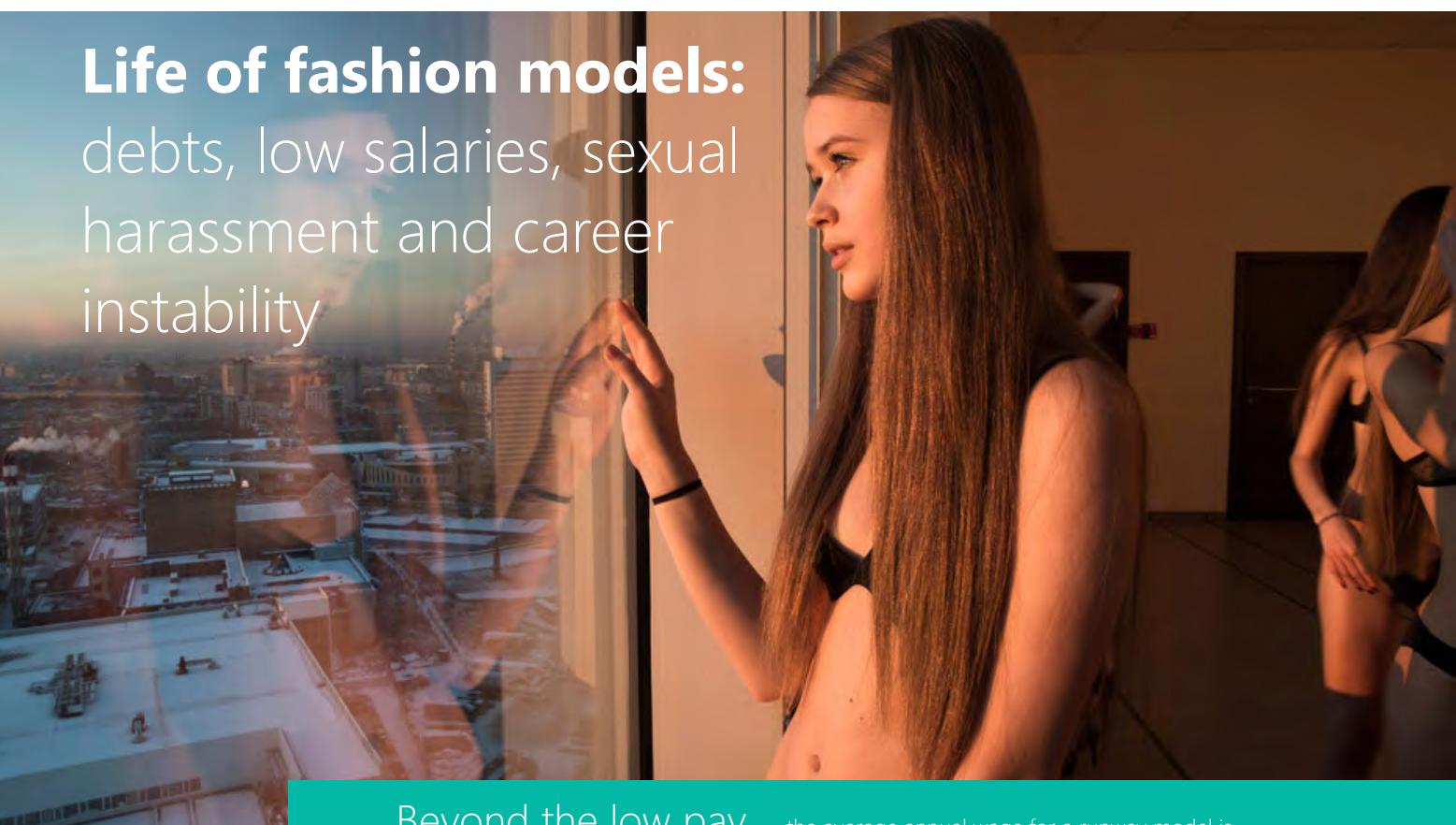
ying code in school and working as programmers in every industry. As technology changes the way our world operates, tech companies will have more influence on our lives — it's important that women are part of that equation. My goal is for Kode With Klossy to introduce and teach coding to a handful of the girls who will make up that next generation of change-makers».

As of 2012, last year for which the National Science Foundation has published data, only about 18% of degrees in the field were obtained by women, the lowest percentage of any STEM discipline²³. But there is one corner of this pale, male landscape that has less of a gender imbalance than others:

coding schools. Also called coding bootcamps, these schools teach basic programming skills to students who typically don't have previous experience, charging on average about \$11,000 for a 10-week course. According to Course Report, which has aggregated data from 63 coding bootcamps in the U.S. and Canada, **38% of these programs' graduates were women** in 2014.

«We still have a problem—it's just not as bad»,

Life of fashion models: debts, low salaries, sexual harassment and career instability



Beyond the low pay — the average annual wage for a runway model is \$26,600 per year, — the modeling industry is littered with stories of abuse and degradation. Starvation, child labor, sexual abuse, racism and grueling hours for almost no pay. Working conditions no one should experience are too often the hallmarks of a runway model's career. 47% of models appearing on catwalks at one of the four major fashion weeks around the world appeared only once. 20% of the models were actually in debt. 30% of models reported inappropriate touching on the job, with 28% reporting being pressured to have sex with someone at work. In two-thirds of the cases, those models who opted to inform their agencies about work-based sexual harassment were met with agencies who «didn't see the problem».

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says Daisha Versaw, who estimates that about 35% of graduating classes at the **Turing School**, a seven-month program in Denver for which she is the manager of marketing and communications, have been women.

«We don't have 'standard' prerequisites: special schools, degrees, ages, standardized testing, or even past careers», says Diane Hesson, the CEO of the **Startup Institute**, an eight-week program in Boston where 41% of past graduates have been women. «Bootcamps offer more of a meritocracy, and that attracts people of all kinds».

Coding schools are also relatively new, and many of them have made including people with diverse backgrounds a goal from the start. «The typical CS programs with male-dominant classes are indirectly marketing that not everyone can code», says Aaron Fazulak, a cofounder of **Designation Labs**, a UI/UX design bootcamp in Chicago where about 64% of graduates have been women. «We have gotten it right since day one, which makes things a lot easier than starting off on the wrong foot».

Angie Chang, the VP of strategic partnerships at **Hackbright Academy**, a coding school for women in San Francisco, also sees this marketing aspect as a boon for more gender diversity among coding bootcamps. «Girls are told if they're extroverts, then they don't belong to engineering», she says. Hackbright's marketing materials intentionally show women at events and interacting with mentors to avoid this perception. «From the outset, we've had diversity», Fazulak says. «So when you see pictures of our graduates in our marketing materials, the precedent has already been set that anyone can go to our school».

Some coding schools have incorporated educating women and underrepresented minorities into their DNA. **Telegraph Academy**, a 12-week program based in Oakland, for instance, markets itself as «the premier software engineering bootcamp for people of color underrepresented in tech».

Female candidate sets her expected salary at \$14,000 less than men

Hackbright and Ada, a seven-month program in Seattle, enrolls only women.

But most coding schools, even those without these stated missions, offer some sort of scholarship for women and/or minority of students. In an effort to attract students with diverse backgrounds, for instance, **Flatiron School** in New York City has collaborated/become a partner with the NYC Tech Talent Pipeline and the Workforce Development Corporation to offer a free intensive course for people who make less than \$50,000 per year and have no college degree.

General Assembly, arguably the largest of the tech training schools, has an «opportunity fund» that provides full scholarships for courses to women, veterans, and people of colors, disconnected youth, and low-income individuals. Many schools, like **Bitmaker**

Labs in Toronto, offer automatic discounts on tuition.

Dev Bootcamp in New York, San Francisco, and Chicago has a «diversity manager» role.

«It's like any other business you go after», Liliana Monge, the co-founder of Los Angeles-based coding school **Sabio.la**, commented at a panel about diversity in coding schools. «If you say, look, I want to make sure I'm achieving these types of goals, then you have to align your marketing dollars to match that audience . . . You can't just sit back and say, they're not [applying]. Well, what would you do if customers weren't coming? You would actively go out and look for them».

The Girl Scouts rolled out an update²⁴ to the Digital Cookie program, launched last December in an effort to increase access to the organization's popular cookies. The new and improved Digital Cookie 2.0 simplifies the mobile app and makes the website customizable — an upgrade that the Girl Scouts hope will boost declining sales and membership numbers.

«Digital Cookie marks a strategic turning point in updating the business and financial literacy skills girls learn — and the way they learn them — to align with our digital world», Girl Scouts CEO Anna Maria Chávez, one of Fast Company's Most Creative People last year, said. Over the past few years, sales of cookies have raised almost \$800 million year\y and comprise a major component of the Girl Scouts' fundraising budget. But in 2015, despite the adoption of the Digital Cookie program, overall cookie sales fell to 194 million boxes—about \$776 million in sales. (2015 sales vastly surpassed the organization's projected target of 184 million boxes. The Digital Cookie program alone sold 2.5 million boxes and generated 10 million in revenue.)

CODE2040 CEO Laura Weidman Powers describe their goals:²⁵ «CODE2040 is a non profit. We work with tech companies to help them gain access to more diverse talent and we work with black and Latino college students to help smooth the pathway into the industry. We decided to focus on blacks and Latinos specifically because they are quite underrepresented in Silicon Valley in technology but they're actually less under-represented in computer science. So, 18% of computer science undergrad degrees go to black and Latino students, but you see numbers closer to 5% at companies, so there's a real opportunity for companies to access the talent that's already out there». «This past summer, we had 35 students in the fellows program. Ninety percent of those students get full time offers at their tech companies, which is pretty great».

According to a new study published by the data science team at Hired²⁶, a jobs marketplace for tech workers, the average **female candidate sets her expected salary at \$14,000 less than men**.

Related or not, 69 percent of the time, men receive higher salary offers than women for the same job title at the same company. (On average, employers pay women 3 percent less for the same roles, though some companies offer as much as 30 percent less.)

This is where the so-called expectation gap is likely to play a role, says company's lead data scientist, Jessica Kirkpatrick. Women are asking less because they don't know what their peers are making or, in some cases, they question whether they deserve the same amount. (Pinterest engineer Tracy Chou shared her own personal experience with this issue in a piece on Quartz published earlier today.) Kirkpatrick also notes that a women's comparative lack of success when it comes to negotiating for better pay (as documented by Catalyst, among others) can also take on a kind of snowball effect over time. If you get paid \$15,000 less than your male counterpart does in one job, it's hard to make up the difference when your next employer asks you about your last salary.

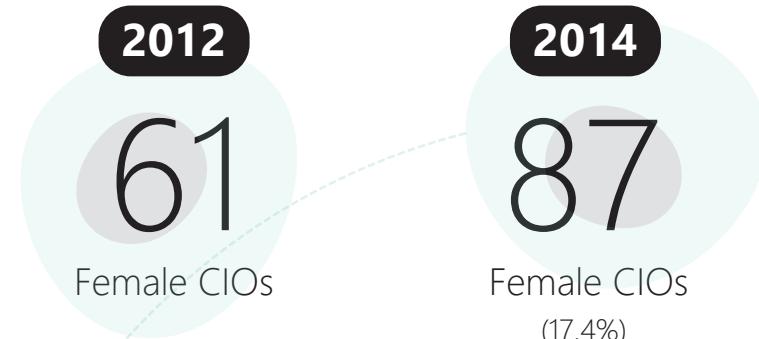
Founded in 2011, **Black Girls Code** is on a mission to change the face of technology by introducing girls from underrepresented communities

to coding²⁷. Black Girls Code does this through a series of workshops, hackathons and summer camps. «When we look at tech companies, they really at this point in time don't reflect the demographics of the U.S. or the world in general and the people that are using those products», **Black Girls Code** founder **Kimberly Bryant** said. «So, it would be important to them to continue being successful companies and really meet the needs of their consumers to bring more people inside the company instead of just focusing on utilizing the m as consumers». «I think that we're fighting for several things. Two things are here. We're fighting really systemic racism that's been built into the fabric of not just these companies, but our nation in general. I think even more predominant is this notion of implicit bias that is one of the leading factors in prohibiting the tech industry from becoming more diverse».



Women basically are as financially literate as men

Female Chief information officers in Fortune 500 companies



Growth 2012 – 2014 = 43%

Top companies facing diversity

	Ratio Female – to – Male Board Members	Non – White Board Members
Airbnb	0/4	1
Amazon	2/9	0
AOL	3/9	1
Apple	1/8	1
Ebay	1/11	1
Facebook	2/8	0
Google	3/7	1
Groupon	1/7	1
LinkedIn	1/7	1
Microsoft	2/9	1
Twitter	0/7	0
Yahoo	2/7	0
Zynga	1/9	1

	FEMALE			MALE		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Financial literacy index	844	-0.537	0.965	678	0.978	0.978
Age						
18-35	844	0.199	0.400	678	0.366	0.366
36-50	844	0.355	0.479	678	0.338	0.338
51-65	844	0.257	0.437	678	0.275	0.275
66+	844	0.189	0.391	678	0.228	0.228
Race						
White	844	0.750	0.433	678	0.834	0.834
Black	844	0.137	0.344	678	0.088	0.088
Other	844	0.114	0.318	678	0.078	0.078
Education						
High school dropout	844	0.050	0.219	678	0.040	0.040
High school graduate	844	0.356	0.479	678	0.281	0.281
Some College	844	0.250	0.433	678	0.262	0.262
College graduate	844	0.344	0.475	678	0.416	0.416
Income						
<\$35K	844	0.273	0.446	678	0.211	0.211
\$35K - \$60K	844	0.278	0.448	678	0.248	0.248
\$60K - \$90K	844	0.272	0.445	678	0.305	0.305
>\$90K	844	0.177	0.382	678	0.236	0.236

Source: Barney JB. 1986. Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? Academy of Management Review 11 (3): 656-665. 1997, 2002, 2007 surveys of business owners and Ewing Marion Kauffman foundation calculation

Women – owned firms represent an important segment of the business sector in the US

Female representation in Top Management & Firm Performance

Accounting measures of Firm Performance

	Measure		Measure	
	Return on Assets	Return of Equity	% of Women on Top Management Team	Dummy Variable Excluding Female CEOs
Female Representation	-0.0043 (0.0027)	-0.0059 (0.0081)	-0.0043 (0.0027)	-0.0059 (0.0081)
Female representation x Innovation intensity	0.1592*** (0.0234)	0.2585*** (0.0787)	0.1592*** (0.0234)	0.2585*** (0.0787)

*** p ≤ 0.001, ** p ≤ 0.05, * p ≤ 0.10 Standard errors are reported under each coefficient in parentheses

Women – owned businesses

	1997	2002	2007	2012
Firms (number)	5,417,034	6,489,483	7,793,425	8,943,038
Receipts (millions \$)	\$818,669	\$940,775	\$1,192,781	\$1,358,187
Employer firms (number)	846,780	916,768	911,285	956,116
Receipts (millions \$)	\$717,764	\$804,097	\$1,010,470	\$1,136,816
Employees (number)	7,7076,081	7,146,229	7,587,020	7,780,716
Annual Payroll (million \$)	\$149,116	\$173,709	\$218,136	\$249,340

Female representation in Top Management & Firm Performance

Alternative measures of Female Representation

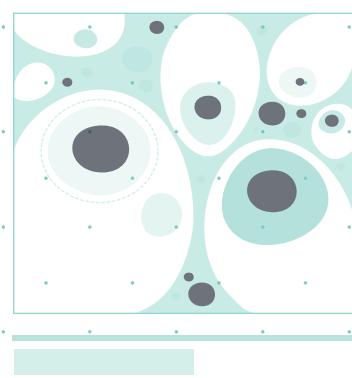
	Measure
	Dummy Variable Excluding Female CEOs

Women – owned businesses as a percentage of all

	1997	2002	2007	2012
26%	28%	28.7%	29.9%	
4.4%	4.2%	4.0%	3.8%	
16%	16.6%	15.8%	16%	
4%	3.7%	3.5%	3.3%	
6.8%	6.5%	6.4%	6.2%	
5.1%	4.6%	4.5%	4.3%	

Key Message:

- While the share of women owned businesses in terms of the number of businesses continues to grow over time, their shares of employer firms, revenues, employment, and payroll have stagnated or even declined over the last two decades.



Source: Barney JB. 1986. *Organizational Culture: Can It Be a Source of Sustained Competitive Advantage?* Academy of Management Review 11 (3): 656-665. 1997, 2002, 2007 surveys of business owners and Ewing Marion Kauffman foundation calculation



NOT ONLY FEMALE- EMPLOYEES AND FOUNDERS – BUT VC-PARTNERS TOO

The venture landscape changes fast. Ten years ago, few would have predicted the ubiquity of micro funds or the rise of Andreessen Horowitz or the existence of a platform like AngelList that enables people with enough connections to become pop-up VCs²⁸. Few — though not most — see what's coming next, too, and that's **woman VCs**, taking their place alongside with men. In fact, we argue that the shift will represent the biggest opportunity over the next decade. It may be hard to believe, given the wealth of attention paid to the low numbers of women in the industry and the obstacles they have to overcome. But the signs of change are everywhere if you pay an attention.

Though women are making slow inroads at venture firms — according to CrunchBase data published²⁹, **just 7% of partners at the top 100 venture firms are women**. They represent 12% of investing partners at corporate venture firms — a percentage is likely to grow because of heightened interest in how tech companies fare when it comes to diversity. «We believe it's a missed opportunity if we aren't an active participant» in funding women and minority-led companies and funds», says Janey Hoe, VP of Cisco's 40-person investments unit. Moreover, over the last three years, **16% of newly launched venture and micro-venture firms had at least one female founder**, shows CrunchBase data.

As costs have fallen and made entrepreneurship accessible globally, more people are coming into venture capital. **Monique Woodard**, a longtime entrepreneur and more newly a venture partner at **500 Startups**, credits her own path to the democratization of information brought by social media platforms. «You suddenly have this library around venture capital and thought leadership that didn't exist before», said Woodard. It's also the case that women — an expanding number of whom are founding startups, as well as rising through the ranks of the other companies — have more role models in VC than they did a decade ago.



16% of newly launched venture and micro-venture firms had at least one female founder



Venture firms are facing a more immediate business **risk**: the real possibility that without women investors on staff, they will be missing promising investment opportunities. According to a new survey 265 of male and female founders who have taken money from True Ventures, a high percentage said they would not seek funding from a firm without any females in investing roles. An even higher percent-

age responded that they'd be even more inclined to seek funding from firms that employ more than one female investing partner.

That message is reaching venture teams.

Founders Fund brought aboard renowned angel investor **Cyan Banister** as its first woman partner; **First Round Capital** in February brought aboard Birchbox's co-founder **Hayley Barna** as a venture partner. **True Ventures** has, meanwhile, authorized **Amy Errett**, the CEO of True-backed hair care company Madison Reed, to write checks on its behalf.

This is why you saw **Intel Capital last June created a \$125 million fund to back women** and other under-represented entrepreneurs. That's why Kapor Capital has a mandate to invest in women and minorities. That's why Andreessen Horowitz, who has exclusively male investment partners, is trying to get the word out to entrepreneurs that it's interested in under-represented groups, including the organization of networking events for tech's black community.

As a part of **Intel's** \$300 million commitment to diversity, the company has announced³⁰ in February 2016 a multi-year partnership and \$1.3 million investment in **CODE2040**, a non-profit organization that helps to get black and Latino/the students of color involved in tech. This comes a little over a month after CODE2040 raised \$1.2 million from the Knight Foundation. The money will go towards supporting CODE2040's Fellows program, which places students in career-building workshops and internships at top tech companies and Technical Application Prep programs, a newer CODE2040 initiative aimed to prepare students to get internships and thrive at top tech companies. This year and next, Intel will host 60 student interns from the CODE2040 Fellows program in Santa Clara. Intel will also host students from CODE2040's TAP program for part of a five-day Tech Trek. «We are very proud of the multi-year partnership with Intel to create access, awareness, and opportunities for Black and Latino/a engineering talent», CODE2040 CEO **Laura Weidman Powers** said in a statement. «This transformative partnership allows CODE2040 to expand our work to increase the impact of diversity in the innovation economy. Together with Intel, we are excited to create more experiences like this one, described by Anthony Williams, a TAP participant».

BBG Ventures is an early-stage fund focused on consumer Internet and mobile startups with at least one female founder³¹. They back entrepreneurs who reimagine our daily life, creating market-defining consumer tech products and services that make our work, play and home lives simpler, better — and more satisfying. BBG Ventures invests across marketplaces, mobile tools and services, commerce, media/content platforms and connected living. BBG Ventures has over 30 companies in its portfolio including Glamsquad, goTenna, HopSkipDrive, Modsy, Zola, RocksBox, Ringly, Kontor and Lola.

Susan Lyne is a president and founding partner at BBG Ventures, a new venture fund for women-led tech startups focused on a consumer internet and

mobile businesses. Before launching BBG Ventures, Susan was a CEO of the AOL Brand Group where she oversaw AOL's unique content brands including AOL.com, TechCrunch, Engadget, StyleList, Moviefone and MapQuest. Susan was a CEO and then Chairman of Gilt Groupe from 2008-2013. Prior to that, she served as a president and a CEO of Martha Stewart Living Omnimedia (MSO).

Nisha Dua is a partner at BBG Ventures. Nisha has spent the last 10 years working across media, tech, strategy and law. She was the general manager of AOL's millennial site, Cambio, which she re-launched in 2014 as a site «for girls, #BUILTBYGIRLS» in partnership with Girls Who Code and where she quadrupled the traffic in fewer than seven months. Nisha founded the #BUILTBYGIRLS movement which challenges young women to be a part of the tech-enabled economy through a series of offline and online programs designed to help young women get ahead in tech, including the Girls Who Fund internship program which teaches girls the fundamentals of venture capital.

Social Capital is a venture capital fund that aims to change the world by giving companies with disruptive ideas the money to carry those ideas out³². With savvy investments in Box, Slack, SurveyMonkey, **Wealthfront**, and Second Market, **Social Capital** could have been content being a prosperous venture firm. Instead, according to founder and managing partner Chamath Palihapitiya, it's aiming to be «a progress factory». Social Capital invests in startups, but when «industries [are] so lumbering that they are really holding back human potential», the fund steps in and creates solutions itself in a form of new businesses. Social Capital's world-changing ambitions reflect the priorities of its senior investment team, which has a rare 50-50 gender and ethnicity split for a VC firm. In fact, Social Capital partnered with tech-news site «The Information» to publish a ranking of VC firms' diversity, which laid bare the industry's monoculture. «If you're going to be successful on a broad basis, you're going to need to appeal to different kinds of people from different kinds of backgrounds», Palihapitiya explains. «The diversity we have is frankly our only path to long-term viability. That's not to say we're going to be successful, but at the minimum we're going to be more interesting than a bunch of old, white dipshits».

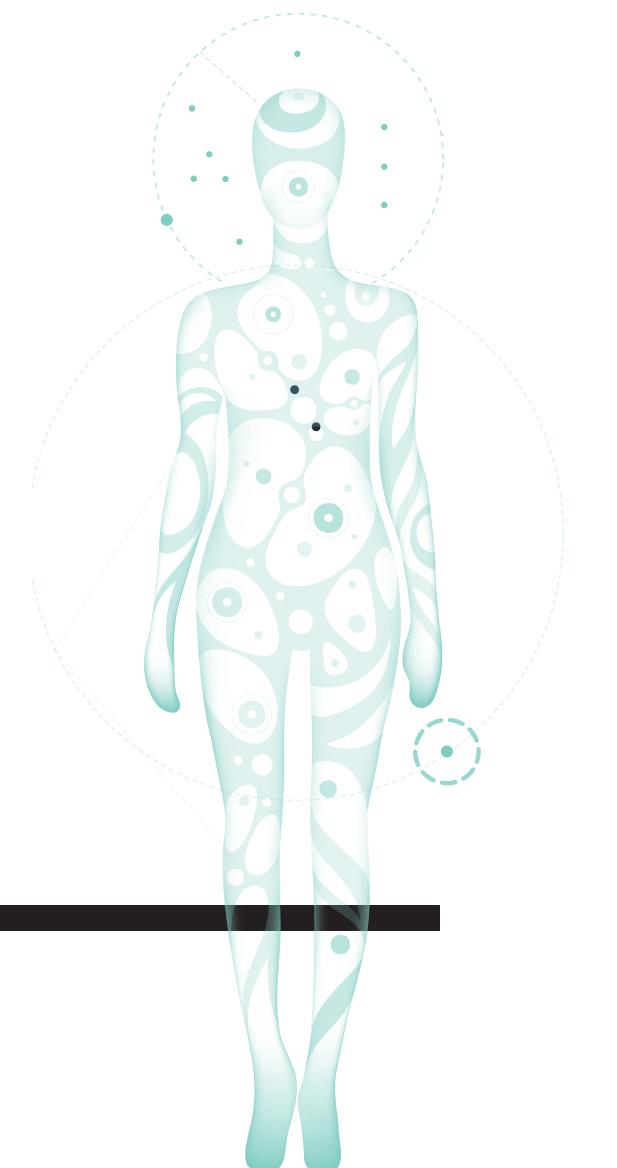
Of the thousands of venture deals minted from 2012 to 2014, almost zero black women founders raised money³³. (The exact number is 24 out of 10,238, or just 0.2%.) Of those few that have raised money, the average amount of funding was \$36,000. That's compared to a typical startup, typically found-

ed by a white male, that typically fails. Those manage to raise an average of \$1.3 million in a venture funding.

This disparity comes even as black women today comprise the fastest-growing group of entrepreneurs in the US, with over 1.5 million businesses — a 322 percent increase since 1997. These businesses generate over \$44 billion a year in revenue. Yet in the tech world, investors aren't taking a risk on startups run by black women.

These numbers come from a new report, Project Diane, which calls **black women founders «the real unicorns of tech»**. The research is the culmination of a year's worth of effort digging into tech databases and reaching out to black female founders by **Kathryn Finney** and her company Digital Undivided, which aims to create a pipeline of black entrepreneurs in tech.

In 2012, Finney founded Digital Undivided, bootstrapping it with her own money. The company has already made a name for itself with initiatives like the Focus Fellows program, which provides training and mentorship to new female founders from diverse backgrounds, and a conference for tech workers from groups that are under-represented in the industry.



THE NEW GENERATION OF FEMALE ENTREPRENEURS AS A ROLE MODEL

Leila Janah, 33, the founder and CEO of **Sama Group**, launched Sama in 2008 with the belief that creating work opportunities is the most effective tool for fighting poverty³⁴. Sama goes into communities that lack living-wage jobs — from the slums of Nairobi, Kenya, and Port-au-Prince, Haiti, to rural Arkansas — and **trains people to do digital work**,³⁵ such as verifying data that makes Google's search algorithms smarter and flagging inappropriate content posted to TripAdvisor³⁶. So far, Sama reports that it has helped approximately 51,000 people³⁷, almost 22,000 direct beneficiaries and another 29,000-plus of their income dependents. In 2015, Sama aided twice as many people as it did in 2014.

Leila Janah is pouring her life into creating a more sustainable world³⁸. After all, her company has «equality» built into its name. Janah is the founder of Sama Group³⁹ («sama» means equality in Sanskrit), a not-for-profit organization that seeks to improve the lives of those living below the poverty line. It has three different efforts: Samasource, which connects people in Sub-Saharan Africa and South Asia to digital jobs; Samaschool, which trains people digital skills, and Samahope, a crowdfunding platform to fund medical treatments.

Samasource differs from traditional outsourcing businesses by going into the most economically challenged communities, such as Mathare, a network of slums with 500,000 residents. More than half of Sama workers are females, and more than 90% are unemployed or underemployed before receiving work from Sama.

Instead of applying for grants, Janah tapped her network to fund **Laxmi's** launch, raising a \$2 million seed round from the likes of LinkedIn cofounder Reid Hoffman, Toms Shoes founder Blake Mycoskie, and former Yahoo CEO Tim Koogle (who's also chairman of Method Products). Laxmi wants to grow its line to as many as 70 or 80 products. Then, there are ancillary markets such as jewelry and home decorations that Janah envisions expanding into, both of which could create jobs for poor women in remote locations. Sama owns 12% of Laxmi and Janah owns 24%. This means that if Laxmi pays dividends or is acquired, Sama will receive a windfall. «Laxmi can eventually generate money for additional social enterprises», she says. «I don't have a Mother Teresa complex. I'm a pragmatist».

Anne Wojcicki co-founded **23andMe** in 2006 after a decade spent investing in healthcare focused primarily on biotechnology companies⁴⁰. Her hope was to empower consumers with access to their own genetic information and to create a way to generate

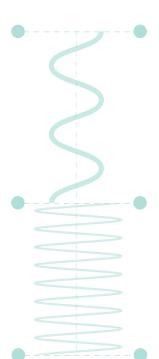
more personalized information so that commercial and academic researchers could better understand and develop new drugs and diagnostics.

Presently, 23andMe has built one of the world's largest databases of individual genetic information. Its novel, web-based research approach allows the rapid recruitment of participants to many genome-wide association studies at once, reducing the time and money needed to make new discoveries, and the company has created a proven and standardized resource to finding a new genetic association and confirming genetic loci discovered by others. Under Anne's leadership 23andMe has made significant advances in bringing personalized medicine directly to the public. Anne graduated from Yale University with a BS in Biology. Getting access to and understanding her own genetic information had always been one of her ambitions.

You don't have to be a technical genius to make valuable contributions to science. This is a concept personal genomics entrepreneur Anne Wojcicki. What is important for a successful scientific venture is finding a way to get ordinary people excited about and interested in science, which is something Wojcicki strives to do with 23andMe, a company she co-founded with Linda Avey and Paul Cusenza to provide genetic testing to consumers. The company is one of the first, and only, companies to offer genetic profiles directly to consumers, rather than through doctors or researchers. Getting ordinary people interested in genetics — especially interested enough to shell out \$199 to give their genetic information to a company — is crucial to the 23andMe's success⁴¹. But Wojcicki also hopes 23andMe will inspire more public interest in genetics and in science in general. She has encouraged people who might not consider themselves technical geniuses to still participate in science.

Memes may come and go, but **Susan Wojcicki's** (sister of Anne) job was to make certain that **YouTube** profits from every one of them⁴². Google employee No. 16 - the company initially rented her Menlo Park garage as its headquarters - heads up the Internet's central hub for all things video. In February 2014, Wojcicki moved from her post as consigliere for Google's ads and commerce (some 90% of revenue) to become CEO of Google-owned YouTube, the world's largest video platform.

YouTube is shaping popular culture and disrupting industries across the globe in a way that makes it sound a lot like, well, Google⁴³. «Google is pretty big», she says, «but I look at YouTube and I feel like it's Google 10 years ago — and I see the potential for it to grow». Wojcicki's job must be the envy of the world's teenagers, even if most of them have never heard of this low-profile tech leader. When she arrived at YouTube, Wojcicki was charged with building a business by luring advertisers from TV and expanding the site: her innovations have included subscriptions, original content and virtual reality. «I just don't fit their stereotype in any way and so they're confused», she says. «And then when I say I have five



kids, they're even more confused». Wojcicki, who was pregnant with her first child when she joined Google in 1999, had her youngest after she became YouTube chief executive. «We're thinking about, well, how does TV work for the next generation? Now that we have new ways of distributing, now that we have the Internet, what should TV look like? We're going to enable it to be global, and social, and across divides, and on demand — that's a big area», she says.

Hollywood and the music industry also see YouTube as a rival.

Female leaders are scarce in the technology industry, where women often make up less than a fifth of technical employees at large companies. Wojcicki reels them off on one hand: Meg Whitman at HP, Ginni Rometty at IBM and her former Google colleagues Marissa Mayer at Yahoo and Sheryl Sandberg at Facebook. Where Sandberg has created a platform encouraging women to «lean in» at work, speaking up and negotiating hard, Wojcicki uses her position to campaign for paid parental leave, saying it is «crazy» it is not a legal requirement in the US, and to encourage more women into software engineering.



The world's youngest self-made female billionaire, **Elizabeth Holmes** and her diagnostics firm Theranos have been under intense scrutiny since late 2015⁴⁴. The FDA told Holmes in September 2015 that her company was using an unapproved blood collection device. Theranos subsequently stated it was voluntarily suspending the use of its «nanotainer» until it gets clearance. An October 2015 story in The Wall Street Journal raised questions about the reliability of Theranos tests - an assertion the company has refused. A January 2016 letter from the Centers for Medicare & Medicaid Services found that practices at its Newark, Calif. lab were unsafe to patients. As a result, Walgreens, which has more than 40 Theranos centers in its stores, asked the company to stop sending blood tests for analysis at its Newark lab, and has suspended Theranos lab services at Walgreens in Palo Alto. The company says it has taken corrective actions, and that its labs in Arizona are not affected. Meanwhile, it is mostly relying on conventional methods to draw blood. Holmes founded Theranos at age 19 to make cheaper diagnostic tests that require only a few drops of blood from a finger prick. Investors valued her company at \$9 billion in 2014 - on a par with Quest Diagnostics.

Elizabeth Holmes founded Theranos because she is afraid of needles⁴⁵. Which is an oversimplified version of what really happened. Holmes spent some of her freshman year at Stanford working in chemical engineering professor Channing Robertson's lab alongside PhDs. Over the summer, she interned in a lab in Singapore that was looking for ways to detect SARS in minute traces of blood and mucus. She came back charged, and spent days working on a patent for a patch-worn drug delivery system. She presented her patent to Robertson and told him she was dropping out of school to start a company. She asked him to join the board, and he agreed.

You'd have to look really hard not to see Steve Jobs in Elizabeth Holmes⁴⁶. Both Holmes and Jobs were loners as kids. As a teenager, Jobs discovered Plato; Holmes favored Roman emperor-philosopher Marcus Aurelius. Both dropped out of college, in part, because they didn't see the virtue in an education they believed wouldn't make a difference in their futures. Like the Apple creator, Holmes has kept her company, Theranos — which seeks to radically disrupt the lab test industry — shrouded in secrecy. Jobs became a billionaire by the time he was 40. For Holmes, that moment came sooner, when Theranos was valued at \$9 billion, she was not yet 31.

The tech press may be as responsible as Elizabeth Holmes⁴⁷. Over the past few years, when media outlets reached out to Theranos about whether its wunderkind founder, Elizabeth Holmes, would have time to sit for an interview, her P.R. team generally responded with two questions: What time and where? Holmes was a star. She bounced between TV networks like a politician giving a stump speech. She sat across from tech bloggers, reporters, and TV cameras who slurped up her delectable story — that she had come up with Theranos, her blood-testing company, as a Stanford freshman who was fearful of needles — and they largely regurgitated it, sometimes beat for beat.

As Mary Civiello wrote in Fortune⁴⁸: «Theranos CEO Elizabeth Holmes... did an interview with TODAY... The appearance, in which Holmes said she was «devastated» by the problems of the company, sparked a lot of conversation». «As a viewer of the TODAY spot, I thought it was refreshing to see a young CEO taking full responsibility for serious problems with Theranos' testing accuracy. As a communications coach, I thought she delivered her message authentically and held up well under tough questioning by Maria Shriver». «So, it was a surprise to me to read an analysis by fellow media coach Bill McGowan, who felt that Holmes «tanked» the interview». «Personally, I hope Holmes makes a comeback in business. I think she's already taught us something about grace under fire».

Last generation of supermodels trying to leverage their brand-names⁴⁹: **Natalia Vodianova** launched Elbi (e-wallet for charity), **Jessica Alba** preparing her Honest Company for IPO, **Jessica Hart** promoting her LUMA Cosmetics, Lily Cole set up Impossible («a social network for sharing economy»). And the new generation of supermodels is coming from Instagram and YouTube⁵⁰. **Kendall Jenner, Cara Delevigne** and **Gigi Hadid** are currently valued between \$125,000 and \$300,000 for a single post across their social media. **Karlie Kloss** and **Miranda Kerr** can command between \$25,000 to \$50,000 for a single post across Facebook, Twitter, and Instagram.

Even among a group as impressive as Forbes' inaugural 30 Under 30 list members for retail, **Olga Vidisheva** stands out⁵¹. The founder of fast-growing e-commerce platform **Shoptiques** barely spoke a word in English when she moved from her native



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Alisa Matsanyuk

Kyrgyzstan to Los Alamos, New Mexico at the age of 17. She worked as a waitress at a local sushi restaurant, improving her language skills through conversations with customers. Having watched her country's slow, painful transition to a market economy in the previous decade from her family's one-bedroom, government-provided apartment, she was determined to prosper in her new life in the U.S.

Fast forward a decade, modeling to pay for her tuition, and Vidisheva had graduated from Wellesley

College with a degree in economics and mathematics, cut her teeth at top Wall Street firm Goldman Sachs and graduated with an MBA from Harvard University. Today, she runs Shoptiques, which gives small fashion boutiques around the world an online sales platform to sell their wares. In exchange, the company takes a cut of sales and a joining fee for retailers that include costs for photography, credit card processing, packaging and shipping.

So far, so good: last year, revenues were about \$3 million, up 700% from 2013. When Shoptiques made Forbes' 2015 list of America's Most Promising Companies, Vidisheva said she aims to do \$20 million in sales in 2015. The startup has raised \$3 million to date from top investors like Andreessen Horowitz, Greylock Partners, Benchmark, SV Angel, William Morris Endeavor Agency and Y Combinator.

In the same TechCrunch's ranking «30 women who revolutionized a male dominated industry» you can find **Alisa Matsanyuk** (ex-Chumachenko)⁵² (in Inc.'s 35 under 35 too⁵³), co-founder and shareholder of one of the biggest online-gaming companies **Game Insight**,⁵⁴ activist of Vilnius Techno Park⁵⁵ (she lives in Vilnius). Recently she launched her new business - a network of **maker-spaces for inventors** «**Green Garage**»⁵⁶, and now wants to expand to the UK and Asia.

FEMTECH IN ASIA FEELS

BETTER THAN IN US

While the challenges facing women in tech differ across the region, in a conversation with **Dr. Lee Ng** about women in the Asian scene, e27 learned there are similar challenges that can be seen in various places⁵⁷. Surprisingly, Dr. Lee mentioned that when it comes to equal representation, **China actually does a better job than Silicon Valley** where even in giants such as Google, women only make up 30 per cent of its workforce.

«The one place with the best gender representation is actually China! There is a lot more women in tech, as well as in leadership position ... Comparing with Korea and Japan, Southeast Asian [country such as] Singapore is actually much better as there are more women in the workforce», she explained.

where she worked with venture capitalists and innovators to identify and fund innovative technologies through partnerships and joint technology developments.

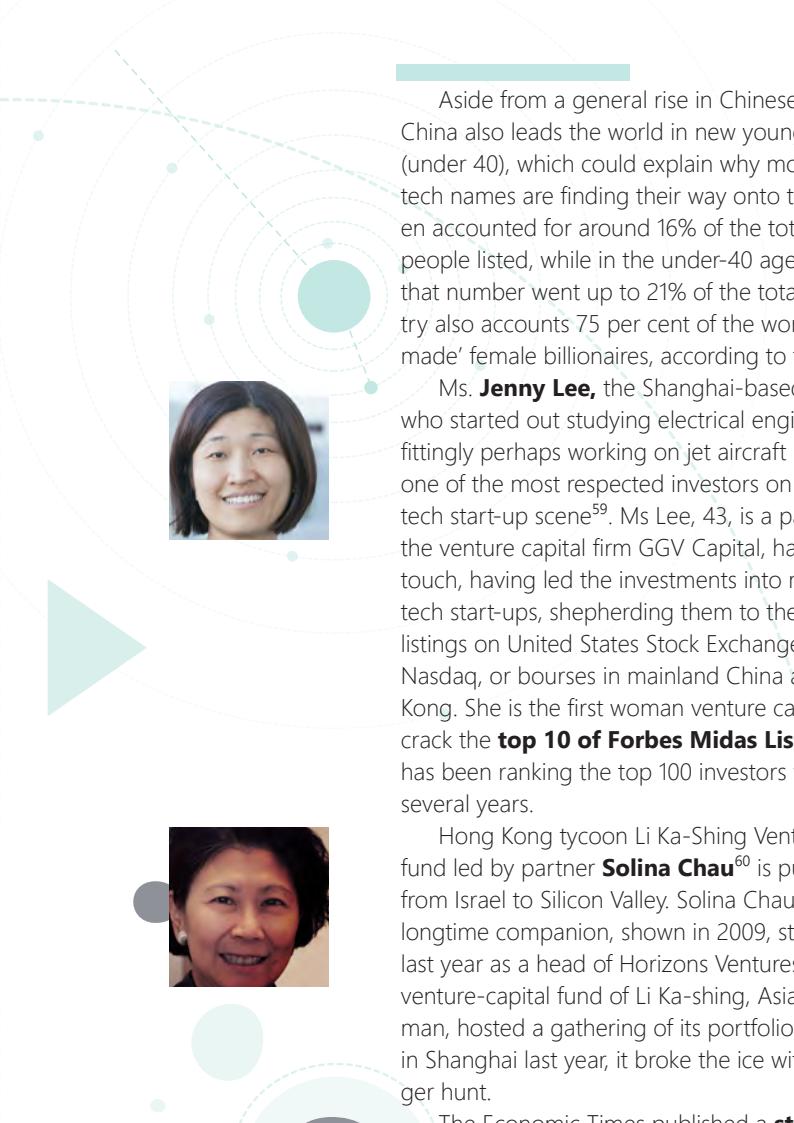
«I think the bigger problem is that a lot of women do not choose to major at science and engineering for various reasons ... [Some didn't choose it] because it is not sexy; it is not cool to be nerdy. The other factor is that there is a lack of role models», she explained. «Children, teenagers are being asked to pick their specialisation at a very young age in Asia, far younger than in the US. For example, [in Singapore] by Sec-2, you are asked to pick your O-Level subjects, and if you don't pick physics or math, you limit your options when you go into A-Level», she explained. «Now let's think about [being a] Sec-2 or a fourteen-year-old. You tend to want to study things when you have friends studying it. It becomes a systemic [problem] where people have to make decisions very early, and it's really hard to switch major», she added.

2015 was a tough year for billionaires who made their mint in metals and mining, but a much better year to be filthy rich in tech, according to the annual Hurun Rich List report⁵⁸, which ranks the world's most wealthy people. Interestingly, **23% of new tech billionaires added to the 2016 list are Chinese women**. In fact, nine new additions make up to 100 per cent of new global female tech billionaires.



23% of new tech billionaires added to the 2016 list are Chinese women

She spent 30 years in the US, with 20 years of them in Silicon Valley. Her latest role in the tech hub was as Director of Venture Technology at Siemens,



Aside from a general rise in Chinese billionaires, China also leads the world in new young billionaires (under 40), which could explain why more female tech names are finding their way onto the list. Women accounted for around 16% of the total Chinese people listed, while in the under-40 age category that number went up to 21% of the total. The country also accounts 75 per cent of the world's 'self-made' female billionaires, according to the report.



Ms. **Jenny Lee**, the Shanghai-based investor, who started out studying electrical engineering - and fittingly perhaps working on jet aircraft - has become one of the most respected investors on the Chinese tech start-up scene⁵⁹. Ms Lee, 43, is a partner at the venture capital firm GGV Capital, has the Midas touch, having led the investments into many Chinese tech start-ups, shepherding them to their public listings on United States Stock Exchanges such as Nasdaq, or bourses in mainland China and Hong Kong. She is the first woman venture capitalist to crack the **top 10 of Forbes Midas List 2015** which has been ranking the top 100 investors worldwide for several years.



Hong Kong tycoon Li Ka-Shing Venture-capital fund led by partner **Solina Chau**⁶⁰ is pursuing deals from Israel to Silicon Valley. Solina Chau, Li Ka-Shing's longtime companion, shown in 2009, struck 20 deals last year as a head of Horizons Ventures. When the venture-capital fund of Li Ka-shing, Asia's richest man, hosted a gathering of its portfolio companies in Shanghai last year, it broke the ice with a scavenger hunt.

The Economic Times published a **study on 187 Indian startups**.⁶¹ The study found that there are only 39 women (8%) among 500 founders; none of the startups have externally hired women as the CEOs. All the women CEOs are in fact co-founders while there are only 2% women COOs. More important, only 7% women are leading finance divisions; only 11% are leading tech divisions.

Women will never acquire a «hot» asset without research, according to a survey conducted by Merrill Lynch investment managers in 2005. And that's why when the romance fizzles out over time, men are often found complaining about their past mistakes, unaware of the exit route. Due diligence, prudent choice and patience are a key to success in any relationships; they are a key to successful investments and ventures as well.

In March 2016 **Indian government announced**⁶², that it launched digital marketing portal for women entrepreneurs. In a bid to strengthen women entrepreneurs, the ministry of women and child development (WCD) launched Mahila e-Haat, an online marketing platform for women. The portal has been set up with an investment of under Rs.10 lakh from the Rashtriya Mahila Kosh—an autonomous body under the WCD ministry for the socio-economic empowerment of women—and sellers can register their products on the platform without having to pay any listing fee. «No money

will be charged, at least till the 31 December 2016, after which the ministry may charge a one-time fee but that again will be very nominal», a senior official from the ministry said. On the day of the launch, about 125,000 beneficiaries under 10,000 self-help groups registered themselves on the portal. The only eligibility criteria to register is that the sellers — any women or women members of a self-help group — have to be above 18 years old to eliminate the problem of child labor. In addition to this, all the sellers are required to show the Mahila e-Haat logo on their products. However, this does not mean they will have to go away with their own brand logos; both can be used at the same time.

Only 30% of India's tech force is made up of women, with 36% of this pool promoted to supervisory positions⁶³. There are predictions that the country's current male to female ratio in tech companies – 76 to 24 – will become 65 to 33 in the next year. In fact, India is still better off than other, more «progressive» countries like the United States, where only 21 percent of the tech workforce is made up of female employees.

This February 2016, **PayPal launched in India** a program to reintroduce women who have taken a minimum of two years off their careers to back into the workforce. The program focuses on women who have a tech background, with at least five years of work experience in product development and analytics. Once the program is completed, ten participants will be considered for an internship or full-time employment at PayPal's offices in either Chennai or Bangalore. Possible roles include software development engineer, scrum master, and risk analyst team leader. The program involves networking opportunities, a shadow-a-leader initiative, and development and training.

The **Headstart Network Foundation** is a group of entrepreneur volunteers that claims to be the largest of its kind in India. It's made up of over 30,000 entrepreneurs, with most of them in the early stages of their businesses. It hosts events every weekend and, in the past few months, has launched one specifically for women. The WE initiative happens once a month in multiple cities across India, and generally features a successful woman entrepreneur, a networking hour, and a mentoring session.

Sheroes is a job portal specifically for educated, professional women. «Until now, most of the conversation has been directed towards empowering women at the grassroots level or getting highly educated women into the boardroom», Sairee explained. «The ones in the middle have been entirely left out».

There are several other «women-forward» initiatives in India. **NASSCOM runs a «Girls in Tech» initiative** to get more women to become entrepreneurs. The Anita Borg Institute's **«Grace Hopper Celebration** is one of the world's largest gatherings of women technologists, which attracted more than 1,600 attendees at its event in India last year.

PART II

FINTECH IS MUCH BETTER THAN BANKS IN TERMS OF DIVERCITY



Actress and producer **Sarah Megan Thomas** married a banker⁶⁴. For years, she used to go out on the Wall Street events, and has became consistently interested in what she calls «the one woman at every work event we went to». Why hadn't anyone made a movie about them, she wondered? So in 2014, she contacted a friend, **Alysia Reiner**, also an actress and a producer (she plays the assistant warden in *Orange Is the New Black*). Reiner was skeptical at first — «Wall Street movies don't necessarily speak to my heart», she recalls thinking — but then she spoke with a management consultant friend whose job was to help workers with Fortune 50 companies to retain a female talent. «I heard extraordinary stories about how women treat each other, and the corporate cultures around women», recalls Reiner, rattling off a bleak statistic about how many young women report that they plan to quit their jobs because they feel overlooked for promotions. «I thought maybe we could tell a story that helps incite change».

Reiner and Thomas soon committed to writing a story about the «gray lines» that exists on the Wall Street for women. Thomas and Reiner hired a playwright/screenwriter they knew, **Amy Fox**, coming to her with the ideas for the three central roles and the rudiments of a story. By October 2014, Fox, Reiner, and Thomas had a draft, which they read aloud at Thomas's apartment for a small audience of friends, colleagues, and the Wall Street folk. By December, the script was nearly ready to circulate to actors. Reiner and Thomas interviewed numerous directors, and selected **Meera Menon**. By spring 2015, the script was sent to the actors. The team got great news: **Anna Gunn**, who had played Skyler White on AMC's *Breaking Bad*, wanted the part of Naomi (main character).

The film pleased audiences at its **Sundance premiere in January 2016**; Sony Pictures Classics announced it would distribute the film. Fox, Reiner, and Thomas had agreed that the more genuinely



feminist gesture for their movie would be to show women in all their complexity—those «gray lines».

Bailey Kursar, Head of Marketing at neo-bank **Mondo**, wrote⁶⁵ some thoughts about why there aren't enough women in fintech? «Knowing a number of women working in London fintech, we frequently talk about the ratio problem. With a few exceptions, 20-30% of the workforce being women seems to be as good as it gets. That's sad, right?» «I honestly think these founders aren't guilty of deliberate sexism. I just think they haven't taken five minutes to think about this problem, or even to recognise that it's a problem at all». «When you think about it, it's actually pretty easy to understand why this problem exists:

- 1 – Fintechs hire from traditional financial services
- 2 – Tech is stupidly male-dominated
- 3 – Fintech founders (generally) come from very male-dominated backgrounds
- 4 – The vicious circle of a macho culture».

«I'm not advocating quotas or special treatment for women (or minorities) in the hiring process. We just need to make sure all processes and cultural decisions are designed to be as inclusive as possible from the start».

Kate Aronowitz, VP of Design at online-trading fintech-startup **Wealthfront** encourages⁶⁶ emerging designers to take on projects, even if they feel like they can't do them: «I've seen so many projects come along that people say: 'I don't want to touch that, that's too hard,' and many times it's a real beast but in the end, somebody's going to become triumphant over that, so I encourage people to just say yes». According to these tips, companies need to invest in women's leadership development initiatives, with a focus on unlearning mindsets—such as perfectionism—that stifle creative confidence. If we want more women leading design, it's important to continue showcasing role models that inspire future generations of women designers to step up.

Females in Venture capital

What's the latest funding stage of startups founded by women

Seed/Angel



(80.6% men)

Early stage (A, B rounds)



(87% men)

Late stage (C round)



(88.2% men)

Main highlights

- **4.2%** of venture capital investors in the US – women
- Only **7%** of venture capital funding in the US goes to companies led by female CEOs, **15.5%** of the US based startups that received funding during 2009 – 2014 had at least one female founder
- **16%** of newly launched venture and micro-venture firms had at least one female founder



10 FEMTECH-LEADERS

IN FINTECH

1

LUCY PENG



Run by Alibaba cofounder Lucy Peng, Ant Financial — who spun off into her own company in 2011 — began as an outgrowth of Alipay, the company's version of PayPal⁶⁷. Since then it has expanded into a full-scale financial services firm. Now it includes a money-market fund, a peer-to-peer lending service, and a microloan program for online entrepreneurs. In February 2015 it announced a fund to seed Hong Kong-based startups that want to do business on Alibaba's platform. And the company is developing Sesame, which will assign credit scores based on Alibaba customer data, thus potentially making it

easier for millions of consumers to get loans — and, from there, to start small businesses, many of which will likely set up shop on Alibaba's platform. A former econ teacher who shuns the spotlight, Peng has two high-profile roles with China's e-commerce giant Alibaba⁶⁸. She is a Chief People Officer — overseeing the 35,000 people working for the company — and the CEO of Ant Financial. Among Ant Financial's six divisions is Alipay, an online payment business with 300 million users that handles more than 80 million transactions per day.

2

MELINDA GATES

BILL & MELINDA GATES foundation



Melinda Gates has cemented her dominance in philanthropy and global development to the tune of \$3.9 billion in giving in 2014 and more than \$33 billion in grant payments since she founded the Bill & Melinda Gates Foundation with her husband in 2000⁶⁹. Her work has inspired other big donors and has changed the way funders think about effective philanthropy: highly targeted campaigns coupled with data-driven monitoring and global collaboration. Much of her attention now is focused on the championing investments into financial inclusion, women and girls around the world.

Along with Bill, she shapes and approves the foundation's strategies, reviews results, and sets the overall direction of the organization⁷⁰. Through her work at the foundation over the last fifteen years, Melinda has seen first-hand that empowering women and girls. Her work has led her to focus increasingly on a gender equity as a path to a meaningful change.

The second of four children, Melinda grew up in Dallas in a hard-working middle-class family⁷¹. She received a bachelor's degree in computer science and economics from Duke University in 1986 and a master's in business administration from the Fuqua School of Business in 1987. After joining Microsoft

Corp. that year, she distinguished herself as a leader in the development of multimedia products and later was appointed as Microsoft's General Manager of Information Products. In 1996, Melinda left Microsoft to focus on her philanthropic work and family.

Bill and Melinda Gates wrote:⁷² «in the next 15 years, digital banking will give to the poor more control over their assets and help them to transform their lives». The key to this will be mobile phones. Already, in the developing countries with the right regulatory framework, people are storing money digitally on their phones and using their phones to make purchases, as if they were their debit cards. By 2030, 2 billion of people who don't have a bank account today will be storing money and making payment with their phones.

And by then, mobile money providers will be offering the full range of financial services, from interest-bearing savings accounts to credits and insurance. «Bangladesh's and Kenya's mobile banking revolution is what we want for all countries».⁷³ Mobile banking can revolutionize the lives of the poor. In the short term, mobile banking could address a number of critical issues, including corruption.

3

ALEXA VON TOBEL



Alexa von Tobel (guest of the «Money of the future» conference), whose startup LearnVest was featured on our list of the world's Most Innovative Companies, sold her company to Northwestern Mutual, sources tell Fortune is more than \$250 million⁷⁴. The startup raised \$75 million in venture capital, with Northwestern Mutual investing in its most recent round.

Von Tobel, a business-school dropout, launched the New York-based company in 2009, and originally targeted it toward women to help them better understand and manage their finances. The site eventually expanded beyond those early ambitions and eventually grew its user base to around 1.5 million visits per month, offering a personalized and education-focused alternative to competitors in the space such as Mint. LearnVest offers some free applications, but also charges for premium services. For example, users can pay to consult with one of the company's on-staff financial planners to get a fuller picture of their financial outlook and how to more smartly budget their money.

The success of LearnVest and other fintech startups provides a number of valuable lessons for young companies in any sector. To start, LearnVest picked a pain point that really needed a solution. Americans are drowning in debt. U.S. consumers owe \$11.52 trillion to lenders and creditors. An astonishing one in three American adults with a credit history are

delinquent on their debt and the average family has \$7,630 in revolving debt.

LearnVest's growth also stemmed from the fact that its target audience was millennials. By focusing on millennials, LearnVest tapped into a valuable and underserved group of consumers.

LearnVest also leveraged data science in order to serve better its customers, building it into a company from the get-go. Data science is essential to building a successful company today. Advancements in a big data, analytics, and machine learning have enabled companies to gain greater insight into their customers than ever before, not to mention a provision of personalized recommendations and even make predictions.

In addition to solving a big pain point, catering to millennials, and leveraging data science, LearnVest also mastered the art of communicating its overarching vision. Alexa von Tobel is more than the CEO of LearnVest — she has emerged as a well known thought leader in the financial tech space. She authored a New York Times bestselling book titled Financially Fearless, actively contributes to prominent news outlets, and regularly speaks at conferences. She has also been named to scores of «top» entrepreneur watch lists, and is widely known as an expert in and advocate for financial health. Her vision and persona have been a major driver in the success that LearnVest has achieved.

4

LISA FALZONE

Revel
SYSTEMS



Lisa Falzone is a Co-Founder & CEO of Revel Systems, an award-winning iPad point of sale solution for single and multi-location small businesses and enterprises⁷⁵. A graduate from Stanford University where she was a competitive swimmer, Lisa led her Silicon Valley-based startup since its creation in 2010 and has been pivotal in turning the often «old school» perception of point of sale on its head, beating out established competitors and new market entrants alike.

She has raised over \$115 million in funding for Revel, inked a strategic partnership with Intuit to deliver QuickBooks point of sale powered by Revel Systems, is working closely with Apple to bring exclusive iOS features to its point of sale customers, and has grown the company to more than 300 employees worldwide.

Lisa's achievements as a young female entrepreneur have been recognized by numerous prestigious awards such as Forbes '30 Under 30', Forbes 'Women To Watch: Eight Rising Stars', Business Insiders «30 Most Important Women Under 30 In Tech», San Francisco Business Times '40 Under 40', and Business

Journal's «Upstart 100».

Lisa Falzone said: «To me, entrepreneurship means starting something out of nothing. Revel Systems, for example, emerged as an idea of an online ordering app. My co-founder and I were working on it, and realized what merchants really needed was a comprehensive iPad POS system - a complete platform that would go beyond simple payments and help businesses grow and succeed. Neither of us had started a business before, and this idea grew out of nothing - that's what it means to be an entrepreneur. A lot of people can be entrepreneurs - they don't necessarily have to start their own company to be entrepreneurial. It can take many forms - a person can be entrepreneurial in their job. Being an entrepreneur is about thinking differently - thinking creatively - and building something that didn't exist before. An entrepreneur must be resilient and creative».

5

JESSICA MAH

 inDinero



In «Forbes 40 Under 40»⁷⁶ you can find her short bio: Mah started her first tech business at 12, founded inDinero at 19, crashed it at 21 and made the cover of Inc's 5000 issue for outstanding three-year revenue growth of more than 2,500 percent. InDinero hired more than 100 employees in 2015 and is on pace to double its staff this year.

Her first job was to sell crayon traced leaf artwork on the playground in the elementary school. She is voracious reader (100 books this last year).

Jessica Mah thought she had the next big thing in Silicon Valley when she and her co-founder launched inDinero⁷⁷ – but soon, her company was rapidly losing money and she couldn't understand why the business wasn't attracting customers... or revenue.

As the CEO of inDinero, she's empowering other startups and small businesses (up to the 100 employee mark or eight figures of revenue) with outsourced accounting and tax services⁷⁸. She answered what entrepreneurship means to her: «It means blood, sweat and tears and joy and teamwork and throwing your whole self into your business so that your team

can all be better off in their careers and in life. Being driven isn't enough; you have to possess a combination of quick, accurate decision making while tempering that with longer term, methodical patience. Everyone says you have to be ready to fail, but also be ready to fail fast. Especially in tech where seconds can be a lifetime, you need to try things aggressively and make the necessary pivots and changes on the fly». «It was one thing to come up with an idea and get funding, but to rise back up from the flames after crashing; that took everything I had and I'll have that in my back pocket to call upon for strength for life. Doing something over, where do I start? Don't hire friends, don't read my own glowing headlines, don't take it for granted that customers are getting everything they want or dream of - the business list is long. Personally, I really skipped over the high school experience by going to Simon's Rock, so I regret not having those experiences - but they made me who I am today - so couldn't have missed too much!?



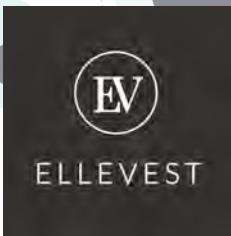
These Wall Street veterans all know who Blythe Masters is⁷⁹. Born in Oxford and educated in economics at Cambridge, Masters came of age at JPMorgan. At the age of 18, she joined its London office as an intern during a year off before university. By her mid-20s, Masters was working on the bank's derivatives team in New York. She helped to design in a way to remove lending risk from JPMorgan's balance sheet by getting another party to protect the bank against a default in return for a premium. The contract, which made it possible to bet a bond would fall in value, was dubbed a credit-default swap, and investors fell in love with it. In 1999, Masters, then 30, was named head of the bank's global credit derivatives unit. She's the wunderkind who made managing director at JPMorgan Chase at age 28, the financial engineer who helped to develop the credit-default swap and bring to life a market that peaked at \$58 trillion, in notional terms, in 2007. She's the banker who later vilified by pundits, unfairly some say, after those instruments compounded the damage wrought by the subprime mortgage crash

in 2008.

Now, one year after quitting JPMorgan amid another controversy, Blythe Masters is back. She isn't pitching a newly minted derivative or trading stratagem to this room. She's promoting something wilder: It's called the blockchain, and it's the digital ledger software code that powers bitcoin. Masters is a CEO of Digital Asset Holdings, a New York tech startup. She says her firm is designing software that will enable banks, investors, and other market players to use blockchain technology to change the way they trade loans, bonds, and other assets. If she's right, she'll be at the center of yet another whirlwind that will change the markets. Masters plans to offer banks and other financial players both options: Digital Asset is creating an off-the-shelf private blockchain product and developing ways to connect its customers to the existing blockchain system.

7

SALLIE KRAWCHECK



In March 2016 Sallie Krawcheck, co-founder and CEO of women-focused digital investment platform Ellevest joined the board of Blythe Masters' Digital Asset Holdings⁸⁰. Ellevest is backed by \$10 million in funding from some of the biggest names in the investment business, including Chicago-based research firm Morningstar and Mohamed El-Erian, chief economic adviser at Allianz.

Both women are veterans of the nation's biggest banks: Krawcheck comes from a long finance career at Bank of America Merrill Lynch and Citigroup. Krawcheck will be in good company on Masters' board, which already boasts a roster of the well-known finance execs, including Catherine Flax, head of commodity derivatives and foreign exchange and local markets, Americas, at BNP Paribas and Sanoke Viswanathan, chief administrative officer of the corporate and investment bank at J.P. Morgan.

Sallie Krawcheck, once a Wall Street titan and now a serial entrepreneur, has been long an important member of the Fortune's Most Powerful Women community⁸¹. So it's fitting that we will kick off each of our six 2016 MPW events with an exclusive piece from Krawcheck. Her first reflects in the series on what she calls her «four careers», and explains why we should all expect to experience a number of thrilling and unexpected pivots throughout our working lives.

«In my 20s, I was an investment banker; in my 30s, a research analyst; in my 40s, I managed and led large, complex businesses; and now that I've entered my 50s, I'm an entrepreneur. Four decades, four separate — but related — careers, each building on what came before». «I can't say I exactly planned it

this way. But nor did it «just happen» to me. Rather, these transitions were the result of some combination of my working in an industry roiled by constant change and my active search for interesting and meaningful work».

«This is because business is changing — fast — and the pace of that change is only going to accelerate. The forces of technology and globalization are fundamentally altering any number of industries. The result: What worked for decades will no longer be a given». «The key traits for success will be curiosity, open-mindedness, intellectual flexibility, and interest in understanding others' perspectives. In my old world, people ran from tech projects — almost literally; they were viewed as always-over-budget time sinks. In the new world, the skillsets for managing these ventures are essential». «Secondly, to successfully navigate a world in flux, you have to embrace a certain intellectual discomfort and a willingness to fail. This one can be tough because we women tend to take a failure harder than men do, personalizing it. For me, being a research analyst was great training because I had to get comfortable being «out there» and making non-consensus calls, even though I was brought up, like most southern young ladies were, not to rock the boat».

«Part and parcel of this: Get comfortable being criticized. This can be another difficult one for us ladies, because so many of us were socialized to prioritize relationships. But change can make people uncomfortable, and so they fight it; if you're moving in a different direction, it can feel like a rebuke».

GLORIA KIMBWALA



First and foremost, Gloria Kimbwala, a campus program specialist at Square, is an engineer⁸². She went through Square's College Code Camp exactly two years ago. Today, she's running it. Code Camp, now in its sixth session, is a five-day program at Square designed to immerse young female computer science or engineering majors in coding workshops, leadership sessions and a hackathon. Kimbwala attended Code Camp when she was pursuing her master's degree, in which she was the only female engineer in her program.

«Because I'm an engineer, I like to look at problems and things I see as problems», Kimbwala told. «My path through technology and through computer science — I was always very aware I was the only minority and the only woman in all of my classes. But I thought it was a problem that only my class was facing, or maybe my college was facing. I wasn't aware that it was a problem that my whole industry was facing».

When Kimbwala went to the Code Camp, it was her first time meeting other female engineers, she said. It was also her first time meeting another African-American engineer. While at Code Camp, Kimbwala learned that the lack of diversity is a problem within tech as a whole, and not just at her school.

When the opportunity to run the Code Camp came about, Kimbwala jumped on it because she saw it as a way to make a big impact on diversity in tech from the inside. «So I started to look at it very technically and think, «Ok, what are the problems that we'd like to solve?» and for me, it was diversity», Kimbwala said. «It's something that very directly affects me and I thought that I at least had a perspective and an insight where I could make some true headway if I tackled this specific problem».

Before Kimbwala officially started running Code Camp at Square, she assisted Square Head of Diversity and Inclusion Vanessa Slavich, who started the

Code Camp. Kimbwala selected 20 young women currently enrolled as full-time students at either an American or Canadian university pursuing computer science, computer engineering or some other related technical field. As a part of the program, campers had the opportunity to work with Square engineers building code, meet with Square executives like Jack Dorsey and Square CFO Sarah Friar, and participate in a hackathon.

During their five-day trip to San Francisco, the campers took tours of tech companies like Yelp and Twitter. They also participated in workshops around iOS, Ruby on Rails, hardware, data science and security. On the last day of the program, the campers presented their hackathon projects. The assignment was to build a web app that helps to connect past, present and future Code Campers.

Through the Code Camp, Kimbwala wants to help every young woman who goes through the program to realize that they have a place at Square, and in the tech industry in general.

This year, Kimbwala has committed to spending 500 hours doing service within under-represented communities. If she hits those hours by June, she's going to bump it up to 1,000. Ultimately, Kimbwala sees herself pursuing the computer engineering as a career. «This year I'm learning Swift and iOS design», Kimbwala said. «It tends to itch — the coding part of me — and then I start to see problems I want to solve. I'm always looking for the next hackathon that I can work on. I'm an engineer and even when I interviewed [with Square], I let them know I'm an engineer first and foremost. You're not really going to be able to take that away from me, so at some point I'll probably transition into engineering. I think the world needs to see that too».

9

LEANNE KEMP



Leanne Kemp has set herself an ambitious goal: stamping out a diamond fraud and theft. She's the founder and CEO of Everledger, a startup launched in 2015. It has built a global digital ledger — the first of its kind — that collects dozens of cross-reference-able data points on each recorded diamond in an attempt to inject transparency into the market and eliminate associated criminal activity. And that's just the beginning — after the diamonds, there are many areas to use Everledger: fine arts, expensive watches and cars, etc.

Britannia Mining, Inc., announced⁸³ the formation of a strategic alliance with Everledger. Everledger is a UK based company that is capturing the full DNA of certified diamonds and uploading that to its ledger stored on the Blockchain. The ledger is immutable and functions as a secure, verifiable information source that makes it possible to track the prove-

nce of the diamonds. In January Everledger has won⁸⁴ \$10,000 as money prize at the **FinTech Finals 2016** in Hong Kong. The startup also awarded⁸⁵ a €30,000 prize (\$33,939) on **BBVA's European Open Talent** competition (September' 2015) as well as an invitation to develop a project with the multinational bank. In 2015 Everledger was launched and took part in the **Barclays Techstars accelerator**⁸⁶ ending in June. Everledger began with the diamonds, but they had far larger ambitions. The startup is looking forward to moving into other luxury goods, she says, and is talking to select retailers with an eye to including high-end watches in the next 100 days. Again, the benefits are obvious: proof of ownership, tackling fraud, and a deterrent to theft. An API could also be offered to online retailers like Amazon or eBay to help to prevent stolen goods being resold through their platform.

10

ANNA
POLISHCHUK

allset



Anna as a COO and Stas Matviyenko as a CEO founded their first fintech-startup AdviceWallet in Kiev about three years ago. More than one year ago they relocated to San-Francisco and launched their new venture – AllSet. Many people definitely had moments where they frantically flagging down a waiter because everything's taken longer than expected, leaving them to try to pay the check and get to their next meeting in just a few minutes. One (sad) solution is to eat at your desk, but Allset is taking a different approach⁸⁷, by making the sit-down lunch process more efficient. You can make a reservation, place your order and even pay directly from

the app. Then when you get to the restaurant, you just tell them your name, and you would be seated and served in short order. There are other services tackling reservations, payments or both, but are not combined with food ordering in this way, with the goal creating a faster dining experience. In fact, Allset says it can shave up to 40 minutes from your meal time. Aj Agrawal, CEO of Alumnify, wrote⁸⁸. «This past year I received 200 pitches from food companies. This one was my favorite». «I believe Allset became groundbreaker for the food tech market in 2015 and will look forward to see its launch nationwide».

4 GREAT FINTECH-

ACTIVITIES FOR DIVERCITY

SUPPORT



1. Alibaba and Ant Financial (AliPay)

As the conversation around women in technology takes hold in the West, Alibaba is grabbing the reins of the dialogue in the East. The Chinese e-commerce company, which counts six women among its 18 founders, in May 2015 hosted a two-day conference and workshop this week starring its own female executives as well as the Queen of the Netherlands, actress Jessica Alba, and Huffington Post founder Arianna Huffington.

It attracted 500 attendees from across China's business, fashion, technology and media industries and featured talks by prominent Chinese females executives including Alibaba CFO Maggie Wu and co-founder Lucy Peng (CEO of AliPay) as well as Didi Dache president Liu Qing.

Alibaba's corporate affairs executive Jennifer Kuperman said: «Women have been such a core part of what makes us successful», noting both the internal impact as well as the external, considering that about 50 percent of sellers on its giant Taobao shopping site are women.

Alibaba says about 35 percent of its executives are women, which is a significantly higher ratio than that of American tech companies like Apple, Amazon, Facebook and Twitter. At the high end, Apple's leadership ranks are 28 percent women, while Twitter's are 21 percent, according to statistics the companies self-reported last year.

While the Silicon Valley is still chasing its tail when it comes to hiring more women, Chinese e-commerce giant Alibaba's founder, Jack Ma, thinks they're his company's «secret sauce».

Alibaba used the event to promote female entrepreneurship and showcase its own gender diversity, which puts most tech companies to shame. The company also says that more than 40% of its total workforce are women. «Men think about themselves more; women think about others more», Ma said. «Women think about taking care of their parents, their children».

In January 2015 Ant Credit, a company affiliated with e-commerce giant Alibaba, announced that it will set up a financing program for female entrepreneurs in China with a 500 million RMB (\$80 million) loan from International Finance Corp (IFC). The loan program can potentially boost the amount of borrowers who use Ant Financial's services. Ant Credit provides small online loans and says many of its current clients are women who sell products on Alibaba marketplaces Taobao and Tmall. It claims that half of the businesses owned by women on those sites are already available for loans.

(If you're a young, female creative type, Etsy is also the place to be: the online marketplace divulged that 30% of its sellers rely solely on their creative endeavors, both on and off Etsy, as their primary source of income. And women make up an overwhelming majority of Etsy's vendors - 86%, to be exact.)

Ant Credit's new program, which it calls the «first Internet-based gender-finance program in China» is a partnership between Ant Financial Services Group, which runs Ant Credit; IFC; and Goldman Sachs' 10,000 Women Initiative, an entrepreneurship program for women in emerging markets.



2. NAB (National Australia Bank)

In February 2016 NAB extended its female employee job swap program to its other major tech partners, after the first exchange program with Microsoft was a success. The bank was inundated with requests from other businesses wondering how to orchestrate such a program, and other tech companies wanted to be involved in a swap with the initiative (part of NAB's Women in Technology initiative).

NAB's general manager of support services technology, Dayle Stevens, said the program helped the participants broaden their horizons and build confidence. «Lots and lots of companies have asked how we made it work, because there are lots of barriers doing these things», she said.

«Companies like Microsoft, that we already have close relationships, with we'll progress with».

The initiative is just one of many NAB has implemented since starting the Women in Technology program almost two years ago. The bank has also taken groups of female tech employees to India to learn about the country's tech businesses, runs learning and development sessions and has quarterly forums with influential speakers. Since the program was implemented, the number

of NAB women in senior tech roles has jumped from 18% to 24%.

Ms Stevens, who launched an initiative by the IT recruitment firm Peoplebank to connect 100 female job seekers with major technology employers, said executives needed to walk the walk, not just to talk the talk, in fostering a diverse and flexible workplace. «Leaders need to take diversity seriously and actually lead the change. It can't just be a one-off morning tea for International Women's Day, it has to be consistent and you need to live the change as well, not just put targets in place», she said. After the event, Ms Stevens said she would be following up with 10 candidates about possible roles at NAB.



3. Addepar

While heritage banks and traditional wealth managers continue to rely on spreadsheets and crunching numbers to assess risk, startups such as Addepar and ZestFinance are aiming to do what their established counterparts are unwilling or unable to try .

Addepar (named one of the Fast Company's Most Innovative Companies this year) is like wealth management 3.0. The company has created a financial dashboard for the advisers, working with the 1% to mitigate risk from investment portfolios.

Barbara Holzapfel, Addepar's CMO, tells that overall, 20% of its employees are female. The management team is made up of 30% women, including the CFO, CMO, and the VP of people. With more than three-quarters of its staff under age 35 (and understanding how views of diversity are changing), Holzapfel says the company is actively working towards inclusion of all ages, genders, skills, and backgrounds.

In addition to making sure there are women in leadership roles, Holzapfel says one particularly effective strategy is to actively recruit them from seemingly disparate industries. «In many cases, as long as a candidate shares your vision and core values, you can likely teach them job-specific skills and processes», she asserts. For entry-level positions, Addepar looks to organizations such as the Anita Borg Institute for Women and Technology, and events like that organization's Grace Hopper Celebration of Women in Computing. Holzapfel says rather than focusing on top schools, Addepar prioritizes attending job fairs at a variety of schools, including all-women colleges.

More importantly, Holzapfel says there is an emphasis within the company to keep having conversations about gender diversity. «We've adopted a practice of regular all-hands meetings where we boldly encourage open conversations about the topic, during which men and women can share articles, posts, and personal experiences», she says. That means that every Monday there is an «ask me anything» session led by Addepar's CEO Eric Poirier.



4. ZestFinance

ZestFinance, founded by former Google CIO Douglas Merrill, aims to cut risk from lending by analyzing big data. At ZestFinance, CEO Douglas Merrill takes the company's role as a job creator seriously and has baked diversity into its corporate culture. Starting from the ground up requires making the decision that diversity is core to winning. «It will never happen if it's viewed as a side effort heralded by HR people and a few people on the legal team who think it's important», he maintains.

Currently, more than 40% of the workforce are women and 50% of its C-suite are women. That happened due to a careful hiring process that Merrill says, surfaces a variety of diverse candidates. There is also no hiring manager at ZestFinance. Committee does it all. A designated team also assesses candidates based on the cultural fit. «This way, many people with diverse perspectives are involved in hiring decisions, and all employees rally around a new Zestian to make them feel comfortable and enable them to succeed», he says.

«If you believe diverse perspectives are the key to winning, then you need to actually hear them», he says, «which means you also need a corporate culture that encourages everyone to speak up». Merrill explains: «Diversity implies different use of language and different assumptions, which means there will be misunderstandings and conflict». That's not always easy, he says, but it is something that the culture enables, making people feel safe when it does arise.

RANKINGS

E27. [Top women in tech](#)

Name	Company	Position	Country
Jean Liu	Didi Chuxing	President	China
Gwendolyn Regina	Mashable	Asia Pacific's Director of Strategy and Business Development	USA
Roshni Mahtani	Tickled Media	founder and CEO	Singapore
Alexis Horowitz-Burdick	Luxola	founder and CEO	Singapore
Jiawen Ngeow	Megafash	founder and CEO	Singapore
Hooi Ling Tan	Grab	co-founder	South Korea
Ai Ching Goh	Piktochart	CEO	Malaysia
Cheryl Yeoh	MaGIC	CEO	Malaysia
Lais de Oliveira	8spaces	founder	USA
Maria Ressa	Rappler	founder and CEO	Philippines
Aisa Mijeno	SALT	co-founder and CEO	Philippines
Valenice Balace	Peekawoo	founder and CEO	Philippines
Minette Navarrete	Kickstart Ventures	Vice-Chairman and President	Philippines
Reese Fernandez-Ruiz	Rags2Riches	President and Founding Partner	Philippines
Marilyse Tan	BeamAndGo	co-founder	Singapore
Shannon Kalayanamitr	Orami	founder and Group CMO	Indonesia
Shinta W. Dhanawardoyo	"bubu.com Nusantara Ventures"	"founder managing partner"	Indonesia
Esther Nguyen	POPS Worldwide	founder	Vietnam
Diajeng Lestari	HijUp	founder	Indonesia
Ketut Sulistyawati	Somia Customer Experience	founder	Indonesia
Nancy Margried	Piksel Indonesia and Batik Fractal	founder	Indonesia
Cynthia Tenggara	Berrykitchen	founder?	Indonesia
Catherine Tan	Notey	co-founder and CEO	Hong Kong
Melissa Guzy	Arbor Ventures	Founder and Managing Partner	Hong Kong
Juliette Gimenez	Goxip	co-founder and CEO	Hong Kong
Anisha Singh	mydala	co-founder	India
Sairee Chahal	SHEROES	founder	India

CB Insights: [VC Partners](#)

Name	Company	Position	Country
Jenny Lee	GGV Capital	Managing partner	Singapore
Rebecca Lynn	Canvas Ventures	Partner	USA
Mary Meeker	Kleiner Perkins Caufield & Byers	General Partner	USA
Ann Lamont	Oak HC/FT	Managing Partner	USA
Beth Seidenberg	Kleiner Perkins Caufield & Byers	General Partner	USA

Asia's 50 Power Businesswomen 2016

Name	Company	Position	Country
Nita Ambani	Reliance Industries/Reliance Foundation	Director/Chairman	India
Arundhati Bhattacharya	State Bank of India	Chairman & Managing Director	India
Cao Thi Ngoc Dung	Phu Nhuan Jewelry	Chairman & CEO	Vietnam
Somruedee Chaimongkol	Banpu	CEO	Thailand
Sabrina Chao	Wah Kwong Maritime Transport Holdings	Chairman	Hong Kong
Solina Chau	Horizons Ventures	Cofounder	Hong Kong
Eva Yi-Hwa Chen	Trend Micro	Cofounder & CEO	Japan

Sonia Cheng	Rosewood Hotel Group /New World Development	CEO/Executive Director	Hong Kong
Chew Gek Khim	Straits Trading	Executive Chairman	Singapore
Yuwadee Chirathivat	Central Department Store Group	CEO	Thailand
Pollyanna Chu	Kingston Financial Group	CEO	Hong Kong
Chadatip Chutrakul	Siam Piwat	CEO	Thailand
Lorna Jane Clarkson	Lorna Jane	Founder &Chief Creative Officer	Australia
Ambiga Dhiraj	Mu Sigma	CEO	India
Dong Mingzhu	Gree Electric Appliances	Chairman & President	China
Dipali Goenka	Welspun India	CEO	India
Robina Gokongwei-Pe	Robinsons Retail Holdings	President & COO	The Philippines
Vinita Gupta	Lupin	CEO	India
Ho Ching	Temasek	Executive Director & CEO	Singapore
Tina Ju	KPCB China, TDF Capital	Founder & Managing Partner	China
Shinta Widjaja Kamdani	Sintesa Group	CEO	Indonesia
Chanda Kochhar	ICICI Bank	Managing Director & CEO	India
Lee Boo-jin	Samsung C&T Trading and Investment Group	President & CEO	South Korea
Angela Leong	SJM Holdings/ L'Avenue International Holdings	Managing Director/Chairman	Macau
Susan Lloyd-Hurwitz	Mirvac	CEO and managing director	Australia
Vandana Luthra	VLCC Health Care	Founder & vice chairman	India
Ma Xiuwei	Opple Lighting	Cofounder & CEO	China
Kiran Mazumdar-Shaw	Biocon	Founder, Chairman & Managing Director	India
Mou Jinxiang	Lianhe Chemical Technology	Cofounder & Chairman	China
Tomoko Namba	DeNA	Founder & Chairman	Japan
May Ng	Pan-United	CEO	Singapore
Nguyen Thi Phuong Thao	Sovico Holdings	Cofounder & chairman	Vietnam
Kumiko Otsuka	Otsuka Kagu	President	Japan
Nalinee Paiboon	Skyline Unity	Founder & President	Thailand
Sky Park	E-Land	Vice President	South Korea
Lucy Peng	Ant Financial	CEO, Ant Financial; Chief People Officer, Alibaba	China
Wendy Pye	Wendy Pye Publishing Group	Founder & CEO	New Zealand
Gina Rinehart	Hancock Prospecting	Executive Chair	Australia
Kathryn Shih	UBS Asia Pacific	President	Hong Kong
Parwati Surjaudaja	Bank OCBC NISP	President Director & CEO	Indonesia
Teresita Sy	SM Investments/Banco de Oro Universal Bank	Vice Chairman/Chairman	Philippines
Chiyo Terada	Art Corp.	Cofounder & President	Japan
Thai Huong	TH Group/Bac A Bank	Chairman	Vietnam
Patty Pei-Chun Tsai	Pou Chen Group	CEO	Taiwan
Supaluck Umpujh	Mall Group/Emporium Group	Vice Chairwoman/Chairman	Thailand
Jane Yan	Beijing Venustech	Founder, Chairman &General Manager	China
Wendy Sui Cheng Yap	Nippon Indosari	Cofounder, President Director & CEO	Indonesia
Zhou Qunfei	Lens Technology	Founder, Chairman & General Manager	China
Zhou Xiaoguang	Neoglory Holdings Group	Cofounder & Chairman	China
Zhu Chongyun	Shenzhen Marisfrolg Fashion	Cofounder & Chairman	China

MOST POWERFUL WOMEN: ASIA-PACIFIC

Name	Company	Position	Country
Chua Sock Koong	Singapore Telecommunications	Group CEO	Singapore
Nishi Vasudeva	Hindustan Petroleum	Chairman and Managing Director	India
Li Dang	China General Technology	President and Director	China
Wang Fengying	Great Wall Motor	CEO and Executive Director	China
Rose Lee Wai Mun	Hang Seng Bank	CEO and Vice Chairman	Hong Kong
Shikha Sharma	Axis Bank	CEO and Managing Director	India
Kwon Seon-joo	Industrial Bank of Korea	CEO and Chairman	Korea
Wu Yajun	Longfor properties	Chairman	China
Cher Wang	HTC	CEO and Chairwoman	USA
Maggie Wu	Alibaba	CFO	China
Hyun Jeong-Eun	Hyundai Group	Chairwoman	South Korea
Wei Sun Christianson	Morgan Stanley	Co-CEO, Asia-Pacific and CEO, China	China
Rachel Duan	GE Greater China	SVP, General Electric; President and CEO	China
Sun Yafang	Huawei Technologies	Chairwoman	China
Alison Watkins	Coca-Cola Amatil	Group Managing Director	SEA / APAC
Sheila Patel	Goldman Sachs	CEO of International Goldman Sachs Asset Management	Singapore
Marjorie Yang	Esquel	Chairman	Hong Kong
Zhang Xin	Soho China	CEO	China

21 Women Disrupting Tech

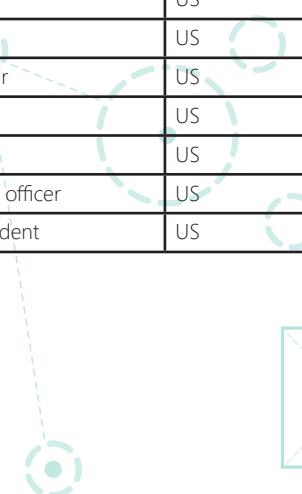
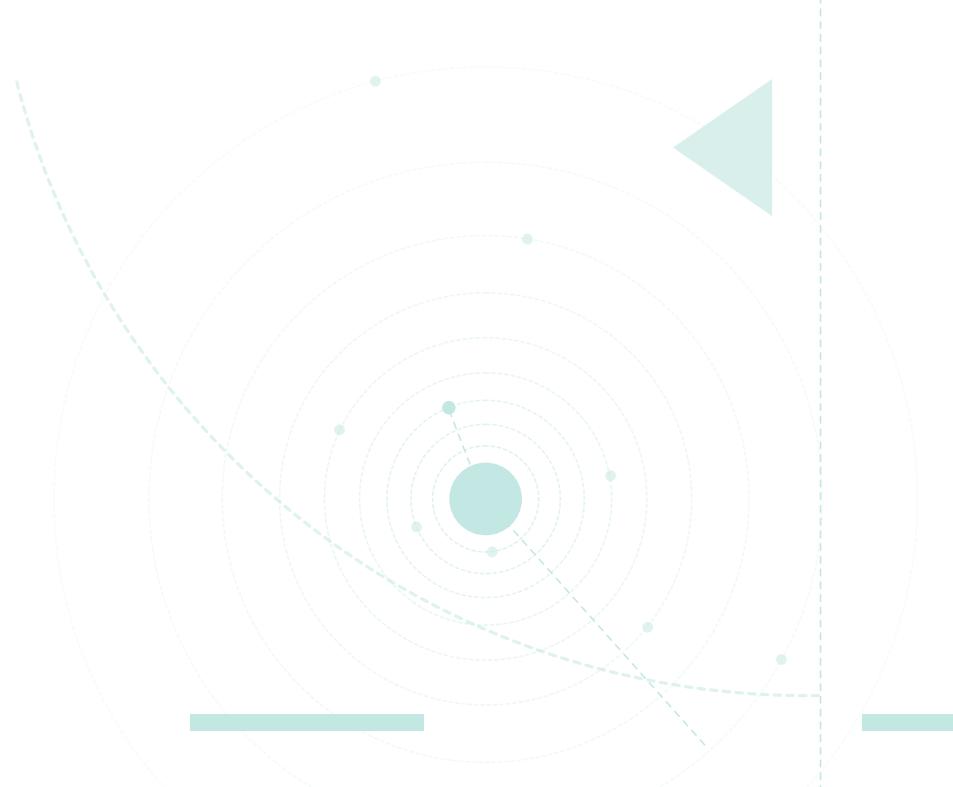
Name	Company	Position	Country
Megan Smith	White House	CTO	USA
Sarah Tavel	Greylock	Partner	USA
Payal Kadakia	ClassPass	CEO	USA
Freada Kapor Klein	Kapor Capital	partner	USA
Erica Baker	Slack	build and release engineer	USA
Angela Ahrendts	Apple	SVP of Retail and Online Stores	USA
Angelica Ross	TransTech Social	CEO	USA
Amber Lucas	Tesla Motors	Senior Technical Manager	USA
Joelle Emerson	Paradigm	CEO	USA
Laura I. Gómez	Atipica	founder	USA
Nicole Sanchez	GitHub	Social Impact	USA
Kimberly Bryant	Black Girls Code	CEO	USA
Anne Wojcicki	23andMe	CEO	USA
Stephanie Lampkin	Blendoor	founder and CEO	USA
Tracy Chou	Pinterest	software engineer	USA
Sheryl Sandberg	Facebook	COO	USA
Tiffani Ashley Bell	Detroit Water Project	co-founder and executive director	USA
Padmasree Warrior	NextEv	U.S. CEO	USA
Susan Wojcicki	YouTube	CEO	USA
Gwynne Shotwell	SpaceX	President and COO	USA
Laura Weidman Powers	CODE2040	CEO	USA

Greatest Fem Leaders

Name	Company	Position	Country
Reshma Saujani	Girls Who Code	Founder and CEO	US

Power Women

Name	Company	Position	Country
Sheryl Sandberg	Facebook	COO	US
Susan Wojcicki	Youtube, Google	CEO	US
Ginni Rometty	IBM	CEO	US
Meg Whitman	HP	CEO	US
Abigail Johnson	Fidelity Investments	President CEO	US
Marissa Mayer	Yahoo	CEO	US
Safra Catz	Oracle	Co-CEO	US
Ursula Burns	Xerox	Chair - CEO	US
Ruth Porat	Google	CFO	US
Laurene Powell Jobs	Emerson Collective	Founder and Chair	US
Renee James	Intel	President	US
Amy Hood	Microsoft	CFO	US
Padmasree Warrior	Cisco Systems	CTO and Strategy officer	US
Weili Dali	Marvell Technology Group	Cofounder - President	US



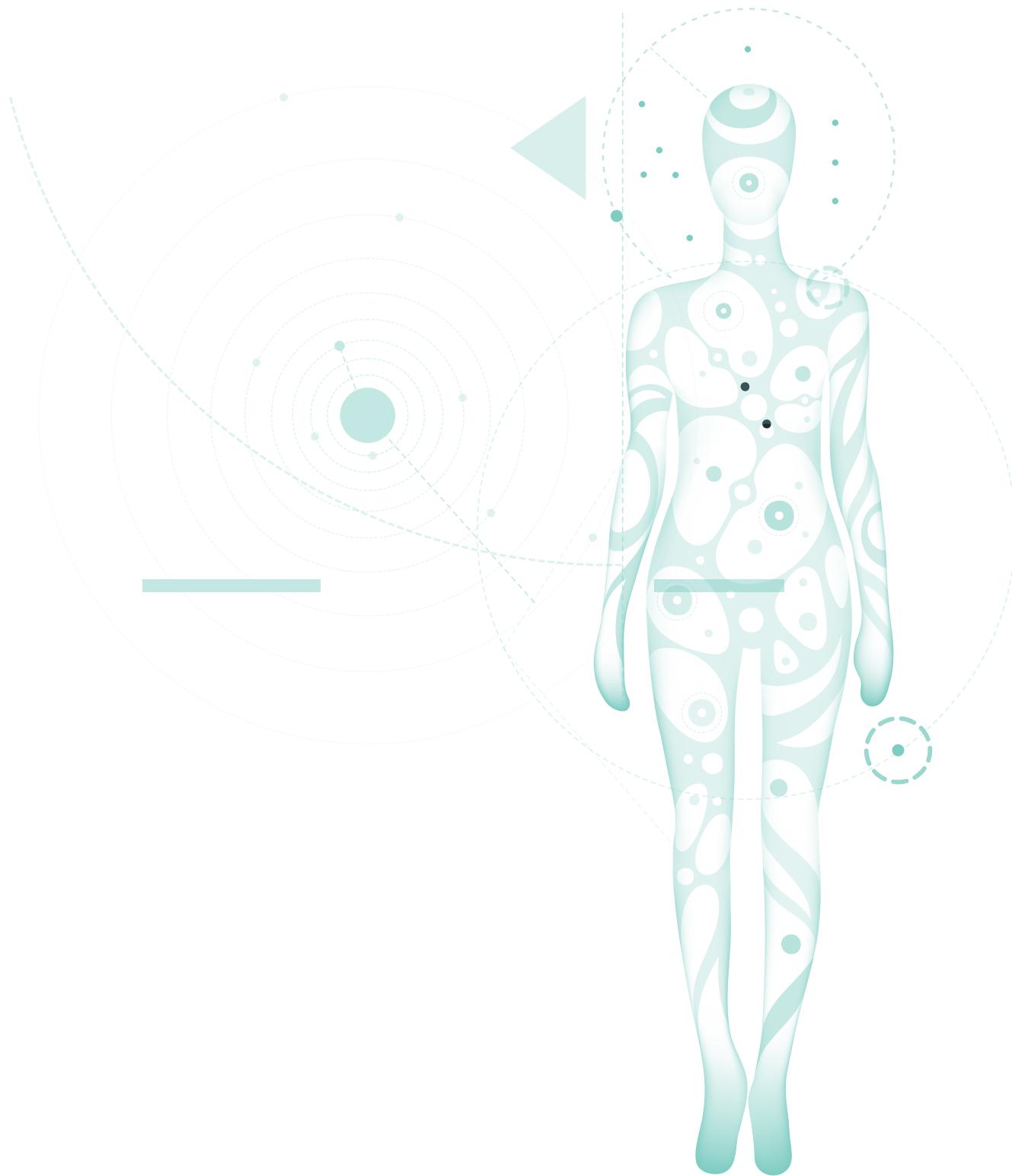
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