



# LIFTING THE LID ON FINTECH

WHAT DOES NEW TECHNOLOGY MEAN  
FOR A FINANCIAL SYSTEM THAT SERVES  
PEOPLE AND PLANET?

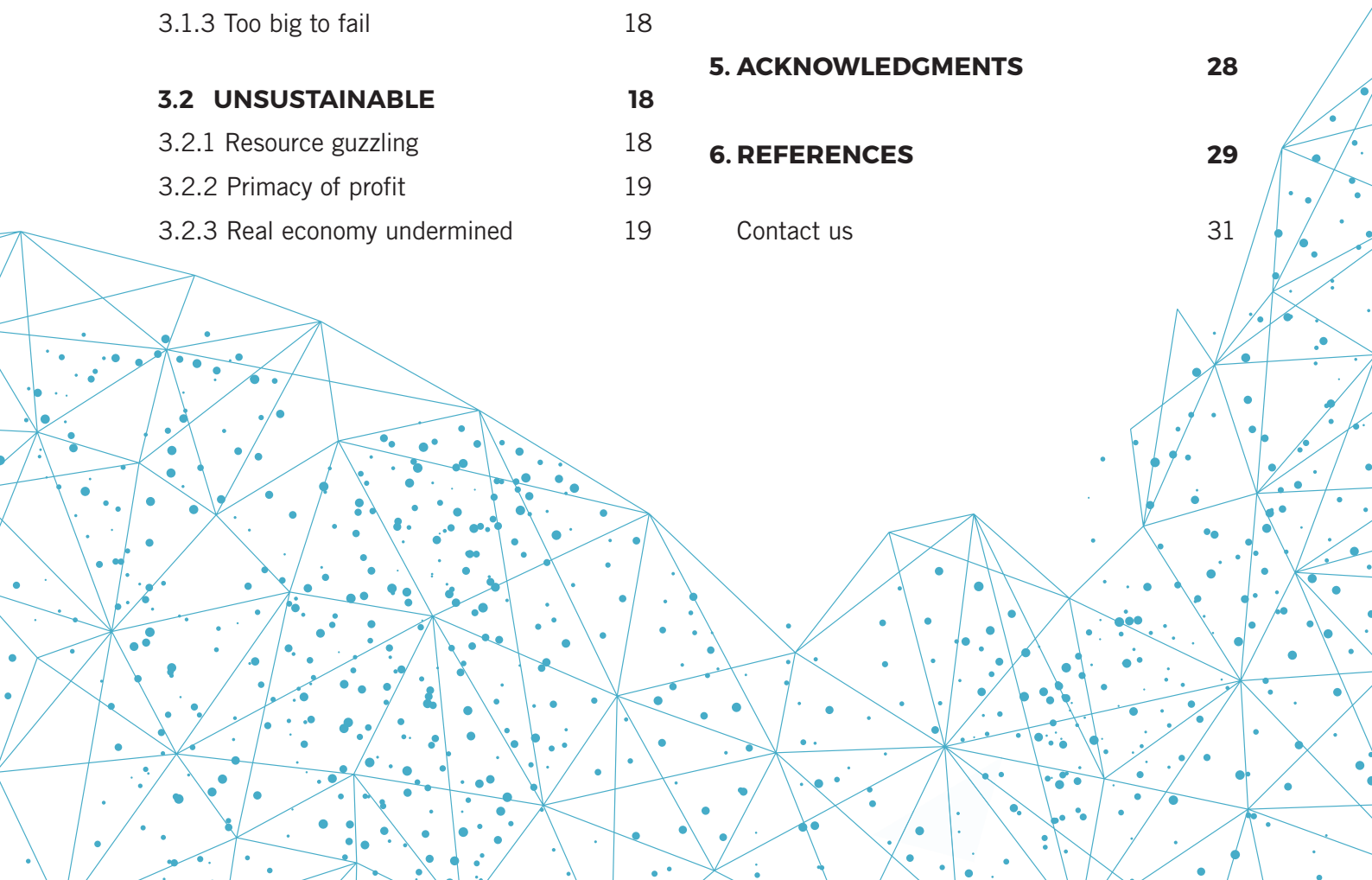


DECEMBER 2020

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# EXECUTIVE SUMMARY

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Technology-driven innovation in finance – fintech – is accelerating. The use of ‘contact-less’, online banking, and e-commerce is already widespread in the UK. COVID-19 has further catalysed this transition. More than ever, we need a financial system that serves people and planet. Could fintech be the answer?

This report looks beyond specific new products to explore how fintech is transforming finance on a systemic level. It examines three main areas in detail.

The first – **fintech today** – uncovers the new data, analytical tools, business models, and businesses underpinning the speed and convenience of 21st century finance. We consider the ‘alternative data’ – including social media activity, browsing history, and data captured on mobile phones – that financial services firms increasingly combine with traditional financial data. We meet the new players entering finance, and rising in dominance. These include new start-ups such as Klarna and Revolut, data brokers such as Experian, and payments companies such as Visa and Mastercard.

The most significant technology-driven business model in the economy today is the ‘platform’ model, developed by the ‘Big Tech’ companies such as Apple, Amazon, Google and Facebook, whose market valuation rose

to over \$5 trillion for the first time in the second quarter of 2020. This is equivalent to nearly one fifth of the value of the entire S&P 500 stock market index. We identify a growing relationship between finance, fintech and Big Tech, which arises from:

- 1. Big Tech becoming a financial services provider;**
- 2. Fintechs, banks, and other financial services firms developing and learning from the platform model;**
- 3. Finance being reliant on critical digital economy infrastructure controlled by Big Tech, including web hosting, data analytics, the cloud, and ID services.**

The second section of the report explores four key areas in which this relationship can exacerbate and create new **risks** in finance: democracy, sustainability, justice and resilience.

**Undemocratic** – Fintech is widening the democratic deficit by handing unprecedented power to the financial services industry and Big Tech. Firms collect and process increasing amounts of data about us – but not necessarily *for us* – without transparency or accountability. New business models, sometimes known as ‘surveillance capitalism’, seek to predict and even influence our behaviour. We are also seeing the establishment of new institutions that are too big to fail. How can politicians credibly hold to account the firms that society relies upon to run the digital economy?

**Unsustainable** – The financial system should help to meet society’s long-term needs and support human flourishing on a thriving planet. While going digital presents opportunities to reduce the environmental impact of financial operations, the values currently underpinning fintech risk working against our social and sustainability goals. For example, investment powered by artificial intelligence (AI) trained to maximise profits could automate capital to shift into fossil fuels, working directly against our climate change targets. At the same time, AI is anticipated to drive the creation of just 10% of the jobs it will destroy in the finance sector over the next decade.

**Unjust** – The financial system should promote social justice and protect human rights. Fintech currently appears to be developing to serve business interests and the wealthy. Nearly 12 million people in the UK do not have the essential skills needed to benefit from, participate in, and contribute to, a digital society. The strongest predictor for reliance on cash is poverty. The business models fintech empowers, and the way technology is employed, risk exacerbating poverty and inequality, discrimination, and marginalisation. For example, personalisation undermines the principle of mutual aid, and risks making insurance inaccessible to the most vulnerable. There is evidence that machine learning models can entrench racism in the mortgage market compared to more traditional models.

**Unresilient** – Rather than contributing to a financial system that provides security and stability for all, fintech is driving systemic risks that arise from a platform monoculture, market instability – caused by firms using AI build from similar models and trained on similar data – and almost constant cyber-attacks.

The third and final section of the report asks what it will take to **transform fintech** for good. It is not inevitable that fintech will continue along its current trajectory. There are many examples, including from Lab community members, that help show an alternative approach is possible.

The systemic change necessary will require the state to intervene and set appropriate rules and regulations to stand up for our rights and collective interests. The dominance of platform, surveillance-based business models in Big Tech, and now finance, is enabling a major and dangerous accumulation of corporate power. We cannot resist it individually.

There are major opportunities for innovative policymaking and regulation to help realise fintech's positive potential. We propose seven principles to guide financial policymaking and regulation.

- 1. Put social and environmental purpose at the heart of policy-making – ahead of competitiveness and growth.** For example, in our view, the current Fintech Strategic Review should include an objective to maximise the social and environmental benefits of fintech; ahead of the stated objectives of growth in the sector, increased consumer adoption, and advancing the UK's global reputation for innovation.
- 2. Develop fintech in a way that is transparent and accountable to citizens.** Key decisions that will shape the future of finance are being determined by new forums, infrastructure bodies and policy initiatives. Members of the public and their representatives should be included and supported to participate in order for fintech to be ultimately shaped by society's needs – not just the interests of tech firms and financial institutions.
- 3. Create non-market alternatives to Big Tech, run in the public interest.** We need to disentangle fintech and finance from Big Tech. It is not safe for essential services like finance to be heavily reliant

on media and advertising companies for critical infrastructure. Alternatives to for-profit corporate-owned cloud computing, hardware, algorithms – and more – must be created and supported to flourish.

- 4. Rebalance the playing field in favour of purpose-driven fintech.** Support and incentives should be provided for purpose-driven fintech led by organisations that embed social and environmental purpose in their mission, culture, business models, and governance and ownership structures.
- 5. Moderate data's potential to undermine financial service provision and create vulnerability.** Data collection should be better regulated to ensure that it leads to service improvements (especially for the most marginalised people) and does not undermine access to essential services such as insurance.
- 6. Protect and empower consumers and citizens, especially those facing the greatest risk of discrimination and vulnerability.** The public must be protected from the increasing and unprecedented power of fintech through commensurate regulation.
- 7. Build and draw upon an independent evidence base.** There is an urgent need to fill the research and evidence gap about the impacts of fintech on people and planet. It is our view that the Treasury should work with the Bank of England and Financial Conduct Authority to commission independent research and ensure that any claims made about the benefits of fintech (eg that it promotes financial inclusion) are backed up by evidence.

**We would welcome a multi-stakeholder commission to take this important agenda forward\_**



# 1. INTRODUCTION

Following the Global Financial Crisis of 2007-8, ‘fintech’ promised a new and better way forward for finance in the UK.

*“The term “FinTech” is used interchangeably to describe both technology -driven innovation across financial services and to pick out a specific group of firms that combine innovative business models with technology to enable, enhance, and disrupt the financial services sector.” — HM Treasury 2018<sup>1</sup>*

*“Fintech advocates argue it will democratise finance, give consumers more choice, better targeted services and keener prices. SMEs will get access to credit. Banks will become more productive, with lower transaction costs, greater capital efficiency and stronger operational resilience. The financial system will become more resilient, with greater diversity, redundancy and depth. And it will be more inclusive — with people better connected, more informed and increasingly empowered.” — Mark Carney (ex-Governor Bank of England) 2017<sup>2</sup>*

Today, the Government has ambitions for the UK fintech sector to become a world-leading contributor to economic growth and international trade.

*“And I believe you will see a Britain that is more united than for decades in its constitutional settlement, where Brexit has delivered a new excitement and verve... and the ability to do things differently and better, from innovation in tech and data and finance to improving our standards of our animal welfare.” — Boris Johnson (Prime Minister) 2020<sup>3</sup>*

*The UK is one of the leading places in the world to start and grow a fintech firm, and I am determined to ensure this continues. The sector is worth around £7 billion to our economy and will therefore be vital in ensuring both that the country bounces back post- Coronavirus, and continues to be at the forefront of financial innovation now we have left the EU.” — John Glen (Economic Secretary to the Treasury) 2020<sup>4</sup>*

Rapid technological change and an expanded digital economy have also driven the growth of the fintech sector over the past decade.

By now, fintech has directly touched most people's lives in the UK. A majority use online banking, there is a long-term trend to pay via 'contactless' or other digital means rather than with cash, and rising numbers are aware of new finance apps and brands, such as Monzo, Klarna, Revolut and Starling Bank.

But many people feel uncomfortable about the pace of change underway. Three quarters think a move towards a cashless society is happening too fast<sup>5</sup>, and the decline of high street banking leaves half of the population feeling pessimistic about the future.<sup>6</sup>

Despite the essential role financial services perform in our lives, the positive role they can play in our economy and society, and the build-up of urgent social and environmental challenges, too little is understood about this vital question: **What is the role of fintech in building a financial system that serves people and planet?**

This report puts forward an alternative perspective on fintech – one that is grounded in a vision for a financial system that is democratic, sustainable, just and resilient. It draws on new research from academics, policymakers, civil society organisations and industry, as well as insights from the Finance Innovation Lab's community and incubation work. The analysis is critical, but also hopeful. From here, we can expand our ambitions for the future of finance, and better understand how to identify and support financial innovations that will genuinely improve our lives.

By looking beyond industry-led hype and individual products, and instead exploring the economic and business models associated with fintech, it becomes apparent that a rewiring of our financial system is underway. This has implications for people's livelihoods, for social justice, and for freedom.



# IT'S TIME TO LIFT THE LID ON FINTECH\_

# 2. FINTECH TODAY

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## 2.1 WHAT IS FINTECH?

Fintech is a hybrid of ‘financial technology’. The term is used to refer to a raft of innovations that result in new financial services businesses, business models, and processes. It is enabled by technological developments that include increasingly powerful computing, advances in Big Data, artificial intelligence (AI) and cryptography, and the near-ubiquity of the internet and smartphones.

Today, fintech can be found everywhere in finance. It is the ‘contactless’ cards, mobile apps, and online platforms that we use to make payments digitally. It is online banking and personal finance apps. It is the trails of digital information about our financial lives that firms collect and analyse, and which make up our credit scores. It is the AI deployed to help detect fraud and to price insurance. It is the algorithms that enable global trade and investment to happen at increasingly fast speeds. It is the shared ‘distributed ledger’ databases providing new infrastructure to move digital currencies – from pound sterling to Bitcoin – between institutions and people.

The finance sector is changing fast. 10 years ago, six in 10 payments in the UK were made in cash. Today it is less than three.<sup>7</sup>

Most financial institutions are already using AI and machine learning.<sup>8</sup> Within the next 10 years nearly half of our financial system could be hosted on ‘the cloud’.<sup>9</sup> The market impacts have been profound. For instance, a decade ago the USA’s Citigroup was the largest financial services firm in the world, with 200 million customers. Today, it is China’s ANT Group, with over one billion clients and no bank branches.<sup>10</sup> COVID-19 has accelerated this shift to virtual ways of doing business. Across the world, most central banks have seen an increase in digital payments and remittances since the outbreak of the pandemic.<sup>11</sup> By some estimates, the time it will take to shift to an almost virtually ‘cashless’ society in the UK has now shrunk from 10 years to just one.<sup>12</sup>



## 2.2 FINTECH AND DATA

**Fintech means much more than increasing the convenience of existing financial services using technology. Core financial services – banking and payments, lending, savings and investment, insurance – remain available, but technology creates new opportunities for data gathering that potentially fundamentally changes the business models underpinning them.**



### New data

Firms in the finance sector have always held a wealth of interesting data about our money and spending habits. Now, new technologies, developments in mathematics and science, and an ever-growing digital economy have made it a lot easier to collect data, move it about and make sense of it. According to PWC, financial institutions “have more data on their customers than anyone else”.<sup>13</sup>

The digitisation of society has also made new kinds of data available. Financial services firms increasingly combine traditional financial data with ‘alternative data’ including social media activity, browsing history, and data captured on mobile phones (such as photos and calendar entries). All of this – and more – can be used to determine what services you can access, and for how much.

**“All data is credit data” – Douglas Merrill (founder Zest AI, formally CIO & VP of Engineering Google) 2012<sup>14</sup>**

Lenddo pioneered credit scoring based on a person’s social network. Tala uses data from people’s phones – such as how often you call your mother – to determine lending decisions.<sup>15</sup> British credit-scoring firm Big Data Scoring monitors the way you complete a form.<sup>16</sup> Vitality spearheaded using data from wearable devices, including the Apple Watch and Fitbit wristbands, to set the cost of health insurance.<sup>17</sup> Other insurers offer discounted cover for drivers willing to be monitored via the Internet of Things – sensors and software embedded in devices that exchange data over the internet.<sup>18</sup>

**“The FinTech future envisages the gathering of a broad range of financial and non-financial data from, and sharing across, a wider set of parties.” – Mark Carney 2017<sup>19</sup>**



## New players

Since traditional financial institutions initially lacked the skills, tools and approaches to harness the data revolution, a host of new players have entered the finance sector. These include several new start-ups. Some, like Klarna, Monzo, Revolut, and Starling Bank, are on their way to becoming household names in the UK. These are referred to as ‘fintechs’.

### KLARNA

Valued at £8.1 billion, Swedish firm Klarna is Europe’s leading fintech and the fourth largest in the world.<sup>20</sup> The payments platform provides online financial services to 200,000 retailers and 90 million shoppers.<sup>21</sup> In the UK, 95,000 new users sign up every month.<sup>22</sup>

When shoppers check out via a retailer’s website, Klarna offers them a range of ways to pay, including ‘buy now, pay later’. Rather than charging interest on the deferred payment, Klarna earns a fee from the retailers, who benefit from higher sales. According to the Guardian, Klarna has claimed that it can increase a whole store’s average order by up to 30%.<sup>23</sup>

Klarna says “we make shopping smooth”. It particularly appeals to younger people with a lower disposable income – the average age of users is 33.<sup>24</sup> Klarna partners with influencers and popular games to advertise its services via social media and virtual events.

Consumers that do not fulfil payments are passed on to a debt collection agency. Research from comparethemarket.com estimates that over two million UK shoppers could have seen their credit scores negatively impacted from shop now pay later schemes, including Klarna.<sup>25</sup>

*“This form of introduction to credit does not encourage budgeting and supports the ‘I want it now’ purchases of items people may not be able to afford. We have seen a worrying increase in the number of young people contacting us for free debt advice. It now makes up more than a fifth of our total client base.” — Jane Clack (money adviser, PayPlan) 2018<sup>26</sup>*

In 2020, Klarna launched an advertising campaign urging consumers to shop responsibly. They also launched a website advocating ‘Klarnasense’ – spending guidance supported by a ‘shopping personality test’.

For participating retailers, even customers that are not using Klarna’s payment products (eg paying by debit card) are required to agree to Klarna’s terms and conditions. The UK’s Information Commissioner’s Office is making enquiries after Klarna sent marketing material to people who had never used its products, but had bought goods from a retailer that uses its payment platform.<sup>27</sup>



## REVOLUT

Valued at £4.2 billion, Revolut is the UK's leading fintech.<sup>28</sup> Launched in 2015, it made its name offering a pre-paid card that enabled travellers to switch between currencies and use ATMs abroad without paying the standard fees that traditional banks charge. Today the platform provides a range of financial services including a digital budgeting tool, cryptocurrency exchange, and insurance. It operates in 35 countries, and has 12 million personal and 500,000 business customers.<sup>29</sup>

Revolut has not yet made a profit and saw its losses triple in 2019.<sup>30</sup> The firm does not hold a UK banking licence. It has a European one, which it applied for in Lithuania.

In an interview with Business Insider in 2017, founder and chief executive Nikolay Storonsky described Revolut's culture as being about "getting s\*\*t done".<sup>31</sup> There have been reports, as covered by Wired, of a toxic culture in which impossible targets are set, and people are asked to work for free.<sup>32</sup>

Questions have been asked about Revolut's standards and compliance. According to the Financial Times (FT), Resolver (an online complaints platform) has reported rising numbers of customer complaints.<sup>33</sup> One of the challenges customers face is the difficulty speaking with the company when things go wrong. The platform offers an "in-app chat" facility rather than a telephone centre for support. In 2019, the BBC learnt that the Financial Conduct Authority had undertaken an investigation after an employee raised concerns about the company's anti-money laundering processes in 2016.<sup>34</sup> In 2018, the Advertising Standards Agency received complaints about Revolut following an advertising campaign the firm ran over Valentine's Day that was accused of being intrusive and shaming single people.<sup>35</sup>

Earlier this year Storonsky told the FT that Revolut had "a real opportunity" to benefit from the crisis by buying up rival technology companies hit by the pandemic.<sup>36</sup>

A range of organisations – often acting behind the scenes across finance and other sectors – provide data and IT services. 'Data brokers' such as Acxiom and Experian (which is also a major credit reference agency) specialise in collating and selling private and public information about individuals. This can include driving records, media reports, changes of address, social media content, and purchases.

Payments companies enable and oversee the growing number of digital payments. Giants like Visa, Mastercard and PayPal are all now valued more highly on the stock market than the UK's biggest bank, HSBC.<sup>37</sup>



## New business models

Fintech has enabled businesses – old and new – to deliver financial services in an increasingly digital way. It has also enabled firms to make money in novel ways, by monetising data about us. For instance, alternative data and enhanced analysis allow firms to fine tune assessments of credit and insurance risk (as described on page 9) so that they can select their preferred customers. Data-driven insights and digital technology can be used to match people and services, in return for a commission or fee. The price of services can be subsidised by using data collected about customers to sell services to third parties. Prices can also fall where going digital reduces fixed costs such as office overheads.

The ability of companies to claim property rights over data has led to the emergence of a new type of enterprise known as ‘the platform’.<sup>38</sup> According to the think tank IPPR *“A platform is a business that acts as an intermediary between users, extracting value from their activities on the basis of the data generated. This value can be monetised by various means: through selling advertising, targeted using data and analytics; through charging an access fee for a service; and, sometimes, through charging for exclusive use of hardware.”*<sup>39</sup>

The platform has become the dominant data-driven business model of our economy. Today, leading platforms – Big Tech – are the most profitable companies in history. The combined market valuation of Apple, Amazon, Google and Facebook rose to over \$5 trillion for the first time in the second quarter of 2020<sup>40</sup>, equivalent to nearly one fifth of the value of the entire S&P 500.<sup>41</sup>

**“ The combined annual revenue for the world’s five largest companies [Apple, Microsoft, Amazon, Alphabet, Facebook] by market value – all of them platforms in some form – already exceeds the GDP of 90% of the world’s countries.”**  
– Lawrence and Laybourn-Langton 2018<sup>42</sup>

**Google accounts for 87% of the UK search engine market. The share of its nearest rival site was 6%. – Statista 2020<sup>43</sup>**

Platforms tend towards monopoly because of ‘network effects’. This means that a platform’s usefulness increases in proportion to the number of users it has. For example, you use WhatsApp/Facebook because your friends, family and clients do. You use Uber because its most likely to connect you with a range of taxi drivers working nearby. Platforms also benefit from significant ‘economies of scale’ which are accentuated by the unusual nature of data.

## THE UNUSUAL ECONOMICS OF DATA

Data is far from ‘the new oil’. Unlike barrels of oil, data is ‘non-fungible’ (any single piece of data cannot be replaced by another) and ‘non-rival’ (the same piece of data can be used repeatedly without damaging its value). A single data point can be worthless on its own, but can see its value grow when aggregated with others.<sup>44</sup>

Common to the Big Tech platforms, whether they match old friends or taxi drivers with customers, is the imperative to extract data and perform analyses. The results can be used to improve services for users. They can also be used for other purposes.

**““ Nowadays there is a computer in the middle of virtually every transaction...now that they are available these computers have several other uses.” – Hal Varian (Chief Economist, Google) 2014<sup>45</sup>**

Shoshana Zuboff has documented how, starting at Google, platforms discovered that the data and tools they developed to deliver specific services could generate much more lucrative products for different customers.<sup>46</sup> In Google's case, 'data exhaust' from people's online search activity was transformed into the raw material of a new type of product sold to advertisers. These 'prediction products' are designed to forecast what we will feel, think, and do in order to improve the click through rates of targeted advertising.

**““ Google has learned to be a data-based fortune-teller that replaces intuition with science at scale to tell and sell our fortunes for profit to its customers, but not to us.” – Shoshana Zuboff 2019<sup>47</sup>**

The profitability of Big Tech firms now depends on 'surveillance capitalism' – harvesting information to create products that predict and influence our future behaviour.

## 2.3 FINTECH AND BIG TECH

The relationship between fintech and Big Tech is three-fold:

1. Big Tech is becoming a financial services provider
2. Fintechs, banks, and other financial services firms are developing platform businesses
3. Big Tech owns and controls the infrastructure on which finance relies

Consider first Big Tech's move into financial services. Amazon, Apple, Facebook and Google increasingly offer ways to make payments using their apps, websites and hardware. In 2019, Facebook proposed Libra – a global cryptocurrency set to launch soon<sup>48</sup> – and Apple introduced a credit card with Goldman Sachs.<sup>49</sup> In 2020, Google partnered with financial institutions in the US to provide a digital 'front-end' to their banking services, under the code-name 'Cache'.<sup>50</sup>

Big Tech's expansion into finance can be understood as a way to maintain user attention within a platform. In this way, surveillance of behaviours can continue – for example where a user does not need to leave the platform to organise a bank transfer – also providing a wholly new source of valuable financial data.

Network effects and ownership of large amounts of existing data give Big Tech unique advantages over competitors. In China, the Big Tech companies – Baidu, ANT and Tencent – dominate fintech by offering financial services to their vast populations of digital consumers and social media users. By 2017, ANT had \$165 billion assets under management, making it the world's largest money market mutual fund. It encouraged e-shoppers to transfer dormant cash from payment accounts to its investment account, which was offering rates of return above those available from bank deposits.<sup>51</sup> Today, most financial services firms regard Big Tech's capabilities to leverage AI as a major competitive threat.<sup>52</sup>

Fintechs, banks, and other financial service providers have been learning from, and experimenting with, the platform business model. They are now able to draw on well-established ecosystems of investment and support that have developed over the past two decades.

**“...FinTech firms are platforms; that is, they largely correspond to a distinct mode of capitalist enterprise that aggregates and analyses data and deploys digital infrastructures in order to extract value from intermedia-tion...” – Langley and Leyshon 2020<sup>53</sup>**

The platform business model is most conspicuous in fintechs that manage payments, crowdfunding, and peer to peer (P2P) lending. These sit between multiple parties and generate network effects. Drawn by the promise of future growth and monopolistic returns, platforms are able to attract investment (including from venture capitalists), even when they are not yet making money or face losses. The fintech industry accounts for the greatest share of ‘unicorns’ – privately held start-up firms valued at over \$1 billion – globally.<sup>54</sup>

Banks are also developing platforms. For instance, BBVA and Goldman Sachs have created software that allows clients to embed its banking services into their own products. This ‘banking-as-a-service’ approach offers businesses the ability to issue digital wallets and manage payments at low cost, while the bank benefits from reaching many more customers via its clients that use the platform.

“There’s this butterfly effect that will kick in after we roll this out. It allows us to acquire clients of our clients, allows us to seamlessly be integrated in the fabric of banking and corporates.” – Hari Moorthy (Global Head of Transaction Banking, Goldman Sachs) 2020<sup>55</sup>

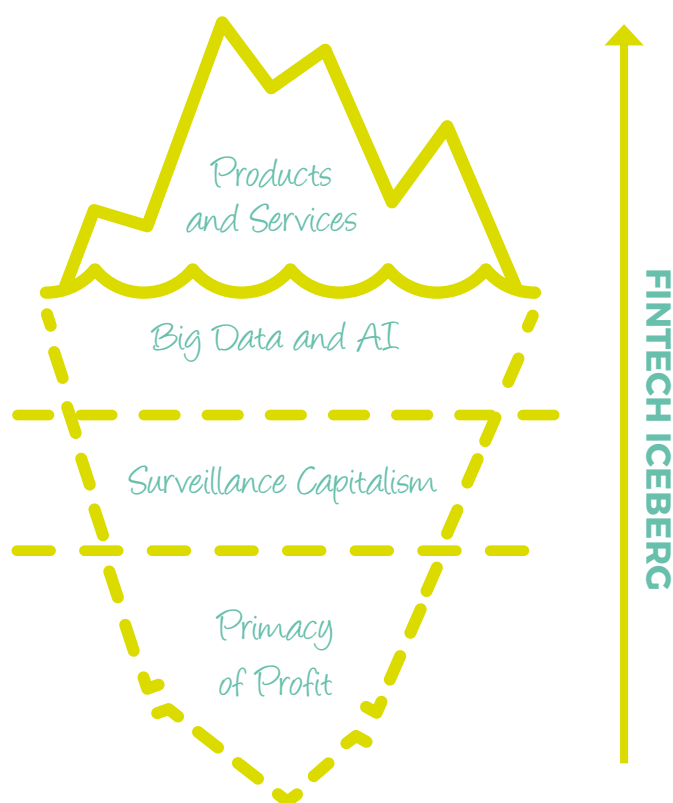
‘Embedded finance’ describes the integration of finance with non-financial services, and is supported by banking-as-a-service offerings. Examples include Google Maps enabling users to find and pay for parking directly through its app, and stores like Amazon providing options that convert the cost of a product into an automatic loan.<sup>56</sup> This market is anticipated to grow enormously over the next decade, with predicted revenues as high as \$7 trillion.<sup>57</sup>

Finally, the financial system increasingly relies on Big Tech’s telecommunication and digital infrastructure including web hosting, data analytics, the cloud, app stores, ID services, search engines, and code.

“Fintech operates through ‘the stack’, a logistical assemblage of digital infrastructures and data flows that is enclosed and controlled by BigTech platforms.” – Langley and Leyshon 2020<sup>58</sup>

## 2.4 ON THE HORIZON

The changes in finance have already been profound, and we are on the cusp of even bigger change. The introduction of 5G and proliferation of the Internet of Things will contribute to vastly more data being generated across the economy and society, which will be processed by ever more powerful analytical tools and software. Financial services firms expect increasingly sophisticated forms of AI to play a larger role across their businesses in the next couple of years.<sup>59</sup>



# 3. RISKS

Lifting the lid on fintech uncovers the new data, analytical tools, business models, and businesses underpinning the speed and convenience of 21st century finance. It reveals familiar problems as well as new risks for those of us seeking to build a financial system that serves people and planet – one that is democratic, sustainable, just and resilient.

## 3.1 UNDEMOCRATIC

Rather than supporting a transparent and accountable financial system, fintech is widening the democratic deficit by handing unprecedented power to the financial services industry and Big Tech.

### 3.1.1 Unprecedented power

New data and analytical tools are bolstering the ‘information asymmetry’ that already benefits industry. Firms can combine market-wide insights and powerful computing to tailor prices, target adverts, and even influence our behaviour.

“...like a spider in the World Wide Web – they see everything that’s going on, and collect vital data that others can’t get.”

– Margrethe Vestager  
(European Commissioner for Competition) 2020<sup>60</sup>

On the other hand, individuals have very limited agency regarding the data that firms collect. We are mostly unable to validate or control it, and in many cases do not even know it exists, who has it, or how it is being used.

In October 2020 the Information Commissioner’s Office (ICO) – the UK’s data regulator – reported on the findings of a two-year investigation into the three big credit reference agencies (CRAs), Equifax, Experian, and Transunion.\* Unknown to most people, all three had also been operating as data brokers for direct marketing purposes. The ICO found “widespread and systemic data protection failings across the sector” that will have affected millions of people.<sup>61</sup>

**“The investigation found how the three CRAs were trading, enriching and enhancing people’s personal data without their knowledge. This processing resulted in products which were used by commercial organisations, political parties or charities to find new customers, identify the people most likely to be able to afford goods and services, and build profiles about people.” – ICO 2020<sup>62</sup>**

\* According to the ICO, Equifax and Transunion have made improvements alongside withdrawing products. Experian has been ordered to make fundamental changes to how it handles people’s personal data within its direct marketing services. At the time of writing, this is subject to appeal.



**“ Most people will never have heard of these companies, as most data brokers are not consumer facing or household names. People cannot assert their rights if there is no transparency around who is collecting their personal data and for what purpose.” – Privacy International 2020<sup>63</sup>**

The ‘consent’ to share data that we are sometimes asked to provide in order to access online services is questionable. Contractual terms and conditions are often complicated, but going digital enables firms to lengthen and update them without our knowledge.<sup>64</sup> Users usually do not understand that their data will be shared with third parties, or what types of inferences will be made using it. When access to financial services is contingent upon such terms, this is more like acquiescence than informed consent. It is also possible for firms to make significant inferences about people from metadata for which even this limited ‘consent’ is not required.

Research by the responsible technology charity Doteveryone in 2020 found that awareness of Big Tech business models is increasing, but that understanding remains quite shallow. For instance, four in five members of the public are aware that organisations collect user information (compared to two in three in 2018), but less than half realise that this means they receive different search results to other people.<sup>65</sup>

Because of the nature of data and the new data-rich business model (‘surveillance capitalism’) developed to profit from it, the lack of balance in knowledge and power between financial service providers and the public is unprecedented.

**“ Surveillance capitalists know everything about us, whereas their operations are designed to be unknowable to us. They accumulate vast domains of new knowledge from us, but not for us.”**  
–Shoshana Zuboff 2019<sup>66</sup>

### 3.1.2 Black box decision making

The AI technologies that firms use to make sense of data and automate services are becoming increasingly sophisticated. Machine learning describes a set of AI methods in which algorithms and data sets shape how a machine should go about learning; but what the machine ends up learning – and therefore, predicting, deciding or enacting – is not pre-programmed. Machine learning is inherently opaque; explanations for decisions made can be very difficult to attain. Despite this, it is already used by two-thirds of the financial services sector.<sup>67</sup>

**“ Explanations are not a natural by-product of complex machine learning algorithms. Effort can be made to retrofit an explanation. Alternatively, a simpler, more interpretable algorithm could be used in the first place, but this may cost a predictive edge. – Croxson et al (FCA Insight) 2019<sup>68</sup>**

We are also seeing a monopolisation of AI. This is driven by the vast amounts of data required to train models on, but also the rising computing costs and high salaries of skilled labour.

**“ Models are becoming larger and larger, and hardware is being scaled up to datacentre and supercomputer levels. Since the dawning of the deep learning age in 2012, the amount of compute needed to train the largest models has increased by 300,000x – equivalent to a doubling every 3.4 months.” – Nick Srnicek 2020<sup>69</sup>**

### 3.1.3 Too big to fail

Big Tech wields overwhelming social and political power as a result of its monopoly and control of critical infrastructure. How can people and businesses be on a level playing field with firms that control the services we depend on to communicate and source information? How can politicians credibly hold the firms that society relies upon to run the digital economy to account? It is not just the big banks that are now too big to fail.

#### IT DOESN'T HAVE TO BE THIS WAY – EQUAL CARE COOP \*\*

Equal Care Co-op is a new social care 'platform co-op' co-owned by care receivers and providers. Platform co-ops are digital platforms designed for the exchange of goods or services that are democratically controlled and collectively owned by their users.<sup>70</sup> They offer a positive alternative to the platforms developed by Big Tech.

Ordinary users of platform co-ops control multiple aspects of the service. This includes how wages and prices are set, what personal data they share, and how the technology is designed. For example, Equal Care Co-op has set a target minimum wage for front-line carers that is 25% above the general industry average. The platform also empowers people to find care services for themselves,

and to offer their skills, experience and support to others on a paid or voluntary basis. It challenges the balance of power that currently exists in the care sector, which the status-quo platform model would only exacerbate.

Equal Care Co-op is part of a wider platform co-op movement working to improve the relationships between workers and businesses, tackle systemic inequalities, and undermine surveillance capitalism.<sup>71</sup> It is a co-op revolution for the 21st century.

\*\* The Lab supported Equal Care Co-op, Tumelo, and NestEgg in 2019 via Data Fellowship – a unique incubator programme for founders of purpose-led financial innovations who are working to transform the financial system for the better. We are not endorsing the companies highlighted, but using them as examples to show that alternatives exist.

## 3.2 UNSUSTAINABLE

The financial system should help to meet society's long-term needs and support human flourishing on a thriving planet. While going digital presents opportunities to reduce the environmental impact of financial operations, the values currently underpinning fintech risk working against our social and sustainability goals.

### 3.2.1 Resource guzzling

Fintech relies upon a very resource-intensive infrastructure. Smartphone manufacture, web searches and emails, and data storage require large amounts of raw materials and energy. Global computing and internet-connected devices now account for about five per cent of the world's electricity production – and this could rise to 20% by 2025.<sup>72</sup> In 2019 Bitcoin – the leading cryptocurrency – required the energy of seven nuclear power plants to process just a small percentage of global payments.<sup>73</sup>

Surveillance platforms are especially energy intensive because of their appetite for data and user attention. Many of the processes integral to the operation of platforms are invisible, and are undertaken using the private devices and energy resources of users.

“These interfaces obfuscate sophisticated business models embedded in endless pages of indecipherable code, all of which are activated by user labor. In turn, these strategies have a significant energy cost, part of which is involuntarily assumed by the user. To put it bluntly, the user is not just exploited by means of their free labor, but is also forced to assume the energy costs of such exploitation.” – Joana Moll (author of *The Hidden Life of an Amazon User*) 2019<sup>74</sup>

### 3.2.2 Primacy of profit

Data and algorithms are not neutral: they are designed with a specific purpose and encode a set of values and preferences. If human financiers prioritise profit over social and environmental outcomes then the AI that aims to replace their decisions could exaggerate these values. For instance, AI-powered investment trained to maximise profits could automate capital to shift into fossil fuels, working directly against our climate change targets.

### 3.2.3 Real economy undermined

We now know that the finance sector can undermine the real economy.<sup>75</sup> In the same way, fintech unicorns and resource-intensive AI could divert capital and high-skilled labour from more socially useful parts of the economy. Furthermore, researchers at the University of Cambridge estimate that AI will lead to the creation of just 10% of the jobs it will destroy in the finance sector over the next decade.<sup>76</sup>

## IT DOESN'T HAVE TO BE THIS WAY – TUMELO

Tumelo is a software platform helping people with pensions and investments understand how their money is being used and to increase its positive impact. It enables investment and pension providers to give their customers transparency over where their money is invested, as well as a shareholder voice on the issues they care about, including gender equality and climate change.

For example, in October 2020, Tumelo's users were asked whether they thought Procter & Gamble (the global health, beauty, and cleaning giant) was doing enough to cut palm oil and deforestation from its supply chains.

Alongside other shareholders around the world, they voted for the company to do more, and the resolution – which directors recommended shareholders oppose – was passed.

Most people want their investments, including pensions, to contribute to sustainability and avoid harm.<sup>77</sup> Tumelo is part of a burgeoning group of fintechns trying to support the development of an investment system that is driven by essential public values rather than short-term profit.

### 3.3 UNJUST

The financial system should promote social justice and protect human rights. Fintech currently appears to be developing in the service of business interests and the wealthy. The business models it empowers risk exacerbating poverty and inequality, discrimination, and marginalisation.

#### 3.3.1 Digital exclusion

Doing finance digitally requires access to resources and skills. Many do not have access to internet-enabled devices, or the time, ability, or confidence to operate them. In 2019, the Office of National Statistics found that 13.6% of UK adults (over eight million) had never used the internet, or last used it over three months ago.<sup>78</sup> According to the Lloyds Consumer Digital Index, nearly 12 million do not have the essential skills needed to benefit from, participate in, and contribute to the digital world – and this is expected to increase over time.<sup>79</sup>

#### 3.3.2 Poverty and inequality

Going digital is also contributing to the demise of physical service provision such as bank branches and cash. The strongest predictor for reliance on cash is poverty.<sup>80</sup>

One of the reasons people value cash is that it is easy to control spending to keep within a budget. Which? found that almost three quarters of people on low incomes are concerned about the impact technology in finance will have on their spending – versus just under half of people on high incomes.<sup>81</sup>

**“It’s almost that they’re making it easier for you to spend. The easier it is for you to just touch a screen or a watch or a phone, the more you’re going to spend.” – (Young and lower socio-economic group research participant)<sup>82</sup>**

The reduced ‘frictions’ in fintech can be devastating. In 2020 a young American called Alexander Kearn tragically took his own life after believing that he had accrued a negative balance in the \$100,000s using Robin Hood, a trading app tailored to millennials.

**“How was a 20 year old with no income able to get assigned almost a million dollars’ worth of leverage?” – Alexander Kearn 2020<sup>83</sup>**

New data enhances firms’ ability to profile us in order to identify preferred customers. This is more likely to benefit those who are already well served by finance, for example by improving their credit scores and reducing the cost of borrowing (as long as they can afford it). But those already struggling financially may lose out. In this way personalised services could exacerbate inequality.

**“The combination of fintech, behavioural finance insights and big data analytics means firms and intermediaries can identify with greater precision more profitable/ more desirable/ less risky consumers and less profitable/ less desirable/ more risky/ more vulnerable consumers. This creates the conditions for greater exclusion and/ or exploitation of large groups of consumers raising fundamental questions of economic and social justice.” – Mick McAteer 2018<sup>84</sup>**

In the insurance industry, personalisation undermines the principles of collective risk and mutual aid. Again, this limits access for the poorer and more vulnerable. Many forms of insurance are considered essential services<sup>85</sup> – these might not just rise in cost, but become completely inaccessible.

## IT DOESN'T HAVE TO BE THIS WAY – NESTEGG

NestEgg supplies responsible lenders, including credit unions, with software to improve their lending decisions, and to reach more people with affordable credit.

For example, NestEgg enables credit unions to draw on a set of data wider than that of a traditional credit bureau, to provide a more holistic, up to date and accurate view of their members' creditworthiness. This has meant that people previously declined affordable loans have been able to access them. NestEgg also shares the data with credit union members, providing people with greater transparency, understanding and control over their finances. Via an app, members can learn what action they can take to improve their creditworthiness, build up savings, and seek money advice and support.

NestEgg shows how fintech can play an important role in supporting the development of the purpose-driven financial sector in the UK. It supports community-based, responsible finance providers who serve many of Britain's most financially vulnerable households to streamline their operations, grow their memberships and save money. With NestEgg, online loan applications can be made in a matter of minutes, enabling responsible lenders to compete with other online providers. One credit union NestEgg works with saw the average age of their members fall by seven years. Money saved on administering loans can also be redirected to providing key in-person support.

### 3.3.3 Automated discrimination

Automated decision-making can entrench existing forms of discrimination. Human biases inform the development of new technologies and the historic data sets that train machine learning. These biases are then reproduced through automation.

**“ Ill-conceived mathematical models now micromanage the economy, from advertising to prisons,” “They’re opaque, unquestioned and unaccountable and they ‘sort’, target or optimise millions of people... exacerbating inequality and hurting the poor.” – Cathy O’Neil (author of Weapons of Math Destruction) 2016**

In 2019, US regulators launched an investigation into reports that the new Apple credit card offered as much as 20 times more credit to male applicants than their female spouses, despite them sharing the same personal finances.<sup>86</sup> Even if the algorithm Apple is using does not include gender as an input (as the company has reported), it could be using information correlated with gender to form spurious inferences and sexist decisions. Academic research has demonstrated how using machine learning models to allocate mortgages predicts higher probabilities of default for black and Hispanic borrowers compared to more traditional models, despite no information about the race of borrowers being shared with the model.

Challenging discrimination is particularly difficult for those most likely to face injustice.

**“ As institutions increasingly rely on predictive algorithms to make decisions, peculiar – and often unjust – outcomes are being produced. And while well-educated, middle-class people will often fight back, most poor or less educated people cannot; nor will they necessarily be aware of the hidden biases that penalise them.” – Virginia Eubanks (author of Automating Inequality) 2018**

### 3.3.4 Marginalisation

Financial firms have long used information about our past and about people they consider similar, to make decisions that shape our lives. For instance, they make binary decisions about people’s access to finance based on credit scores. These scores are compiled using certain data sets and analytical methods that are chosen by industry players. This is problematic because selective data analysis often fails to take potentially mitigating individual circumstances into account. It risks marginalising people who do not ‘fit’ a particular profile. New data and technology won’t necessarily resolve this issue – it could exacerbate marginalisation through the inbuilt biases discussed elsewhere in this report.

Credit scores can reduce our autonomy in accessing financial services, but fintech threatens our autonomy in other ways as well. People will manage their behaviour if they know it is being monitored to assess their suitability for a loan.<sup>87</sup> As more of our online behaviour – from social interaction to the activity recorded by wearable devices – is analysed as credit data, these disciplinary effects will increase. Worryingly, these scores are increasingly used beyond finance. Credit scores affect your ability to rent a home, source a COVID-19 test,<sup>88</sup> and even access the NHS.<sup>89</sup>

## 3.4 UNRESILIENT

Rather than contributing to a financial system that provides security and stability for all, fintech is driving systemic risks that arise from a platform monoculture, AI and cyber threats.

### 3.4.1 Platform monoculture

As surveillance capitalism’s dominance spreads deeper into finance, the financial system is increasingly dependent on Big Tech platforms. We rely on a handful of private firms for critical infrastructure.

**“ Cloud services are dominated by a few firms and it is difficult to switch between them. This creates risks.” – Bank of England 2019<sup>90</sup>**

While Big Tech is powerful, they do face commercial risks, and since the platform model is unprecedented, it is likely that all its potential risks are not yet known.

**“ We are only a few years into the lifetime of the major platforms, and we have yet to see what a complete lifecycle for a platform company might look like. But there are signs that, where a company does not achieve the scale necessary to ward off competitor platforms, failure can be rapid.” – Meadway 2020<sup>91</sup>**

The homogeneity that the platform model introduces across the finance sector is likely to be a systemic risk too.

**“ Diversity is important for financial system resilience because similar institutions with similar business models are likely to suffer from the same problems at the same time, increasing the chance of a systemic crisis.” – New Economics Foundation 2017<sup>92</sup>**

### 3.4.2 Artificial instability

AI's potential to increase the predictive accuracy of firms' risk models could increase financial stability. But if firms use similar models, trained on similar data (which is more likely to happen if AI is monopolised in a homogeneous sector), then the result could be greater instability.<sup>93</sup> Similar models will behave in the same way. This could, for example, exacerbate herding behaviour in the stock markets, driving volatility. Similar models will also have the same blind spots, shaped by the unknown unknowns of its human makers. If these risks emerge at sufficient scale, then a systemic crisis could be sparked.

### 3.4.3 Cyber threats

Today, the financial system is under almost constant cyber-attack, and the threat is growing and becoming more costly. This puts our money in danger, but also risks information about us being leaked, lost, and misused. Before the pandemic, it was predicted that the global cost of cyber insurance would double this year compared to 2018 – to \$8.2bn.<sup>94</sup> Nearly all regulators in advanced economies see cybersecurity as one of the top three increasing risks from fintech.<sup>95</sup>

## 3.5 A FAILURE ON ITS OWN TERMS

As well as posing these risks to building a financial system that is democratic, sustainable, just, and resilient, the evidence that fintech delivers on its own promises to deliver greater competition, innovation, and efficiency is limited.

While there are new players in finance, small groups of big firms continue to dominate the sector. The big banks still provide most personal and business accounts and mortgages. Similarly, the market share of the top four cloud service providers is 65%.<sup>96</sup>

**“ From a platform political economy perspective, equating the rise of FinTech with a wave of competition-enhancing disruption in existing markets for retail money and finance is problematic. Processes of consolidation rather than competition characterise FinTech because, fundamentally, successful platform reintermediation turns on transforming and monopolising new market structures of retail money and finance.” – Langley and Leyshon 2020<sup>97</sup>**

Just two firms – Visa and Mastercard – control 98% of the UK card payments. The British Retail Consortium (BRC) has criticised the duopoly for almost doubling fees in the last two years.

**“ It's an abuse of a dominant market position by these companies. They're two of the most profitable organisations in the world and they've got merchants over a barrel.” – Andrew Cregan (Head of Finance Policy, BRC) 2020<sup>98</sup>**

# 4. TRANSFORMING FINTECH

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We urgently need a financial system that serves people and planet. For too long it has been disconnected from the real needs of people, the environment, the wider economy and society. So far, fintech has largely entrenched the existing problems with finance and created new ones.

It does not have to be this way. It is not inevitable that the use of technology in finance will develop in the way we have seen. The work of many Lab community members, including the case studies above, help to show that an alternative approach is possible.

Systemic change requires that the state intervenes and sets appropriate rules and regulations to stand up for our rights and collective interests. The dominance of platform, surveillance-based business models in Big Tech, and now finance, is enabling a major and dangerous accumulation of corporate power. We cannot resist it individually.

There are major opportunities for innovative policymaking and regulation to help realise fintech's positive potential. A raft of policy initiatives and legislative reviews – including the Fintech Strategic Review<sup>99</sup> and the Financial Services Future Regulatory Framework Review<sup>100</sup> – also make that possible.



**We call for an effective approach by the Government and regulators that builds on the following principles:**

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### **PUT SOCIAL AND ENVIRONMENTAL PURPOSE AT THE HEART OF POLICYMAKING**

The primary goal of fintech-related policy and regulation should be improved social and environmental outcomes, as opposed to objectives such as competitiveness and growth.

For example, the Fintech Strategic Review, currently underway, should have been set an objective by the Treasury to maximise the social and environmental benefits of fintech. While the Review's Terms of Reference refer to opportunities for fintech to improve financial services for the benefit of consumers and businesses, its objectives are to boost growth of the sector, increase adoption, and advance the UK's global reputation for innovation.



### **DEVELOP FINTECH IN A WAY THAT IS TRANSPARENT AND ACCOUNTABLE TO CITIZENS**

Key decisions that will shape the future of finance are being determined by new forums, infrastructure bodies and policy initiatives. Members of the public and their representatives should be included and supported to participate in these so that fintech is ultimately shaped by society's needs – not just the interests of tech firms and financial institutions.

With this in mind, the current situation raises concerns and questions. For instance: How can the Fintech Strategic Review be 'independent' and reflect the views of all stakeholders, including the public, when it is chaired by a leading fintech businessman, with a secretariat provided by Innovate Finance (a fintech trade body) and the City of London Corporation? How might the Financial Conduct Authority (FCA) give power to 'experts by experience' to set the challenges for and assess the innovation it supports? How are the Bank of England and FCA working to ensure that the AI they plan to use in supervision and regulation will be understandable to the public?



### **CREATE NON-MARKET ALTERNATIVES TO BIG TECH, RUN IN THE PUBLIC INTEREST**

We need to disentangle fintech and finance from Big Tech. Why should essential services like finance be reliant on media and advertising companies for critical infrastructure?

To boost the resilience of the financial system and challenge Big Tech's power, alternatives to for-profit corporate-owned cloud computing, hardware, algorithms – and more – must be created and supported to flourish.<sup>101</sup> These should be not-for-profit and act in the public interest using different ownership structures including charities, cooperatives, commons and state-owned organisations.

The Bank of England is currently considering a radical proposal to introduce a digital public currency.<sup>102</sup> One of the reasons behind this proposal is to ensure people continue to have access to risk-free public money, particularly as new forms of privately issued money (such as Facebook's proposed Libra) become more widely used. The Bank should also act on the risks that a privately-owned tech stack presents to our financial system.



## **REBALANCE THE PLAYING FIELD IN FAVOUR OF PURPOSE-DRIVEN FINTECH**

Support and incentives should be provided for purpose-driven fintech led by organisations that embed social and environmental purpose in their mission, culture, business models, and governance and ownership structures.

For example, an extended bank levy could provide long-term investment and grants.<sup>103</sup> FCA Innovate could provide priority and tailored advice. The Competition and Markets Authority is being called on to investigate the card payment duopoly to ensure competition and pricing fair.<sup>104</sup> It should also explore how to expand its focus from market share to diversity of provision.



## **MODERATE DATA'S POTENTIAL TO UNDERMINE FINANCIAL SERVICE PROVISION AND CREATE VULNERABILITY**

Data collection should be regulated to ensure it leads to service improvements (especially for the most marginalised people) and does not undermine access to essential services such as insurance.

For instance, firms could be asked to demonstrate how the data they collect, use, and share improves services and outcomes for customers on an ongoing basis. They could be mandated to test and protect against data-driven discrimination too.<sup>105</sup> Rules could then be developed to inhibit the collection, use, and sharing of data where the overall impact for the public is negative. Why, for example, should data shared to access finance be used to develop products to enhance targeted advertising?

The public could be helped to understand and have control over what data they are sharing, with whom, on what basis, and for what purpose. People could also be given the opportunity to correct or give context to the data that firms hold on them. Finally, we should strengthen 'opt-in' protocols for data sharing.



## **PROTECT AND EMPOWER CONSUMERS AND CITIZENS, ESPECIALLY THOSE FACING THE GREATEST RISK OF DISCRIMINATION AND VULNERABILITY**

The public must be protected from the unprecedented power of fintech through commensurate regulation.

For example, a 'data protection gap' in finance could be diminished if the FCA was given powers of oversight, guidance and enforcement in collaboration with the ICO.<sup>106</sup> Firms could also play a role if data holders were given a fiduciary duty to ensure that individuals' personal data was never used against them. Data protection should certainly not be weakened in UK trade deals.

Communities facing the highest risk of discrimination, vulnerability and exclusion could benefit from being represented by ‘Citizen Fintech Ambassadors’ – government appointments responsible for making sure the financial system develops in a way that supports equality and human rights. The state can also help to develop a culture of privacy. It can limit its own data collection, and it can educate citizens about the potential harm they can inflict by sharing data that exposes others.



## **BUILD AND DRAW UPON AN INDEPENDENT EVIDENCE BASE**

We urgently need to fill the research and evidence gap about the impacts of fintech on people and planet.

For example, we know that many more people have tried digital payments and online banking during the COVID-19 pandemic – but how are they experiencing this? The Treasury should work with the Bank of England and FCA to commission independent research and ensure that any claims made about the benefits of fintech (eg that it promotes financial inclusion) are backed up by evidence.

**We would welcome a multi-stakeholder commission to develop these principles and recommend how they can be put into action across financial policymaking and regulation.**

## **JOIN THE TRANSFORMING DATA NETWORK**

- Do you work for a consumer or civil society organisation, or a responsible finance provider?
- Are you interested to learn more about the data revolution underway in finance?
- Are you concerned about the social and environmental impacts of data-driven finance?
- Do you have ideas about how financial policy and innovation could better serve the communities you work with?
- We can help you discover useful resources and events, share your expertise to develop new knowledge and arguments about the transition, network with peers, and collaborate to advocate for positive change.

**Get in touch to find out more and join a growing coalition of organisations transforming the future of finance for the better.**

**Contact: [marloes@financeinnovationlab.org](mailto:marloes@financeinnovationlab.org)**

**“ Will we be the masters of information, or will we be its slaves? If the digital future is to be our home, then it is we who must make it so.” – Shoshana Zuboff**

## 5. ACKNOWLEDGEMENTS

This report was written by Marloes Nicholls.

We are extremely grateful to the Barrow Cadbury Trust and Paul Hamlyn Foundation for their generous support for this project. We also could not do this work without the Lab community – thank you! Special thanks to Robin Watts.



The Finance Innovation Lab builds power to transform the financial system for people and planet. We cultivate a community of systems-changemakers and work on initiatives that impact mental models and power dynamics in finance for deep, lasting change. Our work focuses on growing purpose-driven finance, shifting mainstream finance, influencing law, regulation and policy, and building our community.

### Why focus on finance?

Our financial system has become disconnected from the real needs of people, the environment, the wider economy and society. Dysfunctions in the financial system lie at the root of many of today's challenges, from climate change and economic crises, to poverty, marginalisation, and inequality.

It doesn't have to be this way. People created the system and people can change it.

Our vision is a financial system that serves people and planet, one which is:

- **Democratic** – a transparent and accountable financial system, where all people can participate in the rule-making and institutions that shape it.
- **Sustainable** – a financial system that helps meet society's long-term needs and supports humans flourishing on a thriving planet.
- **Just** – a financial system that promotes diversity and equality and protects human rights.
- **Resilient** – a financial system that provides security and stability for all, and for the real economy.



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