UK Fintech Focus

Insight into the performance, valuation and funding cycle of Fintech Start-ups

#UKFintechFocus

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kpmg.com/uk/fintechfocus

About KPMG

KPMG LLP, a UK limited liability partnership, operated from 22 offices across the UK with approximately 16,300 partners and staff. KPMG is a global network of professional services firms providing Audit, Tax and Advisory services. KPMG Fintech professionals include partners and staff in over 50 fintech hubs around the world, working closely with financial institutions and fintech companies to help them understand the signals of change; identify the growth opportunities; and to develop and execute on their strategic plans.

We operate in 153 countries and territories and have 207,000 people working in member firms around the world. The independent member firms of the KPMG network are affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. Each KPMG firm is a legally distinct and separate entity and describes itself as such.

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Google Cloud is widely recognized as a global leader in delivering a secure, open, intelligent and transformative enterprise cloud platform. Our technology is built on Google's private network and is the product of nearly 20 years of innovation in security, network architecture, collaboration, artificial intelligence and open source software. We offer a simply engineered set of tools and unparalleled technology across Google Cloud Platform and G Suite that help bring people, insights and ideas together. Customers across more than 150 countries trust Google Cloud to modernize their computing environment for today's digital world.

About the author

Michael Pearson is the founder of Clarus Investments and is an experienced director, investor and consultant who is recognised globally as an expert on strategy and innovation in financial services. Michael has more than 30 years of experience in financial services and strategy consulting. He advises startups, investors and established companies in developed and developing markets on strategy, innovation and all aspects of corporate development. Michael has an MA from Cambridge University and an MBA from Harvard Business School. Prior to establishing Clarus Investments in 2006, he worked for Lloyds TSB in corporate strategy, development and venturing roles.

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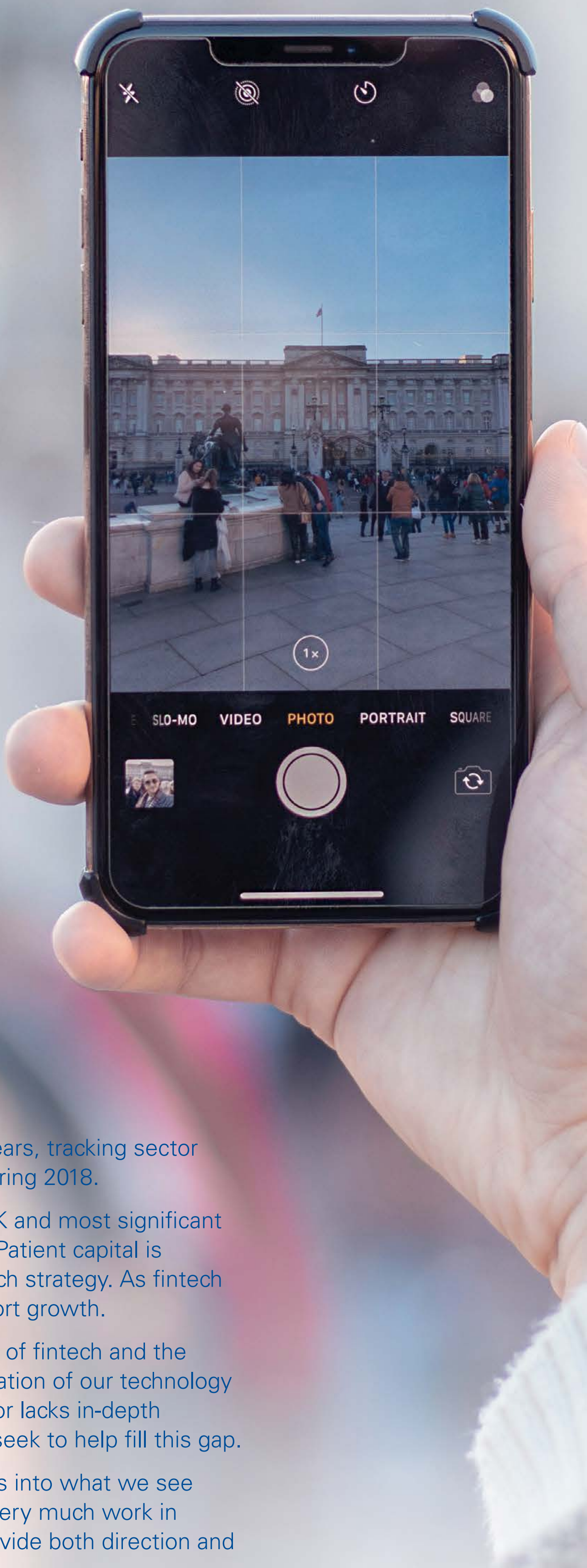

Purpose of this Report

KPMG's Pulse of Fintech research has been running for the past few years, tracking sector growth that achieved record funding levels of $20.7 billion in the UK during 2018.

The sector is maturing. We have now seen the first IPOs here in the UK and most significant financial institutions have set up corporate venture capital (CVC) arms. Patient capital is available from government and the government has set in place a fintech strategy. As fintech develops we see the need to make more sector data available to support growth.

This multi-year research programme will shed light on the performance of fintech and the opportunities for the UK to realise significant benefits from the combination of our technology entrepreneurship and world leading financial services. The fintech sector lacks in-depth analysis for the founders, investors and service providers, and we will seek to help fill this gap.

The majority of the second wave (post-2011) of fintech is now five years into what we see as a horizon of 10 years or more and our findings outline this wave as very much work in progress. We will therefore continue to evolve this research to help provide both direction and a sounding board on sector progress.

For this year's initial research, we have tried not to overthink the analysis or make inferences that may not be founded. Expect us, with our ecosystem partners such as Google and Innovate Finance, to continue to develop these insights as the sector progresses.

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Google Foreword

Google Cloud's mission is to help organisations drive digital transformation. The combination of IT power and digital technologies is making large organisations rethink their business models and their interactions with customers. The financial services industry is no different: it is placing the customer at the very top for both business and IT decisions.

Traditional banks, insurers and asset managers continue to bring a lot of capability around regulation, access to capital, and a massive legacy customer base. On the other hand, the differentiator with fintechs stems from their ability to provide expertise in technology. The collaboration, rather than competition, of both traditional financial services and fintechs, will become more evident in the coming years. Google Cloud works with many fintechs around the world that share the common aspiration for their customers. Modern day consumers should be able to access financial services just like we access Google Search — by simply asking a question. And, even not asking questions! Beyond speech, Google products give our customers the choice, flexibility, and control they want and need.

The UK Google Cloud team is well aligned with the UK fintech community. Every six months we host a user group that brings together challenger banks, fraud detection specialists, payment solution providers and fintechs. The primary objective of these bi-annual meetings is to build a community that share ideas, learn from each other and hear the latest from Google Cloud on various topics of interest.

In 2019 we expect to see both fintechs and larger financial services use microservices to speed up application development, ultimately creating better products and services for customers. Innovation across fintechs and new digital companies will become more commonplace within the already thriving ecosystem. Ultimately, the consumer will benefit from a much simpler and 'user-first' experience; similar to how the search experience changed 20 years ago with the birth of Google.

Google Cloud continues to look at where and how it can support a wide spectrum of markets, including the financial services sector. KPMG's research offers a timely insight into the growing investment community in the UK and we are looking forward to supporting this thriving sector.

Google Cloud

Derek Freel
Head of FinTech UKI, Google Cloud

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Executive Summary

The objective of this white paper is to get beneath some of the headlines about fintech disruption and valuations. We selected a sample of 91 UK fintech businesses which have met a minimum of success – they have received at least two rounds of external funding – and have used quantitative data from statutory filings to better understand how early stage financial services businesses are developing and to identify or support trends in financing, performance and valuation.

There is little in common between a digital neo-bank and a fraud monitoring business, but they are both currently classified as fintech. Aside from B2B, B2C and businesses that combine the two (B2B2C), services are targeting differing products, customers and parts of the value chain. Our research highlights the diverse nature of the fintech sector in the UK, not only in terms of business models, but also in the way that companies are financing themselves and developing.

For industries and businesses undergoing digital transformation, the time to profitability has been demonstrably extended as these businesses reinvest returns into product, service and market development. We have seen investors in startups in previously disrupted industries such as entertainment, media and telecommunications show a significant willingness to tolerate losses for relatively long periods of time. This is not expected to be different for the financial services industry as fintech evolves and our research supports this hypothesis.

We expect fintech businesses to take longer than some traditional startups to reach profitability. They prioritise reinvestment in order to scale as their business models often rely on volume in order to achieve profitability. Financial services is a heavily regulated industry with a large legacy technology and transactional infrastructure. Both these challenges need to be addressed for a fintech business to be successful. Only a few companies in our sample have been able to move on from operating at a loss, with many companies reporting losses for at least the first five years while others take longer to achieve revenue growth to counter outgoings. Critically for investors, however, this does not appear to be resulting in business failures: Only two companies in our sample have failed or gone into administration, or have begun restricting investment from a diversifying set of funding sources.

Business angels and established venture capital investors have traditionally been investors in the sector. However, given the longer time horizon needed to achieve profitability, other sources of strategic/patient capital may become more important. Corporate investors (including both financial services and non-financial services companies) are becoming more committed to invest in the fintech sector. Corporate investors made up 40% of total venture capital (VC) investment in 2018 – a fourfold increase from 2015. Their ability to take a longer-term view, particularly where partnerships with the fintech startups can deliver additional value to the organisation, appears to be driving a significant portion of the 55% increase in funding of UK fintechs since 2015.

Getting in early is important. Based on our sample, returns for investors who invest in fintechs at early stage are higher than many startups in other industries and this long-term disruptive potential is supporting the longer lead time to profitability and higher accumulated losses. The oldest fintechs in our sample continue to receive funding in later rounds at increased valuations. This bodes well for longer-term confidence and growth in the sector as the new wave of application programming interface (API) and artificial intelligence (AI) powered fintechs reach a more mature stage. What we cannot yet determine is whether these new open technologies, which should drive faster time to market and an increased ability to scale at speed, will have a positive impact on the time to profitability and therefore an additional impact on valuation.

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Calls to Action

Drawing on findings from this research, we believe that there are a number of calls to action.

1. **Pre-funding support:** To help improve the visibility of pre-funding for fintechs to investors, an open industry platform should be considered where potential investors can assess opportunities to invest at the earliest stage.

2. **Scaling capital:** To support the scaling of firms, institutional sources of capital should be considered to support the longer investment horizons required for growth.

3. **Founder support:** We need an initiative to provide non-executives and experienced founders for early-stage businesses. This will help shape business case development, provide confidence in forward plans and promote bolder, more systemically important fintech investment in early funding rounds.

4. **Promoting B2B fintech:** B2B models such as those in technology and processing services, paytech and regtech provide scalable and attractive investment opportunities. This part of the fintech sector requires further focus to attract its fair share of funding.

5. **Sector insight:** Fintech requires continuous research. Given the heterogeneous nature of fintech and the lack of publicly available data, this research should underpin decisions for investors, government, service providers and fintech founders.

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Key Findings

This study is based on a sample of 91 fintech companies in the UK across a range of verticals, of which 51 provide financial services to consumers or businesses and 40 provide technology or processing services to other financial institutions. The analysis considers financing, performance and valuation based on statutory filings with Companies House in the UK and also considers other factors such as the role of corporate investment in these companies.

– **1. Despite the scale of the financial services industry and the potential for disruption, most first-round fund raising for our sample has been quite modest.**

For the majority of fintech startups, the first round of financing is below £500,000. The median for the whole sample is £330,000, for which the first-round investors get, on average, 20% of the equity in the company. There are 12 cases where the first round of financing has been £2 million or more because initial funding requirements are high (for example, digital banking or banking-as-a-service). In most of these cases the company is started by a very experienced founder or group of founders.

– **2. The total value of financing is dominated by the mega rounds of some well-known fintechs, almost all of which are financial services businesses rather than technology or processing companies.**

The 10 largest fund raisers in the sample have accounted for almost two thirds of the total funds raised and on average these companies have been raising finance for five to six years. In some of these cases, the companies are using the funds to expand into new geographic markets and so the scale of funding required is always likely to be much higher. It is worth noting that nine of the top 10 fundraisers are financial services businesses and only one is a technology or processing services company.

– **3. On average, losses increase each year for at least five years and continue beyond that for most companies with just a handful breaking even.**

For the sample companies, the median losses after tax increase each year for five years and in the fifth year reach £2.6 million. Most of those reporting for more than five years are continuing to report losses. Overall, 80% of the companies in the sample increased their losses in their latest reporting year and only six are profitable or break even. However, only two companies have been put into administration.

– **4. The returns for early stage investors on paper are very good and although returns decline as companies get older there is no apparent trend up or down in recent returns.**

The median internal rate of return (IRR) from the first to the latest round for investors is 82%. The median increase in share price expressed as a multiple is 7.1x. The median IRRs just for the latest round of financing relative to the previous round of financing show that for the companies fundraising for longest these are much lower – 14% for the 10 oldest companies.

– **5. The losses incurred in the bankingtech vertical are higher than in other verticals, and the returns on paper for investors in paytech are relatively strong to date.**

The median losses per annum are slightly higher for the financial services companies compared to the technology or service companies. This is largely driven by the losses incurred by the digital banks where mean annual losses in year three are £18 million, compared to £3 million for the sample as a whole. The IRRs across verticals also vary. For example, the paytech vertical of 20 companies has a median IRR of 117% compared to only 70% for bankingtech.

– **6. In the early rounds of funding, technology and processing services businesses, notably paytech and regtech appear to be making the most progress in terms of amounts raised and valuation.**

The median valuation and median funding round size is higher for technology or processing services fintechs (most of which are not regulated) than the medians for fintechs providing financial services, (most of which are regulated) particularly at rounds 3 and 4. For the financial services category, the larger funding rounds and uplifts in valuation have tended to kick in from rounds 5 onwards as their business models gain more traction (e.g. digital banks, marketplace lenders).

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- **7. Corporate investment is growing, and there is participation from corporates across all verticals with an overweight presence in technology and processing services companies.**

  Corporate investors are making up an increasing portion of investment in fintech startups. Out of our sample, 38% have a corporate investor ranging from cases like Aviva acquiring a majority stake in insurance business Neos to S&P Global investing in data analytics company Algomi. The profile of the companies taking corporate investment is very similar to the profile of the sample as a whole. There is an overweighting in the technology and processing provider category and in the wealthtech vertical, and an underweighting in the paytech vertical.

- **8. In general, founders are able to retain a significant equity value through successive funding rounds but a very wide variation in the value of founder shareholdings develops as companies mature.**

  The median number of founders per company in the sample is two, and 20% of the companies have a single founder. Only 10% of the companies in the sample have a female founder or co-founder. The companies where the main founder (with the biggest stake) has the highest share value on paper are Revolut and TransferWise. In some cases, the main founder has been diluted below 5% of the equity and the value of their holdings on paper are relatively small. This happens, for example, when progress has been slow, and the company has raised multiple rounds of finance without a significant increase in valuation.

Some Highlights

- The sample group of **91 companies** have raised a total of **£4 billion**, are valued at **£13 billion** and have incurred cumulative losses of over **£1 billion** to date.
- The median age of the companies, measured from the date of first round of funding, is just under four years and the median number of funding rounds is four. Therefore the average funding cycle is one year.
- There are five unicorns in the sample (in dollar terms) – OakNorth, Funding Circle, TransferWise, Revolut and Monzo – with a combined valuation of nearly **£7 billion**.
- The median amount raised at first round is **£330,000** for a **20%** share of the company but there are **12 companies** that have raised **£2 million** or more at first round.Based on latest financial reports, median revenue growth in the last financial year was **89%**, with losses increasing in **80%** of cases.
- Most of the companies in the sample were still making losses as of their last reported accounts. The exceptions are OakNorth, Blue Motor Finance, TransferWise, LendInvest, ClearScore and Wirex.
- The median increase in price per share from first round to latest round for the sample companies is **7.1x** and the median IRR is **82%**. For **30 companies** the IRR is over **100%**.
- Two of the companies from the sample are now in administration and two have achieved an exit opportunity, such as an IPO, for their funders.

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Sample Overview

Our sample of 91 companies represents a cross-section of fintech verticals and includes several of the major companies in each vertical. It is not a comprehensive list but represents a range of businesses within the fintech sector from which we have sought to identify insights and trends.

Companies are split into two categories: financial service providers (typically regulated activities) and technology or processing service providers to other financial services businesses. Each company is also then categorised by fintech verticals such as bankingtech and paytech.

	Financial Services		Technology or Processing Services	Total
	Retail Customers	Business Customers		
Bankingtech	10	1		11
Paytech*	7	1	12	20
Lendingtech	9	5	2	16
Wealthtech	12	0	1	13
Insurtech	5	1	3	9
Regtech			12	12
Other**			10	10
Total		**51**	**40**	**91**

* Banking-as-a-service companies such as ClearBank are classified as Paytech.

** 'Other' includes activities such as market infrastructure and data analytics.

Where a company crosses multiple verticals or classifications, we have classified them based on the main vertical, customer segment or other category in which the company operates. Companies with foreign parents have not been included in the sample and the screening process has excluded companies that do not have sufficient disclosure in their reporting for our analysis.

A full list of the companies included in our sample can be found on Pages 42 and 43.

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1. Financing

Our sample indicated that the first round of external funding was typically less than £500,000 for a 20% equity stake, but the mean of £1.25 million was skewed towards the funding rounds of a few very large fintechs whose ambitious international expansion plans require greater upfront investment.

The 91 companies raised £1.4 billion in 2018, a considerable increase from £962m in 2017, though this includes the £300 million raised by Funding Circle at its IPO in September 2018. In the first three months of 2019, a further £574 million of funding has been either reported or announced. Notable cases are:

- Nutmeg announced a £45 million funding round in January 2019[1], with a further crowdsource funding round announced in March 2019
- Starling Bank announced a £75 million funding round in February 2019[2]
- OakNorth announced a £340 million funding round in February 2019*[3]
- GoCardless announced a £58 million funding round in February 2019*[4]

* Based on exchange rates at time of announcement

The median number of rounds for the sample companies is four and the median number of days between rounds is 381 – companies tend to go back to the market for funding annually throughout their initial development and expansion. This highlights the need for almost continuous fundraising for management teams. For businesses expanding rapidly, the frequency of funding rounds increases: For example, Revolut has been through six funding rounds with an average of just 221 days between rounds.

The median amount raised in the first external round for our sample was £330,000. For this investment, the first-round investors received a median of 20% of the equity. It is hard to show a clear trend in these figures over time due to the size of the sample although in the early days of fintech in the UK there were several examples of companies giving up a higher share of equity than you would expect to be the case now. These include Funding Circle, which gave up 33% of its equity at its first round in 2010, and Nutmeg, which gave up 38% of its equity at its first round in 2011.

381 Days

Median number of days between funding rounds

£330,000

Median amount raised in first external funding round

20%

Median first round external investor share of equity

[1] https://www.nutmeg.com/nutmegonomics/goldman-sachs/

[2] https://www.starlingbank.com/news/series-c-funding-feb2019/

[3] https://www.oaknorth.com/press-releases/oaknorth-holdings-closes-440-million-funding-round-with-the-softbank-vision-fund-and-the-clermont-group-as-it-sets-sights-on-its-international-expansion/

[4] https://gocardless.com/blog/announcing-75m-series-e-investment/

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Summary Financing Statistics for the Sample

	Mean	Median
Total amount raised	£38.1m	£13.3m
First round amount raised	£1.25m	£0.33m
Share of first round investors (at first round)	24%	20%
First round valuation	£6.5m	£2.0m
Number of rounds	4.5	4.0
Time between rounds	393 Days	381 Days

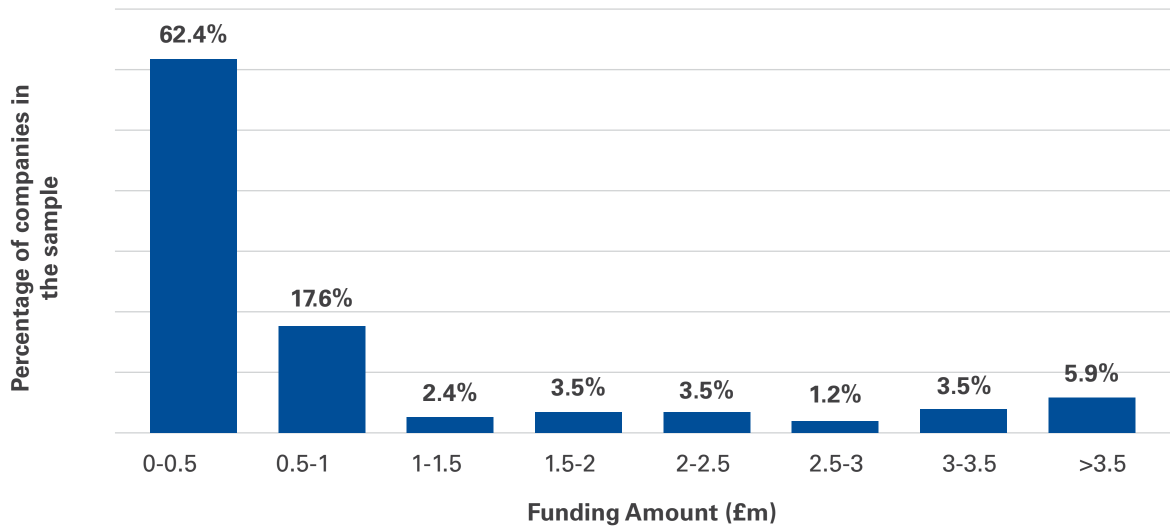
Approximately 80% of first rounds included angel investors, highlighting the importance of this group for the development of fintech in the UK. In the vast majority of cases, founders do not provide any more than nominal amounts of initial financing. A couple of notable exceptions are Wealthify (£298,000) and 10x Future Technologies (£1 million).

80%

of first-round funding (pre Series A) included angel investors

The amount of funding at first round shows a very skewed distribution – see chart below. Nearly two-thirds of the companies started with less than £500,000 of external financing. Some started with very small first rounds, such as Kantox with £130,000 or Bud Financial with £120,000. At the other extreme, a total of 12 companies raised £2 million or more at first round.

Distribution of Companies by First External Round Funding Amount



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Largest First External Rounds

The 10 largest first rounds are shown in the table below. Top of the list is LendInvest, although this company actually repaid its first funding round investor at par 12 months after the investment was made, for undisclosed reasons.

	Company	Category*	Vertical	Amount Raised (£m)
1	LendInvest	FS	Lendingtech	**21.00**
2	10x Future Technologies	TP	Paytech	**20.17**
3	Netwealth	FS	Wealthtech	**6.57**
4	ClearBank	TP	Paytech	**5.00**
5	SETL	TP	Other	**5.00**
6	Atom Bank	FS	Bankingtech	**3.41**
7	Starling	FS	Bankingtech	**3.15**
8	Concirrus	TP	Insurtech	**3.00**
9	Quantexa	TP	Regtech	**2.67**
10	Billon Group	TP	Other	**2.13**

* FS = financial services, TP = technology or processing services

Many of the companies on this list had very experienced founders, for example:

- 10x Technologies was founded by Anthony Jenkins, former CEO of Barclays
- ClearBank was founded by Nick Ogden, who was also the founder of WorldPay
- Starling was founded by Ann Boden, former COO of Bank of Ireland

Each case has its unique characteristics. For example, Starling raised £48 million from a single investor (Harald McPike) in 2015, although this amount was staged in three tranches. The first tranche was £3.1 million, which gave the investor 12% of the company. Quantexa is an unusual case because the company was already reporting revenues and profits when it raised a first round of £2.7 million in 2017, with HSBC becoming a strategic investor.

14x **More first round funding was obtained by experienced founders than inexperienced founders**

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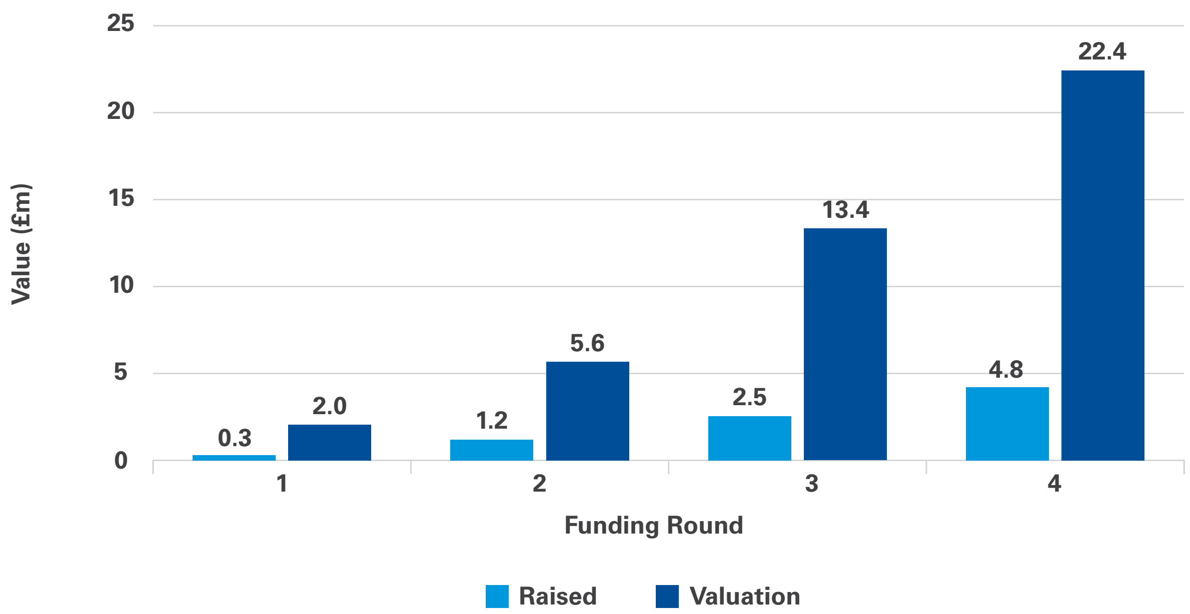
Progression of Financing and Valuation Over First 4 Rounds

We have modelled the typical progression of financing over the first four rounds based on the medians from the sample as a whole – see chart and table. The amount raised increases in stages from £0.3million in the first round to £4.8million in the fourth round, while the valuation increases from £2million at the first round to £22million at the fourth round. The IRR declines with each round – at the second round of funding it is 167% but by the fourth round of funding it is down to 87%.

5.5x **Share price multiple increase from first round**

Median Amounts Raised and Valuations over First 4 Funding Rounds



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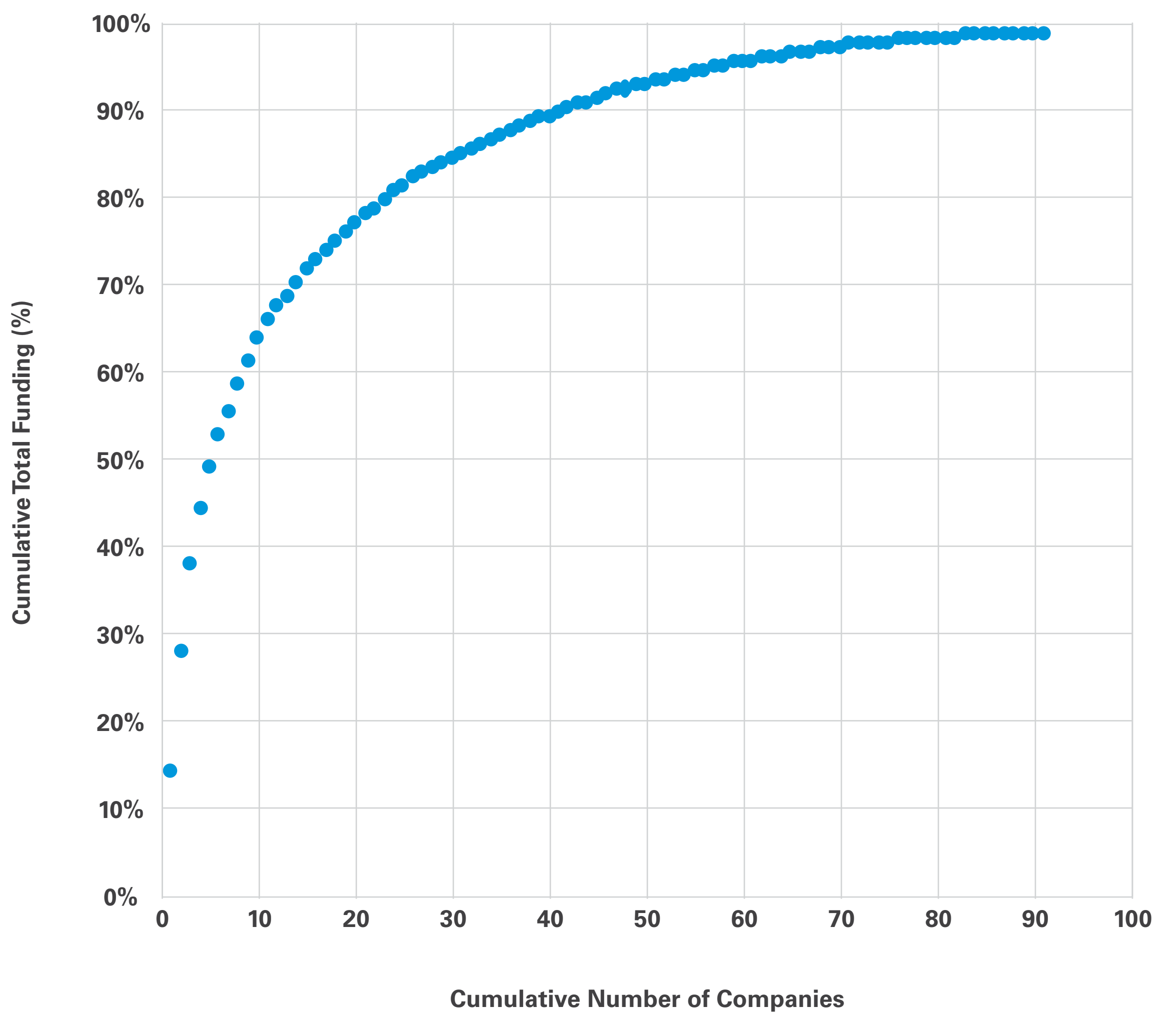
Total Fund Raising

The total funding raised by our sample of companies is also heavily skewed towards a few large and well-known cases. The 10 largest fundraisers have accounted for almost two-thirds of the total funds raised, led by OakNorth, Funding Circle, Atom Bank and Revolut. Interestingly, only one of these features in the top 10 of the largest first funding rounds, which demonstrates our observation that first-round funding size is not necessarily an indicator of future funding round size.

Cumulative Total Funding of the Sample Companies



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2. Performance

Despite strong continued funding across the sector, losses after tax are increasing on average for each of the first five years and are continuing for most companies beyond that point. Some have incurred large cumulative losses and achieved only modest revenues after five years. Just a handful of companies have reached break-even so far, but only two companies have been put into administration. This demonstrates the high degree of investor confidence in the sector.

To assess financial performance, we have looked at the reported annual accounts for the sample companies. A total of 88 companies have reported more than one year of financials and 80% of these showed increasing losses after tax in the latest reported accounts. The aggregate annual loss after tax for these 88 companies was £360 million in the latest reported accounts.

Only five companies in the sample reported a profit after tax in their latest year:

- TransferWise
- LendInvest
- Blue Motor Finance
- OakNorth
- Wirex

In addition to these five companies, ClearScore was reporting revenues of £28 million and breaking even after three years of operation (see case study on next page). We should also note that Coinfloor, a cryptocurrency exchange, reported a small profit in the year to March 2018 but the company has now spun out one of its main assets and is restructuring. We have not included it with the above until the status has been clarified in the next reported accounts.

From the total sample of 91 companies, two are now in administration: SETL and Osper. SETL raised £5 million at a first-round valuation of £75 million (much higher than the median first-round valuation of £2 million) and developed a distributed ledger-based wholesale settlements platform. Osper raised a total of £9 million and has been operating a neo-banking service based on prepaid cards since 2013. The valuation of Osper at its last funding round was £30 million.

Only 2%

Of our sample failed following two rounds of funding

The median profile of profit after tax (PAT) for the 30 companies that have reported at least five years of financial performance is shown in the chart below. Losses are increasing each year and the median loss in year five is £2.6 million. Of course, we would expect startups to lose money in their first years of operation as they prioritise reinvestment into the business in order to develop new services, scale and expand to new geographies. These figures show there is a significant difference between these predictions and reality.

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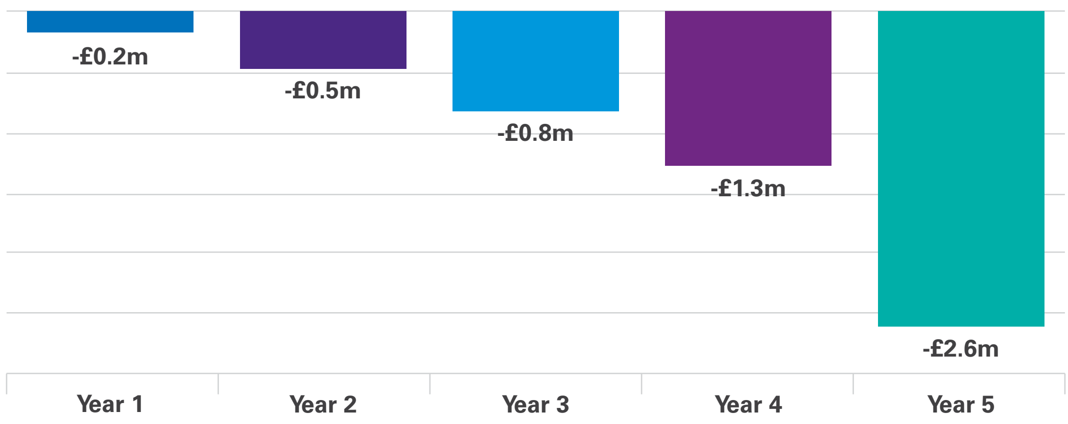
Profile of the Median Profit/(Loss) After Tax for Sample Companies

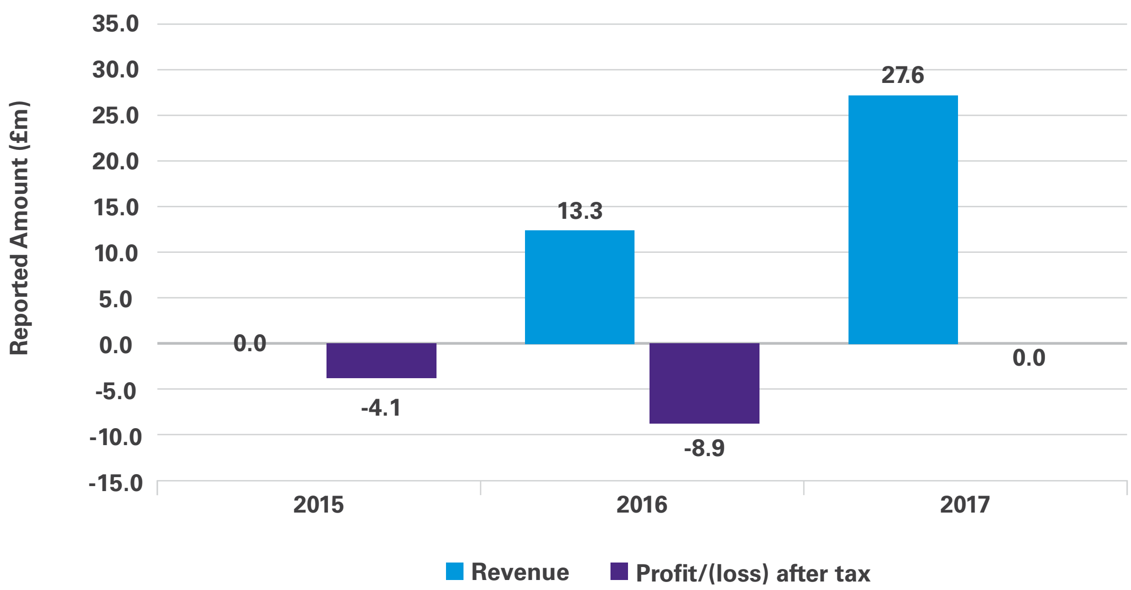


Only 13 of these companies were reporting revenues in the first five years of operation as this is not a reporting requirement for most small companies in the UK. For these 13 companies we can compare the revenue growth in the five years to the cumulative losses that were incurred (see chart below). It shows that the median revenue in

Case Example: ClearScore

ClearScore was founded in 2015. The company offers a free credit scoring service to consumers and recommends financial products to its customers. ClearScore has been successful at generating significant revenues and is the best performer from the sample in terms of revenue generation having reached £28 million within three years. The company agreed in 2018 to be acquired by Experian for £275 million but this deal is not progressing due to anti-trust concerns.

ClearScore's Reported Financial Performance



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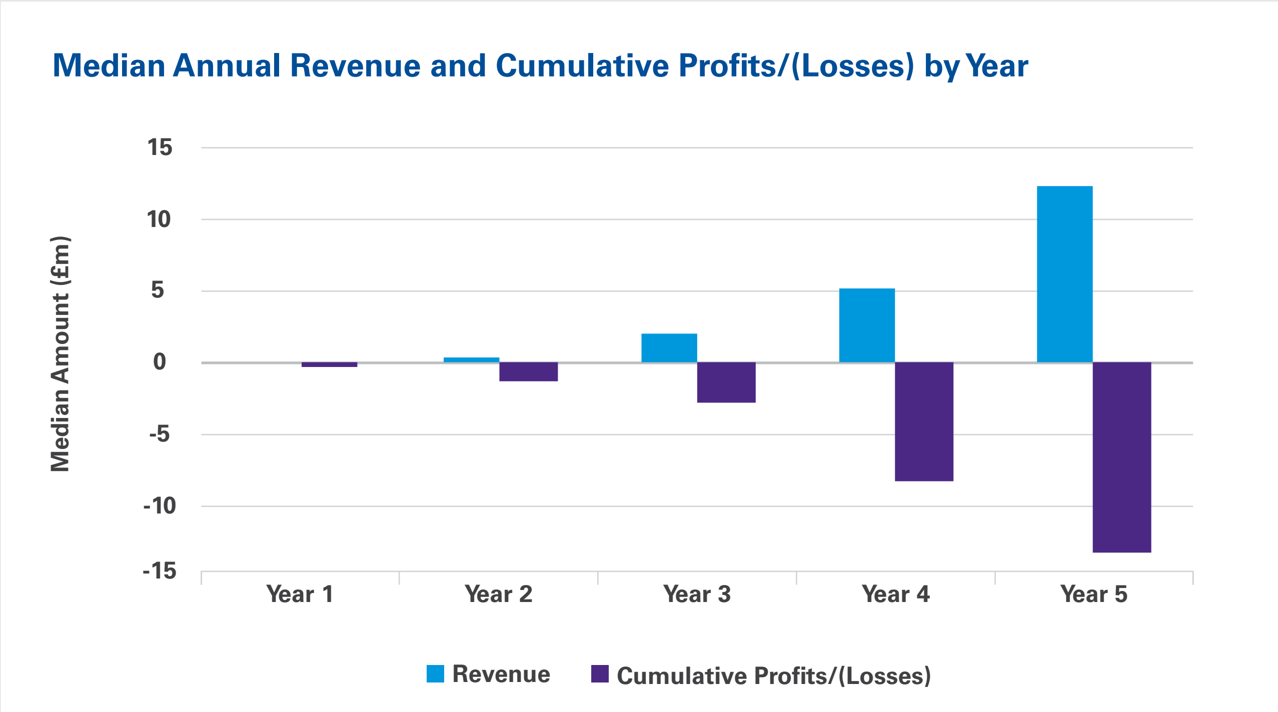
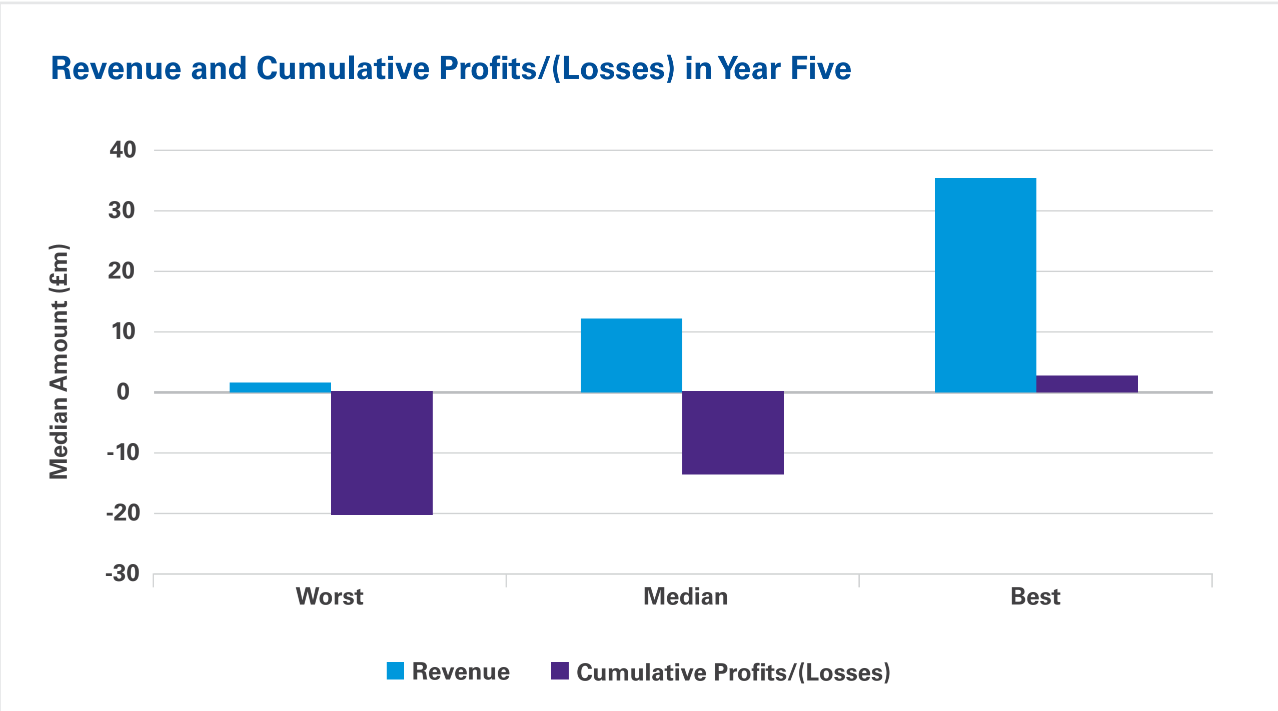
year five was £13 million and median cumulative losses by year 5 were £14 million, with an inverse correlation of 98%. Similarly the median PAT above is almost perfectly inversely correlated to revenue. This indicates overall that there are limited economies of scale being driven through revenue growth as businesses' expansion or product development are increasing costs.



There are, however, a wide range of outcomes: The worst performing on this measure reported only £2 million of revenues in year five but had incurred £20 million of cumulative losses, while the best performing had reached £36 million of revenues and had £3 million of cumulative profits.



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Largest Cumulative Post Tax Losses

	Company	Category*	Vertical	Years of Reporting	Cumulative Losses (£m)
1	Funding Circle	FS	Lendingtech	9	**-200.7**
2	Atom Bank	FS	Bankingtech	5	**-124.1**
3	World Remit	FS	Paytech	8	**-66.4**
4	Ratesetter	FS	Lendingtech	8	**-56.8**
5	Tandem	FS	Bankingtech	4	**-50.8**
6	Zopa	FS	Lendingtech	12	**-49.5**
7	Nutmeg	FS	Wealthtech	7	**-41.9**
8	Algomi	TP	Other	5	**-39.5**
9	Monzo	FS	Bankingtech	3	**-38.7**
10	CurrencyCloud	TP	Paytech	9	**-38.5**

* FS = financial services, TP = technology or processing services

The biggest cumulative losses to date have been incurred by Funding Circle (£201 million), Atom Bank (£124 million) and World Remit (£66 million) (see table). The level of losses required to build a business clearly depends on the strategic context of that business. Digital banks have incurred some of the highest losses (see also page 28) because their setup costs, such as regulatory capital and complex systems, and ongoing costs such as compliance are relatively high. In some cases, companies have received additional funding to expand into new markets, even before they have achieved break-even.

Ratesetter is an interesting case because in its fifth year of operation it managed to achieve annual revenue of £13 million and was breaking even after incurring cumulative losses of just £1 million. The company then raised £20 million to set off on a more rapid expansion plan, and in the space of the next three years cumulative losses reached £57 million.

ClearBank and 10x Future Technologies, both of which are building banking-as-a-service businesses, have reported significant losses – of £14 million and £10 million respectively – in just their second year of operation. These losses are greater than for any other companies in the sample at this stage of development and again highlight the cost of building a scalable banking and payments platform and the impact of longer sales cycles of these B2B focused companies.

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3. Valuation

The median IRR for first-round investors on paper is 82% but returns decline as companies mature. There is no clear trend in returns over the past six months in comparison to earlier periods.

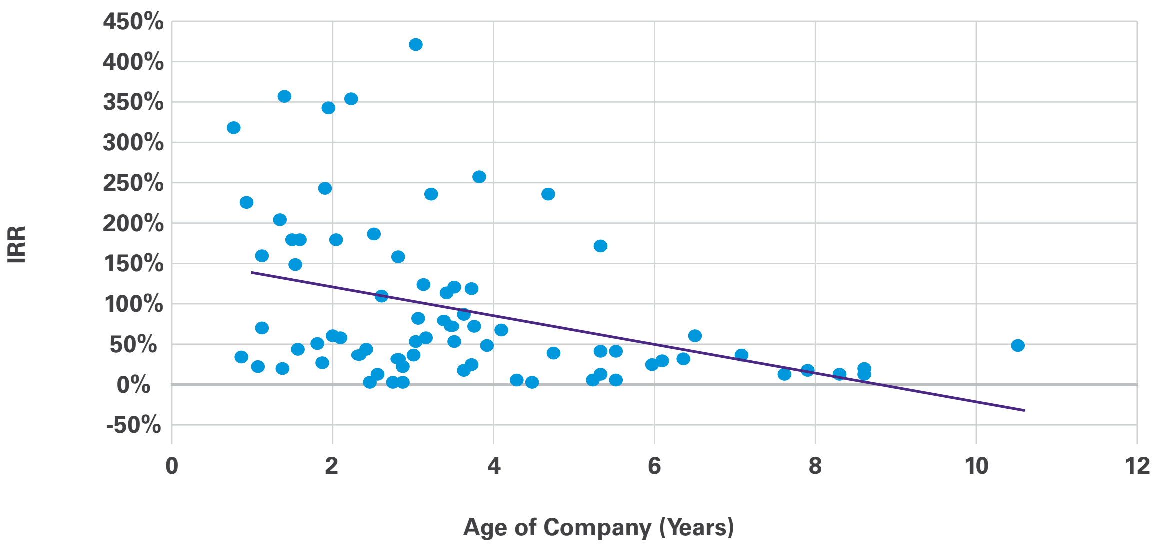
Valuation is measured using the price per share at which shares are issued to investors and the number of shares in issue – data that companies have to report to Companies House. Based on changes in the share price, the median IRR for the sample companies, from first round to latest round, is 82%. The median increase in price per share expressed as a multiple is 7.1x (note that the median number of rounds is 4.0 and the median number of years between the first and latest round is 3.0).

What is IRR?

Internal rate of return (IRR) is a metric used to measure and compare returns on investments. It calculates the return by looking at all of the cash flows (funding and returns) from the investment over a given period, for example from inception or between funding events. It gives an indication of the effective return an investor could get over this period. In this case we have calculated it as a simple IRR of the increase in valuation over the time period between the valuation points. We have not taken into account individual cash flows as there is, typically, not sufficient information included on this across the sample.

We would expect that the rate of increase in price per share, and hence the IRR, declines as companies get older and this is confirmed by the statistics from the sample – see chart below. Here we have looked at the IRR just for the latest round of funding relative to the previous round of funding. IRRs before the fourth round of funding are quite variable, but there is a significant stabilisation following the fourth round. For the 10 companies that have been fundraising for the longest, the median IRR for the latest round of funding relative to the previous round is 14%, whereas for the sample as a whole it is 47%.

Latest Round IRR vs Years of Fundraising



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Median IRR for latest round of funding relative to previous round of funding

10 Oldest companies 14%

Total sample 47%

The table below shows the highest and lowest IRRs for the sample of companies. The highest IRR in the sample is Apexx Fintech (a payment services company) with 1,278%. The company had an increase in price per share of 9x in just under 12 months between its first round and third round of financing. Due to the significant increases in valuation between early stage funding rounds, the companies in the top 10 are generally at the earlier stages of development. Out of the top 10, Revolut has been fundraising for longest and has achieved an IRR of 332% over three years.

There are several possible reasons why companies have lower IRRs. For example, companies like LendInvest and SETL (now in administration) have a low IRR because their initial funding rounds were at relatively high valuations. In another case, Seedrs, the multiple increase in share price from first to latest round is a healthy 5.9x but the time between the first and latest round is over seven years, hence the IRR is quite low.

Highest and Lowest IRRs Based on the Share Price at the Last Round of Funding

	Company	Category*	Vertical	Years Between First and Latest Round	IRR From First to Latest Round	Multiple From First to Latest Round
Highest	Apexx Fintech	TP	Paytech	0.9	1278%	9.4
	Neos	FS	Insurtech	0.8	769%	5.5
	Fluidly	TP	Paytech	0.6	632%	3.4
	Chip	FS	Wealthtech	1.3	588%	11.8
	Bud Financial	TP	Paytech	1.9	570%	38.6
	Habito	FS	Lendingtech	1.9	529%	35.6
	Quantexa	TP	Regtech	1.4	353%	8.2
	Revolut	FS	Bankingtech	3.0	332%	83.0
	Nivaura	TP	Other	0.8	316%	3.0
	Zego	FS	Insurtech	1.1	308%	4.9
Lowest	Seedrs	FS	Wealthtech	7.6	26%	5.9
	Wrisk	FS	Insurtech	2.5	25%	1.8
	Atom Bank	FS	Bankingtech	4.0	23%	2.3
	LendInvest	FS	Lendingtech	2.9	21%	1.7
	Squirrel	FS	Wealthtech	2.9	19%	1.7
	Pockit	FS	Bankingtech	3.7	18%	1.8
	GoHenry	FS	Bankingtech	7.1	17%	3.0
	Netwealth	FS	Wealthtech	2.5	14%	1.4
	SETL	TP	Other	1.4	11%	1.2
	Concirrus	TP	Insurtech	2.2	-28%	0.5

* FS = Financial Services, TP = Technology or Processing Services

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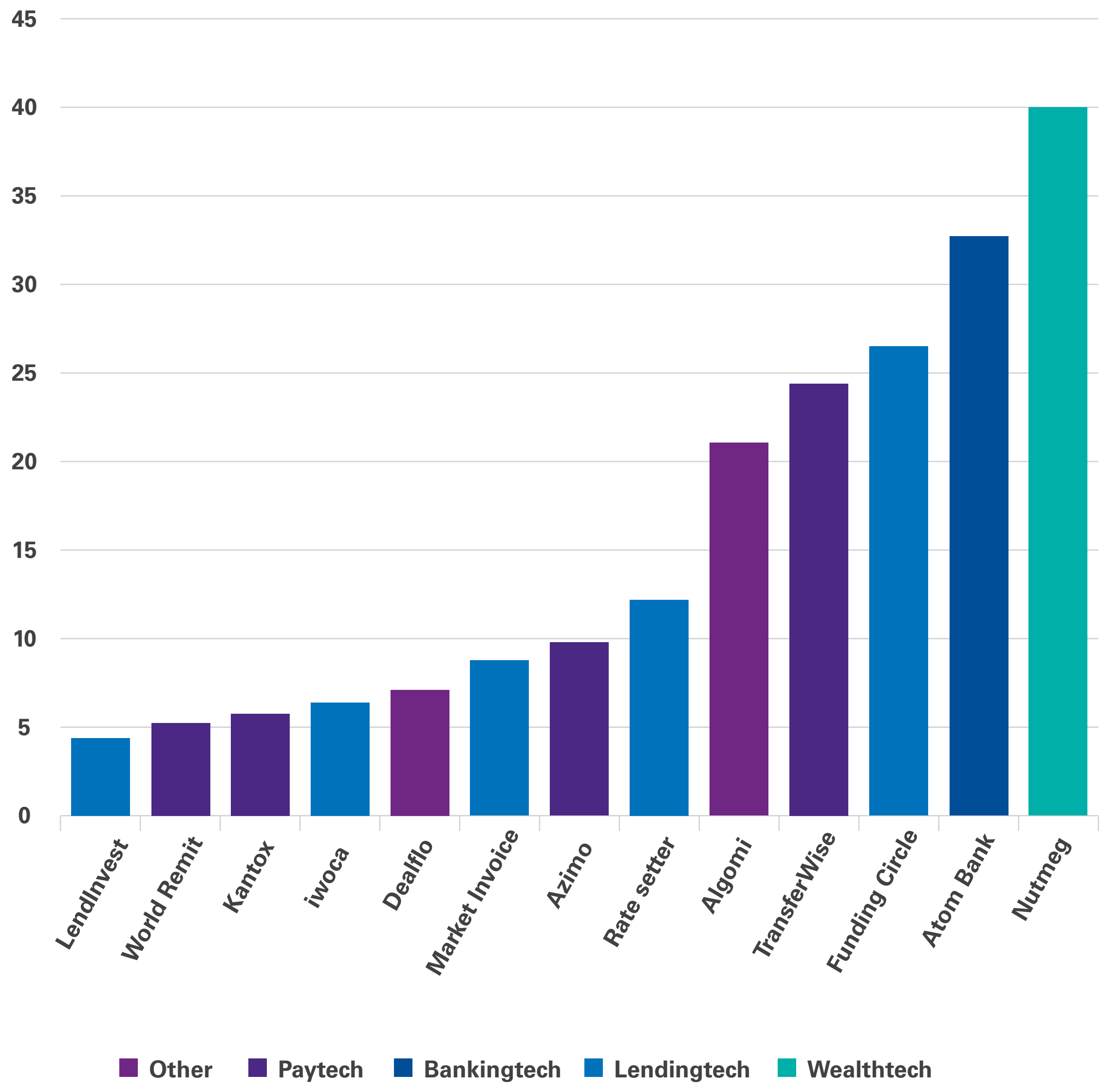
There are 22 companies in the sample that have reported new financing in the six months to 31 March 2019. The median IRR for these companies, measured from the previous round to the latest round, is 46%. This is very similar to the equivalent measure of median IRR for the whole sample, which is 47%, and hence there is no clear trend in valuations up or down in the past six months.

To compare relative valuations at a point in time we can look at the valuation-to-revenue multiple. The chart below shows the multiple for the 13 companies that were reporting revenues at the end of year five. The companies with the lowest valuation-to-revenue multiple at this stage were World Remit, iwoca and Kantox. At the other end of the scale were Nutmeg (which had weak revenues but a high valuation), Atom Bank and Funding Circle. There is a very wide range and no clear explanatory factors so we can conclude that this is probably an unreliable measure of valuation in the early stages of development for companies in the fintech sector.

Valuation to Revenue Multiple in Year Five



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4. Comparison of Categories and Verticals

Returns to investors are highest so far in the paytech vertical which itself represents a very diverse range of businesses. The financial performance of companies in bankingtech is lower than the other verticals, driven by the performance of the digital banks.

The companies that have at least reached break-even, or have had an exit, are all from the lendingtech or paytech verticals, except one. It may still be too soon to judge across the various verticals but there are some variations in financial performance and returns to investors.

The Vertical Star

Paytech

Largest funding in early rounds

Fastest growing valuations in early rounds

Highest returns in early rounds and overall

Investor Darlings

Technology or Processing Services

Less capital hungry

Most scalable

Highest value growth

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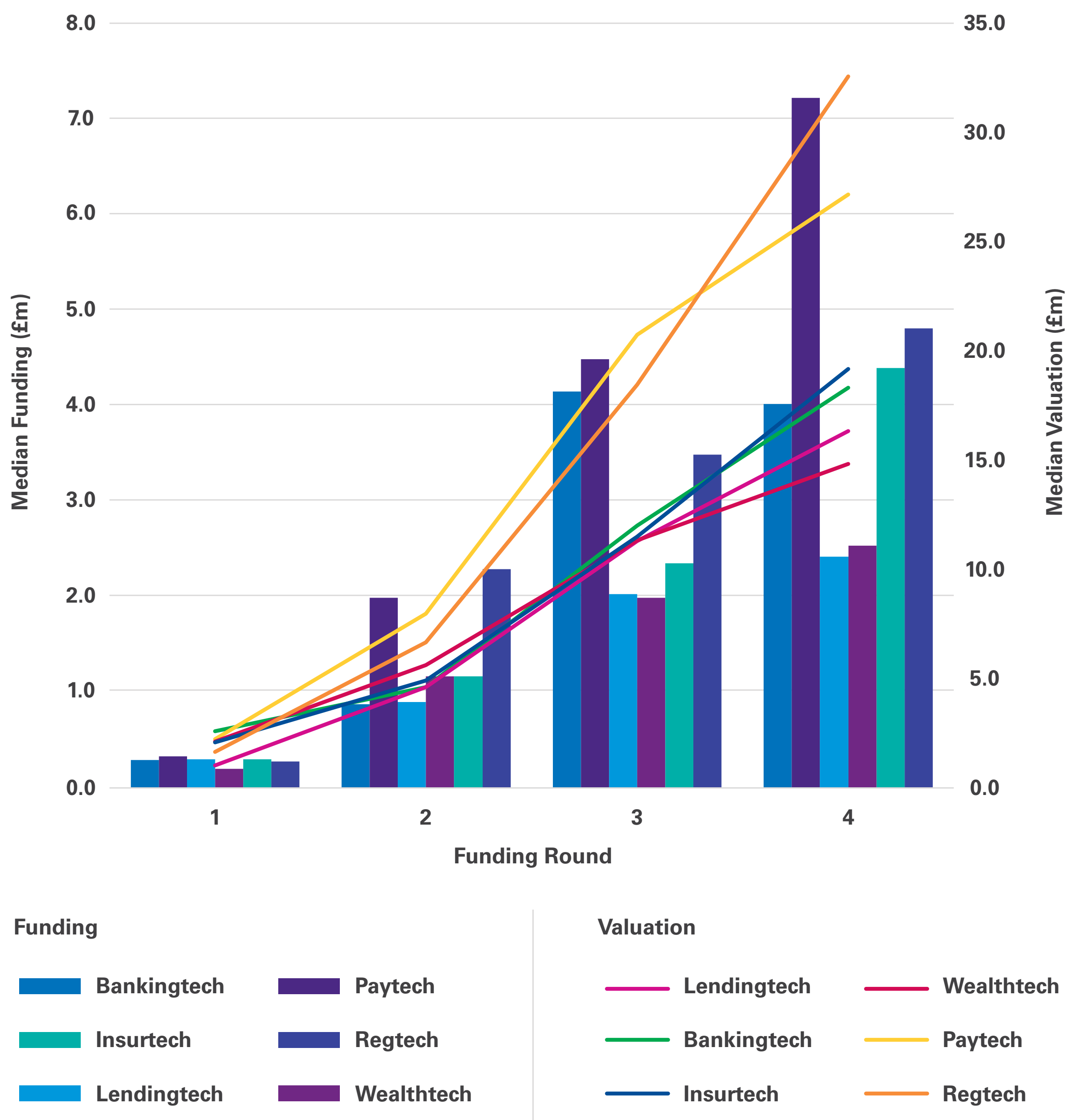
Financing

We have compared the first 4 funding rounds for the companies in each vertical which have completed at least 4 rounds. In the 3rd and 4th funding rounds, the paytech and regtech companies in the sample are raising more and at higher valuations than the companies in the other verticals. The bankingtech vertical also shows a big increase in the amount raised in the 3rd round but not such a big increase in valuation. In fact, the very large funding rounds for the digital banks start from about round 5 onwards, whereas the digital neo-banks have tended to work with smaller funding rounds for much longer.

Funding and Valuation of First 4 Rounds by Vertical



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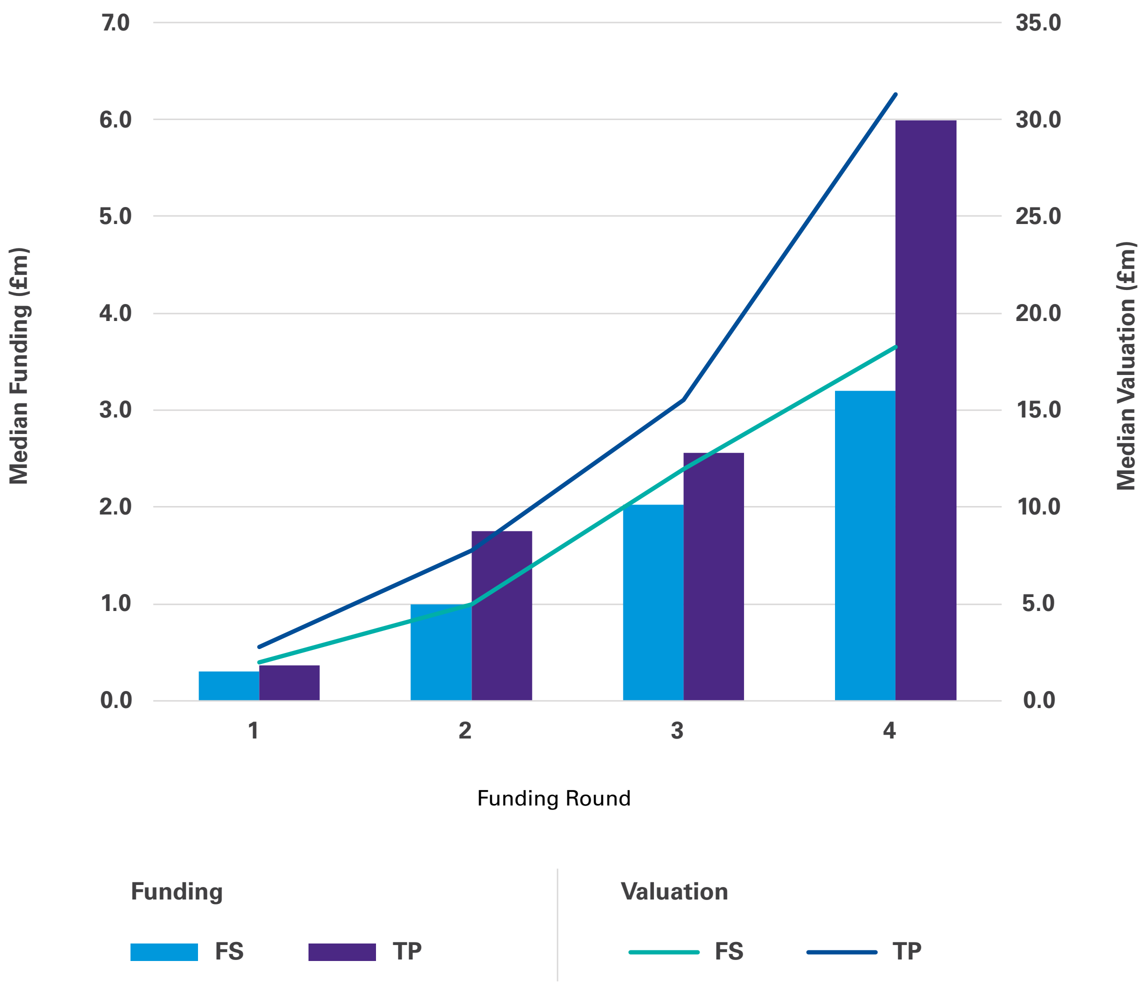
If we consider the same data by category, we can see that the technology or processing services businesses start to raise more in rounds 3 and 4 than the financial services companies, and at much higher valuations in round 4. This is consistent with the results by vertical because many of the paytech and all of the regtech businesses are in the former category. It is also worth noting that the financial services companies tend to be raising funds more regularly at the early stages and with smaller funding rounds compared to the technology and processing services businesses. The median number of days between the first four rounds for technology and processing services being 359 compared to only 271 for the financial services companies.

This perhaps suggests that investors become more comfortable by rounds 3 or 4 with the business models of the technology and processing services businesses – which might also attract a wider range of traditional tech investors and CVCs – whereas the business models of some of the financial services businesses, which are losing more money on average (see below), bring more uncertainty for investors and take longer to prove themselves.

Funding and Valuation of First 4 Rounds by Vertical



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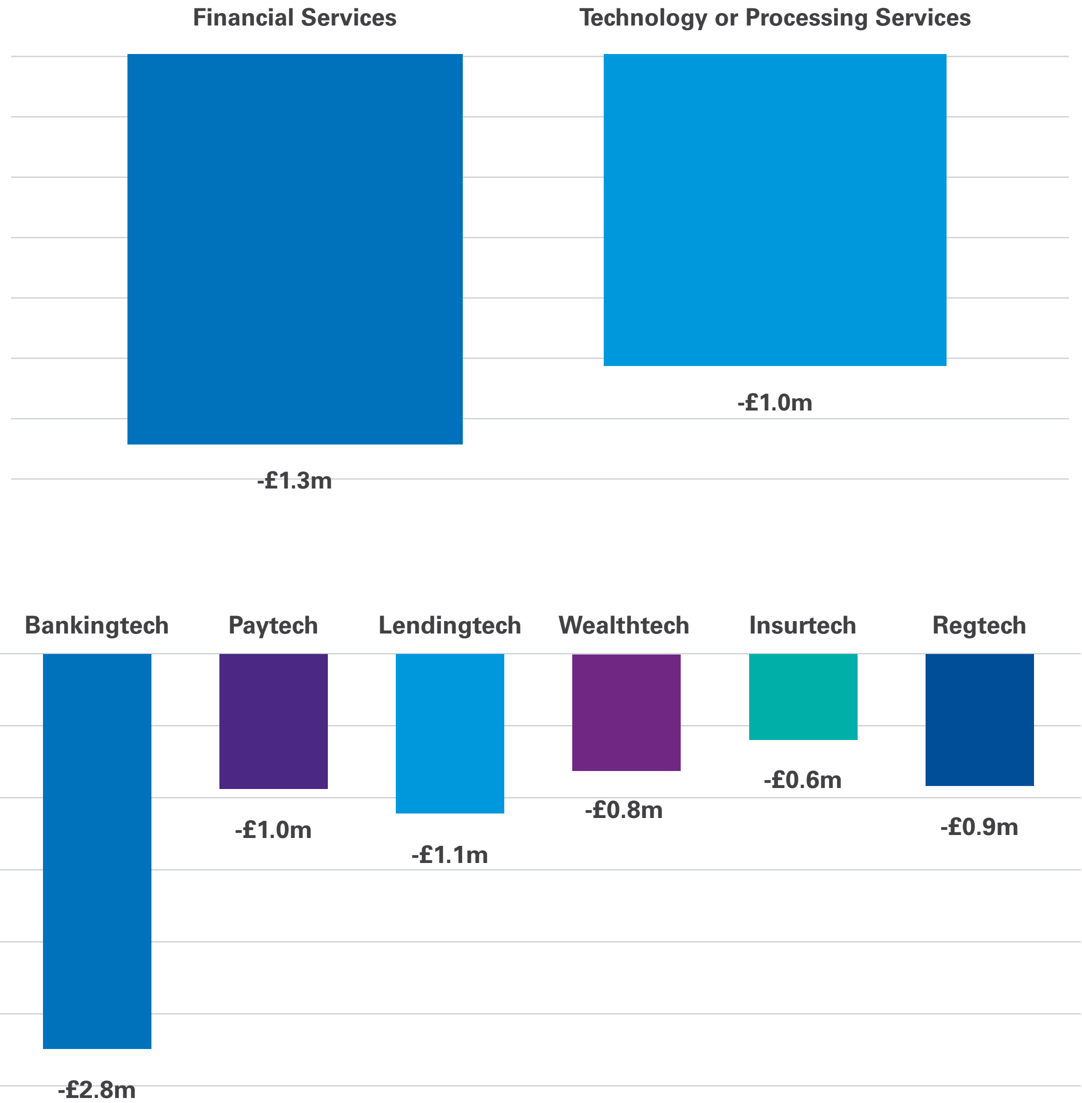
Performance

The sample companies offering financial services (either for retail or business customers) have incurred, on average, higher losses per annum than companies offering technology or processing services. The difference is mainly due to the losses incurred by companies in the bankingtech sector, all of which are in financial services. This sector is dominated by the digital banks and neo-banks. For the remaining verticals the median losses are more consistent other than insurtech, which is slightly lower. This is the least mature vertical and therefore the sample will be at an earlier stage and incurring lower losses.

Median Losses per Annum of Reporting



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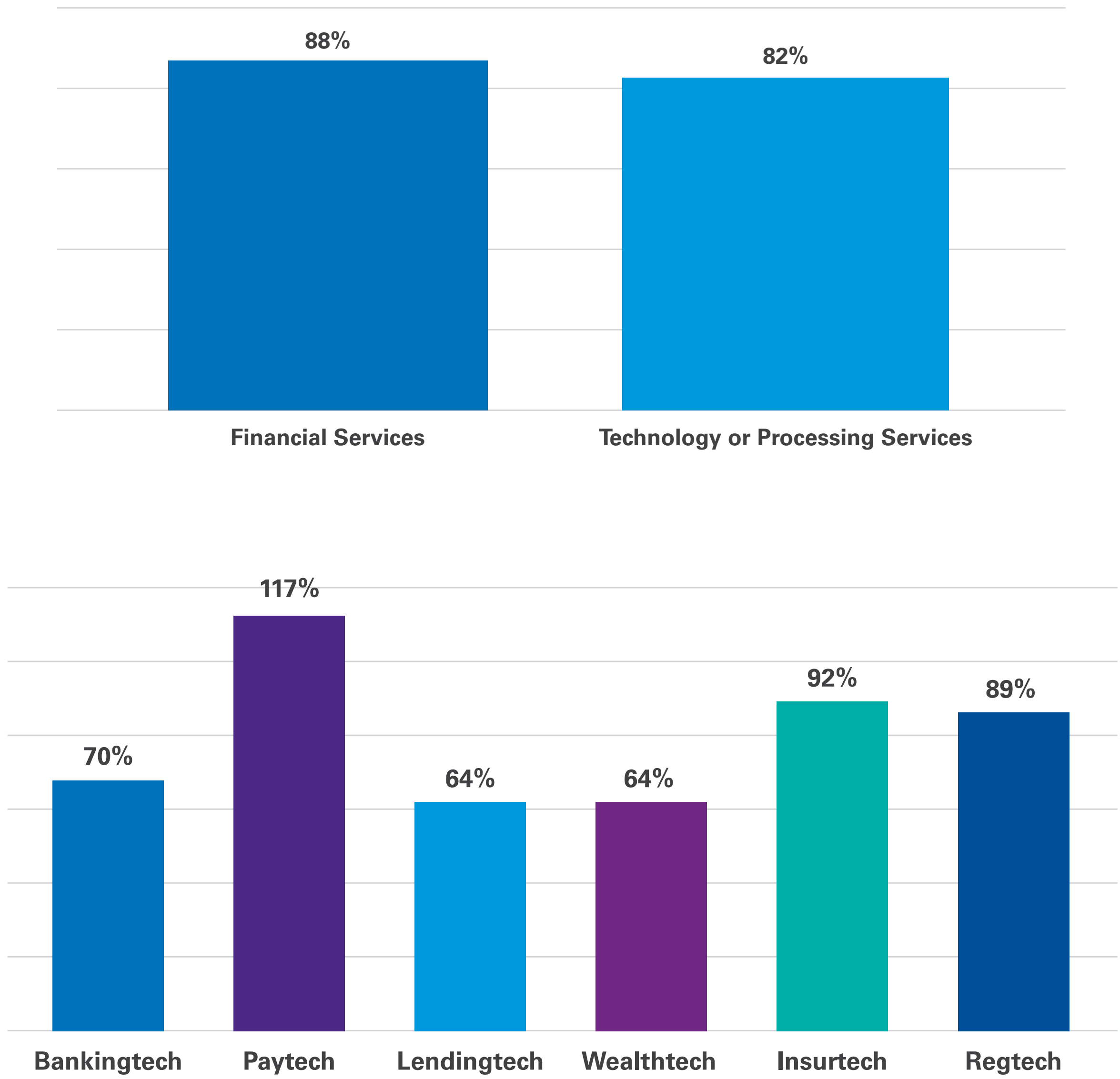
Valuation

The IRRs for first round investors by vertical show that paytech is the outstanding performer to date with 117%, compared to the worst performing verticals of lendingtech and wealthtech at 64%.

The paytech companies in the sample have been fundraising for a shorter period of time and this is one explanatory factor – as we have seen earlier, IRRs tend to decrease for older companies. Payments acceptance and processing startups in other markets have been notable success stories like Square, Stripe, Adyen and iZettle but our definition of the vertical includes quite a diverse range of businesses so it is difficult to conclude that one particular type of business is more or less successful. High IRRs to date in our paytech sample have been achieved by Apexx Financial (payments processing for merchants), Fluidly (cashflow forecasting and management for businesses) and Bud Financial (open banking technology platform for financial service providers).

IRR from First Round to Latest Round



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We have considered the IRR's for first round investors at each subsequent funding round up to round 4, by vertical and by category, for those companies with at least 4 rounds of funding. Note that these IRRs by vertical at each round can be quite volatile because of the small samples and the median calculation.

However, paytech is again the best performing of the verticals in these early stages and maintains a median IRR at a high level of around 200%, whereas the other verticals converge on a lower level below 100%. This convergence to lower levels is inevitable - all of the 27 companies in our sample which have been raising funds for more than 5 years have seen their IRRs decline to below 100%, except for 3 – TransferWise (paytech), Receipt Bank (paytech) and Tessian (regtech).

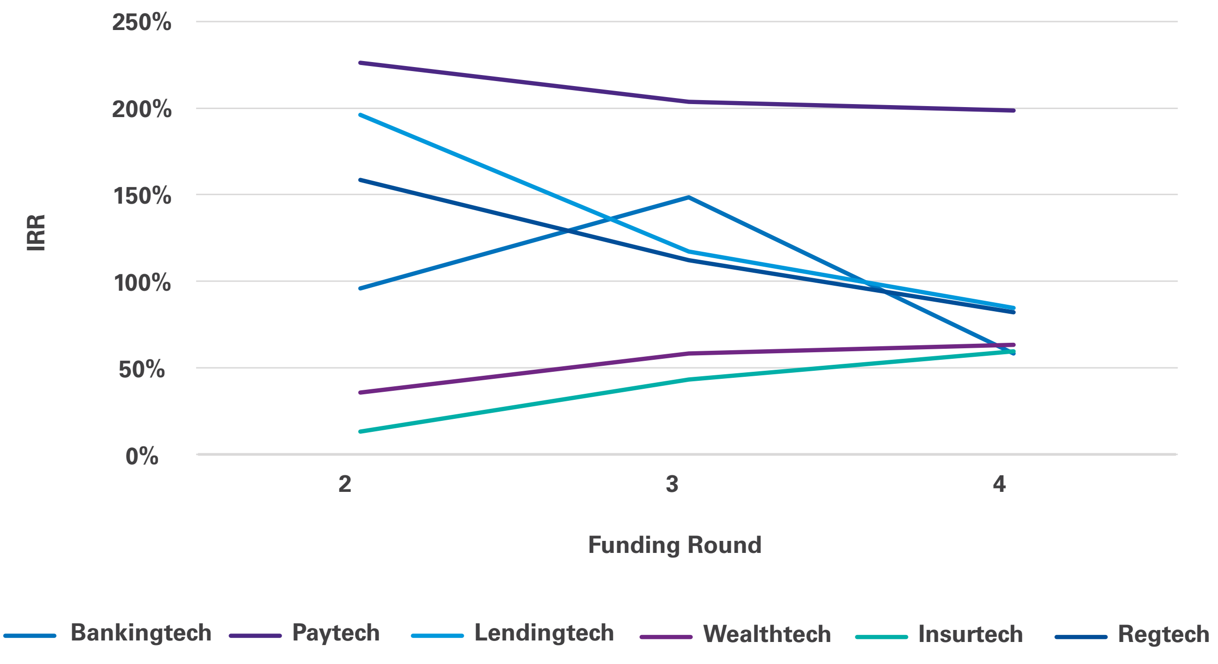
The big decline in bankingtech IRRs at round 4 to just 62% suggests that at this stage of their development these companies are yet to convince investors of the business model and achieve a big uplift in valuation. As noted above, the winners in this vertical start to emerge with substantially larger funding rounds and valuation uplifts from rounds 5 and 6 onwards – for example companies such as Monzo, Revolut and Monese. There are examples in other verticals too, such as Bought by Many in insurtech, where the business model proves itself over the initial 3 to 4 rounds and then significant scale-up investment at much higher valuations is possible.

Paytech provides the highest returns

117%

IRR from first to latest round

Median IRR by Vertical



The same analysis comparing financial services and technology, or processing services businesses shows the latter starting with a higher IRR at round 2 but declining to a level matching the former by round 4 (See graph on page 28).

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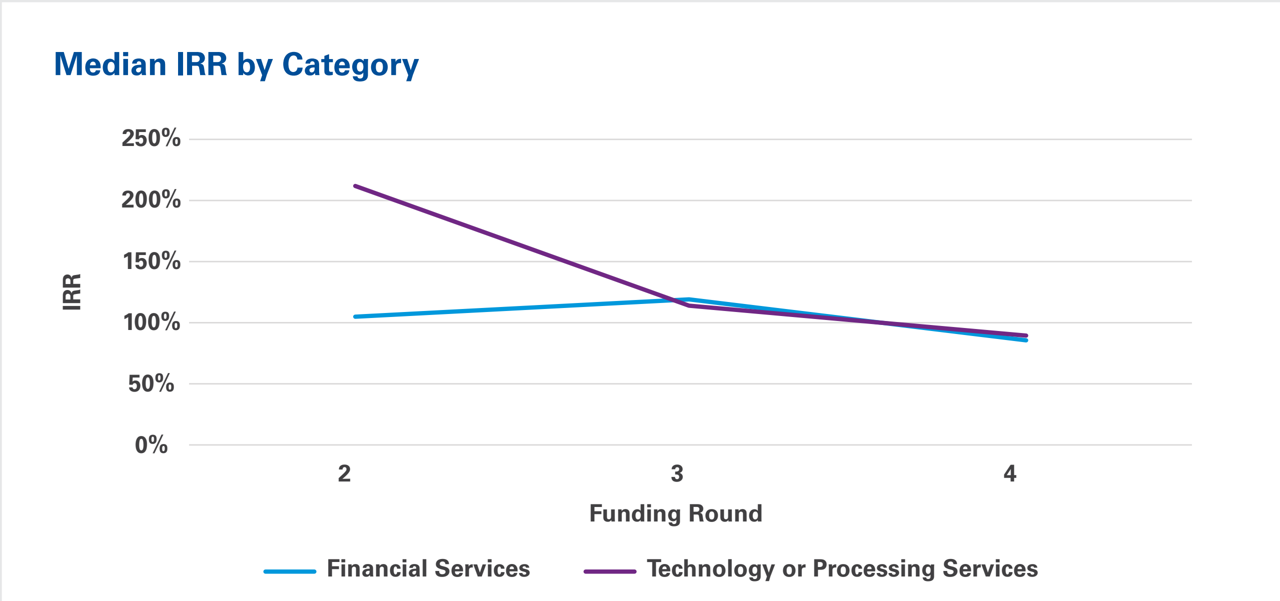
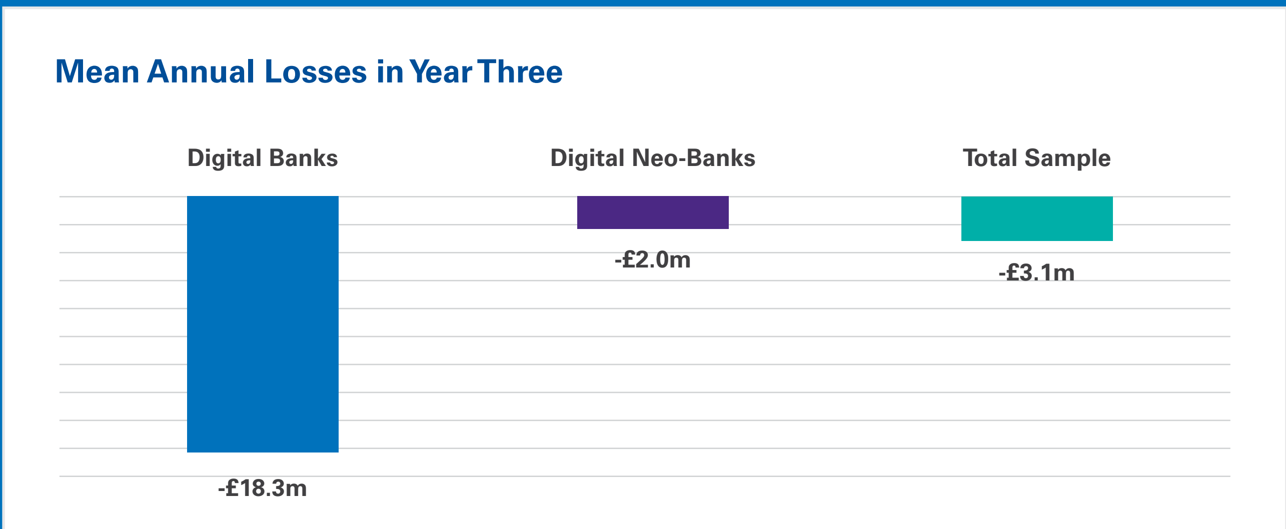


A Note on Digital Banks

The digital banks are some of the most high-profile fintechs, raising large amounts of funding and gaining significant customer numbers in the past couple of years. The cost of setting up a bank with its own banking licence and managing the necessary infrastructure is illustrated by the average losses incurred by the five digital banks in our sample, compared to the total sample. In just the third year of operation, mean annual losses reached £18 million for these five companies – Monzo had the highest losses of the sample, at £31 million in year three. In contrast, the five digital neo-banks in the sample offering bank-like services using prepaid cards incurred only £2 million of losses on average in Year three.



The digital banks sample for this analysis includes Atom, Monzo, Revolut, Starling and Tandem. We have included Revolut because it now has a banking licence and is offering some bank-like services. Zopa has also recently acquired a banking licence and this indicates how boundaries will become blurred over time as fintechs expand their range of services. The digital neo-banks sample for this analysis includes GoHenry, Loot, Monese, Osper and Pockit. It is clear that neo-banks moving towards a full digital banking offering – such as Monzo and Revolut – which requires a banking licence should expect significant increases in accumulated losses for a number of years in order to implement the necessary systems, regulatory requirements and expansion to challenge the industry's incumbents. What they have on their side is the power of new technology platforms and no drag from legacy infrastructure or practices. This advantage is clearly driving their healthy valuations and increased funding sizes.

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5. Corporate Investors

Corporate investment is growing across all verticals, but there is a slight bias towards wealthtech and a slightly lower investment into paytech than the overall sample. The spread of companies that have received corporate investment is consistent with the group overall, with no discernible performance characteristics.

Corporate investors are playing an increasingly important role in the development of fintech in the UK. We found that 38% of the companies in the sample have corporate investors but 62% of the funding rounds completed or announced in 2019 to date for the sample companies have included corporate investors. In this context, the sample broadly reflects the overall fintech universe. KPMG's report on fintech investment in the UK found that corporate investors accounted for 40% of total VC investment in 2018, rising from just 9% in 2015[5].

Companies are adopting a range of different strategies and approaches and it is too early to judge which will be successful. We should also remember that investing in risky startups that are losing money for many years can be a cultural challenge for most large companies, which typically target a more rapid return on investment.

What Do Corporate Investors Want?

- **Enter new market or customer segment**
- **Explore new business models**
- **Lower costs/ efficiency**
- **Address regulatory requirement**
- **Access to new technology**

The participation and support of a corporate investor does not, of course, guarantee success for the startup. SETL, the blockchain technology and platform developer that recently filed for administration, has Computershare, Credit Agricole and Citi as investors. It is also worth noting that none of the eight companies in the sample that have reached break-even or achieved an exit, and none of the unicorns, have corporate investors. Although, due to the relatively recent rise and expected longer hold periods from corporate investors, this is not expected. In subsequent reports, we will monitor for changes here as the fintechs with corporate investors mature.

Notable recent cases so far in 2019 have been Royal Bank of Scotland taking a stake in digital neo-bank Loot, Goldman Sachs taking a stake in digital investment company Nutmeg, and Nationwide taking a stake in 10x Future Technologies. For Nationwide, the investment is part of a strategic partnership with the intention of using the 10x platform to enter the business banking market.

> *"We believe we can become the gamechanger in the business current account market – just as we have for personal accounts... Like us, 10x is aiming to massively improve service in financial services and are therefore a natural partner."*
>
> Joe Garner, CEO of Nationwide Building Society[6]

5. UK Fintech State of the Nation, April 2019, UK Department for International Trade – KPMG's Report on Fintech Investment in the UK
6. Nationwide Building Society Press Release 7 March 2019

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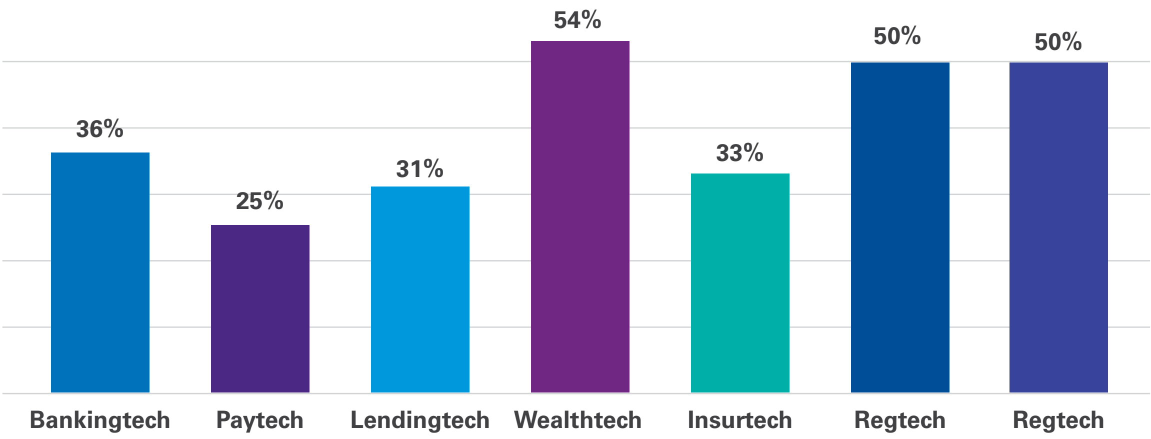
The companies that have corporate investors have some very similar characteristics to the sample as a whole (see table). There is a bias towards investments in technology or processing services companies where 48% of the sample have a corporate investor. This compares to the financial services companies where just 31% have a corporate investor. Corporates are investing across all the verticals but our sample indicates a slight overweighting in wealthtech, where 54% of the sample companies have a corporate investor, and a slight underweighting in paytech, where only 25% of the sample companies have a corporate investor (see chart below).

48% **of technology or processing services fintechs have a corporate investor**

Median Values	Companies With Corporate Investors	Total Sample
First Round Amount Raised	£330k	£330k
First Round Share of Investors	20%	20%
Total Rounds	4	4
Cumulative Profit After Tax	-£3.9m	-£3.9m
Number of Founders	2	2

Percentage of Companies in Each Vertical with a Corporate Investor



In some cases, investments are made by a corporate venture fund with strict financial objectives and the strategic connection to the core business of the corporate can be quite limited. For example, Commerzbank Ventures which has invested in iwoca. In other cases, the investments are ad-hoc and are based on a working relationship with the corporate e.g. HSBC with Bud Financial and Quantexa (see box). In both these cases, HSBC is deploying the solutions developed by the startup and will get the benefit from increased revenues or lower costs, and from any long-term appreciation in the value of the investment.

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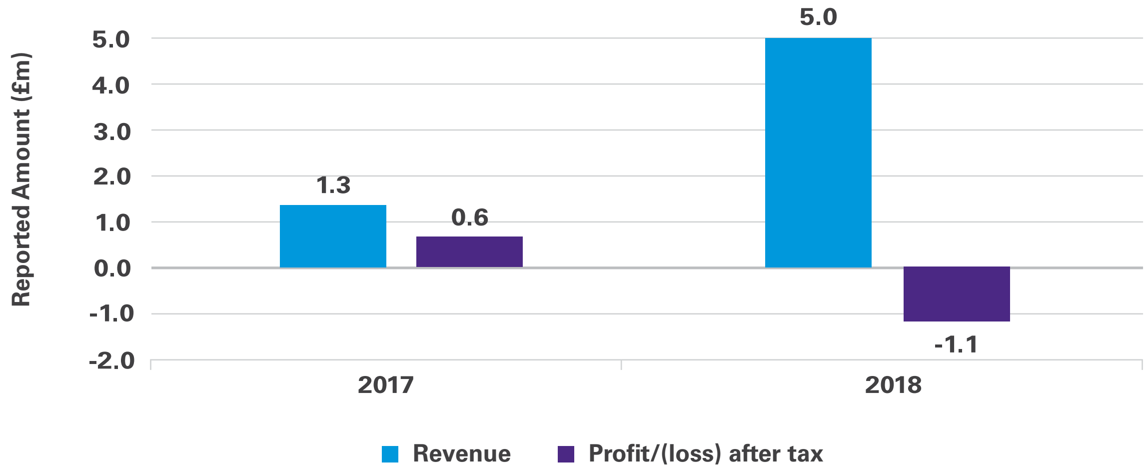
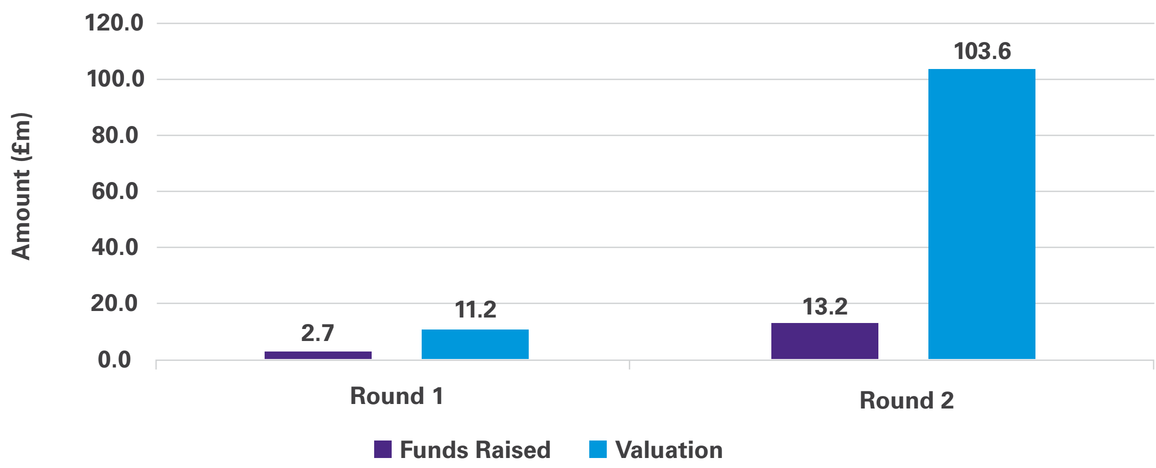
Case Example: Quantexa

Quantexa was founded in 2016. The company uses big data analytics to help financial services companies manage risk. It is a rare case because the company generated significant revenue in its first year of operation and reached £5 million of revenue in its second year (to March 2018) incurring a loss after tax of just £1 million in that year. HSBC became a strategic investor in 2017 when the company raised £2.7 million in its first round. Following a successful pilot, HSBC then announced it would integrate Quantexa technology in its systems to help identify money laundering activity. With a second round of financing in 2018, Quantexa has now raised £16 million in total, with the latest valuation being £104 million. The IRR for first-round investors at the second round valuation is 353%.

Financial performance



Mean Annual Losses in Year Three



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A few incumbents are running accelerator programmes and may make investments in the companies coming through the accelerator. Barclays has one of the largest and longest-established programmes, in partnership with Techstars. At the London accelerator, Barclays supported 42 companies in the first four cohorts (from 2014 to 2017), of which around 80% went on to raise at least one round of external funding. Barclays itself invested in some of the companies, for example Squirrel, as well as others in our sample that were not from the accelerator such as Market Invoice.

Companies focus their investment activities on a range of different areas but typically they aim to explore new technologies and business models rather than invest in companies that will directly disrupt the core business. Santander InnoVentures, based in London, has invested in blockchain company Ripple and developed payments services in partnership with the company. More generally Santander InnoVentures focuses on:

1. Payments
2. Marketplace lending
3. e-Investment advisory
4. Client and risk analytics
5. Digital delivery of financial services[7]

Another strategy of note is where fintechs partner with a corporate investor as part of an expansion in a new geography. A good example is the recent investment of £15 million by Hong Kong-based Convoy Global Holdings in Tandem as part of an agreement to allow Convoy to use Tandem's technology to launch a digital banking service in Hong Kong. Convoy also has an investment in Nutmeg.

Typically, investments made by corporates are not at the first round although there are some exceptions: for example, PPF Group (a Czech Republic-based financial holding company with a focus on consumer credit) made a first-round investment in ClearBank of £2.5 million for a 39% equity stake. Investments are also usually for a minority stake but in the case of Wealthify (a digital investment manager), Aviva took a majority stake of just over 50% for £15 million. More recently Aviva acquired a majority stake in Neos (digital home insurance).

7. Santander InnoVentures website

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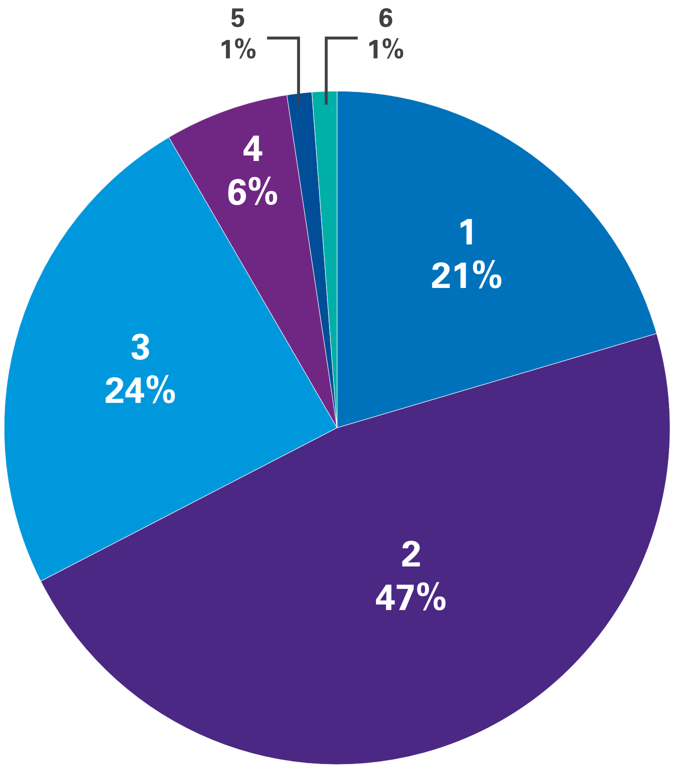
6. Founders and Shareholdings

The median number of founders per company in the sample is two and two-thirds have only one or two founders. Some founders have been able to retain high shareholdings with high valuations on paper, whereas others have seen their holdings diluted over time without achieving much increase in value, typically where progress has been relatively slow for the business.

The median number of founders per company in our sample of companies is two. The most we have identified are at Quantexa (six) and Previse (five). It is notable that 20% of the companies have a single founder – for example, Starling, 10x Future Technologies and ClearBank – though of course the founders at these companies assembled strong teams around them to help build the business.

Number of Founders per Company (Percentage of Sample)



The founders of our sample of companies come from a range of different backgrounds. In the early days of fintech in the UK, founders were more likely to be young entrepreneurs from inside or outside the industry but with limited experience. More recently, we can see that very experienced industry executives have been taking the plunge and setting up or getting involved in fintech startups, demonstrating that incumbents are taking the sector seriously.

One slightly disappointing statistic from the sample is that only nine companies, 10% of the total, have a female founder or co-founder – see table on page 36. It is also interesting that eight of these companies are in retail financial services and so the representation of female founders in technology or processing services companies is extremely low. Notably there is no representation in regtech, insurtech or lendingtech.

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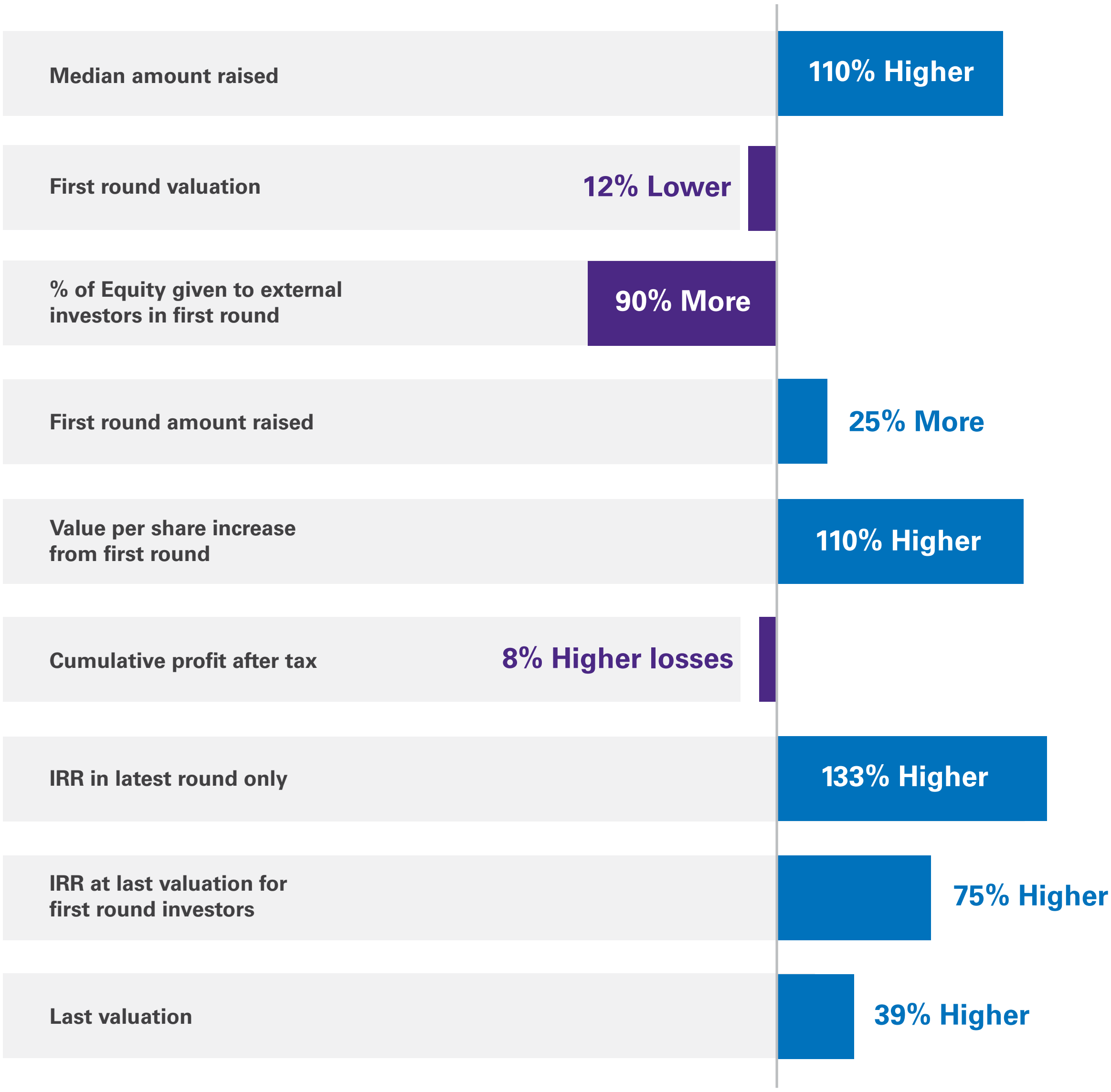
Overall the sample of companies with female fintech founders or co-founders performs in line with the median metrics we have discussed earlier, but the sample is biased by the funding, performance and valuation of Starling. As noted, digital banks perform differently to the wider sample and therefore if we remove these from the sample we do observe some more deviation from the overall median values, albeit this is for a small sample which makes it difficult to determine definite trends.

The female founder sample overall is younger: 3.1 years vs 3.8 years. Therefore, compared to the entire sample, we would expect the median valuations and median cumulative losses would be lower and median IRRs would be higher. We therefore compared our female fintech founders (FF fintechs) sample to the metrics of a group of fintechs around the same age: 2.5 years to 3.5 years old (our comparative sample). Our FF fintechs support this hypothesis, but appear to be performing slightly better than our comparative sample.

Female founder fintechs comparison to peers



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Companies with Female Founders or Co-Founders

Company	Category*	Vertical	Female Founder or Co-Founder
Cleo	FS	Wealthtech	Aleksandra Wozniak
Fluidly	TP	Paytech	Caroline Plumb
Flux Systems	FS	Paytech	Veroniqu Barbosa
GoHenry	FS	Bankingtech	Louise Hill
Netwealth	FS	Wealthtech	Charlotte Ransom
PensionBee	FS	Wealthtech	Romina Savova
Starling	FS	Bankingtech	Anne Boden
Wealthify	FS	Wealthtech	Michelle Pearce
World Remit	FS	Paytech	Catherine Wines

* FS = Financial Services, TP = Technology or Processing Services

Our FF fintechs are achieving a lower mean first round valuation of £2.0 million compared to £2.3 million for our comparative sample. This is at the cost of more equity: FF fintechs have to give away 25% of equity in the first round compared to only 13% for the comparative sample. Performance appears to be slightly worse with median cumulative losses 8% higher than our comparative sample, but this is not dampening this group of fintechs' ability to raise funds. The median amount raised is £4.7 million compared to only £2.2 million for the comparative sample and the median latest valuation is £28.6 million compared to only £20.6 million.

The impact of this on returns is significant: the median IRR in the latest round for FF fintechs is 112% compared to only 48% for the median of the comparative sample. This is also consistent with the IRR at the latest valuation point for the first-round investors, where the median IRR of the FF fintechs was 175% compared to only 99%. This is having a substantial impact on the value-per-share increase, which is 7.9x compared to 3.6 x for the comparative group.

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It is a challenge for any entrepreneur to build their business and raise funding while retaining an attractive share of the equity as the company develops. This is on the mind of most founders as they think about how fast to grow, and where and when to get funding. The cases in our sample illustrate a range of different possible outcomes, with some founders prospering and others finding it more difficult to create significant value for themselves.

The median current shareholding of the main founder (the one with the largest holding) is 19% and the median value of these holdings is £5.4 million. The value of the main founder's shareholdings is shown in the table below for the 10 most valuable holdings on paper. In addition, founders and senior management are likely to have share incentive schemes that could boost their holdings over time, but we have not tried to calculate the impact of these. There are eight cases in the sample where the main founder currently has less than 5% of the equity. In most of these cases it is because the company has had several rounds of funding and not enough growth in value, so the founder shareholding has been more heavily diluted. The value of shares held by these founders is only £2.6 million on average.

£5.4m **Median value of main founder shareholder current holdings**

Largest Founder Shareholding Values

	Company	Category *	Vertical	Years Since First Round	Number of Founders	Shareholding of Founder With Largest Share	
						%	£m
1	Revolut	FS	Bankingtech	3.4	2	27.3%	301.9
2	TransferWise	FS	Paytech	6.7	2	20.4%	230.2
3	Funding Circle	FS	Lendingtech	8.6	3	6.1%	91.3
4	10x Future Technologies	TP	Paytech	1.0	1	80.8%	85.0
5	World Remit	FS	Paytech	8.2	2	17.7%	81.0
6	Monzo	FS	Bankingtech	3.2	4	7.7%	71.7
7	LendInvest	FS	Lendingtech	2.2	2	36.0%	57.4
8	PensionBee	FS	Wealthtech	2.4	1	50.1%	51.0
9	Mimiro (ComplyAdvantage)	TP	Regtech	3.0	1	45.3%	50.6
10	iwoca	FS	Lendingtech	1.6	2	13.4%	39.0

* FS = financial services, TP = technology or processing services

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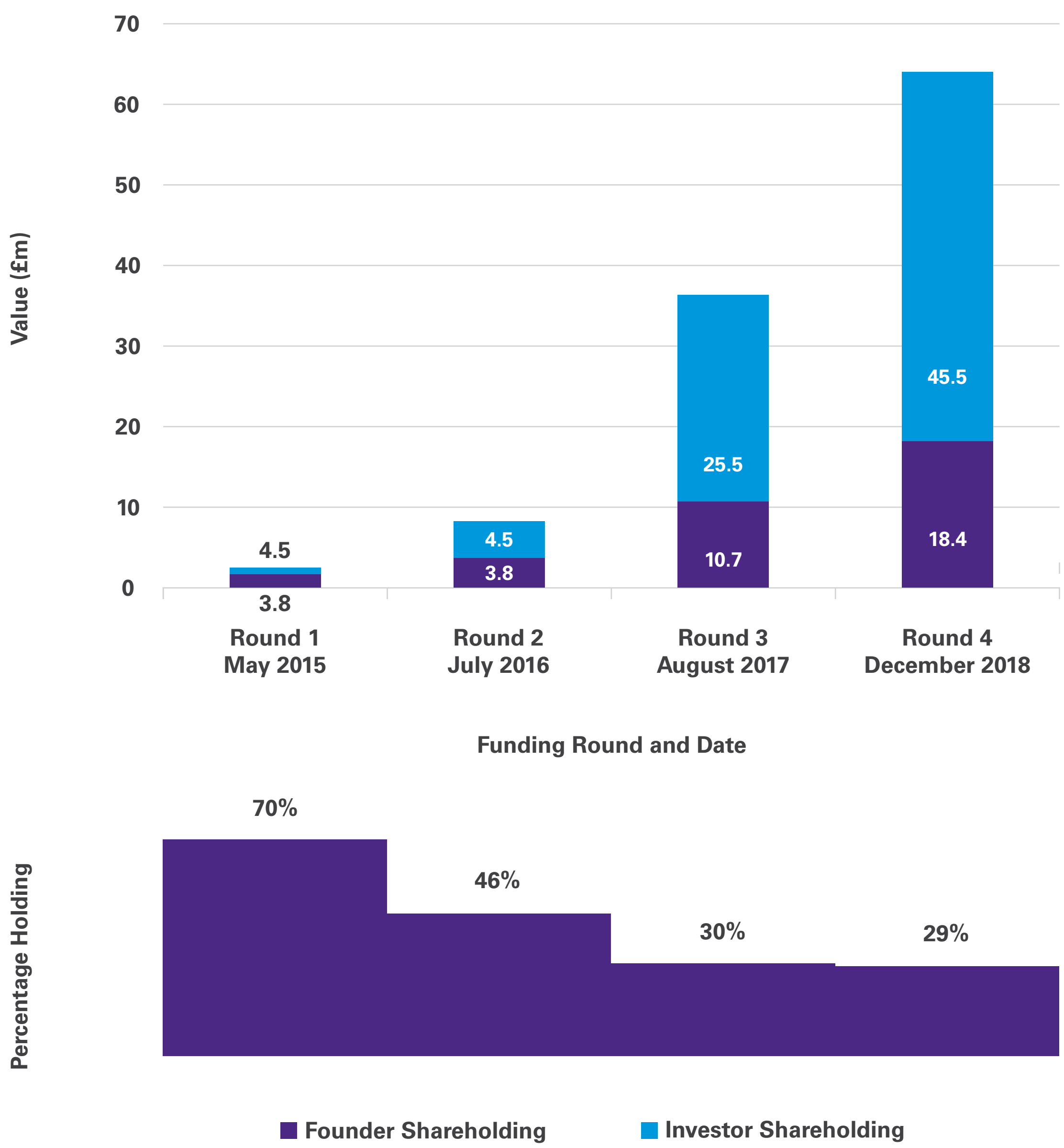
No two cases are the same but Privitar is a good example of a typical progression of founder shareholdings over the course of four funding rounds. At Privitar there were three founders and together they have retained 28% of the equity valued at £18 million.

Profile of the Median Profit/(Loss) After Tax for Sample Companies



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7. A Note on Critical Success Factors

To measure success, we first need to define what we mean by success. For a startup this can be a series of stages on the road to a successful exit for investors. The various stages might be summarised as:

1. **Developing a minimal viable product**
2. **Raising a first round of funding**
3. **Fully launching a product or service**
4. **Raising further rounds of funding at higher valuations**
5. **Reaching meaningful customer numbers**
6. **Generating profits or becoming cash flow positive**
7. **Achieving an exit for investors through IPO or trade sale**

All the companies in our sample have passed the first four of these stages and some have also passed stage five, which is to achieve meaningful customer numbers. For example, Bought By Many in the insurtech vertical has gained nearly 800,000 customers since launch in 2017.

However, stages six and seven are proving more difficult to attain as we have already noted and so there is a relatively small sample of cases from which to determine critical success factors. There are six companies in the sample that are at least breaking even, but the only two exits for investors have been at Funding Circle (IPO) and Dealflo (trade sale) (see box). Both these companies were losing money at the time of exit.

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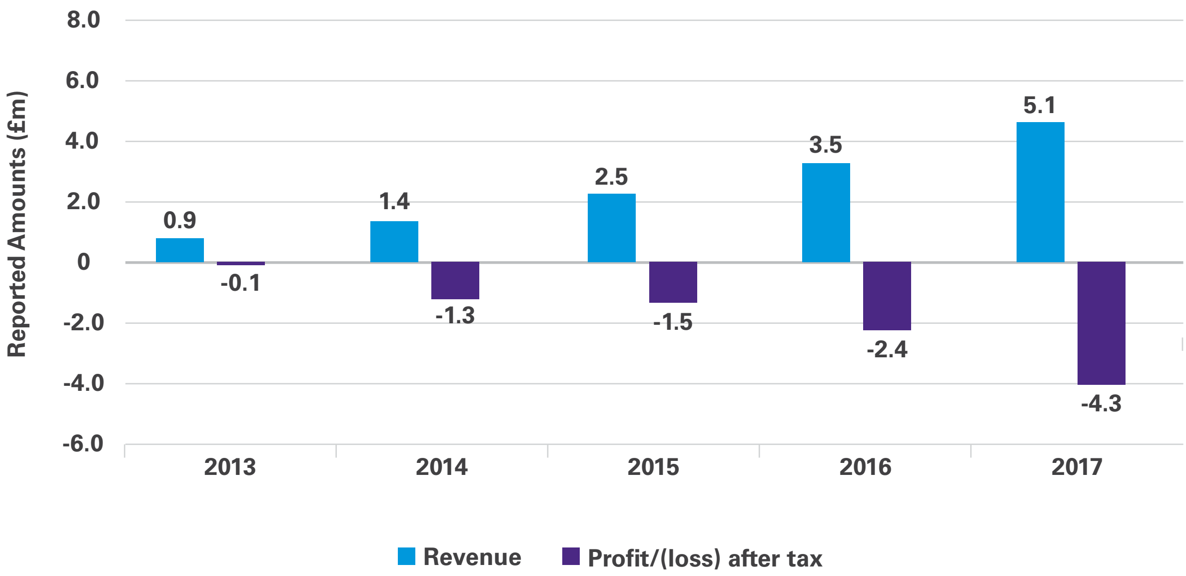
Case Example: Dealflo

Dealflo was founded in 2013 and provides technology for the automation of legal agreements. A typical use is in the onboarding of new retail financial services customers using digital agreement processes. The initial round of funding in 2015 raised £1.5 million and gave investors a relatively low 10% share of the equity in the company. In total, the company raised £12 million over two rounds of financing before being acquired in 2018 by OpenSpan for £41 million. As reported in the 2017 accounts, the company had revenues of £5 million and had a loss after tax of £4 million. Cumulative losses up to the end of 2017 had been £10 million. Hence, the price paid by OpenSpan represented 8x the previous year's revenue.

Dealflo's Reported Financial Performance



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This is a very small sample from which to determine statistically robust critical success factors although it is notable that seven of the eight companies are in the lendingtech or paytech verticals. This might indicate that in these areas there are more rapid routes to success.

Some of the retail financial services cases in our sample have been able to build their customer bases by having a simple proposition, making it easy for the customer to sign up, and offering a free service to encourage adoption. This applies to Revolut, Monzo and ClearScore, for example. The second stage of the strategy is then to cross-sell more profitable products. ClearScore has been able to do this and had achieved break-even in its latest reported accounts.

Other researchers have identified the number of founders and age of founders as being relevant success factors (see box) – larger founding teams with an average age of 45. The eight companies in our small sample of success cases do not conform to this with the average number of founders being two (the same as for the total sample) and a wide range of ages from 27 to 72.

As the sample matures, and as we identify more successes and failures, we expect more indicators to emerge. We will conduct further analysis to identify the relevant critical success factors for fintech in the UK.

Note: Research on the Importance of Founders in Startup Success

In research from 2005, Joel Kurtzman and Glenn Rifkin found that startups with larger founding teams (three or four) were more likely to be successful[1]. More recent research reported in the Harvard Business Review found that the most successful startups were led by founders with an average age of 45[2].

1. Startups That Work, Joel Kurtzman and Glenn Rifkin, Penguin 2005
2. Pierre Azoulay, Benjamin Jones, J Daniel Kim, Javier Miranda, Harvard Business Review, July 2018

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Methodology and Research Notes

The data for this report has been compiled from statutory filings at Companies House in the UK. All limited companies are required to file annual financial statements (full or abridged), an annual statement of share capital and shareholdings, and details of any share issues made. We have not sought to confirm the completeness and accuracy of the information contained within the filings and it should be noted that filings at Companies House are not consistently subject to independent review or inspection.

Due to the private nature of many of these companies, the information contained within their annual financial statements is not always consistent and often not of the same level of disclosure as a company which is subject to various transparency disclosure and reporting standards such as the UK Code of Corporate Governance. The data submitted to Companies House is not necessarily consistent with what might be found in the media. Data included in our analysis is solely from the statutory filings with Companies House unless stated otherwise and was extracted up to 29 March 2019 and is not based on media announcements.

Six of the companies in the sample have not been included in the full financing and valuation analysis because sufficient data is not available, or they have not reported financing and data in a consistent way over time.

In some parts of the report we refer to averages (mean or median). These figures need to be taken in context, depending on the measure. We think that for some of the measures these averages can provide useful insight but bear in mind there are always outliers.

Where we refer to valuation, this is the on-paper valuation which is recorded at each round of funding based on the price at which shares are issued to investors.

In some cases, it is not entirely clear what is a separate funding round so we have used judgement where necessary to define a funding round. In other cases, the share issues for a particular round take place over a number of months so we take the earliest issue date for that round, or the date on which the majority of shares were issued in that round.

The data has some limitations. For example, each company will have share option plans which will likely dilute the shareholdings of investors at different points in time depending on performance. Share classes can also have different terms that may favour some share classes on exit or in the case of a down valuation. This is too complex for us to model in the research, but we believe that our general conclusions are still valid.

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List of Companies in the Sample

Company	Category*	Vertical	Service
AimBrain	TP	Regtech	Identity management
Aire	TP	Regtech	Credit scoring
Algomi	TP	Other	Capital markets services
Apexx Fintech	TP	Paytech	Payment acceptance
Atom Bank	FS	Bankingtech	Digital banking
Azimo	FS	Paytech	Remittances
Blue Motor	FS	Lendingtech	Auto lending
Billon Group	TP	Other	Blockchain development
Bought By Many	FS	Insurtech	Personal insurance
BMLL Technologies	TP	Other	Data services
Bud Financial	TP	Paytech	Financial management
By Miles	FS	Insurtech	Personal insurance
Credit Benchmark	TP	Regtech	Credit assessment
Concirrus	TP	Insurtech	Insurance data services
Cloud Margin	TP	Lendingtech	Collateral management services
Copa Fin	TP	Other	Post-trade settlement services
Chip	FS	Wealthtech	Digital savings and investment
ClearBank	TP	Paytech	Banking services
Cleo	FS	Wealthtech	Financial management
ClauseMatch	TP	Regtech	Document management
Coconut	FS	Bankingtech	Digital neo-banking
Coinfloor	FS	Wealthtech	Digital currency exchange
Clearmatics	TP	Other	Process automation
ClearScore	FS	Lendingtech	Credit scoring
CurrencyCloud	TP	Paytech	FX services
Cuvva	FS	Insurtech	Personal insurance
Cytora	TP	Insurtech	Insurance risk services
Dealflo	TP	Other	Process automation
Divido	TP	Lendingtech	Personal lending platform
Duco	TP	Regtech	Data management
Elliptic Enterprises	TP	Regtech	Financial crime monitoring
ETFMatic	FS	Wealthtech	Digital investment
Form3	TP	Paytech	Payments services
Funding Circle	FS	Lendingtech	SME lending
Featurespace	TP	Regtech	Fraud and risk management
Fluidly	TP	Paytech	Financial management
Funding Options	FS	Lendingtech	SME lending
Flux Systems	FS	Paytech	Financial management
GoCardless	TP	Paytech	Payments services
GoHenry	FS	Bankingtech	Digital neo-banking
Glint Pay	FS	Paytech	Card payments
Godesic (Cutover)	TP	Other	IT services
Habito	FS	Lendingtech	Mortgage broking
iwoca	FS	Lendingtech	SME lending
Kantox	FS	Paytech	FX services

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Company	Category*	Vertical	Service
Konsileo	TP	Insurtech	Insurance broking services
LendInvest	FS	Lendingtech	Property lending
Loot	FS	Bankingtech	Digital neo-banking
Lending Works	FS	Lendingtech	Personal lending
Monzo	FS	Bankingtech	Digital banking
Monese	FS	Bankingtech	Digital neo-banking
Market Invoice	FS	Lendingtech	SME lending
Mimiro (ComplyAdvantage)	TP	Regtech	Financial crime monitoring
Moneybox	FS	Wealthtech	Digital savings and investment
Neos	FS	Insurtech	Personal insurance
Nivaura	TP	Other	Securities issuance services
Nutmeg	FS	Wealthtech	Digital investment
Netwealth	FS	Wealthtech	Wealth management
OakNorth	FS	Lendingtech	SME lending
Osper	FS	Bankingtech	Digital neo-banking
PensionBee	FS	Wealthtech	Pension management
Plum	FS	Wealthtech	Financial management
Pockit	FS	Bankingtech	Digital neo-banking
Privitar	TP	Regtech	Data management
Previse	TP	Paytech	Payment services
Quantexa	TP	Regtech	Compliance services
Ratesetter	FS	Lendingtech	Personal lending
RailsBank	TP	Paytech	Banking services
Revolut	FS	Bankingtech	Digital banking
Receipt Bank	TP	Paytech	Accounting services
Ravelin	TP	Regtech	Fraud and risk management
Seedrs	FS	Wealthtech	Equity crowdfunding
Starling	FS	Bankingtech	Digital banking
Sharegain	FS	Lendingtech	Securities lending
SETL	TP	Other	Post-trade settlement services
Smart Pension	TP	Wealthtech	Pension management
Squirrel	FS	Wealthtech	Financial management
Tandem	FS	Bankingtech	Digital banking
Tessian	TP	Regtech	Email security
TrueLayer	TP	Paytech	Financial management
Trussle	FS	Lendingtech	Mortgage broking
Tradeteq	TP	Other	Trade finance services
TransferWise	FS	Paytech	Money transfers
10x Future Technologies	TP	Paytech	Banking services
Wealthify	FS	Wealthtech	Digital investment
Wirex	FS	Paytech	Card payments
World Remit	FS	Paytech	Remittances
Wrisk	FS	Insurtech	Personal insurance
Yoyo Wallet	FS	Paytech	Mobile payments
Zego	FS	Insurtech	Business insurance
Zopa	FS	Lendingtech	Personal lending

Category: FS = financial services; TP = technology or processing services

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