THE UNIVERSITY OF CHICAGO

Revolut's Revolution: The Rise of a Digital Bank

By

Paweł Rybacki

August 2022

A paper submitted in partial fulfillment of the requirements for the Master of Arts degree in the Master of Arts Program in the Social Sciences

Faculty Advisor: Yan Xu Preceptor: Yan Xu

Abstract

- Revolut, a British fintech company, achieved a remarkable success: As a digital-only bank with the highest valuation, funding, revenues, and total deposits, it emerged as a leader of the digital revolution in banking.
- Revolut adopted the best model of a bank of the future: an agile, adaptive, and datadriven ecosystem of financial services with a friendly face and excellent user experience.
- By prioritizing expansion over profitability and performance over the well-being of its employees, Revolut grew from a currency exchange startup to a digital bank and the United Kingdom's most valued private company in just seven years of operation.
- While Revolut still has a long way to measure up with the top traditional banking institutions in the United Kingdom, it has already become an alternative that challenged their market power and pushed them to compete.
- This case study is an in-depth analysis of Revolut' rise as a digital bank.

Acknowledgements

I would like to express my deepest gratitude to Yan Xu, my Preceptor and Adviser, for his excellent advice and generous support in all stages of my research process and academic progress. I also cordially thank God, my family, and my friends for their love, care, and support.

Table of Contents

INTRODUCTION	5
TRADITIONAL BANKING TODAY	•• 7
THE FUTURE OF BANKING	9
FROM SLOW AND USURIOUS TO FAST AND CURIOUS New Power Dynamics in the Supply of Technology The Supply of New Talent Demand in the Future <i>Evolving Consumer Preferences</i> <i>Customer Loyalty</i>	10 11 12 <i>12</i>
INCUMBENT RESPONSES	.14
REVOLUT'S REVOLUTION	. 15
MEET THE REVOLUTIONARIES CAPITALISTS FUNDING THE REVOLUTION THE REVOLUTION'S LEADER THE ELEMENTS OF REVOLUT'S STRATEGY EXPLAINED	16 17
ATTACKING A PAIN POINT FIRST	. 20
SPREADING THE REVOLUTIONARY IDEA Conquering New Financial Service Markets Expanding the Revolution Globally Earning for the Revolution	22 22 23
A "Revolutionary" Work Culture: Data-Driven and Toxic	25 26
REVOLUT'S FUTURE	.2 7
Revolut as a Threat to Traditional Banks What Makes Revolut Look Formidable? How Powerful is Revolut in Reality? How Receptive to Digital-Only Banking are the Consumers?	28 29
WHAT THE RISE OF REVOLUT MEANS FOR THE ECONOMY AND SOCIETY	32
CONCLUSION	33
APPENDIX: ADDITIONAL FIGURES	36
APPENDIX: EXTRA INSIGHTS ON REVOLUT	40
How Revolut Navigated Through the Pandemic Present Challenges to the Revolution New Technology and Risk Regulators Trust and Customer Service The United States Market How Interconnected are the Digital-Only Banks? Revolut's Ties to Russia	40 40 41 42 42 42
REFERENCES	

THE UNIVERSITY OF CHICAGO

Revolut's Revolution: The Rise of a Digital Bank A Case Study

Paweł Rybackia

Introduction

Revolut is a London-based digital-only banking institution that offers its services exclusively through a mobile app.^b In 2018, Revolut believed that the United Kingdom could become a fully cashless country within a decade.¹ Revolut envisioned itself as the leader of the transition.² With over 20 million individual customers, serving half a million businesses, and operating in over 50 countries, Revolut claims to have become a global financial super app.³ "Our mission is to unlock a borderless economy," said Storonsky, Revolut's co-founder and CEO, in May 2022. ⁴ "What that means is we want to be in every single country and allow people to trade, invest, do business in any single country. There is a huge advantage of being global and providing global accounts." This ambition is becoming reality. If considered a proper bank, Revolut is the 11th largest European bank.⁵ The highest valued private company in the United Kingdom, Revolut is comparable in price to Barclays Bank.

The problem is that Revolut is not a bank yet—at least according to the United Kingdom and the United States.⁶ While Revolut has obtained 44 banking licenses across the globe, including an ECB-recognized banking license in Lithuania, the UK's license

^a <u>Author's personal website: pawelrybacki.com</u>

^b Exhibits on pages 38, 39, and 40 showcase Revolut's logo as well as its board and leadership.

was still pending in mid-2022 after a year and a half since Revolut's application. Among the surmised reasons are Revolut's cryptocurrency transaction monitoring and knowyour-customer policies as well as Storonsky's Russian nationality and his father's highlevel position at Gazprom.^{c7}

Nikolas Storonsky, the cofounder and CEO of Revolut, openly expressed his frustration over the regulators, as the delay costs Revolut precious time for expanding, hampers the growth of trust, and hinders money to be deposited into and paid from Revolut's accounts.⁸ The US license application was already expected to take years to become approved at the time of submission. ⁹ All Revolut's team can do at the point of writing this article is to just wait.

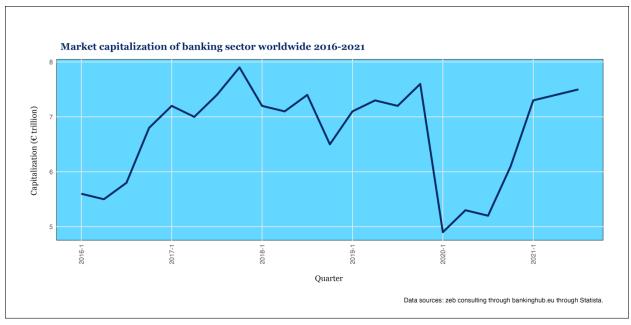
But what would happen if it the company could not obtain the licenses for too many years? In a worst-case scenario, Revolut's valuation may collapse, profitability prospects shutter, consumer trust decline, consumer base shrink, and a company holding assets worth billions of pounds on its accounts may possibly even go bankrupt. As a result, the fragile consumer trust in fintech companies, especially challenger banks may decline, and the idea of an online-only bank may lose traction for decades.

If Revolut is granted licenses in the UK and the US soon enough, however, some of the traditional banking institutions worldwide may lose clients and face a profit decline. Some of them would perhaps struggle with profitability like during a crisis. Innovating at a pace that keeps them attractive to younger generations is going to be structurally challenging for them to achieve. Revolut's revolution calls Western banks

^c Gazprom is a major source of Russian government's revenue and a political tool of Kremlin. In this light, Storonsky's background raises suspicion and security concerns despite his open and active condemnation of the war, his British passport, and the cofounder of Revolut being Ukrainian. More details in the "Revolut's Ties to Russia" section of the Appendix.

today to respond to a similar ultimatum as the Western monarchies faced in the past: reform or step down.

This case study is a story about how digital revolution in banking has come to compete with the ongoing digital transformation. The goal of this paper is to explain how Revolut strategized its growth and expansion to fit into and drive banking industry trends. The paper discusses what the realization of this strategy means for the future of the company, the industry, and economic life. It does this by first describing traditional banking industry, then elaborating on the future of banking and presenting responses from traditional banks to the trends, and finally analyzing Revolut's entrance to banking, its future growth prospects, and societal implications.



Traditional Banking Today

Exhibit 1

The worldwide banking industry is back to a good condition after the Covid-19 pandemic, but its prospects exert a noticeable downward pressure. The global industry

had the market capitalization of 7.5 trillion EU in Q3 2021, which is a rebound after it had dropped from 7.6 to 4.9 trillion EUR between Q4 2019 and Q1 2020.¹⁰ (These trends are illustrated in Exhibit 1 above and reported in a table in Exhibit 9.)

Even though banks have recovered to pre-pandemic levels, McKinsey concluded that the outlook for banks remains "clouded" as of the end of 2021. The consulting firm attributes this outlook to "accelerated" digital banking, along with a lesser use of cash, higher savings, higher environmental awareness, and a transition to remote working. As such, traditional banks have become "decent but not attractive."

McKinsey Annual Global Banking Review compares banks to other financial institutions and all other industries.¹¹ It finds that banks had relatively low profitability as well as low valuations measured by the price-to-book (P/B) ratio.^d The P/B is around 1.0 for banks, 1.3 for other financial institutions, and 3.0 for all other industries. According to the report, this valuation has been widening. This suggests that the market does not expect much growth from the established global players in banking.

This may be because the market has not observed enough innovation among the traditional banking institutions, while it has observed the groundbreaking ways fintechs change the face of banking. Neobanks such as Revolut, Monzo, or Starling Bank are providing the same services faster, more conveniently, and more cheaply. In contrast to traditional banks, the valuations of these companies have been growing rapidly in recent years.

^d This measure is the proportion of market value to their book value (share price times all shares over net assets of a company).

The Future of Banking

Before the 2008 Financial Crisis, international banking had been expanding for decades to reach about 60% of world GDP, and the tight competition in the market often led to lending surges and credit booms.¹² The crisis was a breaking point that generated a demand for independence from traditional financial institutions, in addition to generating losses and bringing regulations that weakened traditional banks. These developments left some space for other financial institutions to grow.¹³ Technological innovations in the following years prompted a transformation of financial activities, and the economic conditions under the 2020 global pandemic reinforced this trend. Startups offering services such as cryptocurrencies, mobile payments, AI-based insurance, or online personal loans rapidly emerged in this period. According to McKinsey,

Our 2021 global retail banking consumer survey shows that in the United States, roughly 40 percent of retail clients are already banking with a fintech or a big tech. In Western Europe, this penetration is at 30 percent. The main reasons to bank with fintechs are price and customer experience—more precisely easy access, speed of service, and app features.¹⁴

So far, they have played the role of complements to traditional banking. However, this may change in the upcoming decades with the potential rise of financial super apps, which will likely target all the existing specialized markets for alternative banking services with a single ecosystem.

From Slow and Usurious to Fast and Curious

There are two strong advantages fintech companies have over traditional banking institutions. While traditional banks are subjects to excessive regulations and employ large teams to ensure compliance, fintech companies have so far managed to follow

compliance rules while keeping costs of operations lower. And while the traditional banks maintained thousands of physical branches, which typically generated about 20% of total costs, digital-only banks have none, by definition. By lowering total costs, these two factors allow digital banks to provide services more cheaply and conveniently.

Thus, banks are challenged to generate their growth more proactively and strategically than in the past.¹⁵ The features giving competitive advantage are shifting from being large to being "fast and nimble" and being able to "innovate in smaller, bolder cycles."¹⁶ To achieve this, McKinsey advises traditional banks to "[redesign] core infrastructure to be more modular and dynamic, [drive] a new agile operating model, and [upgrade] technology and workforce skills."¹⁷ Doing so would require updating user experience, core systems, advanced data capabilities and hiring new engineering talent, product managers, and executive leaders.¹⁸

Traditional banks already have the capital, brand recognition, and established consumer base to succeed. The digital banks have their adaptable workforce and excitement effects. The latter, however, have been slowed down by lower customer trust and recognition, the fact that being digital-only may be a barrier to entry, and they need to wait until they obtain banking licenses in key markets such as the United Kingdom and the United States. All these factors will jointly determine whether the traditional banks or the digital-only banks will win the race.

New Power Dynamics in the Supply of Technology

Technology, the sector of main suppliers for banks, is now becoming a competitor aiming to take over its client industry. Traditional banks rely on the supply from technology providers because they need high-accuracy and high-reliability systems.

10

Banks differentiated themselves and gained their advantage with customer relationships and customer service, rather than investing in technology, because such an investment would have given them little opportunity for growth and differentiation.¹⁹ As core technology providers consolidated, and as it became too costly to change a technology provider, the providers gained a large bargaining power over traditional banks.²⁰

In turn, the emergent fintech companies develop their own core and just need to rely on cloud vendors as the only suppliers. For their services to run, fintech companies require computing power to operate the services they engineer by coding. But because it is relatively quick and easy to transfer their services to a different computing cloud, the suppliers have a low bargaining power over the fintech companies.²¹ "As a result, fintech companies are free to innovate, have substantially lower costs, and can integrate with the best providers."²² This way, these technology actors are ready to outplay the bankers in their own backyard.

The Supply of New Talent

Traditional banks were changing their employment structures in favor of more talent trained in data and technology.²³ Digital banks, as tech companies, have software engineers and data scientists as the core of their employment base. McKinsey also predicts that operations employees will more client-oriented and engaged in increasing customer acquisition and retention.²⁴ They will be proficient at providing and enhancing customer experience. These professionals will also be trained in software development and data analytics: "Operations employees in 2030 will need to know how to code, develop products, and understand data, but they will also need the personal warmth and

11

insight to manage exceptions and deal with complex customer problems."²⁵ This is something that digital banks may struggle with.

Demand in the Future

Evolving Consumer Preferences

Demographic and structural changes drive shifts in demand. Deloitte reported already in 2018 that the increase in contract, freelance, and gig workers, employment with a higher income volatility and lower income security, is a challenge for banks, because their traditional products are potentially inaccessible to this growing group of consumers.²⁶ The increasingly important Gen Z has the least trust in financial institutions, at least in the primary ones.²⁷ Compared to consumers over age 65, almost twice as many Gen Z'ers (81%) identify personalization as a feature that matters for the depth of their relationship with a financial institution.²⁸

These demographic and structural changes translate into trends that emphasize privacy, transparency, service integration, and personalization. Consumers are increasingly more sensitive to data privacy protection. Identity theft protection and control over the use of data are some of the top factors influencing firm choices.²⁹ They also demand more transparency about privacy policy and fees.³⁰ Consumers across the board expect a solid integration of financial services.³¹ They expect their app ecosystem to provide services reliably and fast. In addition to customized product features, consumers expect personalized experiences that help them learn more about personal financial efficiency and maximize their benefits from financial products.³² In the words of an EY report, customers desire their "financial lives, goals, social styles and personal

preferences" analyzed "to produce insight and promote daily decisions that lead to improved financial wellbeing."³³

Customer Loyalty

Consumers no longer hold on to a single financial institution, regardless of whether their primary choice is a traditional or a digital bank. On average, consumers have from 2.5 to 3.0 relationships with financial services firms.³⁴ Bank switching patterns are changing substantially. The percentage of consumers who switched banks increased from the record-low 4% to 6% in 2021.³⁵ More importantly, in April 2022, "[r]oughly 27% of retail banking consumers shifted some of their money from their primary bank to another institution," J.D. Power found, and "almost half of Americans considered changing banks last year," according to a GOBankingRates survey.³⁶

The interest in digital banks is growing especially in the Gen Z and Millennial generations, whose percentage of those declaring their digital bank checking account as their primary account increased from 4% to 15% just in 2021.³⁷ Bain & Company's study shows that customers' behavior has gone much more digital than narrowly defined bank switches seem to suggest. Between a quarter and a half of customers' banking purchases go to financial institutions other than their primary bank, which is mostly generated by digital channels.³⁸ The effect reaches above 50% in the UK.³⁹ Thus, the revolution is gaining momentum.

Researchers are divided over the main drivers of the changes. Most common reasons of bank switches, according to J.D. Power, are: required move to cover a bill (27%), interest rates higher (25%), cash back or other rewards (22%).⁴⁰ In turn, Morning Consult MaxDiff analysis indicates that the two outstanding factors behind

13

switching banks were the protection of consumers' data and prices and fees.⁴¹ However, according to Morning Consult, banks instead focus on much less relevant factors, such as the impact on local communities and the ease of switching.⁴² In contrast to the latter suggestion, a 2019 study by MuleSoft lists the ease of opening an account as one of the top three reasons, along with "dissatisfaction with ... current provider" and "wanting a better mobile experience."⁴³ GOBankingRates survey finds "online access," "COVID-19," and "the fact that [customers] moved" as the three most important reasons.⁴⁴ Thus, while it is difficult to distil the key dominant causes of little customer loyalty towards traditional banks, it seems clear that all the reasons to switch are in the realm of digital banks' advantage.

Incumbent Responses

According to Deloitte, although there were "experiments" so far with digital transformation, there were not "consistent, sustained, and bold moves" in traditional banking so far—even though the transformation was the "driver of business growth" and was "central" to customer experience.⁴⁵ McKinsey finds in 2021 that, while some digital banks achieve the "metabolic rate" of 1000 updates per month and 11 days from ideation to production, "an average bank launches 50 to 100 updates per month and takes one to two months to bring new ideas to customers."⁴⁶ This relative inertia of traditional banks supports EY's argument that the optimal response to the rise of financial technology companies is to explore partnerships with them and consider becoming a "unifying point" of financial relationships.⁴⁷

However, already in 2017, Deloitte announced that the incumbent banks were switching from defense to offense in the wake of digitalization.⁴⁸ The report gives the

example of Zelle, a mobile peer-to-peer payment service, as showing "a shift in thinking: from designing a service based on bank needs, to one designed for customers."⁴⁹ As an example in the field of international payments, the SWIFT launched *SWIFT Go*, a service for "fast, predictable, cost-effective and secure low-value cross-border payments", in July 2021 with over 100 banks signing up.⁵⁰

Banks now use data and advance analytics to personalize their services. The majority of them target new customers with new pre-approved products within three months of joining as clients to deepen relationships.⁵¹ Some traditional banks have become very successful by using life event triggers to focus their campaigns.⁵²

Banks have also been transforming physical branches to address the needs of the new generations of consumers. The number of on-site advisers and universal bankers substantially increasing.⁵³ McKinsey believes that branch employees have become "brand ambassadors focused on truly complex, empathy-centric situations." This strategy seems justified given that physical branches do not seem to be a thing of the past yet, even though are decreasing in numbers through consolidation. A substantial proportion of consumers, even those of ages between of 21 and 40, still prefer to visit a bank branch, sometimes citing a poor digital experience.⁵⁴

Revolut's Revolution

Meet the Revolutionaries

The two cofounders of Revolut are Nikolay Storonsky, a dual British-Russian citizen, who studied at Moscow Institute of Physics and Technology, and Vladyslav Yatsenko, a dual British-Ukrainian citizen, who studied at the National University of

Kyiv.⁵⁵ Before starting the fintech together—Storonsky as Revolut's CEO and Yatsenko as its CTO— both had prior experience in investment banking.

Prior to entering business, Storonsky was a championship swimmer in Russia. Shortly before starting Revolut, he had worked as a derivatives trader at Credit Suisse and Lehman Brothers. The idea of solving the problem of expensive currency exchange and international transfers occurred to him while he frequently traveled during his time as a financial trader at Lehman Brothers.⁵⁶ As a bank employee, Storonsky figured out that the high transaction fees were unjustified. He tried to find a multi-currency card but was informed that such a card was not even possible.⁵⁷ Thus, he took up the seemingly impossible challenge of creating such a card. He set up Revolut with Yatsenko and two more partners in Level39, a London startup incubator.⁵⁸ Perhaps Storonsky did not realize at that time that the revolution he was about to ignite would within seven years drive his company to the value of 33 billion dollars and his own net worth to seven billion dollars.⁵⁹

Capitalists Funding the Revolution

In a consistently successful fundraising campaign, Revolut collected a total of 1.7 billion dollars in five rounds: \$15m in 2016, \$66m in 2017, \$250m in 2018, \$580m in 2020, and \$800m in 2021.⁶⁰ The funding as of 2021 secures at least two more years of operation for the company. In total, Revolut attracted interest of about 60 investors. The most important shareholders, as of July 2022, are Balderton Capital V L.p. (13.62%), Ribbit Capital Iii L.p. (6.01%), Index Ventures Vii (5.72%), Dst Global V Lp (5.54%), Index Ventures Growth Iii (4.50%). Other important investors are TriplePoint Capital, Tiger Global Management, and SoftBank. The latter two lead the round that injected

Revolut with 836.1 million dollars and elevated its valuation to sky-high 33 billion dollars.

	2015	2016	2017	2018	2019	2020	2021
Valuation ¹ (\$m)	-	13, 50	334	2400	2400	5180	33040
Revenue ¹ (£m)		2.3	13	58	166	261	
Profit/loss before tax² (£m)			-15.12	-32.96	-107.68	-207.88	
Profit/loss after tax ² (£m)	-1.69	-7.12	-15.15	-34.05	-106.94	-200.65	
Net Profit ² (£m)		-15	-11	-33	-106	-167	
Net current assets ² (£m)			29.16	154.38	114.23	405.37	
Total equity ² (£m)			43.93	194.07	95.94	412.21	
Registered Users ¹ (million)		0.1	0.6	2	6	12	15
Annual Daily Active Users ¹ (million)		0.3		0.4		1.1	
Cumulative Transaction Volume ¹ (£bn)	0.1	1	5	20	65		

Revolut Over Time

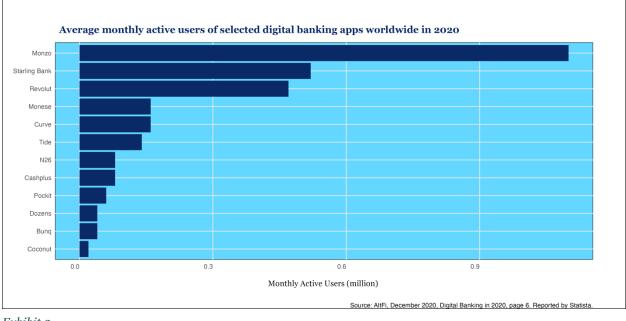
1: <u>https://www.businessofapps.com/data/revolut-statistics/</u> 2: Statista, Original source: Revolut Ltd Annual Report and Financial Statements, pages 38-39

Exhibit 2

The Revolution's Leader

Over the seven years of its existence, Revolut presented a highly impressive record of expanding services, broadening customer base, and accessing new international markets while (mostly) complying with legal regulations. As a result of its explosive growth (summarized in Exhibit 2 above), the startup has become the UK's most valuable private company and one of the most valuable fintech companies in the world, valuated at 33 billion U.S. dollars as of summer 2021 (which is an unexpectedly large departure from its direct competitors—see Exhibit 4). Statista Global Consumer Survey on respondents aged 18-64 reports that, in the United Kingdom in 2022, 65% of

neobanking and neobrokerage users were aware of Revolut.⁶¹ Of those, 45% said they



liked Revolut, 35% used it, and 87% were likely to use Revolut again.62

Although a leader among challenger banks, Revolut faced serious competition from Monzo and Starling Bank (Exhibit 11 and Exhibit 12). It was far behind them in terms of average monthly active users in 2020 (0.47 million versus 1.1 million and 0.52 million, respectively—Exhibit 3). It also had less than half as many total assets as Starling Bank's seven billion pounds and only a third of Starling Bank's average monthly customer deposit in 2020, despite an earlier advantage in that regard. Revolut's net income was the lowest of all three, with more than 200 million pounds of losses, compared to 130 million in the case of Monzo and just 23 million in the case of Starling Bank.

Nevertheless, between 2018 and 2020, Revolut consistently outperformed its British competitors in terms of not only market valuation and funding, but also

Exhibit 3

revenues and total deposits (Exhibit 11). Revolut established its lead in terms of valuation in 2018, when it was considered worth 2.4 billion dollars and had 448 million dollars from funding to spend, while Monzo was worth just a half of that (1.17 billion dollars) and had raised 273 million dollars by that time, and Starling Bank yet far behind with 107 million dollars of valuation and 130 million dollars raised to that date.⁶³ In 2018, Revolut noted a revenue of 58.2 million pounds and had 928 million pounds of customer deposits, Starling Bank was far behind with 3.1 million pounds of revenue and 202.3 million pounds of deposits, and Monzo even farther with 2.7 million pounds of revenue and 83.6 million pounds of deposits.

While shrinking somewhat (Exhibit 11), Revolut's advantage in both metrics continued through 2020, the latest year of financial reports available for all three banks. The outcomes of another important European player, German N26, remained even below all three of the London fintechs—see Exhibit 12. Moreover, in 2020, Revolut was the largest digital-only bank in terms of the number of users in Europe and fifth in the world yielding only to competition from China, India, and Brazil.⁶⁴ It operated in 36 countries, more than any other European digital bank and closely followed only by Monese (31 countries). Thus, considering a number of financial and market outcomes,

Revolut emerged as a clear leader among digital-only banks in the United Kingdom and the entire Europe within just five years of operation.

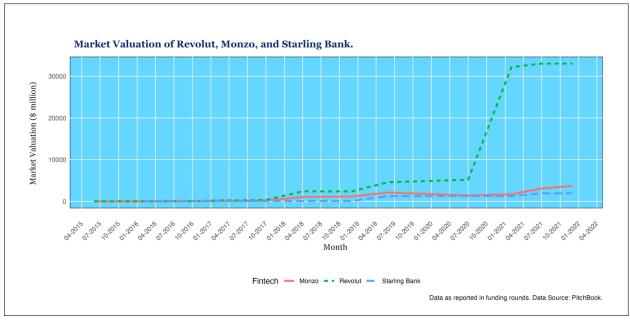


Exhibit 4

The Elements of Revolut's Strategy Explained Attacking a Pain Point First

While Revolut's leadership planned a multifaceted mobile app from the onset, it started from removing a single pain point in finance: currency exchange. Its initial offering was limited to free payments and currency exchange at the interbank rate and without hidden fees. In 2015, the year Revolut emerged, British tourists spent 26 billion pounds using payment cards during their 65 million trips abroad, all of which were subject to hefty bank fees, both explicit and hidden.

Revolut's innovation in this market was offering no fees while providing a fast and high-quality mobile-app experience. As a payment card linked to a mobile app, the

solution proved attractive to travelers.^{e65} It gained popularity most quickly among those traveling between the European countries outside the European, such as the United Kingdom, Poland, or Lithuania. These travelers who no longer had to rely on expensive currency conversions through their bank accounts or exchange offices when traveling or sending payments abroad.

Spreading the Revolutionary Idea

Revolut since the very beginning focused on providing very attractive, pleasant, and friendly user experience, both virtually in the app and physically through the card.⁶⁶ The app had a simple and neat design. The card came in a characteristic blue and purple color and an interesting sliding package. To promote Revolut as friendly and approachable, Storonsky handed out freebies at railway stations.⁶⁷ Thus, Revolut portrayed its attitude as the opposite of the traditional banks' treatment of their clients as "nothing but a number to them with dollar signs attached," the words of Revolut.⁶⁸

The great experience Revolut's first users had was meant to generate enthusiasm around the new approach to banking as something fast, direct, and smooth. Making things easier and faster for the consumer was a part of Revolut's expansion efforts. Saud Aziz, Head of Strategy and Operations at Revolut Canada, believed that this rule was key to the fintech's advantage: *If you put the user at the heart of your company, you'll be well ahead of the market*.⁶⁹ Revolut leveraged user enthusiasm to incentivize word-ofmouth referrals. The company offered small rewards for recommending the app to family and friends, and sometimes for starting to use the app and spending 5 pounds. The referral strategy helped Revolut spend nothing on marketing campaigns.⁷⁰ It also

^e Revolut initially partnered with PaySafe to issue prepaid Mastercard cards. In 2020, Revolut released its first debit cards.

proved extremely efficient, as the company acquired 100,000 users within its first year of operating.⁷¹

Conquering New Financial Service Markets

Since its early days, the app has added functionalities related to traveling, such as insurance or concierge services, and related to domestic use, such as splitting bills, budgeting analytics, or savings vaults. In addition to the smartphone-oriented app itself, Revolut offered physical and virtual debit cards integrated with Google Pay and Apple Pay. The new services not only attracted new kinds of customers, but they also diversified Revolut's sources of revenue.⁷²

Revolut obtained its first banking license in Lithuania in 2018.^{f73} This helped Revolut enter previously inaccessible new markets for new services, such as loans, overdrafts, and direct debits. It also helped increase trust, as the fintech users gained protection of up to €100,000 under the European Deposit Insurance Scheme.⁷⁴

Expanding the Revolution Globally

Revolut's ambition was to plant its developing financial ecosystem all around the globe. ⁷⁵ To achieve its ambitious goals, Revolut partnered with Tiger Global Management and Softbank, two investors are known for driving up valuations spectacularly high (as well as for subsequent spectacular valuation falls, such as in the case of WeWork going down from 47 to 2.9 billion dollars⁷⁶). The actions of these investors seem to be a manifestation of what theorists, such as Sabeel and Thelen, call "platform capitalism." According to these scholars, "extremely patient" capitalists select

^f Lithuania is oriented at attracting fintech startups since passing its 2016 legislation that significantly reduced capital requirements and waiting time for e-money license below the EU average.

companies "incentivized to pursue winner-take-all strategies" and able to "use [their] considerable first-mover advantages to expand aggressively" to bring "rare, extremely high-return[s]" ⁷⁷ These investors bet on long-term growth of a platform until it eventually dominates and controls the market, leaving high barriers to entry.⁷⁸

In line with the partners' investment strategy, Revolut decisively prioritized expansion over profitability. The company desired to secure a customer base in as many countries as possible and as quickly as possible. It wanted to be the first online-only bank consumers experienced. This was to ensure acquiring consumers remained cheap enough for Revolut to maintain its momentum to dominate the market.⁷⁹

To speed up the global expansion process, Revolut partnered with translation and localization startup Localise. Revolut believed that the ingenuity of this translation management company helped it grow its user base by 186% and "democratise cross-border payments and currency exchange."⁸⁰

Earning for the Revolution

Currently, Revolut's business model combines several strategies. There are three main sources of revenue: 1) subscription fees, for premium versions of both personal and business accounts,^g 2) commission fees from interchange, international money transfers, insurance, trading, loans, and overdraft, and 3) investments returns of funds in other ventures.⁸¹ Revolut also earns from vendors who can offer perks for purchases with Revolut.

^g Each user could choose between the free Revolut Standard, Revolut Premium for \$9.99 per month and Revolut Metal for \$16.99 per month. In addition to more interesting card designs, the higher plans included traveling perks, annual percentage yields, and more fee-free transfers.

Exhibit 5 reveals more details about Revolut's revenues. In 2020, Revolut collected an adjusted revenue of 261 million pounds, a 57% increase from 2019. The largest chunk of the 2020 revenue was from card and interchange (36%).^h This source of revenue is followed by the foreign exchange and wealth category (31%), subscription (29%), and other income (4%).ⁱ The additional sources of revenue grew in importance over time, as the contribution of card and interchange fees to Revolut's non-adjusted revenue fell from 91% in 2017 and 71% in 2018 to 45% in 2019, and 43% in 2020.⁸² At the same time, however, non-adjusted revenue from this main source grew over 7-fold in absolute terms from £12.8m to £95m.

	2020	2019	2018	2017
Card & Interchange	£95m (43%)	£74m (45%)	£35m (71%)	£12m (91%)
Foreign Exchange and Wealth	£75m (34%)	£39m (23%)	N/A	N/A
Subscription	£41m (18%)	£32m (19%)	N/A	N/A
Other Income	£10m (5%)	£21m (13%)	N/A	N/A
Total Revenue	£222m	£166m	£58m	£13m

Revolut's Revenue by Business Line

Source: Revolut's Financial Statements, 2017-2020.

Exhibit 5

^h Every transaction with a payment card comes with the following processing fees: interchange fees, charged by the cardholder's bank, card scheme fees, charged by card suppliers such as Visa or Mastercard, and acquirer, markup, charged by the merchant's bank. Visa or Mastercard give back a portion of the fees to Revolut. The fintech takes 0.2% of each transaction's value.

ⁱ The breakdown of revenue by line of business is not presented consistently in annual financial statements of Revolut.

A "Revolutionary" Work Culture: Data-Driven...

Revolut collected data on demographics, purchase history, consumer behavior as well as on its internal processes.⁸³ Revolut used the data to calculate overall customer scoring algorithms, detect fraud, improve customer satisfaction, prepare cashback offers and discounts, and for financial reporting.⁸⁴ The data also served each team to make better decisions.⁸⁵ In fact, as an "extremely data-driven" company, Revolut gave each employee access to business intelligence tools and self-service access to its universal database.⁸⁶ In 2018, Revolut partnered with Exasol for business intelligence solutions, such as delivering a high performance universal database for generating reports on company key performance indicators and industry trends.⁸⁷ The partnership indicates that Revolut's employees conducted advanced data analysis routinely as the point of the deal was to drastically speed up the process of data extraction and preparation.

Certainly, such solutions make sense only when they are actively used by the employers. Storonsky seemed to have this in mind when describes his company's hiring strategy: "I think the key difference between banks and us is we started software first, technology first, and we almost never try to hire bankers [...] our headcount is mostly genius data scientists, product and businesspeople rather than bankers. That's the number one difference."⁸⁸

However, comparing Revolut to Barclays using LinkedIn data does not paint a picture of Revolut's employment structure as necessarily more focused on technology or software. Those who work for in engineering and information technology are 23.7% of Revolut's 5064 employees, compared to 32.8% of 71,133 Barclay's employees. And while 18.4% of those who work for Revolut graduated with a degree related to mathematics or

25

computer science, the number is also higher for Barclay's: 23%. Although the culture of Revolut certainly seemed to be data-driven, the bank did not necessarily have an edge over some traditional banks as wide as claimed. (For a role- and education-wise comparison of employee counts between Revolut and Barclays—Exhibit 13.)

...and Toxic

Wired described Revolut's rise as something that came at a "human cost," citing former employees who complained about "unpaid work, unachievable targets, and highstaff turnover." Revolut was reported to take advantage of hundreds of job applicants by making them acquire new clients without pay or job offer.⁸⁹ Those who joined the startup reportedly had to work for all waking hours and on weekends. ⁹⁰ As a result, unusually many quit or were fired. Some managers at Revolut worked only several weeks, and many others less than a year.⁹¹ A manager at Revolut claimed that "budgets for staff were non-existent and bullying by senior managers was commonplace." It appears that Storonsky himself promoted such work culture in communications with his employees. Wired also reports very poor human-to-human interactions as well:

"On calls, [Alan] would cut people off mid sentence and say 'next'," Martin claims. Another manager says that during the calls Alan, who is part of CEO Storonsky's inner circle, would tell most managers how they fell short of their targets, and would be constantly interrupting them when they tried to explain why. ... Around this time, CEO Nikolay Storonsky gave an interview to Business Insider where he said Revolut's philosophy was to "get shit done", a slogan that is emblazoned on the company's London office walls in bright neon lights.⁹²

Chang defended the work culture in his interview for Sifted: "We have a culture that's direct, hard-working, transparent and ambitious … When people leave, it's because they misunderstood what they were getting into."⁹³

Revolut's Future

The emergence of Revolut, as strategized since the beginning by its founders, was to disrupt the traditional banking industry and take over a substantial portion of its market share, but also to become the first global financial superapp and a brand comparable in scale to Amazon. In Storonsky's words,

We want our global superapp to offer our customers 10x better value and 10x better service and security than they can achieve anywhere else. We are building a full financial product suite in a single app, where you will always find the product that best meets your needs. Our services will be increasingly personalised, responding to our customers' daily needs, always with low and transparent fees.⁹⁴

According to CFTE, Revolut aimed at 500 million users globally, at least.⁹⁵ Revolut's investors such as Scott Shleifer from Tiger Global believe that Revolut will keep scaling due to "superior customer experience and focus on rapid product development."⁹⁶

What comes out of Revolut's scaling? While traditional banking institutions will not simply disappear, they will face new competition that is closer to becoming a fully satisfying real alternative offering services cheaper, faster, and in a more friendly manner.

Revolut as a Threat to Traditional Banks

The growth of digital banks raised concerns in the United States, where, in 2021, 28% of bank and credit union executives, twice as much as the year before, see challenger banks as a significant threat in the coming decades.⁹⁷ While it is not clear whether Revolut is a full-scale challenger and threat to traditional banks yet, there are real indications of Revolut's potential to seriously challenge the position of the currently dominant financial institutions in the United Kingdom. Revolut excelled at what Deloitte listed as determinants of a successful future-proof bank: an agile, adaptive,

data-driven ecosystem. However, Revolut's eventual success depends on future developments: the scale it can achieve and the pace at which it will continue to grow. As of 2022, in many dimensions, Revolut measured only a few percent one the traditional banking scale. (Compare Revolut's outcomes in Exhibit 2 with the UK's traditional banks' outcomes in Exhibit 6.)

What Makes Revolut Look Formidable?

Revolut's phenomenon is about its market value, number of registered users, global reach, and demonstrated growth potential. If valuation were an accurate measure of value for comparing banks to each other, then Revolut would be a real threat. Revolut is priced higher than NatWest or Standard Chartered and yields only to HSBC, Barclays, and Lloyds. If the number of registered users in Revolut is a comparable measure to the number of established banks' customers, then the fintech's 15 million in 2021 was not far off from NatWest's 18 million in 2021. (Client counts for digital-only banks and the UK's traditional banks are in Exhibit 12 and Exhibit 6, respectively.)

Moreover, Revolut is still fresh and capable of growing faster than traditional banks. While still a toddler compared to traditional banks, ^j Revolut had not only a record of rapid increases in revenue, user, assets, equity, and transaction volume, but also of very fast launching of new services. For example, Revolut quickly shifted its focus on travel services to crypto and stocks trading during pandemic-era travel shutdowns.

Revolut could become a threat as a rapidly growing global bank. It is significantly easier for digital-only institutions to open operations in new countries than for traditional banks that need to establish an entire network of branches. While the process

^j Lloyd was established in 1765, HSBC in 1865, Barclays in 1896, NatWest 1968, Standard Chartered in 1969. Starling Bank in 2014, Monzo in 2015, and Revolut in 2015.

of obtaining licenses may get stuck and slow down the development of digital-only banks, those can still function non-bank financial institutions at first. Revolut was strongly taking advantage of its airiness and is becoming a banking brand spanning multiple countries across the globe, having expanded to over 50 countries by mid-2022.

The Financials of the UK's Leading Banks						
	Barclays PLC	HSBC Holdings	Lloyds Banking Group	NatWest Group	Standard Chartered Plc	
Valuation (€b, 2021)	37.2	107.2	40.3	27.9	16.4	
Revenue (€b, 2021)	26.2	43.8	19.5	15.2	13.0	
Net profit (£m, 2021)	7.2	10.9	5.9	3.1	1.7	
Customers (m, 2021)	48	40	26	19	-	
Banking App Features Count by Q1 2020	51	22	44	41	-	

How Powerful is Revolut in Reality?

Statistics on financial outcomes of the UK's leading traditional banks: Barclays, HSBC, Lloyds, NatWest, and Standard Chartered. Data sources: PitchBook; Optima Consultancy, reported in Statista.

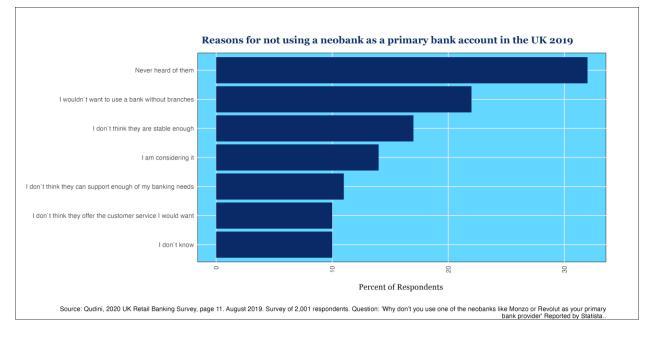
Exhibit 6

While making a great impression, valuation numbers are not only volatile in general, but they also carry a different meaning for private-capital-backed tech companies such as Revolut. Its incredibly high valuation probably reflects the high hopes of the investors and long-term potential rather than a universally recognized current value. Similarly, the pure registered user count did not tell the entire story. Revolut's active users were between 0.5 and 1.1 million in 2020 (depending on the measure). The number of active users is somewhat difficult to compare between the fintech platforms and the traditional banks, but it is reasonable to estimate that active users of the digital-only banks are still dozens of times less numerous. That said,

Revolut's impressive reach can turn into a larger advantage over time as the fintech gains more trust.

Importantly, the revenue of Revolut falls short of that of the incumbent banks. Revolut's 2020 revenue remained 168 times smaller than that of HSBC's and 50 times smaller than Standard Chartered's 2021 revenues. Moreover, these banks generate from 1.7 to 10.9 million pounds of profit, while Revolut had hundreds of million pounds of losses. Revolut would need to repeat its revenue growth from 2019 to 2020 for nine consecutive years to achieve the level of Standard Chartered's 2021 revenue. This is not impossible but does not seem a likely scenario, given the growing competition and the digital transformation of the traditional banks.

Finally, despite Revolut's impressive geographical expansion, the scale of penetration has so far been rather small outside the United Kingdom, with 88.4% of its revenue coming from the UK, and 10.2% from the rest of the European Economic Area.⁹⁸ Revolut has yet to become a truly global challenger.



How Receptive to Digital-Only Banking are the Consumers?

Exhibit 7

There is still a large potential for Revolut to gain brand recognition and expand its consumer base. The Quidini 2020 UK Retail Banking Survey results (Exhibit 7 above) indicated that, of those who did not use a neobank for their primary account, 33% had never heard of these banks; 14% were considering opening one, and 10% did not know why they were not doing it. The main reasons against using a neobank for the primary account is that 22% respondents did not want a branch-less experience, 17% believed these banks were not stable enough, 10% believed they could satisfy their customer service needs, and 11% did not expect digital banks to fulfill all their banking needs. These numbers do not seem large enough to slow down the rise of digital banking. In turn, the most important reasons for opening an account at a digital bank, according to OnePoll, were related to easiness or convenience (indicated by between 21% and 27% of respondents), app functionality (18%), and financial benefits (13 to 17%)—three areas of Revolut's expertise (Exhibit 8 below).

What the Rise of Revolut Means for the Economy and Society

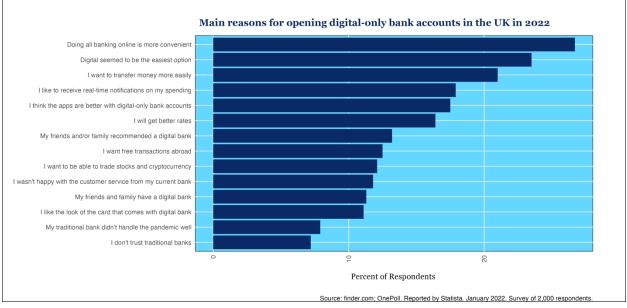


Exhibit 8

One important implication of Revolut's expansion is a broader access to banking and other financial services. The account can be opened anywhere, within minutes, and with minimum documentation. Thus, more people can access banking, given the lower barriers, assuming that they are comfortable with mobile technology. For those who already own a banking account, it is much easier to invest in equity and alternative investments or to get insured, since these actions can be performed through a familiar app rather than by opening a new account with a new and unfamiliar institution.

Another difference Revolut makes is the change of banking culture. It has demonstrated that one's main financial institution does not need to act distanced and formal anymore but can even look friendly and playful. Revolut's "restrained yet friendly" tone is visible across platforms: the app, the website, and the social media.⁹⁹ By using "word plays, jokes, and colloquial language," Revolut interacts with its customers

"as a friend would, not an establishment," in the words of an Instagram analysis by Clara of combin.com.¹⁰⁰

Finally, the most tangible impact on the society of the new and growing digital banks such as Revolut is on the labor market. They generate more demand for employees with technical skills, from software engineers and data scientists to customer service professionals. Using the words of the Rt Hon Rishi Sunak MP, UK Chancellor of the Exchequer, "It's great news that Revolut has raised a further \$800m and plans to expand even further – creating more jobs here in the UK."¹⁰¹ At the same time, however, as traditional banks lose profitability and need to cut costs, they will be laying down those employees who were traditionally the backbone of the industry, such as operations staff. This group of people will need to either change their qualifications or the industry. Those who decide to join the digital banks will need to accept often demanding, if not exploitative, work conditions.^k

Conclusion

In conclusion, to achieve its growth, Revolut executed a smart and complex strategy: The digital bank successfully transitioned from a single pain point solution to a complex and multifaceted app. It skillfully leveraged its expansion to gain a large valuation, substantial funding, and growing revenues and deposits. This allowed the company to further expand its offerings, geographies, and customer base.

Revolut wisely devised its campaign targeted at the social groups that were the most likely to become customers and to pass their enthusiasm further. It initially attracted consumers open to innovation, young people, and travelers. Subsequently, it

^k As discussed in the "Revolutionary' Work Culture" section (page 25).

gained interest of those seeking to trade cryptocurrencies and stocks. Overall, Revolut seems most attractive to customers looking for more convenience, functionality, and benefits than traditional banks can offer.

Revolut adopted an efficient although exploitative work culture characterized with high pressure, fast paced environment with an excess turnover. On the positive side, employees had access to data for strategizing teamwork, and software engineers along with data scientists were claimed to be the driving force of the fintech's growth. This employment structure and policy gave Revolut the pace, swiftness, and flexibility needed to respond to challenges such as travel shutdown during the Covid-19 pandemic. Revolut's friendly face and youth appeal helped it deal well with its bummers and concerns regarding work culture, compliance, and ties to Russia.

Overall, Revolut was successful by becoming the role model of an innovative bank of the future. It proved excellent at adapting to trends and pushed the boundaries of the digital transformation of banking. Yet despite its strong advantages, Revolut does not have anything substantial beyond what traditional banks can offer once they digitally transform their services. Revolut's advantage is that it is less burdened by legacy systems, procedures, redundant departments, job titles, or physical capital. Thus, Revolut has a fresh start accelerating into an established industry; the fintech rapidly transforms the banking industry rather than entirely upending it.

In addition, there is little new about Revolut's modus operandi. Direct banking existed since the popularization of call centers and the internet in 1990s. Some of them went bankrupt during the dot-com bubble of 1999-2001, and others were bought by traditional banks. Direct banking worldwide had dozens of millions of customers and

34

growing even before the digital-only banks started up, as Exhibit 10 shows. One major difference challenger banks of the 2010s make is that their mobile apps conveniently combined multiple financial services, giving their users direct and mobile control over their financial resources.

At the end of the day, the rise of Revolut does not look like the kind of revolution that casts down the crowns. Even if Revolut temporarily outperforms traditional banks and captures a significant portion of their market share, these banks seem capable of digitally transforming to the extent that will satisfy the millions of their current clients. Nevertheless, Revolut truly is an innovation driver and a mission-driven alternative; it is also a genuine challenger that has questioned the status quo and forced the incumbents to improve.

Appendix: Additional Figures

2016	2017	2018	2019	2020	2021
Q1 Q2 Q3 Q4	4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3
5.6 5.5 5.8 6.8	8 7.2 7.0 7.4 7.9	7.2 7.1 7.4 6.5	7.1 7.3 7.2 7.6	4.9 5.3 5.2 6.1	7.3 7.4 7.5
Market Capita	lization of the B	anking Sector V	Vorldwide 2016	-2021 in € Trilli	on by

Data source: Statista.

Exhibit 9

Quarter.

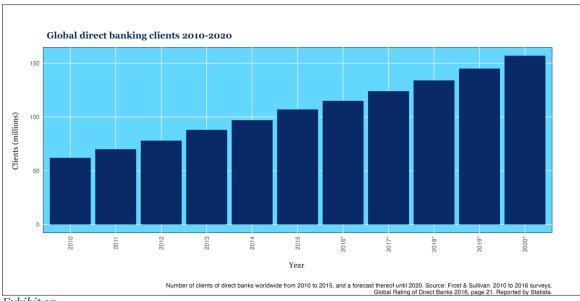


Exhibit 10

Revolut and its Close Competitors												
	Revolut			Starling Bank				Monzo Bank				
Year	2021	2020	2019	2018	2021	2020	2019	2018	2021	2020	2019	2018
Valuation	\$33bn	\$5.2bn	\$2.4bn	\$2.4bn	\$1.94bn	\$1.28bn	\$1.28bn	\$107m	\$4.58bn	\$2.13bn	\$2.13bn	\$1.17bn
Revenue	N/A	£222m	£166m	£58.2m	N/A	£108.8m	£18.7m	£3.1m	£79.4m	£67.2m	£19.7m	£2.7m
Net Income	N/A	-£206m	-£105.9m	-£32.8m	N/A	-£23.3m	-£52.1m	-£25.1m	-£129.7m	-£113.8m	-£47.2m	-£30.5m
Total Assets	N/A	£2.9bn	£2.6bn	£1.1bn	N/A	£7bn	£1.2bn	£235m	£3.6bn	£1.7bn	£614m	£140m
Total Liabilities	N/A	£4.9bn	£2.5bn	£951m	N/A	£6.9bn	£1.1bn	£207m	£3.4bn	£1.6bn	£499m	£84m
Total Deposits	N/A	£4.6bn	£2.4bn	£928m	£5.8bn	N/A	£1.0bn	£202.3m	£3.1bn	£1.4bn	£499m	£83.6m
Average Monthly Customer Deposit	N/A	£396	£305	£251	£2010	£1140	£765	N/A	N/A	£620	£359	£142
Price to Book Ratio	N/A	1.79	0.92	2.18	N/A	0.18	1.07	0.46	1.27	1.25	3.47	8.36
Users	15m	12m	6m	2m	2.1m	1.3m	0.9m	356k	5m	4m	2.5m	1.2m

Exhibit 11

Statistics on financial outcomes of Revolut, Starling Bank, Monzo. Valuation – highest Post Valuation reported for a given year, if there were multiple, or from the earliest year available, if there were none. Data sources: PitchBook. For Starling Bank, profit is net operating income.

Deposits = Customer Liabilities.

Revenue = Turnover (Total Income) = Interest Income + Fee and Commission Income + Other Operating Income. Data sources:

https://www.starlingbank.com/investors/

https://www.starlingbank.com/docs/annual-reports/Starling-Bank-Annual-Report-2019-21.pdf

https://www.revolut.com/financial-statements

https://monzo.com/annual-report/2022/

https://monzo.com/annual-report/2021/

https://monzo.com/annual-report/2020/

https://craft.co/revolut

https://craft.co/starling-bank

https://craft.co/monzo

https://www.businessofapps.com/data/revolut-statistics/

https://www.businessofapps.com/data/starling-bank-statistics/

https://www.businessofapps.com/data/monzo-statistics/

	Revolut	Chime	Starling Bank	Monzo Bank	N26	Atom Bank	Monese		
Valuation¹ (\$)	33b (2021)	25b (2021)	1.5b	4.5b	3.5b	589m	228m		
Revenue	£261m (2020)	\$600m (2020)	£73m (2020)	£79.4m (2021)	€43.6m (2018)	£42.3m (2021)	\$20,871 (2020)		
Users ²	15.5m	13m	2.1m	$5\mathrm{m}$	7m	-	2m		
Average monthly active users (2020) ²	0.47m	-	0.52m	1.1m	0.08m	-	0.16m		
Countries of Operation ³	36 (2021)	1 (2021)	1 (2022)	2 (2022)	22 (2022)	1 (2022)	31 (2022)		
Supported Features by Q1 2020	71	-	63	63	38	-	49		

Revolut and its Competitors

Exhibit 12

Data sources:

1: PitchBook, 2: The companies' websites, 3: Statista. In addition, the following:

https://www.businessofapps.com/data/revolut-statistics/

https://www.businessofapps.com/data/chime-statistics/

https://www.businessofapps.com/data/starling-bank-statistics/

https://www.businessofapps.com/data/monzo-statistics/ https://www.businessofapps.com/data/n26-statistics/

https://craft.co/atom-bank

https://www.cbinsights.com/research/atom-bank-competitors-monzo-n26-tide-starling-bank/

https://www.altfi.com/article/6106 monese-lands-2m-customers-since-2016-launch

https://moneytransfers.com/challenger-banks/atom-bank

https://brokerchooser.com/digital-banks/reviews/monese

https://help.starlingbank.com/personal/topics/setting-up-an-account/who-is-eligible-for-a-starling-bankaccount/

https://www.monito.com/en/send-money-with/chime

Employment Structure

Educational Background

	Revolut	Barclays		Revolut	Barclays	
Total	5064	71133	Total Employees	5064	71133	
Employees	3004	/00	Business		-	
Business Development	=61		Administration and Management	449	2558	
Sales	734	6522	Economics	394	2680	
Engineering	729	5345	Computer Science	354	3730	
Finance	Finance 591		Computational Science	278	3374	
Operations	502	6641	Business/Commerce	248	3170	
Information Technology	472	6959	Finance	246	3450	
Customer		5529	Marketing	214	1228	
Success and Support	428		Mathematics	162	2107	
Human		2129	Information Technology	140	2498	
Resources	329	2128	Accounting and			
Legal 227		1497	Finance	111	1623	
Accounting	169	2785	Other (Law, Humanities, Business			
Product Management	169	1032	Studies, Psychology)	721		
Marketing 167		1081	Other (Physics and Engineering)	-	4650	

Exhibit 13

Sources:

https://www.linkedin.com/company/revolut/people/ https://www.linkedin.com/company/barclays-bank/people/

Appendix: Extra Insights on Revolut How Revolut Navigated Through the Pandemic

During the Covid-19 pandemic, foreign exchange went down by 40 percent, and thus Revolut could no longer rely as much on travel financial services as a source of revenue or avenue of expansion.¹⁰² However, fintech's agility helped quickly switch to developing and releasing new services.¹⁰³ In 2020, Revolut obtained the European Central Bank banking license through its operations in Lithuania and applied for banking licenses in other countries, including the US and the UK. The license allowed Revolut to start offering loans in early 2022. Revolut's profits and the number of customers kept increasing through the pandemic. While Revolut kept growing, costs also rose. In particular, costs related to staff rose from \$82m in 2019 to \$235m in 2020. Revolut's leadership openly admitted that the company got "fat and weak."¹⁰⁴

Present Challenges to the Revolution

It appears that Revolut currently faces three most important challenges: introducing compliance standards that will allow the startup to obtain the UK and US banking licenses, generating trust in its customer service that becomes competitive, and growing to become a top player in other key geographies outside of Europe, including the United States.

New Technology and Risk

On the one hand, new technology helps mitigate risks, as it gives new ways to detect crime. Advanced data analytics, artificial intelligence, and automation can make old threats (such as money laundering or terrorist financing) more visible, and frauds more often detected.¹⁰⁵ On the other hand, new technology brings its own risks, as there emerge new ways to commit crime.¹⁰⁶

Both these kinds of the impact of technology on risk prompt tighter regulations.¹⁰⁷ And, in addition to possible penalties from regulators, banks face new threats to reputational damage in case of successful cybercrime.¹⁰⁸ On the positive side, enhancing risk management increases efficiency and thus may eventually reduce the costs of compliance. As of 2022, however, "automated solutions barely scratch[ed] the surface of what [was] possible ... most organizations ... struggle to turn ... data into insight."¹⁰⁹ As a result, the annual cost of money laundering alone still reaches 6.7% of world GDP, according to Refinitiv.¹¹⁰ The digital transformation in banking gives reasons to both hope that this can be reduced with new algorithms more efficiently detecting crime and raises concerns that anonymity of financial transfers may make crime undetectable.

Regulators

The difficulty of obtaining banking licenses is partly related to Revolut's new approach to compliance mechanisms. While being able reduce costs of compliance with regulations is a strong advantage of fintech companies, it remains a double-edged sword until regulators such as the British Financial Conduct Authority (FCA) are not yet satisfied with the methods and outcomes. Revolut had security issues in the past regarding money laundering and know-your-consumer. Moreover, the company was reportedly found to have turned off its money-laundering system for three months.¹¹¹ The fintech company was quick to improve its algorithms, but the FCA remains skeptical as for Revolut's crypto service. These may be some of the reasons it is taking Revolut so much time to obtain its banking license.

41

Trust and Customer Service

The challenge in generating trust with Revolut's consumer service is the inability to meet physically with a bank representative. Moreover, Revolut does not offer asking questions or resolving issues over the phone, and the only way of contacting a human is by a live chat. For many potential customers, this form of service may not be convenient or assuring enough to commit to Revolut most of one's financial life.

The United States Market

The British fintech intends to establish itself internationally beginning with the United States, supported with new funding.¹¹² As part of the strategy to gain stronger position in the United States, Revolut partnered with Cross River, a technology infrastructure provider, for offering personal loans and more credit solutions.¹¹³

The main obstacle in the United States is that this market is currently dominated by Chime, and many other fintech companies are more popular than Revolut. Outside of the Western world, WeBank in China, or Fi in India, for example, are also much betterknown than Revolut. As such, Revolut no longer has the first-mover advantage. On the contrary, the customer acquisition cost is relatively high and will probably be growing over time. Revolut needs to address the need to expand to these geographies on the one hand, and to strengthen its profitability on the other hand.

How Interconnected are the Digital-Only Banks?

It turns out that despite similar geographic backgrounds and time of foundation, Revolut, Starling Bank, Monzo, Chime, and N26 do not form dense networks in terms of investors, owners, or companies where their board and team members work concurrently or gained professional experience.¹¹⁴ It is very surprising that there are few

connections among these digital banks. These digital banks formed only indirect linkages through investors, and very few shared former employers of their board and team members. This means that investors and owners form *cliques*, and expertise and experience do not flow between the banks in a way observable in my data.

Revolut's Ties to Russia

Revolut Storonsky's personal background in Moscow and family background father working as an engineer for Gazprom raised serious concerns in the process of obtaining banking license in Europe. Another two sources of concern were the fact that DST Global Fund, a shareholder of Revolut, was partly owned by Russians, and the rumors that the company could move its servers to Russia, risking the privacy of its customers.¹¹⁵ In Lithuania, some members of the parliament called for investigation regarding alleged Revolut's ties to Kremlin.

The investigation in Lithuania did not prevent Revolut from obtaining its first banking license in 2019. "We've participated in a number of reviews in Lithuania and the committees concluded there were no Russian political connections at Revolut," according to its spokesperson.¹¹⁶ The concerns about ties to Russia's government gained a new meaning after Russia invaded Ukraine in February 2022 were hanging over Revolut again while it was in the process of obtaining the United Kingdom banking license.¹¹⁷

Revolut's CEO Storonsky in an open letter denied any ties to Kremlin.¹¹⁸ Storonsky emphasized that in DST Global Fund, only Yuri Milner, one of its six partners and Silicon Valley's wealthiest Russian, no longer ties to Kremlin and condemned the war in Ukraine—even though Milner earned his fortune partly thanks to financial

43

support from circles connected to Kremlin.¹¹⁹ Storonsky also fiercely condemned the war in an open letter.¹²⁰ He donated to the Red Cross Ukraine appeal and encouraged Revolut's users to do the same with fee-free instant donations and waived transfer fees to banks in Ukraine. He announced that Revolut would match every donation made up to £1.5 million.¹²¹ Within a month, Revolut's users donated 10 million Euros, which the company matched.¹²² The app also enabled simplified registration procedures for Ukrainian refugees. Revolut closed its Moscow office and supported the relocation of its employees within and outside of Ukraine.¹²³

References

³ Paul Sandle, Editing Richard Pullin and David Goodman, "Digital banking platform Revolut to launch in five more countries," *Reuters*, July 6, 2022. (<u>https://www.reuters.com/technology/digital-banking-platform-revolut-launches-five-more-countries-2022-06-14/</u>, accessed 07/29/2022)

⁴ Amelia Isaacs, "Revolut CEO Nik Storonsky: "We've made almost every mistake possible and we've learned from them," *AltFi*, May 19, 2022. (<u>https://www.altfi.com/article/9272_revolut-ceo-nik-storonsky-weve-made-almost-every-mistake-possible-and-weve-learned-from-them</u>, accessed 07/29/2022)

⁵ "What Revolut's \$33bn valuation tell us about the future of financial services," *CFTE*, July 21, 2021. (<u>https://blog.cfte.education/revolut-33bn-valuation-tell-us-about-future-of-finance/</u>, accessed 07/29/2022)

⁶ Amelia Isaacs, "Nik Storonsky criticises UK banking licence delay as Revolut continues global expansion," *AltFi*, June 15, 2022. (<u>https://www.altfi.com/article/9392_nik-storonsky-criticises-uk-banking-licence-delay-as-revolut-continues-global-expansion</u>, accessed 07/29/2022)

⁷ "Lack of UK Bank License Thwarts Revolut's Super App Ambition," *PYMNTS*, May 6, 2022. (https://www.pymnts.com/news/digital-banking/2022/lack-of-uk-bank-license-thwarts-revoluts-super-app-ambition/, accessed 07/29/2022)

⁸ Amelia Isaacs, "Nik Storonsky criticises UK banking licence delay as Revolut continues global expansion," *AltFi*, June 15, 2022. (<u>https://www.altfi.com/article/9392_nik-storonsky-criticises-uk-banking-licence-delay-as-revolut-continues-global-expansion</u>, accessed 07/29/2022); "Revolut launches as a bank in 10 Western European markets, now available in 28 countries," *Revolut*, January 11, 2022. (<u>https://www.revolut.com/news/revolut_launches_as_a_bank_in_10_western_european_markets_now_available_in_28_countries</u>, accessed 07/29/2022)

⁹ Maria Abreu, "As European Fintechs Vie for U.S. Customers, Revolut Rolls Out a New Remittance Service," *Forbes*, September 3, 2021. (<u>https://www.forbes.com/sites/mariaabreu/2021/09/03/as-european-fintechs-vie-for-us-customers-revolut-rolls-out-a-new-remittance-service/?sh=75e313bd6c6a</u>, accessed 07/29/2022)

¹⁰ Statista Research Department, "Market capitalization of banking market worldwide from 1st quarter 2016 to 3rd quarter 2021," *Statista*, May 24, 2022. (<u>https://www.statista.com/statistics/265135/market-capitalization-of-the-banking-sector-worldwide/</u>, accessed 07/29/2022)

¹¹ ["]Global Banking Annual Review 2021: The great divergence," *McKinsey*, December 1, 2021. (https://www.mckinsey.com/industries/financial-services/our-insights/global-banking-annual-review, accessed 07/29/2022)

¹² Robert N McCauley, Patrick McGuire and Philip Wooldridge, "Seven decades of international banking," *BIS Quarterly Review*, September 2021. (<u>https://www.bis.org/publ/qtrpdf/r_qt2109e.htm</u>, accessed 07/29/2022)

¹³ Robert N McCauley, Patrick McGuire and Philip Wooldridge, "Seven decades of international banking," *BIS Quarterly Review*, September 2021. (<u>https://www.bis.org/publ/qtrpdf/r_qt2109e.htm</u>, accessed 07/29/2022)

¹⁴ Global Banking Annual Review 2021: The great divergence," p. 25, *McKinsey*, December 1, 2021. (<u>https://www.mckinsey.com/industries/financial-services/our-insights/global-banking-annual-review</u>, accessed 07/29/2022)

¹⁵ "2022 Banking Outlook," Grant Thronton, February 10, 2022.

(https://www.grantthornton.com/library/articles/banking/2022/2022-banking-outlook.aspx, accessed 07/29/2022)

¹ Briony Richter, "Revolut: imagining a fully cashless society," *Electronic Payments International,* June 1, 2018. (https://www.electronicpaymentsinternational.com/analysis/revolut-imagining-fully-cashless-society/, accessed 07/29/2022)

² Briony Richter, "Revolut: imagining a fully cashless society," *Electronic Payments International*, June 1, 2018. (https://www.electronicpaymentsinternational.com/analysis/revolut-imagining-fully-cashless-society/, accessed 07/29/2022)

¹⁶ "Bank of 2030: Transform boldly. Future of banking," *Deloitte, accessed 07/29/2022*) https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-of-2030-the-future-ofbanking.html. ¹⁷ Alexis Krivkovich and Zac Townsend, "Seven ways for financial institutions to react to financialtechnology companies," July 27, 2020. (https://www.mckinsey.com/industries/financial-services/ourinsights/banking-matters/seven-ways-for-financial-institutions-to-react-to-financial-technologycompanies, accessed 07/29/2022) ¹⁸ Alexis Krivkovich and Zac Townsend, "Seven ways for financial institutions to react to financialtechnology companies," July 27, 2020. (https://www.mckinsey.com/industries/financial-services/ourinsights/banking-matters/seven-ways-for-financial-institutions-to-react-to-financial-technologycompanies, accessed 07/29/2022) ¹⁹ Jason Henrichs, "Bargaining Power of Suppliers," *FinTech Forge*, June 17, 2020. (https://www.ftforge.com/post/bargaining-power-of-suppliers, accessed 07/29/2022) ²⁰ Jason Henrichs, "Bargaining Power of Suppliers," *FinTech Forge*, June 17, 2020. (https://www.ftforge.com/post/bargaining-power-of-suppliers, accessed 07/29/2022) ²¹ Jason Henrichs, "Bargaining Power of Suppliers," *FinTech Forge*, June 17, 2020. (https://www.ftforge.com/post/bargaining-power-of-suppliers, accessed 07/29/2022) ²² Jason Henrichs, "Bargaining Power of Suppliers," *FinTech Forge*, June 17, 2020. (https://www.ftforge.com/post/bargaining-power-of-suppliers, accessed 07/29/2022) ²³ "2022 Banking Outlook," Grant Thronton, February 10, 2022. (https://www.grantthornton.com/library/articles/banking/2022/2022-banking-outlook.aspx. accessed 07/20/2022) ²⁴ David Deninzon, Nick Malik, and Akshay Kapoor, "Banking operations for a customer-centric world," McKinsey, June 20, 2019. (https://www.mckinsey.com/industries/financial-services/ourinsights/banking-matters/banking-operations-for-a-customer-centric-world, accessed 07/29/2022) ²⁵ David Deninzon, Nick Malik, and Akshay Kapoor, "Banking operations for a customer-centric world." McKinsey, June 20, 2019. (https://www.mckinsey.com/industries/financial-services/ourinsights/banking-matters/banking-operations-for-a-customer-centric-world, accessed 07/29/2022) ²⁶ Gaurav Lahiri and Jeff Schwartz, "The workforce ecosystem: Managing beyond the enterprise: 2018 Global Human Capital Trends," Deloitte, March 28, 2018. (https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2018/contingent-workforcemanagement.html, accessed 07/29/2022) ²⁷ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ey.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ²⁸Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ey.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ²⁹ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ey.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ³⁰ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ey.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ³¹ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ev.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ³² Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ey.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022)

³³ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ev.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ³⁴ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ey.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ³⁵ Bill Streeter, "Survey Reveals a Hidden Customer Exodus in Banking," *The Financial Brand*, February 11, 2021. (https://thefinancialbrand.com/107653/customer-switching-going-banking-bain-primarybank-digital-marketing/, accessed 07/29/2022) ³⁶ Yaël Bizouati-Kennedy, "Nearly 45% of Americans Are Considering Changing Banks – Here's What to Consider If You're One of Them," GOBankingRates, January 24, 2022. (https://www.gobankingrates.com/banking/banks/nearly-45-percent-americans-considering-changingbanks-what-to-consider-if-youre-one/, accessed 07/29/2022) ³⁷ Ron Shevlin, "Challenger Bank Chime Reaches The 12 Million Customer Mark," *Forbes*, February 1, 2021.(https://www.forbes.com/sites/ronshevlin/2021/02/01/challenger-bank-chime-hits-12-millioncustomer-mark/?sh=79569b8a23f5, accessed 07/29/2022) ³⁸ Bill Streeter, "Survey Reveals a Hidden Customer Exodus in Banking," The Financial Brand, February 11, 2021. (https://thefinancialbrand.com/107653/customer-switching-going-banking-bain-primarybank-digital-marketing/, accessed 07/29/2022) ³⁹ Bill Streeter, "Survey Reveals a Hidden Customer Exodus in Banking," *The Financial Brand*, February 11, 2021. (https://thefinancialbrand.com/107653/customer-switching-going-banking-bain-primarybank-digital-marketing/, accessed 07/29/2022) ⁴⁰ Paulina Cachero, "Americans Hunt for New Banks as Inflation Stretches Their Budgets," Bloomberg, May 12, 2022. (https://www.bloomberg.com/news/articles/2022-05-12/should-you-change-banksroaring-inflation-is-testing-consumer-loyalty, accessed 07/29/2022) ⁴¹ Charlotte Principato, "Here's Why Customers Switch Their Primary Bank," Morning Consult, July 13, 2021. (https://morningconsult.com/2021/07/13/heres-why-customers-switch-their-primary-bank/, accessed 07/29/2022) ⁴² Charlotte Principato, "Here's Why Customers Switch Their Primary Bank," Morning Consult, July 13, 2021. (https://morningconsult.com/2021/07/13/heres-why-customers-switch-their-primary-bank/, accessed 07/29/2022) ⁴³ "Nearly half of millennials have considered switching banks for better digital experience," *Mulesoft*, 2019. (https://www.mulesoft.com/press-center/trends/2019-consumer-research-financial-services, accessed 07/29/2022) 44 Yaël Bizouati-Kennedy, "Nearly 45% of Americans Are Considering Changing Banks – Here's What to Consider If You're One of Them," GOBankingRates, January 24, 2022. (https://www.gobankingrates.com/banking/banks/nearly-45-percent-americans-considering-changingbanks-what-to-consider-if-youre-one/, accessed 07/29/2022) ⁴⁵ "Bank of 2030: Transform boldly. Future of banking," *Deloitte*, https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-of-2030-the-future-ofbanking.html, accessed 07/29/2022) ⁴⁶ Global Banking Annual Review 2021: The great divergence," p. 40, *McKinsey*, December 1, 2021. (https://www.mckinsey.com/industries/financial-services/our-insights/global-banking-annual-review, ⁴⁷ Jan Bellens, Nikhil Lele, and Rob Mannamkery, "How can banks transform for a new generation of customers?", EY, October 7, 2021. (https://www.ev.com/en_gl/banking-capital-markets/how-can-bankstransform-for-a-new-generation-of-customers, accessed 07/29/2022) ⁴⁸ "Fintech by the numbers: Incumbents, startups, investors adapt to maturing ecosystem," *Deloitte*, September 2017. (https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/financialservices/dcfs-fintech-by-the-numbers.pdf, accessed 07/29/2022)

⁴⁹ "Fintech by the numbers: Incumbents, startups, investors adapt to maturing ecosystem," p. 17, *Deloitte*, September 2017. (<u>https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/financial-services/dcfs-fintech-by-the-numbers.pdf</u>, accessed 07/29/2022)

⁵⁰ "New SWIFT Go service transforms low-value cross-border payments," *SWIFT*, July 27, 2021. (https://www.swift.com/news-events/news/new-swift-go-service-transforms-low-value-cross-borderpayments; "SWIFT Go momentum builds as over 100 banks sign up," SWIFT, October 14, 2021. (https://www.swift.com/news-events/news/swift-go-momentum-builds-over-100-banks-sign. accessed 07/29/2022)⁵¹ Sergev Khon, Ahmed Nizam, David Tan, and Zubin Taraporevala. "Best of both worlds: Balancing digital and physical channels in retail banking," July 13, 2022. (https://www.mckinsey.com/industries/financial-services/our-insights/best-of-both-worlds-balancingdigital-and-physical-channels-in-retail-banking, accessed 07/29/2022) ⁵² Sergey Khon, Ahmed Nizam, David Tan, and Zubin Taraporevala, "Best of both worlds: Balancing digital and physical channels in retail banking," July 13, 2022. (https://www.mckinsev.com/industries/financial-services/our-insights/best-of-both-worlds-balancingdigital-and-physical-channels-in-retail-banking, accessed 07/29/2022) ⁵³ Sergey Khon, Ahmed Nizam, David Tan, and Zubin Taraporevala, "Best of both worlds: Balancing digital and physical channels in retail banking," July 13, 2022. (https://www.mckinsey.com/industries/financial-services/our-insights/best-of-both-worlds-balancingdigital-and-physical-channels-in-retail-banking, accessed 07/29/2022) 54 "The Human + Digital Challenge in Banking: Consumers Want Both," Backbase. (https://www.backbase.com/the-human-digital-challenge-in-banking-consumers-want-both/, ⁵⁵ "Profile: Vlad Yatsenko," *Forbes*, July 29, 2022. (https://www.forbes.com/profile/vladvatsenko/?sh=190e1cf05b86, accessed 07/29/2022) ⁵⁶ "How Revolut grew 150x with referral marketing—a case study," Viral Loops Case Studies, (https://viral-loops.com/revolut-referral-marketing-case-study, accessed 07/29/2022) ⁵⁷ Robert Ruttmann, Christine Schmid, Zaniyar Sharifi, Marco Vario, Dominique-Cristian Baumann, "Revolut strategy teardown: Can Revolut become the Amazon of banking?", Redesigning Financial Services. (https://redesigning-fs.com/revolut-strategyteardown/#:~:text=Revolut%20saves%20clients%20up%20to,already%20started%20its%20global%20e xpansion, accessed 07/29/2022) ⁵⁸ Barney Cotton, "Revolut: A Level39 success story," *Business Leader*, October 11, 2019. (https://www.businessleader.co.uk/revolut-a-level39-success-story/, accessed 07/29/2022) ⁵⁹ David Dawkins, "As Revolut Becomes U.K.'s Most Valuable Fintech, Its Founder Is Now Worth \$7 Billion," Forbes, July 15, 2021. (https://www.forbes.com/sites/daviddawkins/2021/07/15/founder-nikstoronskys-net-worth-more-than-quintuples-after-revolut-becomes-uks-most-valuablefintech/?sh=7a99c53f68d5, accessed 07/29/2022) ⁶⁰ "About us," *Revolut*. (https://www.revolut.com/about-revolut, ⁶¹ Alexander Kunst, "Revolut brand profile in the UK 2022," Statista, June 8, 2022. (https://www.statista.com/forecasts/1304342/revolut-neobanking-and-neobrokerage-brand-profile-inthe-united-kingdom, accessed 07/29/2022) ⁶² Alexander Kunst, "Revolut brand profile in the UK 2022," Statista, June 8, 2022. (https://www.statista.com/forecasts/1304342/revolut-neobanking-and-neobrokerage-brand-profile-inthe-united-kingdom, accessed 07/29/2022) ⁶³ Data from the PitchBook database on company profiles. Accessed 07/29/2022. ⁶⁴ Statista Research Department, "Number of customers at selected disruptor banks worldwide 2020," Statista, May 30, 2022. (https://www.statista.com/statistics/786990/number-of-accounts-at-selectneobanks-worldwide/, accessed 07/29/2022) ⁶⁵ Melisande Mual, "Paysafe enables Revolut to launch an innovative currency exchange solution and prepaid card," The Paypers, November 18, 2015. (https://thepaypers.com/expert-opinion/paysafeenables-revolut-to-launch-an-innovative-currency-exchange-solution-and-prepaid-card--762133; Piotr Dziubak, "Revolut zaczął wydawać karty debetowe. Koniec problemów z płatnościami w samolotach?", Cashless, April 3, 2020. (https://www.cashless.pl/7478-Ravolut-nowe-karty-debetowe, accessed 07/29/2022)

⁶⁶ "How Revolut grew 150x with referral marketing—a case study," *Viral Loops Case Studies*, https://viral-loops.com/revolut-referral-marketing-case-study

⁶⁷ Stefania Spezzati, William Shaw, and Aisha S Gani, "Revolut's \$33 Billion Bank App Hits a Roadblock in Britain," *Bloomberg*, May 6, 2022. (<u>https://www.bloomberg.com/news/articles/2022-05-06/revolut-</u> 33-billion-banking-app-wants-to-play-in-the-big-league, accessed 07/29/2022)

⁶⁸ Emiliano Mellino, "Revolut insiders reveal the human cost of a fintech unicorn's wild rise," Wired, February 28, 2019. (<u>https://www.wired.co.uk/article/revolut-trade-unions-labour-fintech-politics-</u> storonsky, accessed 07/29/2022)

⁶⁹ "Innovation in Payments: Interview with Saud Aziz, Head of Strategy and Operations at Revolut," *Highline Beta*, (<u>https://highlinebeta.com/innovation-in-payments-interview-with-saud-aziz-head-of-strategy-and-operations-at-revolut/</u>, accessed 07/29/2022)

⁷⁰ Rob Braileanu, "How Revolut signed-up 16,000 business accounts in 3 months with no marketing," *Revolut*, November 17, 2017. (<u>https://blog.revolut.com/how-revolut-signed-up-16-000-business-accounts-in-3-months-with-no-marketing/</u>, accessed 07/29/2022)

⁷¹ Marek Buenting, "Revolut's Growth Strategy Explained," PaymentGenes, September 14, 2021. (https://www.paymentgenes.com/all-about-payments-videos/revoluts-growth-strategy-explained, accessed 07/29/2022)

⁷² Romain Dillet, "Revolut revenue grew by 57% in 2020," The Tech Crunch, June 21, 2021. (https://techcrunch.com/2021/06/21/revolut-revenue-grew-by-57-in-2020/, accessed 07/29/2022)

⁷³ Professor Arturo Bris and Gerda Zigiene, "Revolut: Could allegations of Russian involvement sidetrack a fintech revolution?", *International Institute for Management Development*, March 2019. (https://www.imd.org/research-knowledge/articles/revolut-could-allegations-of-russian-involvement-sidetrack-a-fintech-revolution/, accessed 07/29/2022)

⁷⁴ Chad West, "We got a banking licence *b*," Revolut, December 13, 2018. (<u>https://blog.revolut.com/we-got-a-banking-licence/</u>, accessed 07/29/2022)

⁷⁵ Matt Cooke and Vijay D'Silva (McKinsey)'s Interview with Mikko Salovaara (Revolut). "Going global: A conversation with Revolut's CFO Mikko Salovaara," Talking Banking Matters Podcast, McKinsey, February 22, 2022. (https://www.mckinsey.com/industries/financial-services/our-insights/going-global-a-conversation-with-revoluts-cfo-mikko-salovaara, accessed 07/29/2022)

⁷⁶ Bryan Pietsch, "WeWork's valuation has fallen from \$47 billion last year to \$2.9 billion," Business Insider, May 18, 2020 (https://www.businessinsider.com/wework-valuation-falls-47-billion-to-less-than-<u>3-billion-2020-5?IR=T</u>; Jason Mikula, "N26's \$9B Valuation vs Chime, Varo, Revolut & Monzo," *Fintech Business Weekly*, October 24, 2021. (https://fintechbusinessweekly.substack.com/p/n26s-9b-valuationvs-chime-varo-revolut, accessed 07/29/2022)

⁷⁷ Rahman, K. Sabeel and Kathleen Thelen, "The Rise of the Platform Business Model and the Transformation of Twenty-First-Century Capitalism," *Politics & Society*, Vol. 47(2) 177–204, 2019. (https://journals.sagepub.com/doi/full/10.1177/0032329219838932, accessed 07/29/2022)

⁷⁸ Rahman, K. Sabeel and Kathleen Thelen, "The Rise of the Platform Business Model and the Transformation of Twenty-First-Century Capitalism," *Politics & Society*, Vol. 47(2) 177–204, 2019. (<u>https://journals.sagepub.com/doi/full/10.1177/0032329219838932</u>, accessed 07/29/2022)
 ⁷⁹ "What Revolut's \$33bn valuation tell us about the future of financial services," *CFTE*, July 21, 2021.

(https://blog.cfte.education/revolut-33bn-valuation-tell-us-about-future-of-finance/, accessed 07/29/2022)

⁸⁰ Abby Wallace, "Revolut credits 186% user growth to localisation," Maddyness, June 21, 2021. (<u>https://www.maddyness.com/uk/2021/06/21/revolut-credits-186-user-growth-to-localisation/;</u> Edward Cooper, "How Lokalise contributed to Revolut's massive growth," Lokalise. (<u>https://lokalise.com/case-studies/revolut</u>, accessed 07/29/2022)

⁸¹ "Revolut Business Model – How Does Revolut Work and Make Money?", *Business Strategy Insights*. (https://www.bstrategyinsights.com/revolut-business-model/,

⁸² Own calculations based on financial statements available at: <u>https://www.revolut.com/financial-statements</u>, accessed 07/29/2022)

⁸³ Răzvan Zlăvog, "The Obvious Secret Behind Revolut," *In Observe, Re:Think:Analytics*, September 7, 2020. (https://rethinkanalytics.ro/insights/the-obvious-secret-behind-revolut/, accessed 07/29/2022)
⁸⁴ Răzvan Zlăvog, "The Obvious Secret Behind Revolut," *In Observe, Re:Think:Analytics*, September 7, 2020. (https://rethinkanalytics.ro/insights/the-obvious-secret-behind-revolut/, accessed 07/29/2022)
⁸⁵ Hannah McGrath, "Revolut partners for data-driven decision making," *FSTech*, November 12, 2018. (https://www.fstech.co.uk/fst/Revolut_Partners_For_Data_Driven_Decision_Making.php, accessed 07/29/2022)

⁸⁶ "Revolut banks on Exasol for enterprise-wide analytics solution," *Exasol*, November 12, 2018. (<u>https://www.exasol.com/revolut-banks-on-exasol-for-enterprise-wide-analytics-solution/</u>, accessed 07/29/2022)

⁸⁷ "Revolut banks on Exasol for enterprise-wide analytics solution," *Exasol*, November 12, 2018. (<u>https://www.exasol.com/revolut-banks-on-exasol-for-enterprise-wide-analytics-solution/</u>, accessed 07/29/2022)

⁸⁸ Amelia Isaacs, "Revolut CEO Nik Storonsky: "We've made almost every mistake possible and we've learned from them," *AltFi*, May 19, 2022. (<u>https://www.altfi.com/article/9272_revolut-ceo-nik-storonsky-weve-made-almost-every-mistake-possible-and-weve-learned-from-them</u>, accessed 07/29/2022)

⁸⁹ Emiliano Mellino, "Revolut insiders reveal the human cost of a fintech unicorn's wild rise," *Wired*, February 28, 2019. (<u>https://www.wired.co.uk/article/revolut-trade-unions-labour-fintech-politics-</u> storonsky, accessed 07/29/2022)

⁹⁰ Emiliano Mellino, "Revolut insiders reveal the human cost of a fintech unicorn's wild rise," *Wired*, February 28, 2019. (<u>https://www.wired.co.uk/article/revolut-trade-unions-labour-fintech-politics-</u>storonsky, accessed 07/29/2022)

⁹¹ Emiliano Mellino, "Revolut insiders reveal the human cost of a fintech unicorn's wild rise," *Wired*, February 28, 2019. (<u>https://www.wired.co.uk/article/revolut-trade-unions-labour-fintech-politics-storonsky</u>, accessed 07/29/2022)

⁹² Emiliano Mellino, "Revolut insiders reveal the human cost of a fintech unicorn's wild rise," *Wired*, February 28, 2019. (<u>https://www.wired.co.uk/article/revolut-trade-unions-labour-fintech-politics-storonsky</u>, accessed 07/29/2022)

⁹³ Isabel Woodford, "The people with power at Revolut: a map of Nik Storonsky's top team," Fintech/Analysis, *Sifted*, July 5, 2021. (<u>https://sifted.eu/articles/revolut-power-players/</u>, accessed 07/29/2022)

94 https://www.revolut.com/pl-

PL/news/revolut_raises_800m_series_e_funding_from_softbank_vision_fund_2_and_tiger_global ⁹⁵ "What Revolut's \$33bn valuation tell us about the future of financial services," *CFTE*, July 21, 2021. (https://blog.cfte.education/revolut-33bn-valuation-tell-us-about-future-of-finance/, accessed 07/29/2022)

⁹⁶ "Revolut raises \$800m series E funding from Softbank Vision Fund 2 and Tiger Global," *Revolut*, July 15, 2021. (https://www.revolut.com/pl-

PL/news/revolut raises 800m series e funding from softbank vision fund 2 and tiger global, accessed 07/29/2022)

⁹⁷ Statista Research Department, "Executives who see challenger banks as threat for traditional banking U.S. 2020-2021," *Statista*, May 31, 2022. (<u>https://www.statista.com/statistics/1228261/opinion-on-challenger-banks-as-threat-for-banking/</u>, accessed 07/29/2022)

⁹⁸ Romain Dillet, "Revolut revenue grew by 57% in 2020," The Tech Crunch, June 21, 2021. (<u>https://techcrunch.com/2021/06/21/revolut-revenue-grew-by-57-in-2020/</u>, accessed 07/29/2022)

⁹⁹ Clara, "Instagram Social Media Strategy of Brands: Revolut," *Combin*, June 16, 2022.

(https://www.combin.com/blog/instagram-social-media-strategy-revolut/, accessed 07/29/2022) ¹⁰⁰ Clara, "Instagram Social Media Strategy of Brands: Revolut," *Combin*, June 16, 2022.

(https://www.combin.com/blog/instagram-social-media-strategy-revolut/, accessed 07/29/2022) ¹⁰¹ "Revolut raises \$800m series E funding from Softbank Vision Fund 2 and Tiger Global," *Revolut*, July 15, 2021, (https://www.revolut.com/pl-

50

PL/news/revolut raises 800m series e funding from softbank vision fund 2 and tiger global, accessed 07/29/2022)

¹⁰² Matt Cooke and Vijay D'Silva (McKinsey)'s Interview with Mikko Salovaara (Revolut). "Going global: A conversation with Revolut's CFO Mikko Salovaara," Talking Banking Matters Podcast, McKinsey, February 22, 2022. (https://www.mckinsey.com/industries/financial-services/our-insights/going-globala-conversation-with-revoluts-cfo-mikko-salovaara, accessed 07/29/2022) ¹⁰³ Matt Cooke and Vijay D'Silva (McKinsey)'s Interview with Mikko Salovaara (Revolut). "Going global: A conversation with Revolut's CFO Mikko Salovaara," Talking Banking Matters Podcast, McKinsey, February 22, 2022. (https://www.mckinsey.com/industries/financial-services/our-insights/going-globala-conversation-with-revoluts-cfo-mikko-salovaara, accessed 07/29/2022) ¹⁰⁴ David Dawkins, "As Revolut Becomes U.K.'s Most Valuable Fintech, Its Founder Is Now Worth \$7 Billion," Forbes, July 15, 2021. (https://www.forbes.com/sites/daviddawkins/2021/07/15/founder-nikstoronskys-net-worth-more-than-quintuples-after-revolut-becomes-uks-most-valuablefintech/?sh=7a99c53f68d5, accessed 07/29/2022) ¹⁰⁵ "Bank of 2030: Transform boldly. Future of banking," Deloitte, https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-of-2030-the-future-ofbanking.html, accessed 07/29/2022) ¹⁰⁶ "Bank of 2030: Transform boldly. Future of banking," *Deloitte*, https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-of-2030-the-future-ofbanking.html, accessed 07/29/2022) ¹⁰⁷ "Bank of 2030: Transform boldly. Future of banking," *Deloitte*, https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-of-2030-the-future-ofbanking.html, accessed 07/29/2022) ¹⁰⁸ "Bank of 2030: Transform boldly. Future of banking," Deloitte, https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-of-2030-the-future-ofbanking.html, accessed 07/29/2022) ¹⁰⁹ "Combatting financial crime in a digital age: The double-edged sword of technology," *Deloitte*. (https://www2.deloitte.com/ca/en/pages/risk/articles/combatting-financial-crime-in-a-digital-age.html. accessed 07/29/2022) ¹¹⁰ Aravind Narayan and Christopher Stringham, "How digital banks can turn AML/KYC challenges into opportunities," Refinitiv, Apr 26, 2022. (https://www.refinitiv.com/perspectives/regulation-riskcompliance/how-digital-banks-can-turn-aml-kyc-challenges-into-opportunities/, accessed 07/29/2022) ¹¹¹ James Cook, "Digital bank Revolut's sanctions screening issue revealed," *The Telegraph*, February 28, 2019. (https://www.telegraph.co.uk/technology/2019/02/28/revolut-failed-block-suspicioustransactions/, accessed 07/29/2022) ¹¹² David Dawkins, "As Revolut Becomes U.K.'s Most Valuable Fintech, Its Founder Is Now Worth \$7 Billion," Forbes, July 15, 2021. (https://www.forbes.com/sites/daviddawkins/2021/07/15/founder-nikstoronskys-net-worth-more-than-quintuples-after-revolut-becomes-uks-most-valuablefintech/?sh=7a99c53f68d5, accessed 07/29/2022) ¹¹³ David Penn. "Revolut Turns to Cross River to Power U.S. Expansion." *Finovate*, April 19, 2022, (https://finovate.com/revolut-turns-to-cross-river-to-power-u-s-expansion/, accessed 07/29/2022) ¹¹⁴ Paweł Rybacki, "The Network around Revolut—How Interconnected are the Leading Digital Banks?", Mar 31, 2022. (https://pawelrybacki.com/papers/network_analysis/, accessed 07/29/2022) ¹¹⁵ Professor Arturo Bris and Gerda Zigiene, "Revolut: Could allegations of Russian involvement sidetrack a fintech revolution?", International Institute for Management Development, March 2019. (https://www.imd.org/research-knowledge/articles/revolut-could-allegations-of-russian-involvementsidetrack-a-fintech-revolution/, accessed 07/29/2022) ¹¹⁶ Stefania Spezzati, William Shaw, and Aisha S Gani, "Revolut's \$33 Billion Bank App Hits a Roadblock in Britain," Bloomberg, May 6, 2022. (https://www.bloomberg.com/news/articles/2022-05-06/revolut-33-billion-banking-app-wants-to-play-in-the-big-league, accessed 07/29/2022) ¹¹⁷ Stefania Spezzati, William Shaw, and Aisha S Gani, "Revolut's \$33 Billion Bank App Hits a Roadblock

¹¹⁸ "Revolut chief: accusations constructed under false statements and unrelated facts," *Delfi*, January 23, 2019. <u>https://www.delfi.lt/en/culture/revolut-chief-accusations-constructed-under-false-statements-and-unrelated-facts.d?id=80176483</u>, accessed 07/29/2022)

¹¹⁹ Sarah McBride, "Silicon Valley's Wealthiest Russian Is Carefully—Very Carefully—Distancing Himself from Putin," *Bloomberg*, March 21, 2022. (<u>https://www.bloomberg.com/news/features/2022-03-</u>21/yuri-milner-quits-vladimir-putin-after-ukraine-invasion, accessed 07/29/2022)

¹²⁰ Nik Storonsky. "A personal letter from our CEO," *Revolut*, January 3, 2022.

(https://blog.revolut.com/a-personal-letter-from-our-ceo/, accessed 07/29/2022) ¹²¹ John Hyatt, "Russian-Born Billionaire Behind Revolut Fintech App Publishes Anti-War Letter," Forbes, March 1, 2022. (https://www.forbes.com/sites/johnhyatt/2022/03/01/revoluts-russian-anti-warbillionaire-founder-promises-to-match-donations-to-red-cross-ukraine/?sh=326d276878e4, accessed 07/29/2022)

¹²² "Revolut raises €10 million for Red Cross Ukraine appeal," /payments, Finextra, 11 March 2022. (https://www.finextra.com/newsarticle/39851/revolut-raises-10-million-for-red-cross-ukraine-appeal, accessed 07/29/2022)

¹²³ John Hyatt, "Russian-Born Billionaire Behind Revolut Fintech App Publishes Anti-War Letter," Forbes, March 1, 2022. (<u>https://www.forbes.com/sites/johnhyatt/2022/03/01/revoluts-russian-anti-war-billionaire-founder-promises-to-match-donations-to-red-cross-ukraine/?sh=326d276878e4</u>, accessed 07/29/2022)