

# Crunchfish AB: Three avenues to address the strained financing

Johan Widmark | 2024-08-26 08:00

While the commercialization of Crunchfish's solution for offline payments has shown a longer sales cycle than expected, the company continues to build a broader base of potential counterparties and business arrangements. We see particular (albeit binary) potential in the new partnership with the world's largest IT consulting firm, TCS, as an offline complement to their distributed ledger technology, and in the ongoing trial and proposal process with an undisclosed major payment provider. Strengthened by a new U.S. patent approval, Crunchfish is also exploring alternative ways to secure funding, with sharing future revenues for present-day financing being a shareholder-friendly option, if available. Overall, we see a fair chance for the share to stabilize and regain momentum, provided that a rights issue can be avoided.

## Three promising avenues

Among all of Crunchfish's current activities, we identify three avenues that hold particular promise. One is the alliance agreement with Tata Consultancy Services (TCS), the largest IT consultancy company in the world, targeting CBDC projects where Crunchfish will augment TCS's Quartz solution for CBDCs with offline payments capabilities. Although there are no formal commitments on either side, the partnership with TCS—an IT consultancy giant with offices in 55 countries—significantly expands Crunchfish's reach and presence, enabling a greater potential scale of relevant customer interactions.

Secondly, the security and vulnerability assessment for a major payment platform provider announced in late May has now progressed to a request for a Proof-of-Concept for trusted crypto operations in their mobile clients as well as a proposal for usage of Crunchfish's solution throughout all their payment products.

## Financing a pressing issue

As for the third avenue, on the financial side, Crunchfish's cash position is now at SEK 12.5m, with a total cash outflow of SEK 9.5m in Q2'24 alone, meaning that cash reserves will need to be replenished soon. Crunchfish is currently in discussions with a financing firm that offers funding based on a share of future revenues. While this approach could benefit shareholders, it will likely come at a high cost (a rough estimate of 10% of future revenues was mentioned on the Q2 call, but this is likely an underestimation). It would also probably prove difficult to ring-fence part of Crunchfish's future revenues. If this revenue share avenue fails to deliver, a rights issue is likely.

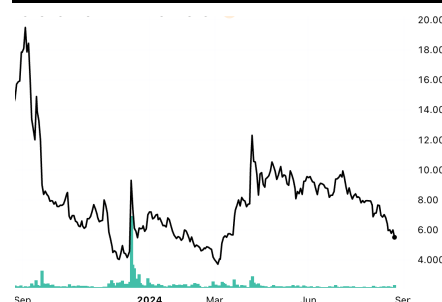
As the company continues to expand its potential base of potential customers, we see a fair chance for an agreement in the coming year. However, any resulting revenues will accrue gradually. With confirmed dialogues with MasterCard, Google and many others, we look forward to seeing the first signs of traction soon. Until financing is clarified, our Fair Value assessment hinges on whether a rights issue can be avoided.

MSEK	2022	2023	2024E	2025E	2026E
Revenue	6	1	5	12	30
EBITDA	-18	-27	-19	-26	-10
EBIT	-24	-49	-28	-34	-17
EPS Adjusted	-0.73	-1.24	-0.71	-0.89	-0.46
Sales Growth, %	56%	-84%	406%	140%	150%
EBITDA Margin, %	-293%	-2687%	-380%	-220%	-33%
EBIT Margin, %	-392%	-5000%	-560%	-283%	-57%
EV/Sales	102.1	639.7	126.4	19.5	8.2
EV/EBITDA	-34.9	-23.8	-33.3	-8.9	-24.8
EV/EBIT	-26.1	-12.8	-22.6	-6.9	-14.4
P/E	-27.5	-5.6	-7.7	-6.2	-11.9

Source: Emergers

## Crunchfish

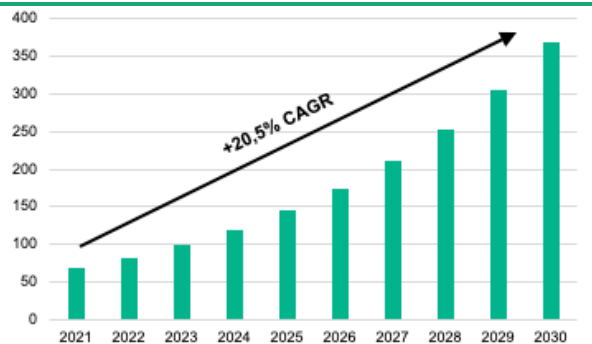
Fair Value, SEK	15 - 18
Current Price, SEK	5.50
Shares (M)	39.6
Market Capitalisation (MSEK)	218
Net Cash (MSEK)	12.5
Enterprise Value (MSEK)	206
Market	First North



## Crunchfish in brief

Crunchfish is a deep tech company founded in 2010. With an initial focus on developing applications for smartphones, and a soon realized expertise in gesture recognition, the journey towards commercializing the technology began. Today Crunchfish has two business verticals, Digital Cash (DC) and Gesture Interactions (GI), of which the latter is now up for sale.

### Digital Payments Market Growth (USDbn)



Source: Grandviewresearch, Emergers

## Addressing growing problems on a global scale

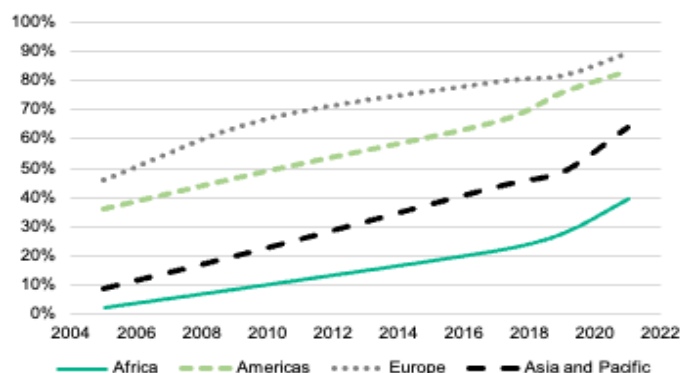
### Offline digital payments

Even though internet connectivity is good throughout the developed world, it doesn't work everywhere, all the time. Payment rails, built on circuit-switched systems, only works if everything else supporting it works, making modern societies vulnerable to IT-attacks, system failures or even just downtime maintenance.

Connectivity in general is a major concern in other parts of the world. In India for example, only about 50% of the 1,4 billion citizens enjoy a stable connection. The same goes for a country like Nigeria, where 70% of the population lives without solid internet connection.

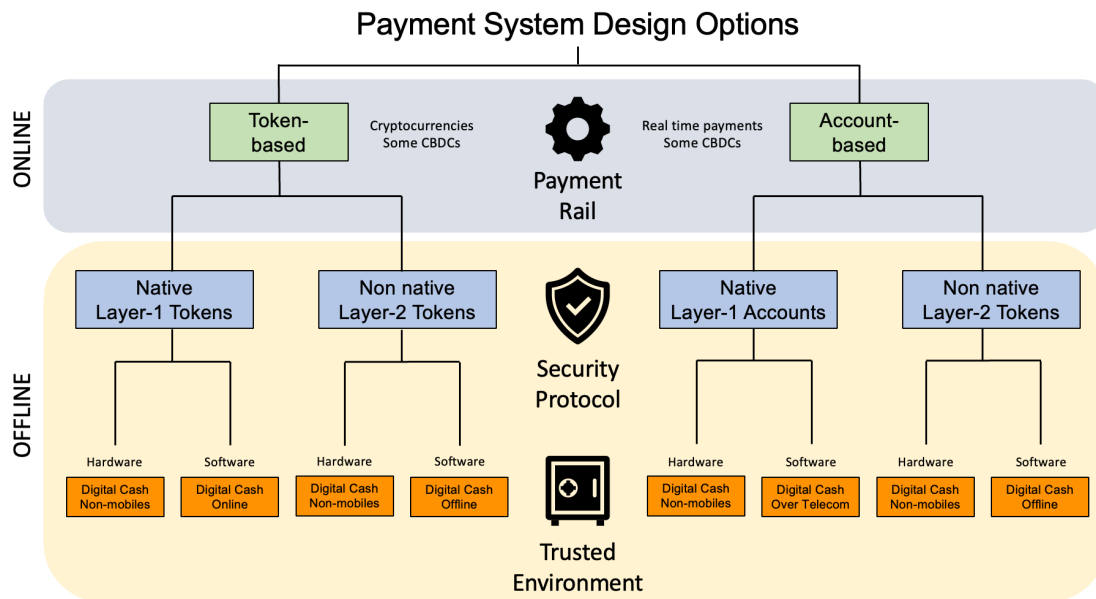
As internet connectivity varies a lot between regions, systems are prone to downtime, and internet connection has become a vital part of existing payment infrastructure, this adds up to a problem in urgent need of a solution. Despite the poor connectivity, India is the supreme leader in real-time payments, where over 74 billion transactions were made through UPI (India's version of Swish) in 2022 alone. This compares to the 4 billion transactions that has been made on Swedish Swish since the service launched in 2012.

### Internet penetration by region (% of population)



Source: International Telecommunication Union, Emergers

## Payment System Design Options



Source: Lipis Advisors, Emergers

## Implementation architectures of HCE

	Current HCE payments	Secure HCE payments
<b>Software-based Security</b>	<p>HCE payment application REE on a smartphone</p> <p>HCE is implemented in scalable but unsecure REE.</p>	<p>Crunchfish HCE Trusted Application App-integrated TRE on a smartphone</p> <p>Executes in an app-specific, virtual TRE, providing isolated runtime and secure storage for EMV tokens, credentials etc. on the smartphone. Scalable, secure and maintainable without OS, OEM or MNO dependencies.</p>
<b>Hardware-based Security</b>	<p>EMV payment applet TRE on a smartphone</p> <p>ICCs are not used for HCE payments.</p>	<p>HCE payment applet Hardware-based TRE on a smartphone</p> <p>HCE may be secured on a smartphone using a hardware-based TRE. Hard to scale as they are controlled by OEMs or MNOs</p>

### Definitions of Acronyms

OEM = Original Equipment Manufacturer  
MNO = Mobile Network Operator  
REE = Rich Execution Environment

ICC = Integrated Circuit Cards  
HCE = Host-based Card Emulation  
TRE = Tamper Resistant Secure Element

Source: Emergers, Crunchfish

## IDFC First Bank Commercial Agreement

On the 29<sup>th</sup> of June 2023 Crunchfish signed their first commercial agreement for its Digital Cash Offline-solution with IDCF First Bank. The first release to the bank's customers is planned for late Q3, and the initial use case will be to enable offline UPI payments over the telecom network.

The 3-year license includes a first trench of users, out of a maximum of seven. Should IDFC Bank decide they want to offer the service to more of its customers, additional licenses will have to be purchased.

## SaaS business model with high scalability

As both of Crunchfish's verticals are fully based on software, the business is highly scalable by nature with high margins. With an annual OPEX currently at about SEK 40m per year (which the company expects to keep intact going forward), future profitability will be high should high volume deals be signed.

## Valuation

In our DCF-model we use a discount factor (WACC) of 25% to take into account the high uncertainty regarding all future cash flows. With estimated sales of SEK 12m in 2025E, to reach SEK 83m in 2027E, our DCF and target multiple valuation approach support a fair value of SEK 15 per share.

## Risks

**Unproven business model:** Even though one Digital Cash commercial deal has been signed, the business model, earning capacity and rollout-pace are still highly uncertain.

**Addressing a slow-moving market:** Crunchfish's business is focused on critical financial infrastructure, such as payment systems. We believe that even though the technology works, an investor needs to keep in mind that these institutions are slow to change and that a rollout might take longer than expected.

## Corporate Governance

**CEO of Crunchfish AB** Joachim Samuelsson has a Master of Science in industrial Engineering and Management from Linköping University. As a serial entrepreneur since 1996, Samuelsson has had successful engagements in ComOpt Ab, Actix Ltd and Biomain AB. Before that Samuelsson worked several years for Ericsson in international technical and marketing roles.

**Chairman of the board** Göran Linder has a Master of Science in Engineering from KTH Royal Institute of Technology in Stockholm. Linder also serves as CEO of Corespring New Technology AB and serves on the board in Powercell AB, Promore Pharma AB, Minesto AB and QCG Sweden AB.

**CEO of Crunchfish Digital Cash AB** Patrik Lindeberg has a Master of Science in Electrical Engineering from Lund University and National University of Singapore, bringing experience in commercial and technical areas of responsibility.

**Founder and CTO** Paul Cronholm has a master's degree in theoretical physics from Lund University within the field of complex computer simulations. Cronholm has more than 15 years of experience as a senior software designer and project manager in various projects to implement mobile internet around WAP, 3G and DVB-H.

## Crunchfish

### Income Statement

MSEK	2021	2022	2023	2024E	2025E	2026E
Sales	4.0	6.2	1.0	5.0	12.0	30.0
Operating Costs	-49.3	-39.8	-46.1	-42.5	-42.6	-42.6
EBITDA	-29.2	-18.1	-26.5	-19.0	-26.5	-9.9
Depreciation	-7.7	-6.1	-22.8	-9.0	-8.6	-8.1
Amortisation of Goodwill	0.0	0.0	0.0	0.0	1.0	1.0
EBIT	-36.9	-24.3	-49.4	-28.0	-34.0	-17.1
Non-recurring Items	0.0	0.0	0.0	0.0	0.0	0.0
Associated Companies	0.0	0.0	0.0	0.0	0.0	0.0
Net Financial Items	-1.6	0.2	0.1	-0.3	-0.3	-0.3
<b>Pre-tax Result</b>	<b>-38.5</b>	<b>-24.0</b>	<b>-49.3</b>	<b>-28.3</b>	<b>-34.3</b>	<b>-17.3</b>
Tax	0.0	0.0	0.0	0.0	0.0	0.0
Minority Interest	0.0	0.0	0.0	0.0	1.0	1.0
<b>Net Result</b>	<b>-38.5</b>	<b>-24.0</b>	<b>-49.3</b>	<b>-28.3</b>	<b>-33.3</b>	<b>-16.3</b>

### Capital Expenditure

	2021	2022	2023	2024E	2025E	2026E
Capital Expenditure, Absolute	15.8	13.6	1.2	0.3	-0.6	-1.5
As a Pct of Sales	400%	220%	125%	5%	-5%	-5%
Depreciation Multiple	2.1	2.2	0.1	0.0	-0.1	-0.2

### Key Ratios

Share Price: SEK 5.50

	2021	2022	2023	2024E	2025E	2026E
Share Price at 31 Dec	25.00	20.00	7.00	5.50	5.50	5.50
Number of Shares (Millions)	30.93	33.04	39.65	39.65	39.65	39.65
Market Cap	773.1	660.8	277.5	218.1	218.1	218.1
Enterprise Value	740.9	631.9	248.2	207.3	234.6	246.3
EPS (Reported)	-1.24	-0.73	-1.24	-0.71	-0.89	-0.46
EPS (Adjusted)	-1.24	-0.73	-1.24	-0.71	-0.89	-0.46
CEPS	-1.24	-0.73	-1.24	-0.71	-0.89	-0.46
P/CEPS	n.a.	n.a.	n.a.	n.a.	-6.2	-11.9
Book Value/Share	1.8	1.8	1.3	0.6	-0.3	-0.7
P/BV	13.8	11.2	5.3	9.1	-19.4	-7.4
Dividend	0.00	0.00	0.00	0.00	0.00	0.00
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.0
Dividend Payout Ratio (%)	0.0	0.0	0.0	0.0	0.0	0.0
EV/Sales	187.3	102.1	639.7	126.4	19.5	8.2
EV/EBITDA	-25.4	-34.9	-23.8	-33.3	-8.9	-24.8
EV/EBIT	-20.1	-26.1	-12.8	-22.6	-6.9	-14.4
P/E (Adjusted)	-20.1	-27.5	-5.6	-7.7	-6.2	-11.9
Sales Growth, Y/Y (%)	-63.6	56.4	-84.0	406.2	140.0	150.0
EBIT Growth, Y/Y (%)	46.2	-34.2	103.6	-43.3	21.4	-49.8
EPS Growth (Adjusted), Y/Y (%)	39.2	-41.5	71.0	-42.7	24.8	-48.0
EBITDA Margin (%)	-738.2	-292.8	-2687.2	-380.0	-220.4	-33.2
EBIT Margin (%)	-931.8	-392.0	-5000.1	-560.0	-283.3	-56.9
Return on Equity (%)	-84.8	-41.9	-88.8	-74.1	-551.9	89.8
Tax Rate (%)	0.0	0.0	0.0	0.0	0.0	0.0

### Financial Position

	2021	2022	2023	2024E	2025E	2026E
Interest-Bearing Net Debt	-32	-29	-29	-11	17	28
Net Debt/Equity	-0.6	-0.5	-0.6	-0.4	-1.5	-1.0
Equity Ratio	0.9	0.9	0.8	0.7	-0.9	-1.0
Net Debt/EBITDA	1.1	1.6	1.1	0.6	0.1	0.1

Source: Emergers, Company reports

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