

Update: Report Q4 2023

2024-02-26

Crunchfish: Paving the way for Digital Cash

- Digital Cash protector launched in February
- Write-down of gesture interaction does not affect the valuation
- We maintain our fair value at SEK 12.70 per share

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Ticker:	CFISH												
Industry:	Technology												
Listed on:	Nasdaq First North												
Latest share price (SEK):	4.87												
Market cap (MSEK):	193.1												
Enterprise Value (MSEK):	163.3												
Total number of shares (M):	39.7												
- of which free float (M):	20.1												
<hr/>													
VHCF fair value per share													
DCF model	SEK 12.70												
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Crunchfish AB													
Address:	Stora Varvsgatan 6A 211 19 Malmö												
Webpage:	crunchfish.com												
CEO:	Joachim Samuelsson												
<hr/>													
Main owners (31 Dec 2023)													
Femari Invest AB	18.9												
Corespring Invest AB	17.5												
Nordic Underwriting Aps	5.9												
Paul Cronholm	2.8												
Carlquist Holding	2.5												
<hr/>													
Share price history (SEK)													
													
<table border="1"> <thead> <tr> <th></th> <th>-1m</th> <th>-3m</th> <th>-12m</th> </tr> </thead> <tbody> <tr> <td>Change (%)</td> <td>-24.5</td> <td>-12.2</td> <td>-82.7</td> </tr> <tr> <td>52 w k range (Low/Hi) - SEK</td> <td colspan="3">4.03 / 40.60</td> </tr> </tbody> </table>			-1m	-3m	-12m	Change (%)	-24.5	-12.2	-82.7	52 w k range (Low/Hi) - SEK	4.03 / 40.60		
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52 w k range (Low/Hi) - SEK	4.03 / 40.60												
Source: Västra Hamnen Corporate Finance													

A main feature in **Crunchfish's** year-end report is that the company will focus on its Digital Cash business. In the [webcast](#) following the report, CEO **Joachim Samuelsson** talked about progress made during 2023 and the launch of *Digital Cash protector* in 2024.

The company reached a milestone in December when the **Reserve Bank of India** (RBI) endorsed Crunchfish's solution for offline retail payments after a successful pilot project, also involving **IDFC First Bank** and **HDFC Bank**. IDFC First Bank will implement Digital Cash telecom for the Digital Rupee in India, the company's first CBDC implementation, which will create revenue for Crunchfish in 2024 based on the commercial contract signed with IDFC First Bank in June 2023.

In February, Crunchfish launched the Digital Cash protector, filling a critical security gap for offline payment systems. The product can be offered to payment apps that use a payment rail that offers offline payments or to the payment rail itself, such as UPI or the Digital Rupee in India.

The company is in talks with key stakeholders in the industry and hopes are high to advance them into pilot projects and subsequent commercial agreements. Until these discussions materialise, we model for a modest increase in group sales during 2024, projecting growth to start taking off from 2025 onwards.

In the report, Crunchfish announced a write-down of the gesture interaction business and IP in Digital Cash not related to offline payments. These impairments have little impact on our financial forecast, our model suggests keeping the fair value at SEK 12.70 per share.

Table 1: Financial Overview

MSEK	2021	2022	2023	2024e	2025e
Net sales	4.0	6.2	1.0	1.9	11.9
Growth (%)	-64%	56%	-84%	95%	519%
EBITDA	-29.2	-18.1	-30.1	-23.3	-2.9
EBITDA margin (%)	neg	neg	neg	neg	neg
EBT	-38.5	-24.0	-49.3	-29.7	-11.4
Cash holdings	32.8	29.3	30.7	36.0	13.4
Total assets	64.2	66.5	61.5	78.4	67.4
Total equity	55.8	58.8	52.3	67.5	56.1
Solidity (%)	87%	88%	85%	86%	83%
P/E	neg	neg	neg	neg	neg
ROE	neg	neg	neg	neg	neg
EV/EBIT (x)	neg	neg	neg	neg	neg
EV/Sales (x)	8.0	7.5	8.4	7.8	5.2

Source: Västra Hamnen Corporate Finance

Successful pilot project

RBI approval after successful pilot

In December 2023, Crunchfish Digital Cash concluded a successful pilot project with RBI, IDFC First Bank and HDFC Bank in the regulatory sandbox. The approval from RBI implies that the solution for offline retail payments can be adopted by Indian banks and other regulated entities in the country.

IDFC First Bank roll-out expected in Q2

IDFC First Bank signed a commercial agreement with Crunchfish for offline payments in June 2023. IDFC First Bank will onboard users in Crunchfish's solution in a seven-step batch structure over two years. We expect the first batch of users to be included in Q2 2024. The deal is based on the number of users, implying an increasing revenue to Crunchfish as the roll-out progresses.

Potential for additional agreements and pilot projects

A successful launch with IDFC First Bank would serve as a proof-of-concept for the industry, possibly prompting other banks to sign agreements. We argue that HDFC Bank would be a reasonable candidate, based on the abovementioned successful pilot project and the added security level with the Digital Cash protector.

Enhancing the offering with the Digital Cash protector

Filling a critical gap

Enhancing the offering with the Digital Cash protector, Crunchfish offers scalable and secure solutions to different levels in the payment infrastructure. The newly launched Digital Cash protector fills a critical security gap in the market. Without sufficient security, offline payment systems will be at great risk. Crunchfish argues that the Digital Cash protector will provide the necessary solution to the current issues, creating commercial opportunities for the company. For a client, the Digital Cash protector could become the first step to becoming familiar with Crunchfish's full offerings within mobile payments.

The Digital Cash protector can be applied as an add-on either to a payment app or centrally to a payment rail that offers offline payments, such as UPI or for CBDC implementations such as the Digital Rupee in India. According to Joachim Samuelsson, interest is high and Crunchfish is in discussions with key stakeholders at different levels in the Indian payment industry.

A central deal would be substantial

Should Crunchfish enter a central agreement, it would be substantially different from a separate license agreement with a bank. Such a deal could include Crunchfish selling the source code, implying a very large commercial deal.

Active in CBDC projects

CBDCs require support for offline payments

Crunchfish also sees opportunities for its offering to central banks in the global trend of digitising its currencies. Projects are generally in the early stages, but the central banks have identified the need for a secure solution to offline payments.

India is one of the leading countries in this area and has started pilot projects in implementing the Digital Rupee. IDFC First Bank and Crunchfish were awarded runner-up by RBI in October 2023 for an offline solution for the Digital Rupee that is ready to be piloted.

The European Central Bank (ECB) announced in January 2024 the next phase in the process of digitising the Euro. In addressing offline payment, the ECB has invited companies to a tender procedure to evaluate alternatives. The tender process will conclude in Q4 2024 and the competition for delivering offline payment services for the Digital Euro is expected to be hard.

Financials

Biggest discrepancy regards the write-down

Turning to the financials of the quarter, Table 2 shows the differences between the reported numbers and our estimates. Most of the figures were in line with our expectations, except for slightly higher personnel costs and other expenses.

The main difference regards net profit and total equity which is directly attributable to the write-down of the gesture business.

Table 2: Estimates vs actual, Q4 2023

kSEK	Q4 '22	Q4 '23e	Q4 '23a	Diff
Net revenues	30	230	333	103
Capitalised development cost	3 559	4 048	4 159	112
Other revenues	388	566	555	-11
Total revenue	3 977	4 844	5 047	203
Cost of goods	0	0	0	0
Personnel costs	-5 999	-5 720	-6 770	-1 050
Other expenses	-6 260	-4 690	-5 753	-1 062
Profit from affiliated companies	-2	0	-1	-1
EBITDA	-8 284	-5 566	-7 476	-1 910
Amortisation and Depreciation	-1 391	-2 202	-19 295	-17 094
EBIT	-9 675	-7 768	-26 771	-19 003
Other financial items, net	15	-106	-44	63
EBT	-9 660	-7 874	-26 815	-18 941
Net Profit	-9 660	-7 874	-26 921	-19 047
Cash and Equivalents	29 293	32 495	30 725	-1 770
Total Equity	58 771	71 614	52 262	-19 351

Source: Västra Hamnen Corporate Finance

Possible divestiture leads to model revisions

Due to the possible divestiture of the Gesture business in 2024, we are making some revisions to our financial forecast. We remove all sales from Gesture interaction and

reduce operating expenses from 2025 as we expect the divestiture process to take some time.

Moreover, we slightly increase sales in the short term. The agreement with IDFC First Bank will provide revenue as the roll-out progresses. We also acknowledge the possibility of similar deals with other banks during the year.

For 2025 we model for sales of about SEK 12 million which represents a significant increase from 2024. However, a central agreement would probably imply greater sales than in our projection, but our forecast represents more of a risk-adjusted scenario as the uncertainty remains high.

Moreover, the company recently signed a non-disclosure agreement with a major telecom operator group in Africa. This project is however in its very early stages, making it difficult to quantify.

We see a need for additional funds in Q3 2024

The current financial risk is still high. As previously communicated, we expect that Crunchfish will need to raise additional funds in Q3 2024.

Our forecast predicts that the company will become free cash flow positive in Q3 2026. To get there, an additional SEK 45 million will be needed, achieved from loans or an issue. We speculate that an issue is the more likely option. Some of the capital needs could be met by the divestment of the gesture business.

In summary, we see a possibility for Crunchfish to enter agreements with other banks but choose to remain cautious and model for the current IDFC First Bank deal.

Further, we see UPI Lite X is a tough competitor within offline payments, but we think adding the Digital Cash protector could solve a critical flaw in the application, creating an opportunity for Crunchfish.

Removal of gesture interaction does not affect valuation

The main change in the model is connected to the divestiture of the Gesture Interaction business. However, after removing the sales and decreasing operating expenses, the value of our model remains unchanged, indicating a net present value of zero for the Gesture Interaction unit.

This is not the same as saying that the Gesture business could not be of value to a potential acquirer who can realise synergies. Rather Crunchfish does not have the financial resources to materialise real value from the business segment, hence the intention to divest.

All in all, we maintain our fair share estimate of SEK 12.70.

2024 will be a key year for Crunchfish

With a clear focus on Digital Cash, we believe Crunchfish is on a promising path. 2024 will be a key year for Crunchfish to lay the foundation for its commercial breakthrough.

Although we remain somewhat conservative in our short-term projections, we emphasise the scalability and possibilities connected to Crunchfish's solution, especially regarding the Digital Cash protector.

Income Statement - Annual Data

kSEK	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Net revenues	3 957	6 187	988	1 925	11 924	45 975	111 597	245 133
Capitalised development cost	14 342	13 555	16 474	16 719	16 984	17 257	17 534	17 816
Other revenues	2 045	1 976	2 089	2 331	2 524	2 732	2 957	3 201
Total revenues	20 344	21 718	19 551	20 975	31 432	65 963	132 088	266 149
Cost of goods sold	-211	0	0	0	0	0	0	0
Personnel costs	-23 388	-21 735	-25 076	-23 023	-17 838	-21 044	-35 387	-59 570
Other external costs	-16 011	-16 175	-19 691	-19 570	-15 162	-17 888	-30 079	-50 634
Other operating expenses	-755	-1 857	-1 328	-1 704	-1 320	-1 557	-2 619	-4 408
Profit from affiliated companies	-9 186	-68	-1	0	0	0	0	0
EBITDA	-29 207	-18 116	-30 097	-23 321	-2 888	25 474	64 004	151 537
Amortisation & depreciation	-7 661	-6 139	-19 295	-6 383	-8 468	-10 216	-11 690	-12 943
EBIT	-36 868	-24 255	-49 393	-29 705	-11 356	15 258	52 314	138 594
Financial items, net	-1 600	214	88	-44	-34	-25	-15	-5
EBT	-38 468	-24 042	-49 305	-29 749	-11 390	15 234	52 299	138 589
Taxes	0	0	0	0	0	0	0	0
Net profit	-38 468	-24 042	-49 305	-29 749	-11 390	15 234	52 299	138 589
Earnings per share (SEK)	-1.26	-0.73	-1.18	-0.54	-0.18	0.25	0.85	2.25
Growth (%)								
Net revenues	-63.6%	56.4%	-84.0%	94.9%	519.4%	285.6%	142.7%	119.7%
EBITDA	na	na	na	na	na	na	151.3%	136.8%
EBIT	na	na	na	na	na	na	242.9%	164.9%
Net profit	na	na	na	na	na	na	243.3%	165.0%
% of revenues (%)								
EBITDA margin	neg	neg	neg	neg	neg	38.6%	48.5%	56.9%
EBIT margin	neg	neg	neg	neg	neg	23.1%	39.6%	52.1%
EBT margin	neg	neg	neg	neg	neg	23.1%	39.6%	52.1%
Profit margin	neg	neg	neg	neg	neg	23.1%	39.6%	52.1%
Personnel costs	591.1%	351.3%	2538.5%	1195.9%	149.6%	45.8%	31.7%	24.3%
Total OPEX	1014.8%	642.8%	4666.3%	2301.0%	287.8%	88.1%	61.0%	46.8%
Profitability (%)								
ROE	neg	neg	neg	neg	neg	21.3%	42.3%	52.8%
ROIC	neg	neg	neg	neg	neg	21.6%	56.6%	111.4%

Source: Västra Hamnen Corporate Finance

Balance Sheet - Annual Data

kSEK	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Inventories	0	0	0	0	0	0	0	0
Account receivable	771	1 548	49	484	2 684	8 545	19 789	40 094
Receivables fr affiliated comp	33	0	0	0	0	0	0	0
Prepaid costs & accrued inco	1 384	1 089	1 140	1 485	1 594	1 675	1 757	1 842
Other receivables	1 093	450	1 951	1 594	1 615	1 689	1 771	1 857
Cash and cash equivalents	32 756	29 293	30 725	36 022	13 435	15 616	50 397	163 424
Total current assets	36 037	32 380	33 865	39 584	19 328	27 525	73 713	207 217
Tangible assets	696	535	1 450	1 923	2 308	2 622	2 878	3 086
Intangible assets	27 323	33 509	26 133	36 795	45 726	53 254	59 642	65 107
Long-term receivables	0	0	0	0	0	0	0	0
Affiliated companies	137	69	67	67	67	67	67	67
Total fixed assets	28 155	34 113	27 650	38 785	48 102	55 943	62 587	68 260
Total assets	64 192	66 493	61 515	78 370	67 430	83 468	136 299	275 476
Accounts payable	1 104	1 914	1 047	2 148	2 159	2 503	2 527	2 553
Accrued cost & prepaid incor	4 188	4 645	6 005	6 552	7 103	7 685	8 313	8 991
Other liabilities	3 057	1 161	1 244	1 393	1 477	1 551	1 626	1 705
Loans	0	0	0	0	0	0	0	0
Total current liabilities	8 349	7 721	8 295	10 094	10 739	11 738	12 466	13 249
Total non-current liabilities	0	0	957	762	568	373	178	-17
Total equity	55 843	58 771	52 262	67 513	56 123	71 357	123 655	262 244
Total equity and liabilities	64 192	66 493	61 515	78 370	67 430	83 468	136 299	275 476

Source: Västra Hamnen Corporate Finance

Cash flow statement

kSEK	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Operating activities	-20 952	-16 604	-26 649	-23 366	-2 922	25 449	63 989	151 532
Changes in working capital	1 566	79	522	1 376	-1 686	-5 016	-10 680	-19 693
Investing activities	-15 837	-13 616	-17 707	-17 519	-17 784	-18 057	-18 334	-18 616
Financing activities	59 303	26 840	43 958	44 805	-194	-195	-195	-195
Cash flow for the period	24 022	-3 687	1 242	5 296	-22 586	2 181	34 780	113 028
Beginning cash balance	-7 767	32 755	29 293	30 725	36 021	13 435	15 616	50 396
Adjustments	65	80	0	0	0	0	0	0
Ending cash balance	32 755	29 293	30 725	36 021	13 435	15 616	50 396	163 424

Source: Västra Hamnen Corporate Finance

Income Statement - Quarterly Data

kSEK	Q2 2023	Q3 2023	Q4 2023	Q1 2024e	Q2 2024e	Q3 2024e	Q4 2024e	Q1 2025e
Net revenues	295	189	333	347	419	528	630	1 742
Capitalised development cost	4 163	4 048	4 159	4 160	4 174	4 176	4 209	4 222
Other revenues	515	555	555	566	577	589	600	612
Total revenues	4 973	4 791	5 047	5 073	5 170	5 293	5 440	6 576
Cost of goods sold	0	0	0	0	0	0	0	0
Personnel costs	-6 594	-5 558	-6 770	-5 734	-5 749	-5 763	-5 777	-4 344
Other external costs	-5 999	-4 941	-4 437	-4 874	-4 886	-4 899	-4 911	-3 692
Other operating expenses	-2	0	-1 316	-1 316	-424	-425	-426	-428
Profit from affiliated companies	0	0	-0	0	0	0	0	0
EBITDA	-7 623	-5 708	-7 475	-6 852	-5 890	-5 794	-5 675	-1 888
Amortisation & depreciation	-1 274	-1 239	-19 295	-1 379	-1 528	-1 670	-1 806	-1 936
EBIT	-8 897	-6 946	-26 770	-8 231	-7 418	-7 464	-7 481	-3 824
Financial items, net	255	-67	-44	-12	-11	-11	-10	-10
EBT	-8 642	-7 013	-26 814	-8 243	-7 429	-7 475	-7 491	-3 833
Taxes	0	106	-106	0	0	0	0	0
Net profit	-8 642	-6 907	-26 920	-8 243	-7 429	-7 475	-7 491	-3 833
Earnings per share (SEK)	-0.21	-0.26	-0.17	-0.53	-0.15	-0.15	-0.12	-0.12
Y-o-Y Growth (%)								
Net revenues	119.2%	-96.7%	994.3%	103.7%	42.2%	179.2%	89.1%	401.4%
EBITDA	na	na	na	na	na	na	na	na
EBIT	na	na	na	na	na	na	na	na
Net profit	na	na	na	na	na	na	na	na
% of revenues (%)								
EBITDA margin	neg	neg	neg	neg	neg	neg	neg	neg
EBIT margin	neg	neg	neg	neg	neg	neg	neg	neg
EBT margin	neg	neg	neg	neg	neg	neg	neg	neg
Profit margin	neg	neg	neg	neg	neg	neg	neg	neg
Personnel costs	2237.3%	2938.1%	2030.8%	1650.3%	1371.8%	1091.2%	916.3%	249.3%
Total OPEX	4273.6%	5549.8%	3756.5%	3431.8%	2639.1%	2099.3%	1762.9%	485.8%
Profitability (%)								
ROE	neg	neg	neg	neg	neg	neg	neg	neg
ROIC	neg	neg	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Västra Hamnen Corporate Finance

Balance Sheet - Quarterly Data

kSEK	Q2 2023	Q3 2023	Q4 2023	Q1 2024e	Q2 2024e	Q3 2024e	Q4 2024e	Q1 2025e
Inventories	0	0	0	0	0	0	0	0
Account receivable	566	1 590	49	267	321	405	484	1 050
Receivables fr affiliated comp	0	0	0	0	0	0	0	0
Prepaid costs & accrued inco	1 529	1 528	1 140	1 632	1 501	1 494	1 485	1 574
Other receivables	778	1 511	1 951	1 249	1 414	1 577	1 594	1 502
Cash and cash equivalents	9 130	4 770	30 725	21 697	11 578	46 140	36 022	29 388
Total current assets	12 002	9 399	33 865	24 845	14 814	49 616	39 584	33 514
Tangible assets	1 011	1 580	1 450	1 577	1 698	1 814	1 923	2 027
Intangible assets	39 578	42 451	26 133	28 986	31 710	34 301	36 795	39 177
Long-term receivables	0	107	0	0	0	0	0	0
Affiliated companies	68	68	67	67	67	67	67	67
Total fixed assets	40 657	44 206	27 650	30 630	33 476	36 182	38 785	41 271
Total assets	52 659	53 605	61 515	55 476	48 289	85 798	78 370	74 785
Accounts payable	1 071	1 209	1 047	2 163	2 150	2 149	2 148	2 157
Accrued cost & prepaid incor	6 155	6 020	6 005	6 133	6 382	6 442	6 552	6 696
Other liabilities	1 516	1 382	1 244	1 360	1 417	1 391	1 393	1 432
Loans	0	7 500	0	0	0	0	0	0
Total current liabilities	8 742	16 110	8 295	9 656	9 949	9 982	10 094	10 285
Total non-current liabilitie	487	1 007	957	909	860	811	762	714
Total equity	43 431	36 488	52 262	44 911	37 481	75 005	67 513	63 786
Total equity and liabilities	52 660	53 605	61 515	55 476	48 289	85 798	78 370	74 785

Source: Västra Hamnen Corporate Finance

Cash flow statement

kSEK	Q2 2023	Q3 2023	Q4 2023	Q1 2024e	Q2 2024e	Q3 2024e	Q4 2024e	Q4 2024e
Operating activities	-7 592	-5 747	-6 265	-5 972	-5 902	-5 806	-5 686	-1 791
Changes in working capital	1 671	-2 035	1 276	1 352	205	-207	26	-372
Investing activities	-4 754	-4 689	-4 159	-4 360	-4 374	-4 376	-4 409	-4 422
Financing activities	552	8 094	35 119	-49	-49	44 951	-49	-49
Cash flow for the period	-10 124	-4 377	25 971	-9 028	-10 120	34 562	-10 118	-6 634
Beginning cash balance	19 029	9 130	4 770	30 725	21 697	11 578	46 140	36 022
Adjustments	0	0	0	0	0	0	0	0
Ending cash balance	9 130	4 770	30 725	21 697	11 578	46 140	36 022	29 388

Source: Västra Hamnen Corporate Finance

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