

Update: Report Q4 2020

2021-02-19

Crunchfish: Partners and patents

- VISA partnership could be major breakthrough in digital cash
- Q4 financials in line with expectations
- We maintain our valuation range unchanged at SEK 25.30 – 40.10

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Stock ticker: CFISH
Industry: Technology
Listed on: Nasdaq First North
Latest stock price (SEK): 20,60
Market cap (MSEK): 601,1
Enterprise Value (MSEK): 592,5
Total number of shares (M): 28,35
- of which free float (M): 16,02

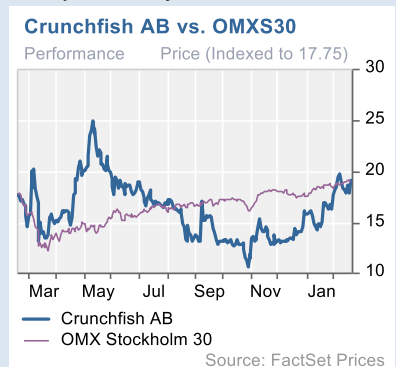
VHCF fair value per share
DCF model 25,30 - 40,10 SEK

Crunchfish AB
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Webpage: crunchfish.com
CEO: Joachim Samuelsson

Main owners (31 Dec 2020)

Company	Kapital (%)
Femari Invest AB	26,3
Midroc Invest AB	17,3
Paul Cronholm	3,9
Carlquist Holding AB	3,5
Coeli Fonder	3,3

Stock price history



	-1m	-3m	-12m
Change (%)	23,5	23,3	1,7
52 w k range (Low /Hi) - SEK	10,20 / 26,86		

Source: FactSet

Yesterday's full year report from Crunchfish shows how the company's focus is evolving more and more towards digital cash. Crunchfish has released a string of press releases recently, detailing new partnerships and patents in this area. Its ambitions have now grown far beyond instant payments in India and the Nordic area. The company has patented solutions that would facilitate offline digital cash payments for any digital wallet anywhere, irrespective of whether the underlying payment structure is a card network, an instant payment network, central bank digital currency, or a combination of these.

Yesterday morning, the company also released what could be its most important step forward in years. Crunchfish has signed an agreement with VISA, enrolling it as a technology partner to the global card network. VISA is one of the world's leading card networks, serving over 200 countries and 3.3 billion Visa cards and processing nearly 190 billion transactions every year. During yesterday's [web conference](#), CEO Joachim Samuelsson provided more details on what the partnership means for Crunchfish.

It is obvious that the partnership could open vast opportunities for Crunchfish. As a technology partner, Crunchfish will get access to VISA's specifications and toolkits and work with their solution architects. The objective is to find ways of implementing Crunchfish's digital cash solution into VISA's product offering. Even though the cooperation originated from the contacts with VISA's innovation team in India, there is no reason why VISA would not implement any solution found across its entire global network.

Additionally, although Crunchfish is working intimately with one card network in this partnership, we also see no reason why it could not engage in a similar cooperation with other card companies.

Table 1: Financial Overview

MSEK	2018	2019	2020	2021e	2022e
Total revenues	13,8	21,1	23,2	62,2	166,7
Growth (%)	7,6%	52,7%	9,9%	167,9%	168,1%
EBITDA	(17,3)	(17,1)	(17,6)	11,4	112,8
EBITDA margin (%)	neg	neg	neg	16,2%	62,9%
EBT	(22,0)	(24,0)	(25,3)	1,9	102,2
Cash holdings	21,4	13,2	8,7	23,7	107,1
Total assets	46,6	42,9	44,3	65,7	155,6
Total equity	40,3	36,3	34,8	36,7	146,5
Solidity (%)	86,3%	84,5%	78,6%	55,9%	94,1%
P/E	neg	neg	neg	284,3	5,2
ROE	neg	neg	neg	5,1%	69,7%
EV/EBIT (x)	neg	neg	neg	214,9	5,1
EV/Sales (x)	37,6	24,6	22,4	8,4	3,1

Source: Västra Hamnen Corporate Finance

Crunchfish introduces interoperability

Another major piece of news this past weekend was the announcement of an innovation that can unite all international payment networks prepared for digital cash. Crunchfish has already submitted a patent application for the solution.

The idea was born out of Crunchfish's two-stage payment verification, where the payer and payee exchange an instant encrypted payment instruction at the moment of purchase, but the actual money transfer in the cloud is executed only when any one of the parties is online. This requires a high level of security and trust, which is provided through a recognised security certificate. But by establishing a universal root certificate that is recognised throughout payment networks and in all countries and currencies, barriers between payment networks and currencies disappear. All payment services that choose to recognise the root certificate will be able to facilitate payments to and from any other participating services. For example, a user of the Swedish instant payment app Swish would be able to pay digital cash to a foreign merchant signed up with a card company, or to a person with a mobile app wallet in any currency, be it domestic or foreign, central bank digital currency or even cryptocurrency.

Proves the strength of two-stage transaction settlements

To the best of our knowledge, Crunchfish is the only company that has the technical solution for this interoperability, and the reason is its separation of payments in two stages, as mentioned. A one-stage model would rely on online access at the time of payment and would require slow negotiations of security certificates between networks. With separation, the transaction would appear instant in the user's perspective.

Figure 1: A universal root certificate unites international payment systems

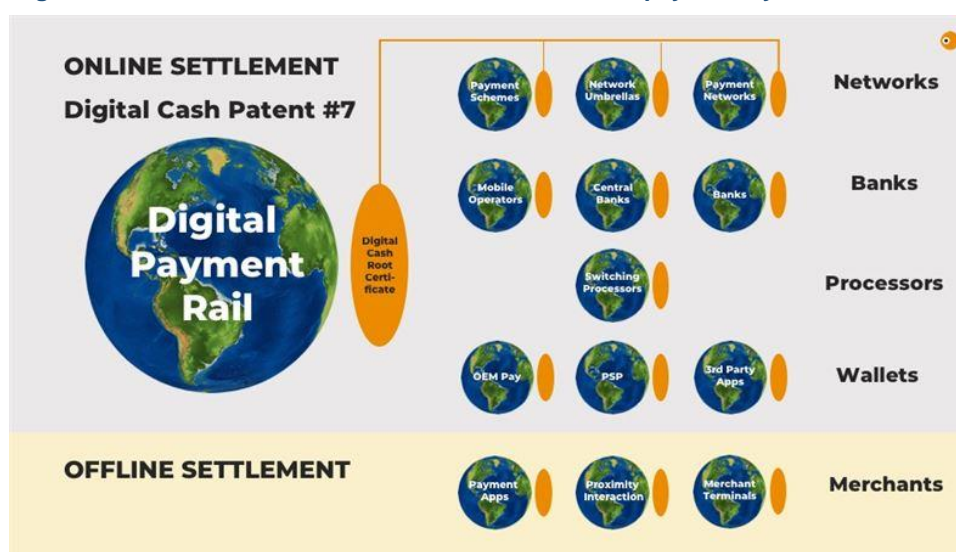


Illustration: Crunchfish

Digital cash revenue model still not determined

Crunchfish has not specified exactly how it would monetise this model, but we understand that a number of options are being considered. They range from monthly access fees or transaction fees for merchants, to switching fees or certificate fees in relation to the root certificates for interoperability. The company has made it clear that none of this has been determined as of yet and will to some extent be adapted to the business models of other players in the payment ecosystem.

While the two items discussed above are the most striking of the recent past, there has been a steady flow of noteworthy news lately. The company has detailed a comprehensive partner strategy in the area of digital cash, which highlights the range of different services

Digital cash enabled on feature phones...

to be included in Crunchfish' ecosystem of digital cash. We discussed the objectives and motivations behind the partner strategy in a [recent interview](#) with Joachim Samuelsson.

A partnership that deserves particular mention is the one with Taisys Technologies of Taiwan, announced on 5 February. Taisys has developed a patented Thin SIM technology, whereby an ultrathin extra sim card can be fitted on top of an ordinary SIM card. The Thin SIM can make some of the functionality found only on smart phones available for simpler feature phones as well. Essentially for Crunchfish, it can serve as a secure element and thereby enable a feature phone to hold a digital wallet, just like a smart phone. In India, it is estimated that about half of all mobile phones in use are feature phones. Consequently, by partnering with Taisys, Crunchfish may in theory double the addressable market for mobile digital cash wallets in India.

... and on payment cards

Another innovation that deserves mention is the one from late January, where Crunchfish announced that offline mobile payments could now be extended to payment cards. The company has applied for patent on a solution whereby a card can be tapped on a mobile phone to transfer funds to the phone's digital wallet, e.g. to top up its digital balance or pay to the recipient's mobile offline wallet. Conversely, a phone can be used to load a payment card with digital cash for offline spending. The card user may later spend digital cash on the card without the need to have their mobile phone present at all.

Net profit slightly stronger than our estimate

Turning to the financial figures presented in the full-year report, they were very much in line with our forecasts, cf. Table 2 below. Net revenues were slightly below our forecasts while Capitalised development costs were slightly higher, meaning Total revenues were almost exactly in line. The cost side was also almost exactly in line with expectations. In summary, Net profit came in SEK 0.7 million stronger than our estimate.

Table 2: Estimates vs actual, Q4 2020

kSEK	Q4 '19	Q4 '20e	Q4 '20 act	Diff
Net revenues	5 526	4 446	3 634	-812
Capitalised development cost	958	2 055	3 085	1 030
Other revenues	529	471	544	72
Total revenue	7 014	6 972	7 263	291
Personnel costs	(4 211)	(5 343)	(5 789)	-446
Other expenses	(4 527)	(5 332)	(4 562)	770
Profit from affiliated companies	(443)	(780)	(649)	131
EBITDA	(2 167)	(4 483)	(3 737)	745
Amortisation and Depreciation	(1 849)	(2 045)	(2 086)	-41
EBIT	(4 016)	(6 528)	(5 823)	705
Other financial items, net	(85)	(12)	(57)	-45
EBT	(4 102)	(6 540)	(5 880)	660
Net Profit	(4 102)	(6 540)	(5 880)	660
Cash and Equivalents	13 181	6 593	8 668	2 074
Total Equity	36 310	34 104	34 838	734

Source: Västra Hamnen Corporate Finance

Cash holdings at the end of 2020 came in SEK 2.1 million higher than our estimate. Apart from the stronger Net profit, the main contributor was SEK 1.2 million less expenditure related to working capital investments compared to our expectations. The outgoing cash balance of SEK 8.7 million would appear very low considering that free cash flow has averaged SEK -7.5 million per quarter during 2020. We have previously modelled a new issue of shares to fill the gap until the company starts generating a cash surplus. However, the

company's two main shareholders announced in mid-December that they would provide a credit facility with an upper limit of SEK 25 million and a duration until February 2022.

Positive that owners extend credit facility

This is positive on two counts. First, because it averts a dilutive new share issue at this juncture and second, because it demonstrates the main owners' dedication and conviction that short-term loan financing is sufficient to bridge the gap until cash flows start to accelerate. We have updated our model accordingly, removing our forecasted equity financing in 2021 and replaced it by a loan, to be repaid in 2022.

We have not made any significant changes to our valuation model at this point. The balance of news is heavily tilted towards digital cash at present. The VISA agreement illustrates the vast opportunities opening up in digital cash but so far, they are impossible to quantify. Crunchfish's revenue model in the area is also yet to be determined by the company. Therefore, we have little basis for translating these opportunities into monetary terms for our valuation model. Our present model encompasses the business areas gesture control, proximity payments in Nordic retail and offline mobile payments in India. These areas are by no means put on hold by Crunchfish, but we sense that the global opportunities in digital cash is occupying more of the management's time right now.

Valuation range unchanged, visibility low

For the time being we can only await further information. **Therefore, we hold on to our valuation range SEK 25.30 – 40.10 for now.** We stress however, that the visibility is unusually low at present and that we may have to rework our valuation model entirely once we get a better grip on how digital cash may translate into cash flows for Crunchfish.

Income Statement - Annual Data

kSEK	2018	2019	2020	2021e	2022e	2023e	2024e	2025e
Net revenues	3 510	14 565	10 883	48 489	152 274	218 783	308 732	399 989
Capitalised development cost	6 769	4 623	10 106	11 390	11 905	12 312	12 533	12 739
Other revenues	3 548	1 928	2 215	2 285	2 473	2 677	2 898	3 137
Total revenues	13 827	21 115	23 204	62 164	166 653	233 773	324 163	415 864
Cost of goods sold	-	(91)	(213)	(1 650)	(3 850)	(4 400)	(5 500)	(1 100)
Personnel costs	(14 784)	(15 496)	(20 965)	(23 932)	(26 165)	(28 606)	(32 856)	(38 823)
Other external costs	(14 637)	(20 714)	(16 936)	(22 762)	(27 473)	(30 036)	(34 499)	(40 764)
Other operating expenses	(1 554)	(379)	(48)	(3 736)	(4 291)	(4 691)	(5 388)	(6 367)
Profit from affiliated companies	(180)	(1 527)	(2 595)	1 280	7 889	16 320	22 505	25 269
EBITDA	(17 328)	(17 092)	(17 553)	11 365	112 762	182 360	268 425	354 080
Amortisation & depreciation	(4 748)	(6 936)	(7 662)	(8 948)	(9 928)	(10 701)	(11 316)	(11 785)
EBIT	(22 077)	(24 028)	(25 216)	2 417	102 834	171 659	257 109	342 295
Financial items, net	50	27	(120)	(559)	(653)	(28)	(28)	(28)
EBT	(22 027)	(24 001)	(25 336)	1 858	102 181	171 631	257 081	342 267
Taxes	-	-	-	-	-	(21 845)	(52 959)	(70 507)
Net profit	(22 027)	(24 001)	(25 336)	1 858	102 181	149 786	204 122	271 760
Earnings per share (SEK)	(1,30)	(0,97)	(0,92)	0,07	3,53	5,15	7,01	9,34
Growth (%)								
Net revenues	9,6%	315,0%	-25,3%	345,5%	214,0%	43,7%	41,1%	29,6%
EBITDA	na	na	na	na	939,9%	58,3%	48,1%	33,7%
EBIT	na	na	na	na	8252,3%	63,6%	51,0%	35,1%
Net profit	na	na	na	na	5400,5%	46,6%	36,3%	33,1%
% of revenues (%)								
EBITDA margin	neg	neg	neg	16,2%	62,9%	71,0%	75,9%	79,1%
EBIT margin	neg	neg	neg	1,8%	57,0%	66,4%	72,4%	76,2%
EBT margin	neg	neg	neg	3,0%	61,3%	73,4%	79,3%	82,3%
Profit margin	neg	neg	neg	3,0%	61,3%	64,1%	63,0%	65,3%
Personnel costs	421,2%	106,4%	192,6%	49,4%	17,2%	13,1%	10,6%	9,7%
Total OPEX	882,5%	251,2%	348,7%	104,0%	38,0%	28,9%	23,6%	21,5%
Profitability (%)								
ROE	neg	neg	neg	5,1%	69,7%	50,6%	40,8%	35,2%
ROIC	neg	neg	neg	14,2%	204,1%	306,6%	415,7%	518,1%

Source: Västra Hamnen Corporate Finance

Balance Sheet - Annual Data

kSEK	2018	2019	2020	2021e	2022e	2023e	2024e	2025e
Inventories	-	-	-	181	362	362	542	-
Account receivable	356	2 424	3 048	5 186	9 046	11 752	14 635	18 350
Receivables fr affiliated comp	1 118	841	472	1 720	2 201	2 493	3 036	2 430
Prepaid costs & accrued inco	1 089	1 066	1 318	1 541	1 626	1 686	1 765	1 850
Other receivables	475	361	869	965	1 011	1 061	1 112	1 166
Cash and cash equivalents	21 362	13 181	8 668	23 725	107 050	252 388	451 857	720 273
Total current assets	24 400	17 872	14 374	33 318	121 297	269 741	472 947	744 069
Tangible assets	522	1 606	1 265	1 032	842	687	562	459
Intangible assets	20 402	18 052	20 829	23 505	25 674	27 442	28 786	29 845
Long-term receivables	373	-	5	5	5	5	5	5
Affiliated companies	945	5 418	7 823	7 823	7 823	7 823	7 823	7 823
Total fixed assets	22 242	25 076	29 921	32 365	34 344	35 957	37 176	38 132
Total assets	46 642	42 949	44 296	65 683	155 640	305 698	510 123	782 200
Accounts payable	2 280	984	2 381	2 154	2 163	2 169	2 176	2 185
Accrued cost & prepaid inco	3 177	4 023	4 611	4 559	4 686	4 902	5 139	5 388
Other liabilities	917	843	1 905	1 714	1 731	1 782	1 839	1 898
Loans	-	-	-	20 000	-	-	-	-
Total current liabilities	6 373	5 850	8 897	28 427	8 579	8 852	9 154	9 472
Total non-current liabilitie:	-	789	561	561	561	561	561	561
Total equity	40 269	36 310	34 838	36 696	146 500	296 285	500 408	772 168
Total equity and liabilities	46 642	42 949	44 295	65 683	155 640	305 698	510 122	782 200

Source: Västra Hamnen Corporate Finance

Cash flow statement

kSEK	2018	2019	2020	2021e	2022e	2023e	2024e	2025e
Operating activities	(16 868)	(15 211)	(14 968)	10 805	112 109	160 486	215 438	283 545
Changes in working capital	369	(2 090)	2 027	(4 357)	(4 501)	(2 834)	(3 435)	(2 388)
Investing activities	(6 823)	(11 597)	(15 151)	(11 392)	(11 907)	(12 314)	(12 535)	(12 740)
Financing activities	23 356	20 743	23 640	20 000	(12 377)	-	-	-
Cash flow for the period	34	(8 156)	(4 453)	15 057	83 325	145 338	199 469	268 416
Beginning cash balance	21 164	21 362	13 181	8 668	23 725	107 050	252 388	451 857
Adjustments	165	(26)	(60)	-	-	-	-	-
Ending cash balance	21 362	13 181	8 668	23 725	107 050	252 388	451 857	720 273

Source: Västra Hamnen Corporate Finance

Income Statement - Quarterly Data

kSEK	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021e	Q2 2021e	Q3 2021e	Q4 2021e
Net revenues	1 948	2 330	2 970	3 634	6 684	9 934	14 015	17 857
Capitalised development cost	1 380	2 955	2 685	3 085	2 602	2 917	2 907	2 964
Other revenues	820	390	462	544	554	566	577	588
Total revenues	4 148	5 675	6 118	7 263	9 841	13 416	17 498	21 409
Cost of goods sold	(17)	-	-	(196)	(275)	(275)	(550)	(550)
Personnel costs	(4 506)	(5 498)	(5 172)	(5 789)	(5 784)	(5 915)	(6 048)	(6 185)
Other external costs	(3 950)	(4 417)	(4 240)	(4 329)	(5 148)	(5 501)	(5 867)	(6 246)
Other operating expenses	-	(11)	-	(37)	(875)	(913)	(953)	(994)
Profit from affiliated companies	(478)	(646)	(822)	(649)	44	142	394	700
EBITDA	(4 803)	(4 898)	(4 116)	(3 737)	(2 198)	955	4 474	8 134
Amortisation & depreciation	(1 805)	(1 843)	(1 929)	(2 086)	(2 146)	(2 195)	(2 270)	(2 337)
EBIT	(6 608)	(6 740)	(6 044)	(5 823)	(4 344)	(1 240)	2 204	5 797
Financial items, net	117	(146)	(34)	(57)	(7)	(101)	(195)	(257)
EBT	(6 491)	(6 886)	(6 078)	(5 880)	(4 351)	(1 341)	2 009	5 540
Taxes	-	-	-	-	-	-	-	-
Net profit	(6 491)	(6 886)	(6 078)	(5 880)	(4 351)	(1 341)	2 009	5 540
Earnings per share (SEK)	(0,25)	(0,24)	(0,21)	(0,21)	(0,15)	(0,05)	0,07	0,20
Y-o-Y Growth (%)								
Net revenues	(51,0%)	(5,5%)	14,2%	(34,2%)	243,1%	326,2%	371,8%	391,3%
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	6,1%	23,3%	34,7%
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	231,3%	235,9%	174,1%	159,3%	86,5%	59,5%	43,2%	34,6%
Total OPEX	434,1%	426,0%	316,8%	279,4%	176,6%	124,1%	91,8%	75,2%
Profitability (%)								
ROE	neg	neg	neg	neg	neg	neg	6,4%	15,1%
ROIC	neg	neg	neg	neg	neg	neg	5,9%	15,2%

Source: Västra Hamnen Corporate Finance

Balance Sheet - Quarterly Data

kSEK	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021e	Q2 2021e	Q3 2021e	Q4 2021e
Inventories	-	-	-	-	90	90	181	181
Account receivable	3 260	366	491	3 048	2 988	3 623	4 268	5 186
Receivables fr affiliated comp	853	1 317	900	472	1 248	1 304	1 608	1 720
Prepaid costs & accrued inco	1 803	1 337	933	1 318	1 482	1 394	1 410	1 541
Other receivables	557	1 108	855	869	890	977	943	965
Cash and cash equivalents	5 715	23 501	15 888	8 668	9 220	14 326	19 844	23 725
Total current assets	12 188	27 630	19 068	14 374	15 919	21 715	28 254	33 318
Tangible assets	1 506	1 453	1 357	1 265	1 202	1 142	1 086	1 032
Intangible assets	17 729	18 922	19 774	20 829	21 348	22 130	22 824	23 505
Long-term receivables	-	-	5	5	5	5	5	5
Affiliated companies	5 940	6 293	7 471	7 823	7 823	7 823	7 823	7 823
Total fixed assets	25 174	26 668	28 608	29 921	30 378	31 100	31 737	32 365
Total assets	37 362	54 298	47 677	44 296	46 297	52 815	59 992	65 683
Accounts payable	2 711	1 570	1 150	2 381	2 222	2 209	2 212	2 154
Accrued cost & prepaid inco	3 190	4 005	3 704	4 611	4 071	4 303	4 381	4 559
Other liabilities	909	1 259	1 561	1 905	1 455	1 596	1 683	1 714
Loans	-	-	-	-	7 500	15 000	20 000	20 000
Total current liabilities	6 810	6 835	6 414	8 897	15 249	23 108	28 275	28 427
Total non-current liabilitie:	733	676	618	561	561	561	561	561
Total equity	29 819	46 788	40 645	34 838	30 487	29 146	31 156	36 696
Total equity and liabilities	37 362	54 298	47 677	44 295	46 297	52 815	59 991	65 683

Source: Västra Hamnen Corporate Finance

Cash flow statement

kSEK	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021e	Q2 2021e	Q3 2021e	Q4 2021e
Operating activities	(4 331)	(4 246)	(3 302)	(3 089)	(2 205)	854	4 279	7 877
Changes in working capital	(820)	2 367	526	(45)	(2 140)	(331)	(853)	(1 032)
Investing activities	(2 381)	(3 995)	(4 691)	(4 085)	(2 603)	(2 917)	(2 907)	(2 964)
Financing activities	(55)	23 800	(121)	17	7 500	7 500	5 000	-
Cash flow for the period	(7 587)	17 925	(7 589)	(7 202)	552	5 106	5 519	3 881
Beginning cash balance	13 181	5 715	23 501	15 888	8 668	9 220	14 326	19 844
Adjustments	121	(139)	(24)	(18)	-	-	-	-
Ending cash balance	5 715	23 501	15 888	8 668	9 220	14 326	19 844	23 725

Source: Västra Hamnen Corporate Finance

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