31 August 2001

Psion



Reduce

Weightings

Stock rel to its UK sector

Under	Neutral	Over

UK sector rel to FTSE-All-Share

Neutral	Over					
С	PON.L					
EDD	5848					
g	PON LN					
Mkt cap (GBPm)						
JS\$m)	369					
(%)	100					
es (m)	414					
)	261					
e (p)	50					
Gearing (%)						
Next event March 20						
to FTSE A	II-Share					
3M	12M					
	C EDD g GBPm) US\$m) (%) res (m)) e (p) 6) t March 20					

Analyst* +44 20 7336+

Ext 3458 Philip Sparks firstname.lastname@hsbcib.com

Sales*

+44 20 7336+ Ext David Kelso 4633

*HSBC legal entities are listed on the back page

Psion exits tough markets, but outlook for Teklogix and Symbian weakens

- Potential for major disappointments is greatly reduced, but immediate outlook for Teklogix and Symbian is unclear
- Symbian's 2002 cash call will focus investor attention on near term issues and not its long-term potential
- With little good news on the horizon, the valuation is not cheap enough to prompt a move to a positive recommendation yet

H1 results

There were few surprises in the H1 numbers following Psion's major restructuring announcement in July, when Psion said it was exiting the troubled consumer PDA and PC card markets to focus on its profitable wireless networking business and Symbian. Turnover of £100.5m and the pre-exceptional loss before tax of £13m were both in line.

Psion is taking a £41m restructuring charge this year (£29m taken in H1). Combining that with the poor trading experienced in H1 means that we expect Psion to make a PBT loss (before goodwill amortisation) of £60.5m. This new forecast is £3m worse than previously expected, due to Psion's uncertainty over the prospects for its US based Teklogix division in H2 2001.

Valuation and recommendation

If we assume the market is putting Teklogix on a PE of 20x (our EBIT forecast for 2001 is £10m), the implied valuation of Symbian is currently £500m. While this is not outrageously expensive, it is still speculative, and as there are few Symbian product releases on the horizon, this valuation could be vulnerable to bad press in the coming months. This situation is not helped by the fact that Psion risks being pushed into debt by a cash call from Symbian next year. Although Psion's exit from its troubled businesses means the potential for nasty surprises has now diminished, it is hard to find a reason to turn positive just yet. Upgraded to Reduce.

Year	Sales	Reported	HSBC	HSBC	HSBC	PE	PE	Net	Yield	EV/	ROIC
to		pre-tax	PBT	EPS	tax		rel	div		EBITDA	
31 Dec	GBPm	GBPm	GBPm	(p)	(%)	(x)		(p)	(%)	(x)	(%)
00	220	-8	-1	-0.92	-31			0.62	1.0	25.5	0.0
01e	188	-85	-62	-14.86	0			0.00	0.0		0.0
02e	162	-15	-1	-0.17	2			0.00	0.0	9.2	0.0
03e	186	-1	13	2.20	-390	27.9	165.5	0.00	0.0	6.6	2.0



Current price	62 p
Target price	55p

Under	Neutral	Over

Under	Neutral	Over			
Codes					
Reuters RI	PON.L				
Reuters RE	EDD	5848			
Bloomberg	g	PON LN			
Key data					
Mkt cap (G	BPm)	254			
Mkt cap (L	369				
Free float	100				
No of shar	414				
EV (GBPm	261				
NAV/Share	e (p)	50			
Gearing (%)					
Next even	t March 20	02—Finals			
Price rel t	to FTSE A	II-Share			
1M	3M	12M			
-31.0%	-50.2%	-90.5%			

Recommendation

Given that Psion has exited all its declining businesses, we feel a Sell recommendation is too harsh. However, it is difficult to find an excuse to move to a positive recommendation right now.

Symbian does offer potential to deliver substantial profits and it has some big hitters amongst its supporters. Symbian's most vocal promoter is Nokia and we expect to hear more encouraging words on Symbian from Nokia at its next set of results. NTT DoCoMo is also a fan of Symbian and this might force its adoption by the Japanese handset producers¹.

The problem with trying to place a value on Symbian is that it is impossible to determine exactly what level of profits Symbian will deliver in the future. Competition from handset manufacturers' internally developed software and from rivals such as Microsoft will no doubt force royalty rates down once the smartphone market takes off. Sentiment is not helped by the fact that two of Symbian's shareholders (Motorola and Matsushita) seem unenthusiastic about using Symbian in their forthcoming smartphones, and recent trade fairs do not give us much hope that we will see a deluge of Symbian products hit the market over the next 6–12 months.

These delays mean that Symbian's breakeven date is being pushed back and Psion will have to inject more cash into the venture in H1 2002. Psion ended H1 with £18m, and in H2 it hopes to be cash neutral at the operating line. However, Psion also needs to spend £9–10m on restructuring in H2, which will leave it with barely enough to fund another round of Symbian financing. Psion put £5.7m of cash into Symbian in Q1 2001 and we suspect it will have to put in a similar amount in 2002.

Newsflow regarding Symbian is unlikely to provide much cheer over the coming months. The stockmarket is still hoping that GPRS phones will kickstart the handset market before Christmas, whereas our view is that early GPRS phones do not yet provide enough new functionality to excite consumers. So while sentiment over the mobile internet is already low, it could be due for another drubbing.

Ironically, it is applications like Symbian that will ultimately drive demand for GPRS phones, but this will not happen any time soon, and the stock market has tired of 'jam tomorrow' stories. We don't expect the next few months to yield any hard evidence that Symbian is on track for guaranteed success.

Although the risk of Psion producing another major disappointment has passed now that it has exited the PDA and PC card markets, we are reluctant to push a positive story just yet. Psion's declining cash position is likely to focus attention on Symbian's poor short-term prospects, and outlook for Teklogix is far from clear. Upgraded from a Sell to Reduce.

Nokia has repeatedly stated it is committed to Symbian as *the* open platform for mobiles

Unfortunately, two of Symbian's other shareholders seem less enthusiastic, and are investigating alternative software offerings

Symbian's cash call will draw attention to its poor short-term outlook and Psion's declining bank balance

Even though there is a good chance Symbian will be successful in the long term, we are unlikely to see any newsflow that will support this view in the coming months

We are taking Psion off a Sell, but feel it is still too early to push a positive recommendation

¹ Many Japanese producers hope to take a larger share of the global market now that Japan has adopted WCDMA as its 3G technology (the same as Europe). Up until now, Japan has run a proprietary mobile system incompatible with other markets.

Valuing Symbian

To put a hard and fast value on Symbian, we need to know how many Symbian devices will ship in the future and what royalty rate Symbian will charge. These are not two independent questions. The bigger the market for smartphones, the lower the royalty rate needed to cover costs. Symbian may find itself up against competitors who are prepared to charge much less then the US\$5 cost of Symbian's smartphone platform (*Pearl*) and the US\$10 cost of its two PDA platforms (*Quartz and Crystal*).

Competition

Symbian's competition comes from two areas:

- Internally developed operating systems
- Other third-party vendors (Microsoft and Palm)

Internally developed operating systems

Back in January, Motorola cancelled its joint venture with Psion to develop a GPRS phone/PDA based on Symbian software. However, Motorola recently released the Accompli, a GPRS phone/PDA using a proprietary operating system, which must be fairly galling for Symbian.

Matsushita, another Symbian shareholder, has also made some unhelpful comments recently. The quote below is from the *Electronic Engineering Times* (27 August 2001) following the announcement that NEC and Matsushita are pooling their resources to develop 3G phones:

The combination of Symbian OS and ARM processor is popular among cell phone vendors, but the two companies suggested other possibilities. "If we use an operating system that requests a royalty, it will push up the cost," said NEC's Sugiyama. "We are using different operating systems now," said Yasuo Katsura, president of Matsushita Communication. "We are going to find through discussion [with users and carriers] what is the most suitable [OS] for 3G phones"

Other third-party vendors

Palm OS has made excellent headway in the PDA market, but recent sales figures show Microsoft's PocketPC is gaining share rapidly. We believe that tablet PDAs (eg the Palm Pilot and Symbian's Quartz platform) and keyboard devices (eg the Nokia 9210, which uses Symbian's Crystal platform) will remain niche markets—Symbian's financial success will largely depend on its success in smartphones.

Symbian's only smartphone competitor is Microsoft, which is aggressively pushing its Stinger platform via its relationship with the British start-up Sendo. Sendo will brand their Stinger-based smartphones with customers' logos (eg Vodafone, which is reportedly a customer), and has received cUS\$10m of funding from Microsoft. This implies Microsoft is prepared to subsidise Stinger in order to see it gain a foothold in the market and we suspect Microsoft would be content with much lower royalties than the US\$5 currently being charged by Symbian.

Motorola's new smartphone uses a proprietary OS instead of Symbian. Matsushita has said it will also examine alternatives to Symbian

Although Microsoft has not had much success with selling Stinger to handset manufacturers, it is now promoting the software to operators

Pricing

Symbian currently employs c650 staff and 150 contractors and this does not need to grow in the medium term. We estimate that Symbian's cost base is currently in the region of US\$75m pa.

In our pricing model, we assume that Symbian has a rival with a similar cost base. The rival will offer customers low prices in an effort to take market share—the rival price offered would be enough to give it a modest economic profit if it took 100% market share.

We believe this accurately models Microsoft's likely strategy in wireless software. In fact, pricing could be even more aggressive than this—it's perfectly conceivable that Microsoft could give away its mobile OS for free to sell high value enterprise software to the network operators.

In our model, by 2003, nearly 100m data-oriented wireless information devices (WIDs) are being shipped (smartphones + wireless PDAs). This market would be large enough for Symbian's rival to charge as little as US\$1.00 per unit in an attempt to take 100% share.

We believe that Symbian's customers may be prepared to pay more for Symbian than for the competition. Nokia in particular is a very vocal supporter of Symbian and appears determined to keep Microsoft out of the market. However, it is difficult to envisage Nokia paying US\$5 for Symbian's smartphone platform for US\$150 handsets, especially if rivals are able to produce cheaper phones using subsidised Stinger software.

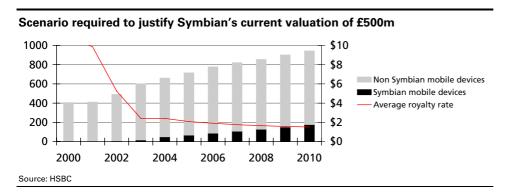
The biggest swing factor when trying to place a value on Symbian is establishing exactly what premium customers will be prepared to pay for Symbian. Our model suggests that this premium will need to be around US\$1.00 per phone to justify today's share price. This sounds reasonable, given that smartphones will probably sell to operators for US\$150–200.

Risks

Our model indicates that it is highly plausible that Symbian could prove itself to be worth much more than the £500m implied by Psion's current share price. Even if royalty rates fall to US\$2.00 once the volume market for wireless information devices takes off, Symbian can justify its current valuation if only 19% of 950m total wireless devices use Symbian by 2010.

It is possible that Symbian could find itself up against competitors who give away mobile OS software for free

It is not difficult to envisage a scenario that justifies Symbian's current valuation



These numbers in the chart above do not look outrageous. Although the long-term handset numbers can be debated, Symbian's valuation is surprisingly insensitive to these: if the total market is smaller than expected, competitors will have to charge higher prices to cover their costs, thereby allowing Symbian to charge higher prices as well.

The only pointer we have to whether the 19% penetration target is realistic is Nokia's recent comment that it expects to use Symbian in at least half its 3G (and, we suspect, GPRS) phones—this alone could see Symbian in 10% of all mobile devices.

The main downside risk is that customers prove unwilling to grant Symbian any price premium at all, and aggressive competition means that future revenues will barely cover Symbian's operating costs. In this scenario, royalty rates could collapse to just US\$0.5 per device, giving Symbian an NPV close to zero.

The biggest risk for investors is that royalty rates fall to the point where Symbian only just covers its costs

Symbian model

Symbian	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Year to Dec 31 \$m											
MODEL SUMMARY											
Total handset shipments WIDs as % of handsets		410 0%	490 10%	600 15%	660 20%	715 25%	777 30%	821 35%	854 40%	901 45%	943 50%
Proportion of mobile devices using Symbian Symbian's average royalty rate		0% 9.92	0% 5.25	2% 2.49	4% 2.50	9% 2.14	11% 1.95	13% 1.83	15% 1.72	17% 1.63	19% 1.58
Symbian revenue Symbian operating profit		23 (49)	38 (35)	63 (14)	112 28	193 99	220 118	247 136	270 151	298 169	329 189
MARKET SIZE											
Total handset shipments		410	490	600	660	715	777	821	854	901	943
WIDs as % of handsets Symbian licensees' market share Proportion of licensees' WIDs that use Symbian		0% 75% 5%	10% 75% 5%	15% 75% 15%	20% 75% 25%	25% 75% 50%	30% 75% 50%	35% 75% 50%	40% 75% 50%	45% 75% 50%	50 % 75 % 50 %
Proportion of mobile devices using Symbian		0%	0%	2%	4%	9%	11%	13%	15%	17%	19%
Pearl phones as % of handsets Quartz phones as % of handsets		0% 0%	10% 1%	14% 1%	19% 1%	24 % 1 %	29% 2%	33% 2%	38% 2%	43% 2%	48% 3%
Total Pearl style units (m) Total Quartz style units (m)		1	47 2	86 5	125 7	170 9	221 12	273 14	325 17	385 20	448 24
WID shipments		1	49	90	132	179	233	287	342	405	472
PRICING											
Symbian Pearl price (\$) Symbian Quartz price (\$)		5.00 10.00	5.00 10.00	2.09 10.00	2.10 10.00	1.72 10.00	1.53 10.00	1.42 9.50	1.37 8.35	1.32 7.48	1.30 6.91
SYMBIAN REVENUE											
Royalties		1	10	25	62	143	170	197	220	248	279
Consulting	20	22	29	37	50	50	50	50	50	50	50
Total turnover Growth	20	23 +15%	38 +66%	63 +63%	112 +79%	193 +73%	220 +14%	247 +12%	270 +9%	298 +10%	329 +10%
costs											
Software gross margin (after Java, L&H royalties etc.) Consulting gross margin	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%	95% 100%
Total number of employees Cost per employee \$k)	600 100	650 110	650 113	650 116	683 118	717 121	752 124	790 128	830 131	871 134	915 137
Gross profit Gross margin	20 100%	23 100%	38 <i>9</i> 9%	61 <i>98%</i>	109 <i>97%</i>	186 <i>96%</i>	212 <i>96%</i>	237 <i>96%</i>	259 <i>96%</i>	286 <i>96%</i>	315 <i>96%</i>
R&D costs R&D as a percentage of sales	(42) 209%	(43) 186%	(44) 115%	(45) 72%	(49) 43%	(52) 27%	(56) 25%	(60) 24%	(65) 24%	(70) 23%	(75 23%
SG&A costs SGA as a percentage of sales	(27) 133%	(29) 124%	(29) 76%	(30) 48%	(32) 29%	(35) 18%	(37) 17%	(40) 16%	(43) 16%	(47) 16%	(50 15%
Operating profit	(49)	(49)	(35)	(14)	28	99	118	136	151	169	189

Source: HSBC.

Forecasts

Psion	1997	1998	1999	2000	2000	2000	2001	2001	2001e	2002e	2003e
Year to Dec 31 £m	Full	Full	Full	H1	H2	Full	H1	H2	Full	Full	Full
TURNOVER											
Psion Enterprise / Teklogix	12.9	22.1	24.2	17.9	46.2	64.1	63.9	79.1	143.0	157.0	181.0
Psion Digital Solutions	178.1	137.7	127.2	76.4	79.2	155.6	36.5	8.5	45.0	5.0	5.0
Total turnover	191.0	159.8	151.4	94.3	125.4	219.7	100.4	87.6	188.0	162.0	186.0
OPERATING PROFIT		-16.3%	-5.3%			+45.1%			-14.4%	-13.8%	+14.8%
Psion Enterprise / Teklogix			2.7			5.7	3.3	6.7	10.0	13.0	18.0
Enterprise operating margin			+11.2%			+8.9%			+7.0%	+8.3%	+9.9%
Digital Solutions operating profit			7.2			4.7	(7.7)	(7.3)	(15.0)	(5.0)	0.0
Connect operating margin			+5.7%			+3.0%			-33.3%	-100.0%	0%
Group overhead and one-offs			(3.8)			(6.8)	(26.8)	(19.7)	(46.5)	(2.0)	(2.0)
Operating profit	10.6	11.1	6.1	4.1	(0.5)	3.6	(31.2)	(20.3)	(51.5)	6.0	16.0
Operating margin	5.5%	6.9%	4.0%	4.3%		1.6%			-27.4%	3.7%	8.6%
ASSOCIATES AND JVs											
Symbian (28%)			(7.0)	(5.2)	(5.3)	(10.5)	(6.3)	(3.7)	(10.0)	(7.0)	(3.0)
Travanti (47.5%)						(1.3)	(1.0)		(1.0)		
INTEREST AND PBT											
Net interest	0.8	2.1	4.0	4.1		6.9	0.7	0.3	1.0	(2.0)	0.0
Goodwill amortisation			(0.1)			(6.7)	(16.6)	(7.0)	(23.6)	(23.6)	(23.6)
Other		11.4	1.5								
FRS3 PBT	11.4	24.6	4.5	3.0		(8.0)	(54.4)	(30.7)	(85.1)	(26.6)	(10.6)
Add back disposal losses (profits)		(11.4)	(1.5)				100	7.0			
Add back goodwill amortised			0.1			6.7	16.6	7.0	23.6	14.0	14.0
HSBC PBT	11.4	13.2	3.1	3.0	(4.3)	(1.3)	(37.8)	(23.7)	(61.5)	(12.6)	3.4
TAX AND EARNINGS											
Tax	(3.7)	(3.6)	(1.2)	(1.0)		(2.5)			0.0	3.8	(1.0)
Tax rate	32%	15%	27%	33%		30%			0%	30%	30%
Dividends	(1.9)	(2.1)	(2.4)	(0.8)		(2.6)			0.0	0.0	0.0
FRS3 EPS	2.1p	5.5p	0.9p	0.5p		(2.6p)			(20.6p)	(5.5p)	(2.8p)
HSBC EPS	2.1p	2.5p	0.5p	0.5p		(1.0p)			(14.9p)	(2.1p)	0.6р
FRS3 EPS (fully diluted)	2.1p	5.5p	0.8p	0.5p		(2.6p)			(20.6p)	(5.5p)	(2.8p)
HSBC EPS (fully diluted)	2.1p	2.5p	0.5p	0.5p		(1.0p)			(14.9p)	(2.1p)	0.6p
Dividend (p)	0.51p	0.55p	0.62p	0.2p		0.62p			0.00p	0.00p	0.00p
Dividend cover	4.1x	10.0x	1.4x			-4.2x					

Source: HSBC

HSBC Securities (Canada) Inc, Toronto; HSBC Investment Bank plc, London; HSBC CCF Securities (France) S.A., Paris; HSBC Trinkaus & Burkhardt KGaA, Dusseldorf; HSBC Securities and Capital Markets (India) Private Ltd, Mumbai; HSBC Securities (Japan) Limited, Tokyo; HSBC Investment Bank (Netherlands) NJ, Amsterdam; HSBC Securities Polska S.A., Warsaw; HSBC Investment Services (Africa) (Pty) Ltd, Johannesburg; HSBC Investment Bank plc, Stockholm; HSBC Securities (USA) Inc, New York.

In the UK this document has been issued and approved by HSBC Investment Bank plc ("HSBC") for the information of its Customers (as defined in the Rules of SFA) and those of its affiliates only. It may be distributed in the United States solely to "major US institutional investors" (as defined in Rule 15a-6 of the US Securities Exchange Act of 1934, as amended); such recipients should note that any transactions effected on their behalf will be undertaken through HSBC Securities (IQSA) Inc. In the United States. In Canada, this publication has been distributed by HSBC Securities (Canada) Inc. In Australia, this publication has been distributed by Merrill Lynch HSBC Australia Pty. In Malaysia, this publication has been distributed by HSBC Securities (Canada) Inc. In Australia, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Securities (Canada) Inc. In Australia, this publication has been distributed by HSBC Securities (Canada) Inc. In Australia, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Securities (Canada) Inc. In Australia, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn Bhd. In Japan, this publication has been distributed by HSBC Mesearch (Malaysia) Sdn B

If this research is received by a customer of an affiliate of HSBC, its provision to the recipient is subject to the terms of business in place between the recipient and such affiliate.

This document is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. HSBC has based this document on information obtained from sources it believes to be reliable but which it has not independently verified; HSBC makes no guarantee, representation or warranty and accepts no responsibility or liability as to its accuracy or completeness. Expressions of opinion are those of the Research Department of HSBC only and are subject to change without notice.

HSBC and its affiliates and/or their officers, directors and employees may have positions in any securities mentioned in this document (or in any related investment) and may from time to time add to or dispose of any such securities (or investment). HSBC and its affiliates may act as market maker or have assumed an underwriting commitment in the securities of companies discussed in this document (or in related investments), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform investment banking services for or relating to those companies. Nothing herein excludes or restricts any duty or liability to a customer which HSBC has under the Financial Services Act 1986 or under the Rules of SFA. A recipient who chooses to deal with any person who is not a representative of HSBC in the UK, will not enjoy the protections afforded by the UK regulatory regime.

The information and opinions contained within the research reports are based upon rates of taxation applicable at the time of publication but which are subject to change from time to time. Past performance is not necessarily a guide to future performance. The value of any investment or income may go down as well as up and you may not get back the full amount invested. Where an investment is denominated in a currency other than the local currency of the recipient of the research report, changes in the exchange rates may have an adverse effect on the value, price or income of that investment. In case of investments for which there is no recognised market it may be difficult for investors to sell their investments or to obtain reliable information about its value or the extent of the risk to which it is exposed.

HSBC Investment Bank plc is registered in England No 976092, is regulated by The Securities and Futures Authority Limited and is a member of the London Stock Exchange. (21/02/01)

HSBC Investment Bank plc

Thames Exchange 10 Queen Street Place London EC4R 1BL United Kingdom

Telephone: +44 20 7621 0011

Telex: 888866

Fax: +44 20 7621 0496

^{*} Legal entities as at 2 February 2001