INTELLIGENT WAVE INC. | 4847

Sponsored Research Jun.2, 2023



Sessa Investment Research

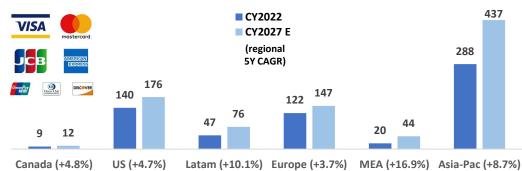
Undervalued growth stock

Collaborative industry fraud detection initiatives getting underway

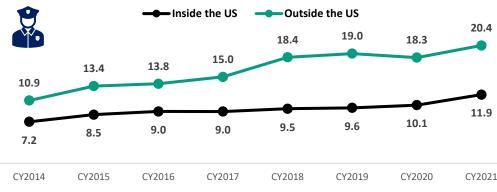
SUMMARY

- IWI held an in-person briefing for 3Q FY23/6 results on Friday, May 12 at the Securities Analysts Association of Japan Kabutocho Heiwa Bldg. Annex 3F, which was also livestreamed via IR · Stock Investment Information portal site Bridge Salon. In SIR's opinion, this 3Q results presentation hosted by IWI's CEO and Representative Director Kunimitsu Sato was the most upbeat since he assumed office in Sep-2020. And the reason for his confidence was clear: priority focus Cloud Service business has achieved self-sustaining growth and profitability, while mainstay System Development and FEP renewal projects are achieving solid growth driven by strong underlying growth in credit card transactions toward a cashless society. In addition, orders from parent DNP have begun to increase again after a sluggish trend over the past several years.
- According to Japan Consumer Credit Association (JCA), damage from credit card fraud in 2022 reached ¥43.67bn, the worst ever. As the top vendor of fraud detection systems, including flagship on-premise ACEPLus fraud detection system and cloud-hosted IFINDS, IWI is actively promoting collaborative work on an AI-based FARIS Joint Scoring Service to be released in June in collaboration with PKSHA Technology to share fraud data among card companies, and in addition, IWI has decided to link its system with JCB's delivery stop system, and JCB has agreed to co-create a system that can be used by a wide range of their customers. (scheduled to begin in 2024).

Global Network Payment Card Purchase Transactions Projected Worldwide (USD bn)



Trend of Credit Card Fraud Damage Worldwide (USD bn), 7Y CAGR +8.6%



Source upper: compiled by SIR from Nilson Report, January 2023. 5-year CAGR by region shown in parentheses. Source lower: compiled by SIR from Nilson Report, December 2022.

3Q Follow-up

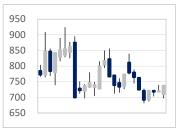


Focus Points:

Systems integrator boasting an overwhelming share with credit card companies in FEP systems development for nonstop secure datacenter connection packages.

	Key Indicators								
Share	price (5/26)	758							
YH (2	YH (23/2/1)								
YL (23	675								
10YH	1,180								
10YL	239								
Shrs c	26.340								
Mkt c	19.965								
EV (¥	EV (¥ bn)								
Equity	y ratio (3/31)	65.6%							
23.6	P/E (CE)	15.6x							
23.6	EV/EBITDA (CE)	5.8x							
23.3	P/B (act)	2.37x							
22.6	ROE (act)	13.5%							
23.6	DY (CE)	2.64%							

6M price chart (weekly)



Source: SPEEDA price data

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This report was prepared by Sessa Partners on behalf of **INTELLIGENT WAVE INC. Please** refer to the legal disclaimer at the end for details.



INTELLIGENT WAVE INC. Financial Highlights Summary

JPY mn, %	FY2011/6	FY2012/6	FY2013/6	FY2014/6	FY2015/6	FY2016/6	FY2017/6	FY2018/6	FY2019/6	FY2020/6	FY2021/6	FY2022/6	FY2023/6
[J-GAAP]	cons act.	NC act.*	NC act.	init CE									
Net sales	4,763	5,242	5,871	6,558	6,160	7,207	8,470	10,604	10,443	10,921	11,188	11,493	13,500
YoY	(3.9)	10.1	12.0	11.7	(6.1)	17.0	17.5	25.2	(1.5)	4.6	2.4	2.7	17.5
Gross profit	1,642	1,374	473	1,342	1,779	1,993	2,132	2,223	2,807	2,981	3,157	3,699	
ratio to sales (%)	34.5%	26.2%	8.1%	20.5%	28.9%	27.7%	25.2%	21.0%	26.9%	27.3%	28.2%	32.2%	
SG&A expenses	1,321	1,243	1,151	1,196	1,295	1,279	1,430	1,675	1,885	1,944	2,026	2,179	
ratio to sales (%)	27.7%	23.7%	19.6%	18.2%	21.0%	17.7%	16.9%	15.8%	18.1%	17.8%	18.1%	19.0%	
Depreciation	72	107	131	190	256	214	337	485	708	606	751	829	1,000
EBITDA	393	238	(547)	336	740	928	1,040	1,033	1,629	1,642	1,882	2,349	2,800
ratio to sales (%)	8.2%	4.5%	-9.3%	5.1%	12.0%	12.9%	12.3%	9.7%	15.6%	15.0%	16.8%	20.4%	20.7%
Operating profit (loss)	321	132	(678)	146	484	714	703	548	922	1,036	1,131	1,520	1,800
ΥοΥ	(10.3)	(59.0)	TR	ТВ	232.8	47.5	(1.6)	(22.0)	68.3	12.5	9.1	34.4	18.4
ratio to sales (%)	6.7%	2.5%	-11.5%	2.2%	7.9%	9.9%	8.3%	5.2%	8.8%	9.5%	10.1%	13.2%	13.3%
Ordinary profit (loss)	342	155	(587)	184	490	731	766	574	954	1,075	1,171	1,556	1,840
Profit (loss)	129	270	(349)	87	471	479	547	377	684	762	841	1,056	
Cash & deposits + secs	2,783	2,808	2,085	2,420	2,957	2,852	2,578	2,840	3,255	3,642	4,308	4,233	
ST/LT lease obligations	0	44	39	28	29	136	102	110	74		16	6	
Net IBD (net cash)	(2,783)	(2,764)	(2,046)	(2,392)	(2,928)	(2,716)	(2,476)	(2,730)	(3,181)	(3,603)	(4,292)	(4,227)	
	())	() - 1	() = =)	(/ /	())	() -)	() -1	() /	(-) -)	(-//	() -)		
Total assets	5,717	6,363	5,755	5,640	6,482	7,027	8,508	8,837	10,032	10,552	11,140	12,741	
Current assets	3,822	4,335	3,560	3,524	4,560	4,682	4,985	5,256	6,054	6,381	6,976	8,274	
Non-current assets	1,895	2,028	2,195	2,116	1,921	2,345	3,523	3,581	3,978	4,171	4,164	4,467	
Total liabilities	1,011	1.443	1,308	1,188	1,647	1,964	2,861	3,122	3,660	3,569	3,572	4,702	
Current liabilities	765	1,147	1,007	881	1,150	1,373	2,252	2,523	3,058		2,912	4,036	
Non-curr. liabilities	246	296	301	307	497	591	609	599	601	618	661	666	
Total net assets	4,706	4,920	4,447	4,451	4,835	5,063	5,648	5,715	6,373	6,983	7,568	8,039	
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CFO	795	252	(588)	620	839	124	1,173	1,213	1,237	1,547	1,700	1,486	
CFI	(61)	(25)	3	(47)	(263)	(192)	(1,151)	(604)	(602)	(753)	(743)	(1,516)	
CFF	(132)	(138)	(142)	(142)	(143)	(34)	(199)	(349)	(220)	(408)	(292)	(351)	
Free cash flow (FCF)	734		(585)	573	576	(68)	22	609	635	794	957	(30)	
						. ,							
Equity ratio	82.3	77.3	77.3	78.9	74.6	72.1	66.4	64.7	63.5	66.2	67.9	63.1	
ROE	2.8		(7.5)	2.0	10.1	9.7	10.3	6.6	11.3	11.4	11.6	13.5	
Dividend payout ratio	102.3		0.0	151.7	28.0	33.0	33.6	48.8	34.6	34.5	40.7	42.3	
Shares out. (000)	263.4	263.4	263.4	26,340	26,340	26,340	26,340	26,340	26,340	26,340	26,340	26,340	
Treasury shares (000)	0		0		0	0	12.0	23.8	31.9	41.7	50.1	56.9	
EPS (¥) adj.	4.92		(13.25)	3.29	17.89	18.18	20.78	14.36	25.99	29.00	31.98	40.16	48.70
DPS (¥) adj.	5.00		5.00	5.00	5.00	6.00	7.00	7.00	9.00		13.00	17.00	20.00
BPS (¥) adj.	178.66		168.84	169.00	183.55	192.21	214.51	217.18	242.23		287.85	305.87	00
Employees (persons)	273	272	282	286	302	315	339	397	413	435	441	449	

Source: compiled by SIR from YUHO financial statements and SPEEDA earnings database. NC = non-consolidated, TR = turned red, TB = turned black.

*FY17/6 YoY figures provided for reference only. FY23/6 depreciation est. by SIR.







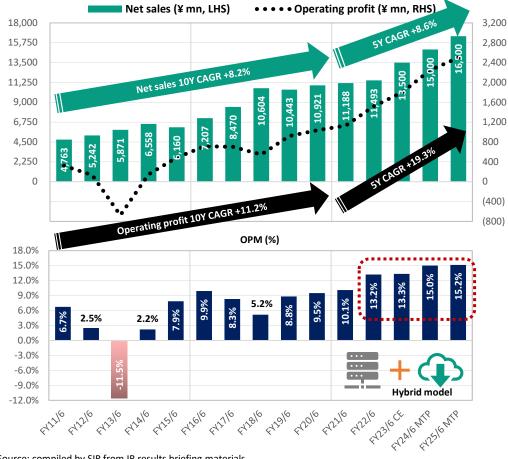
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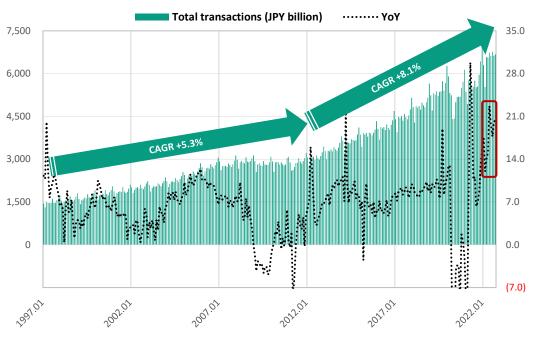


INTELLIGENT WAVE INC. profit structure is shifting upward into a new level



Source: compiled by SIR from IR results briefing materials.

Credit card business is growth business: METI monthly trend of total transactions



Source: compiled by SIR from "METI Monthly Survey of Specified Service Industries: Credit Cards."

Credit card payment and fraud detection systems solutions specialist



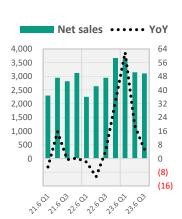


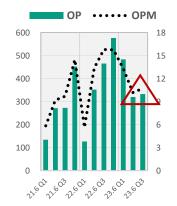






EARNINGS REVIEW





Source: compiled by SIR from TANSHIN financial statements. Units: JPY million. %

According to the Company, the cost overrun in cloud services was attributed to additional hiring to cope with customization needs for rapid growth in IOASIS, IWI's proprietary merchant acquiring service. Going forward, the Company plans to strengthen internal controls by assigning more direct oversight at the executive officer level. In addition, it will migrate some service to a public cloud data center to reduce costs.

OP rebounded sequentially on strong sales GPM ticked up on cloud sales offsetting increased labor cost

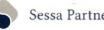
3Q RESULTS SUMMARY

- IVI announced 3Q cumulative (9M) FY23/6 financial results at 15:30 on Wed. 5/10. Headline numbers were net sales ¥9.897mn (+26.3% YoY) and OP ¥1,136mn (+20.4% YoY), with GPM decreasing from 32.1% \rightarrow 31.5%, and OPM decreasing from 12.0% \rightarrow 11.5%. Actual 9M and 3Q-only results are shown in the table below. The YoY quarterly trend of net sales is 1Q +62%, 2Q +19% and 3Q +5%. The YoY quarterly trend of OP is 1Q +282%, 2Q -9% and 3Q -28% (see graphs on the right). Relative to 5-year average cumulative 3Q (9M) progress ratios for net sales, operating income and ordinary income of 71.8%, 63.8% and 62.9%, respectively, actual 9M FY23/6 progress ratios were 73.3%, 63.1% and 62.9%, respectively. IWI left full-term guidance unchanged.
- The consecutive slowdown in the YoY quarterly trend of net sales is largely a function of the YoY base effect relative to high growth in hardware sales starting in the 3Q of last term related to large-scale FEP system replacement orders (hardware is included in Third-party products below). The short-term deterioration in profit growth and profit margins is in part due to the unexpected cost overrun for focus strategic growth area cloud service business, and increased deployment of personnel expense. One-of-a-kind IOASIS merchant-acquiring service in particular has a relatively higher amount of labor-intensive customization work. Here it is worth noting that GPM actually ticked up sequentially from the 2Q to the 3Q (31.8% \rightarrow 32.2%), and OPM (10.4% \rightarrow 10.7%), as growth in cloud service sales increased to offset the rise in labor cost (cloud service is included in Own services below).
- To explain these two key takeaway points through figures, Third-party product sales which includes hardware were ¥1,454mn (+121.4% YoY), but ¥1,038mn was in the 1Q, and 3Q-only was ¥234mn (-53.2% YoY). Cloud service sales (included in Own services) were ¥1,351mn (+70.4% YoY), while cloud service GP declined -27.4% YoY.

IWI FY23/6 9M and 3Q-only Non-consolidated Financial Results Summary

•	• •							
JPY mn, %	FY22/6	FY23/6	CHG	РСТ	FY22/6	FY23/6	CHG	РСТ
[J-GAAP]	9M act	9M act	AMT	γογ	3Q act	3Q act	AMT	YOY
Net sales	7,835	9,897	2,062	26.3	2,947	3,107	159	5.4
 Software development 	3,046	3,508	462	15.2	1,067	1,161	94	8.8
 In-house products 	339	154	(185)	(54.7)	53	43	(10)	(19.6)
System service	31	20	(11)	(34.8)	14	5	(10)	(67.9)
 Third-party products 	657	1,454	797	121.4	499	234	(266)	(53.2)
FLOW total	4,073	5,136	1,063	26.1	1,635	1,442	(192)	(11.8)
Maintence	1,952	2,305	353	18.1	673	808	134	20.0
Maintence of 3P products	457	542	84	18.4	150	190	40	26.7
Own services	990	1,526	537	54.2	365	529	164	44.9
Other services	363	388	25	6.9	124	138	14	11.0
STOCK total	3,762	4,761	999	26.6	1,313	1,665	352	26.8
Gross Profit	2,513	3,121	608	24.2	1,016	1,000	(15)	(1.5)
GPM (%)	32.1%	31.5%	_	_	34.5%	32.2%	_	-
Operating income	944	1,136	192	20.4	465	333	(132)	(28.4)
OPM (%)	12.0%	11.5%	_	_	15.8%	10.7%	_	_
Ordinary income	965	1,157	192	19.9	465	333	(132)	(28.4)
Net income	659	781	122	18.5	321	223	(98)	(30.6)

Source: compiled by SIR from TANSHIN financial statements.







Record 3Q net sales, OP and backlogs

Nine months cumulative 3Q sales of ¥9,896mn (+26.3%) and OP of ¥1,157mn (+20.5%) posted record levels for the past 20 years, and strong orders, particularly for Cloud Services, pushed backlogs to a record high of ¥11,548mn (+24.6%).

Robust sales growth was driven by FEP system renewal projects, an increase in the number of users of cloud services and a large-scale system development project for a credit card company.

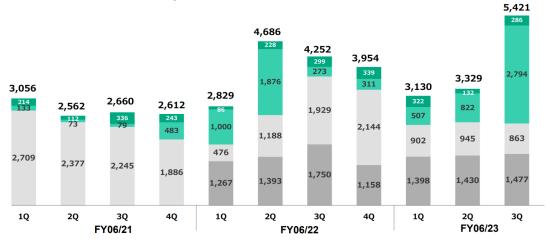
Sales by Product / Service Categories and Business Domains (mn yen)

	Q3 FY06/22	Q3 FY06/23	Change	(YoY)	
Net Sales	7,834	9,896	+2,062	+26.3%	
Payment & Finance	6,284	7,743	+1,459	+23.2%	
System Development	3,643	4,314	+671	+18.4%	
Maintenance	1,107	1,230	+123	+11.1%	
In-house Products & Services	482	315	△167	∆34.6%	
Third-party products & Services (Hardware, etc.)	1,050	1,882	+832	+79.2%	
Payment & Finance	6,284	7,743	+ 1,459	+23.2%	
FEP · Fraud detection	4,190	5,118	+ 928	+ 22.1%	
Payment Systems. etc	1,555	1,952	+ 397	+25.5%	
Finance & Others	538	672	+134	+24.9%	
Cloud Services	793	1,351	+ 558	+ 70.4%	
Security	756	801	+ 45	+6.0%	

Trend of Orders (million yen)

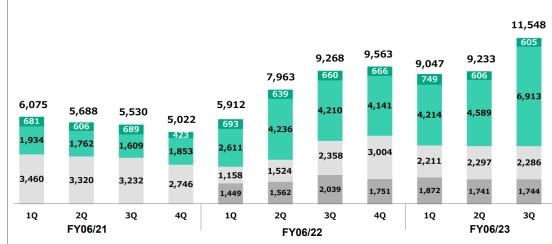
Cloud Services Security

■ ··· Payment & Finance (System Development) ■ ··· Payment & Finance (Maintenance,Hardware, etc)



Trend of Backlogs (million yen)

■ ··· Payment & Finance (System Development) ■ ··· Payment & Finance (Maintenance,Hardware, etc) ■ ··· Cloud Services ■ ··· Security



Source: exhibits on this page are excerpts from IR results briefing materials.







Cloud Service Business

JPY mn, %		FY202	1/06		FY2022/06				FY2023/06			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q CE
New orders	133	73	79	483	1,000	1,876	273	311	507	822	2,794	
Backlogs	1,934	1,762	1,609	1,853	2,611	4,236	4,210	4,141	4,214	4,589	6,913	J
Net sales												
• Plan	224	235	235	246	240	248	296	343	430	450	470	650
 Actual 	224	246	232	239	243	250	299	380	434	447	469	
Gross profit												
• Plan	(14)	(10)	(29)	(22)	(18)	18	46	33	33	67	62	138
 Actual 	(37)	(12)	(28)	(3)	(19)	31	84	25	(4)	29	44	J
No. of customers												
IOASIS	5	5	5	5	5	6	7	10	10	10	10	11
IGATES	2	4	4	4	4	4	5	6	6	7	9	9
IFINDS	3	3	3	3	3	3	3	3	4	5	5	8
IPRETS	1	1	1	1	1	1	1	1	1	1	1	1

Source: compiled by SIR from IR results briefing materials.

Despite the shortfall to GP guidance, business momentum remains brisk

- According to CEO Sato, SG&A this term will increase approx. ¥400mn YoY, roughly ¥120mn – 130mn above plan. The cost overrun for cloud services was attributed to urgent hires of engineers to handle the relatively large amount of customization work required for the sharp increase in the number of users of IOASIS (cloud GP shortfall due to IOASIS). Planned increases include roughly 60 new graduate and career hires, as well as base and bonus increases previously not seen. In addition, IWI leased more office space to accommodate the increased personnel including business partners, increased IT-related software usage fees, and introduction of some new IT systems, brought forward from next FY. The plan is to push the 20% SG&A ratio this term back to 17-19%. CEO Sato reiterated migration to the public cloud is aimed at boosting cloud GPM.
- Orders and inquiries for IFINDS were strong due to increased damage from card fraud. Following 2 new users from the 4Q, 3 new users are scheduled for next term. IGATES has expanded its customer base from new payment service providers to mid-size payment providers. Also, IGATES received a partial order for a large project to develop a multi-user platform (scheduled start of use in June 2024). Record 3Q cloud orders of ¥2,794mn boosted cloud backlogs to ¥6,913mn (+64.2%), now 60% of total backlogs.

Brisk orders steadily extending visibility out to FY24/6 MTP target sales (JPY mn)



Source: compiled by SIR from IR results briefing materials.





Summary of Key Initiatives during FY2023/06

Payment& Finance	 Collaborated with JCB to strengthen measures to prevent card fraud throughout the industry-wide. Launched the first project. Expanding business domain into peripheral systems area by supporting IT strategies of major credit card company client. Expanding system development with major credit card company client under lab contract
Cloud Services	 Strengthening management structure to improve profitability Increasing inquiries about our fraud detection service due to damage expansion for card fraudulent use Migrationing to public cloud in some service for reduce operating costs
Security	 Promoting the synergy with DNP (including sales for DNP use) Upgrading the major version and developing additional features of the in-house product 'CWAT'
New business (Digital Transformation area)	 Developing new service relating to National Language Processing Promoting overseas sales of the solution for broadcasters 'EoM' (acquired the patent in the US and planning to conduct POC in several companies in Europe)

Source: excerpt from IR results briefing materials



COLLABORATIVE INITIATIVES FOR CARD FRAUD PREVENTION

The Company announced on October 28, 2022 that IWI and JCB are launching a "Security Consortium" to promote the advancement of fraud detection by sharing know-how and data across the industry to combat card fraud of the entire credit card industry. The Consortium aims to put the system into practical use by the end of FY2023, starting with credit card companies that have already introduced IWI's fraud detection system.



The Company announced on November 1, 2022 that IWI and PKSHA, known for its AI algorithms, will jointly develop "FARIS Shared Scoring Service Powered by PKSHA Security" for fraud prevention. This new advanced service will jointly share fraud data among card issuers who use the service. The joint scoring service is scheduled to go live in June 2023 and be rolled out to card issuers in due course.









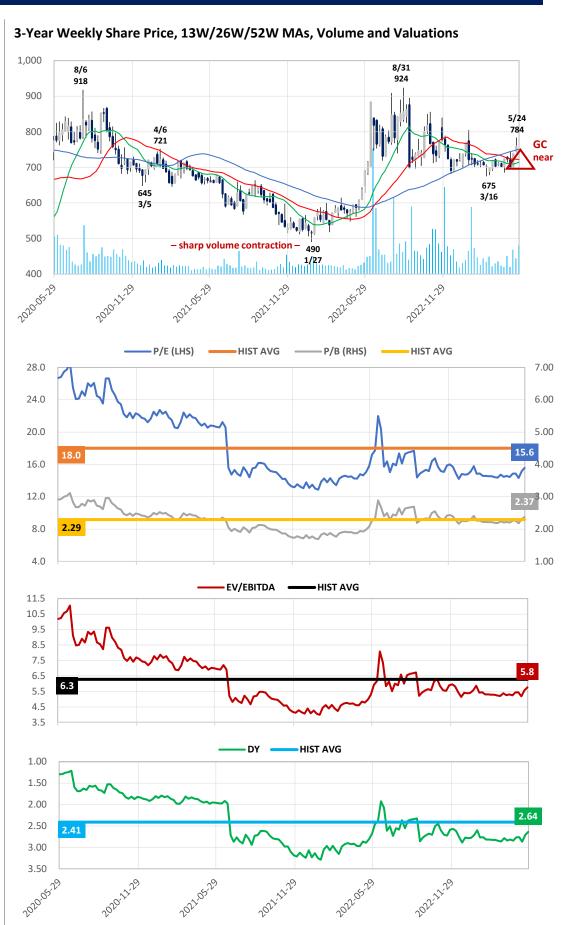
SHARE PRICE



Performance and Valuations: **SESSA Smart Charts**

- Volume contracted sharply over FY21/6, which we believe was likely due to lack of participation by foreigners on concerns about not meeting TSE1 listing criteria for tradable market cap (free float) over ¥10bn.
- ✓ The P/E is now on a 13.5% discount to its historical average, and EV/EBITDA is on an 8.3% discount to its historical average.
- ✓ The dividend yield of 2.64% is now 9.4% above its historical avg.

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7 73.56% 3 +12.3% 7 +5.34%	543.23 1
) - +5.34% 🔺	254.23
	321.56
+5.97% 🔺	100.08
+2.13% 🔺	564.23
+6.43% 🔺	765.90
-11.6× 🔻	120.34
+23.1% 🔺	893.23
+5.56% 🔺	128.90
-3.67× 🔻	432.1
-11.3% 🔺	765.2
2.54× 🔺	432.1



Source: compiled by SIR from SPEEDA historical earnings and price data. Valuations calculated based on CE.







Analyst's view

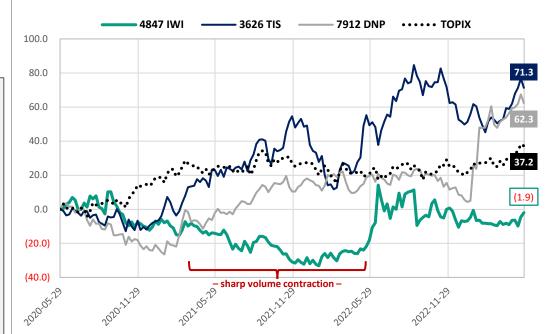
Structural profitability improvement is the driver

- A focus initiative is switching to a recurring (stock) revenue model for cloud services. As startup costs disappear and revenue gains critical mass, cloud services business has turned profitable.
- ✓ As can be seen in the lower right-hand monthly stock price chart, the share price appears to have put in a triple bottom just below 500 in Mar-2018, Mar-2020 (COVID) and in Jan-2022, and risk appears balanced on the upside considering high profit growth expected going forward...
 - The ratio of foreign shareholders dropped 55% from 4.84% at the end of June 2020 to 2.19% at the end of June 2021. The subsequent collapse of volume put valuations at extremely compelling levels just as profits are taking off.



CEO Kunimitsu Sato





3-Year Weekly Relative Performance: IWI lagged for $1\frac{1}{2}$ years due to confusion over the TSE Prime Market listing, just as profits are taking off

Trend of Shareholder Rebates: target payout ratio hiked to 40% or more

FY2017/6	FY2018/6	FY2019/6	FY2020/6	FY2021/6	FY2022/6	FY2023/6
NC act.	NC act.	NC act.	NC act.	NC act.	NC act.	init CE
547	377	684	762	841	1,056	1,280
20.78	14.36	25.99	29.00	31.98	40.16	48.70
7.00	7.00	9.00	10.00	13.00	17.00	20.00
5,648	5,715	6,373	6,983	7,568	8,039	
66.4	64.7	63.5	66.2	67.9	63.1	
10.3	6.6	11.3	11.4	11.6	13.5	
33.6	48.8	34.6	34.5	40.6	42.3	41.1
3.5	3.2	3.9	3.9	4.7	5.7	
	NC act. 547 20.78 7.00 5,648 66.4 10.3 33.6	NC act. NC act. 547 377 20.78 14.36 7.00 7.00 5,648 5,715 66.4 64.7 10.3 6.6 33.6 48.8	NC act. NC act. NC act. 547 377 684 20.78 14.36 25.99 7.00 7.00 9.00 5,648 5,715 6,373 66.4 64.7 63.5 10.3 6.6 11.3 33.6 48.8 34.6	NC act. NC act. NC act. NC act. 547 377 684 762 20.78 14.36 25.99 29.00 7.00 7.00 9.00 10.00 5,648 5,715 6,373 6,983 66.4 64.7 63.5 66.2 10.3 6.6 11.3 11.4 33.6 48.8 34.6 34.5	NC act. NC act. NC act. NC act. NC act. 547 377 684 762 841 20.78 14.36 25.99 29.00 31.98 7.00 7.00 9.00 10.00 13.00 5,648 5,715 6,373 6,983 7,568 66.4 64.7 63.5 66.2 67.9 10.3 6.6 11.3 11.4 11.6 33.6 48.8 34.6 34.5 40.6	NC act. NC act. NC act. NC act. NC act. NC act. 547 377 684 762 841 1,056 20.78 14.36 25.99 29.00 31.98 40.16 7.00 7.00 9.00 10.00 13.00 17.00 5,648 5,715 6,373 6,983 7,568 8,039 66.4 64.7 63.5 66.2 67.9 63.1 10.3 6.6 11.3 11.4 11.6 13.5 33.6 48.8 34.6 34.5 40.6 42.3

Source: compiled by SIR from TANSHIN financial statements.

10-Year Monthly Share Price, 6M/12M/24M MAs, Volume. Formed a triple bottom?



Source: compiled by SIR from SPEEDA historical price data.





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