

## Winning Health (300253.SZ)

## Digital Transformer for hospitals in China but takeoff setback by COVID; Initiate at Neutral

300253.SZ

covered peers.

12m Price Target: Rmb7.50

Price: Rmb6.99

Upside: 7.3%

Winning Health is a leading IT solutions provider for hospitals and medical services in China with ~20% market share in sales (in 2021 per GHe). While we see ample growth potential for Winning Health given the large healthcare software TAM (US\$12bn by 2030E), low software penetration, aging population, and policy push for Internet hospital buildouts, we expect China's Zero COVID policy to continue to impede hospital revenue growth and divert government/hospital focus toward COVID controls rather than digitalization upgrades. Additionally, Winning Health's cash collection slowdown and impairments are likely to remain amid COVID-19 outbreaks, weighing on cash flow and margins. We forecast a 2021-25E revenue CAGR of 24%, but 10% for earnings on high impairments. Our margin profile is softer than Refinitiv Eikon consensus but we are in-line on 2023E revenue reflecting concerns on COVID-19 impact to the healthcare system. With shares trading at an in-line 2023E EV/Sales of 3.7X vs. peers, we initiate on Winning Health at Neutral with 6% upside implied by our 12m TP (based on a mix of a 2-stage DCF and EV/Sales) of Rmb7.50 vs. 36% avg upside for

What could make us revisit our view: Faster/slower i) resumption of normal operations at hospitals, ii) WiNEX adoption, iii) progress in Internet hospitals, iv) govt investment in hospital digitalization.

Key risks include uncertainties around: 1) the pandemic that could speed up or slowdown the healthcare digitalization trend, 2) government support on certain digitalization targets, 3) new product development particularly with internet hospital solutions that limits cross-sell opportunity, 4) sales execution and cost control, and better/worse market sentiment on growth/software sector.

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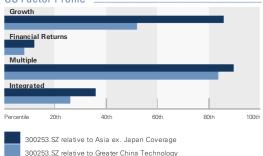
### Key Data

Market cap: Rmb15.0bn / \$2.2bn Enterprise value: Rmb14.6bn / \$2.1bn 3m ADTV: Rmb164.0mn / \$24.3mn Greater China Technology M&A Rank: 3 Leases incl. in net debt & EV?: No

### GS Forecast

	12/21	12/22E	12/23E	12/24E
Revenue (Rmb mn)	2,750.2	3,145.4	4,140.2	5,210.3
EBITDA (Rmb mn)	497.9	453.8	555.1	715.1
EPS (Rmb)	0.18	0.08	0.09	0.15
P/E (X)	87.6	87.2	75.0	47.0
P/B (X)	6.5	2.8	2.8	2.8
Dividend yield (%)	0.1	0.0	0.1	0.2
N debt/EBITDA (ex lease,X)	(1.4)	(0.9)	(0.6)	(0.4)
CROCI (%)	14.7	6.0	7.4	9.9
FCF yield (%)	0.2	(1.6)	(0.7)	(0.3)
	6/22	9/22E	12/22E	3/23E
EPS (Rmb)	0.02	0.04	0.01	(0.01)

### **GS** Factor Profile



Source: Company data, Goldman Sachs Research estimates. See disclosures for details.

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### Winning Health (300253.SZ)

Rating since Sep 5, 2022

### Ratios & Valuation \_\_\_

Traction of Variation				
	12/21	12/22E	12/23E	12/24E
P/E (X)	87.6	87.2	75.0	47.0
P/B (X)	6.5	2.8	2.8	2.8
FCF yield (%)	0.2	(1.6)	(0.7)	(0.3)
EV/EBITDAR (X)	65.3	32.2	27.4	22.0
EV/EBITDA (excl. leases) (X)	65.3	32.2	27.4	22.0
CROCI (%)	14.7	6.0	7.4	9.9
ROE (%)	7.9	3.3	3.8	6.0
Net debt/equity (%)	(13.6)	(7.9)	(5.7)	(4.4)
Net debt/equity (excl. leases) (%)	(13.6)	(7.9)	(5.7)	(4.4)
Interest cover (X)	34.5	8.1	10.3	13.8
Days inventory outst, sales	17.3	15.9	14.0	12.7
Receivable days	86.3	86.2	74.5	68.8
Days payable outstanding	110.0	110.0	100.0	94.0
DuPont ROE (%)	7.3	3.2	3.8	5.8
Turnover (X)	0.4	0.4	0.5	0.6
Leverage (X)	1.4	1.4	1.5	1.4
Gross cash invested (ex cash) (Rmb)	3,890.1	4,119.3	4,397.5	4,799.3
Average capital employed (Rmb)	4,216.8	4,681.9	5,037.7	5,366.3
BVPS (Rmb)	2.38	2.45	2.47	2.53

### Growth & Margins (%)

	12/21	12/22E	12/23E	12/24E
Total revenue growth	21.3	14.4	31.6	25.8
EBITDA growth	(12.5)	(8.9)	22.3	28.8
EPS growth	(27.8)	(54.5)	16.3	59.4
DPS growth	(24.8)	(100.0)	NM	59.4
EBIT margin	14.8	11.6	11.2	11.9
EBITDA margin	18.1	14.4	13.4	13.7
Net income margin	13.8	5.5	5.0	6.5

### Price Performance \_\_\_

300253.SZ (Rmb)		Shanghai - S	Shenzhen 300
30			8,000
25			7,000
20			6,000
15	marin and a second	M.	5,000
10			4,000
5			3,000
	3□		
Absolute	(18.3)%	(36.7)%	(51.2)%
Rel. to the Shanghai - Shenzhen 300	(16.8)%	(29.1)%	(41.2)%

Source: FactSet. Price as of 5 Sep 2022 close.

Income	Statement	(Rmb mn)
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12/21	12/22E	12/23E	12/24E
2,750.2	3,145.4	4,140.2	5,210.3
(1,475.5)	(1,782.6)	(2,322.7)	(2,879.2)
(586.0)	(668.5)	(900.4)	(1,114.8)
(255.7)	(297.1)	(410.7)	(544.8)
(26.2)	(33.5)	(43.8)	(53.4)
40000	4□3		00001
(91.1)	(90.2)	(92.5)	(96.9)
4000	3□3		4□2□□
34.9	(12.7)	(18.3)	(20.4)
(39.0)	(46.4)	(26.4)	(6.4)
3□3□2	144	□2	234□4
(19.4)	(5.1)	(28.1)	(46.2)
24.4	33.2	-	-
-	-	-	-
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0.02	-	0.01	0.01
11.4	0.0	10.0	10.0
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### Balance Sheet (Rmb mn) \_\_

Dalaille Sheet (Illing Illi)				
	12/21	12/22E	12/23E	12/24E
Cash & cash equivalents	1,600.5	1,318.1	1,213.6	1,151.5
Accounts receivable	707.6	778.9	910.6	1,055.1
Inventory	133.1	140.4	177.8	185.1
Other current assets	1,733.6	2,019.3	2,139.9	2,301.0
Total current assets	4,174.9	4,256.7	4,441.8	4,692.6
Net PP&E	502.0	620.6	768.5	937.8
Net intangibles	584.3	564.2	551.5	545.8
Total investments	510.8	510.8	510.8	510.8
Other long-term assets	1,724.4	1,724.4	1,724.4	1,724.4
Total assets	7,496.3	7,676.6	7,997.0	8,411.3
Accounts payable	495.1	579.3	693.4	789.6
Short-term debt	-	-	-	-
Short-term lease liabilities	-		-	-
Other current liabilities	778.7	735.7	756.3	769.6
Total current liabilities	1,273.8	1,315.0	1,449.7	1,559.2
Long-term debt	898.2	898.2	898.2	898.2
Long-term lease liabilities	-		-	
Other long-term liabilities	150.9	150.9	150.9	150.9
Total long-term liabilities	1,049.1	1,049.1	1,049.1	1,049.1
Total liabilities	2,322.9	2,364.2	2,498.8	2,608.3
Preferred shares	-	_	-	-
Total common equity	5,099.9	5,272.2	5,457.9	5,762.7
Minority interest	73.5	40.3	40.3	40.3
Total liabilities & equity	7,496.3	7,676.6	7,997.0	8,411.3
Net debt, adjusted	(702.3)	(419.8)	(315.4)	(253.2)

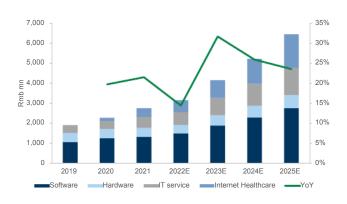
### Cash Flow (Rmb mn)

(	12/21	12/22E	12/23E	12/24E
Net income	378.2	172.2	206.3	338.8
D&A add-back	91.1	90.2	92.5	96.9
Minority interest add-back	(24.4)	(33.2)	-	-
Net (inc)/dec working capital	(208.3)	(280.1)	(175.5)	(216.7)
Other operating cash flow	131.6	_	_	-
Cash flow from operations	368.1	(50.8)	123.3	219.0
Capital expenditures	(286.2)	(188.7)	(227.7)	(260.5)
Acquisitions	_	_	_	_
Divestitures	19.5			-
Others	(76.0)	-	_	-
Cash flow from investing	(342.7)	(188.7)	(227.7)	(260.5)
Repayment of lease liabilities	_		_	-
Dividends paid (common & pref)	(67.6)	(43.0)	-	(20.6)
Inc/(dec) in debt	661.1		-	-
Other financing cash flows	(7.1)	0.0	0.0	0.0
Cash flow from financing	586.4	(43.0)	0.0	(20.6)
Total cash flow	611.7	(282.5)	(104.4)	(62.1)
Free cash flow	81.8	(239.5)	(104.4)	(41.5)

Source: Company data, Goldman Sachs Research estimates.

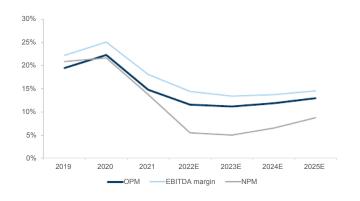
## Investment thesis in six key charts

Exhibit 1: Winning Health revenue forecast, 24% 2021-25E CAGR



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 3: OPM, EBITDA margin, and NPM forecast



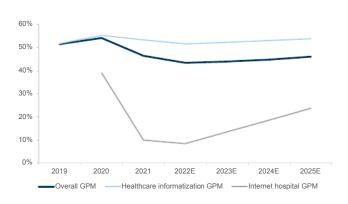
Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities

**Exhibit 5: Winning Health's impairment loss forecast** 



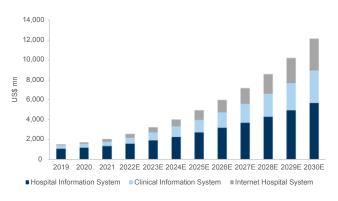
Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

**Exhibit 2: Segment GPM forecast** 



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 4: China healthcare IT TAM - to reach US\$12bn by 2030E



Source: NBS, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities

Exhibit 6: Winning Health's R&D capitalization trend



Source: Company data

## PM Summary: Helping hospitals embrace Cloud and the Internet

### Near-term COVID pandemic headwind could stall healthcare digitalization trend.

China's Zero COVID policy could cause healthcare resources to diverge, leading hospitals to redirect focus toward COVID control resulting in limited budgets to invest in digitalization. Near-term headwinds from this divergence could impact Winning Health's performances by 1) increasing gross carrying amount of trade receivables and contract assets due to a slower cash collection process, which could lead to ongoing hikes in impairment losses, 2) slowing new bookings and project implementation, leading to revenue growth slow-down, and 3) slowing project size expansion and cross-sell momentum. Specifically, we forecast 1) a higher level of impairment loss at Rmb173mn in 2H22E, similar to the level of 2H21 at Rmb173, 2) a 3.1ppts YoY decline in operating profit margin, due to a 2.0ppts YoY decline in GPM from increased amortization of capitalized R&D, and 3) free cash flow to decline to -Rmb240mn in 2022E from Rmb80m in 2021.

**Medium-term business driver from wider product adoptions supported by government policies.** The aging population and large healthcare infrastructure in China provides ample upside potential for healthcare IT adoption. Compared to the US, China has spent just ~1/45 on average per hospital and ~1/58 on average per hospital bed on digitalization per our estimate. Since 2018, the Chinese government has rolled out four major digitalization grading systems for hospitals to follow, which sets the standard for digitalization projects. We expect Winning Health to consolidate its leading position in domestic healthcare IT, with its HIS product line and expand its presence in the CIS market segment. We estimate Winning Health to maintain revenue growth at 15% YoY in 2H22E and gradually recover to 28%/22% YoY in 2023E/2024E on COVID pandemic normalization.

Long-term business driver from Internet hospital build-out and business model transition. The Chinese government has rolled out a series of policies to support the establishment of Internet hospitals¹. With its close relationships with hospital clients, Winning Health has been among the earliest vendors to provide Internet healthcare solutions. The company has already signed more than 300 hospitals to launch their internet hospitals, which we see driving Winning Health's internet hospital business allowing it to enjoy a 39% revenue CAGR during 2021-2025E and increasing revenue contribution from 16% in 2021 to 26% in 2025E. In the meantime, we believe the ramp-up of internet hospitals presents a good opportunity for Winning Health to explore new business models such as subscription-based and transaction-based business models, which could help the company gain greater business visibility and sustainability.

We summarize Winning Health's competitive advantages as: 1) large customer base with approximately 6,000 hospital clients across China, 2) market-leading product matrix

<sup>1</sup> Internet hospitals are typically offshoots of offline medical organizations and the combination of the internet and healthcare. Online medical treatment mainly consists of four types of services: online consultation and treatment, online diagnosis, follow-up treatment and health management. "Internet Hospitals in China: The new step into digital healthcare," Deloitte China, March 16, 2021, p 4.

that creates large cross-sell opportunities, 3) leading gross profit margin among domestic peers suggesting high value-add earned by software.

**Key risks** include uncertainties around: 1) the pandemic that could speed up or slow down the healthcare digitalization trend, 2) government support on certain digitalization targets, 3) new product development particularly with internet hospital solutions that limits cross-sell opportunity, 4) sales execution and cost control, and better/worse market sentiment on growth/software sector.

# Winning Health Through the Lens of GS' Framework for Investing in China Software

Winning Health has a distinctive mapping in our <u>GS Investment Framework for China Software</u> with both positives and negatives.

On the positive side, 1) Winning Health is poised to enjoy a large healthcare ITTAM, where we expect sales to grow to US\$12bn by 2030E at a 22% CAGR during 2021-30E driven by government and hospital investments on more advanced digital applications to enhance operational efficiency and the digital penetration improvement; 2) Winning Health has a large and diverse client base of approximately 6,000 hospitals and healthcare agencies, which can adopt more standardized products; 3) Winning Health leads in product offerings and has rolled out its WiNEX platform, which could help to attract new clients and achieve up-sell in the long run; and 4) Winning Health's valuation screens attractive on a historical basis (both P/S and P/E ratios reached 3-year low).

On the negative side, we find 1) Winning Health is relatively slow in the cloud transition due to a low willingness from its hospital clients to adopt cloud; 2) Winning Health has the longest accounts receivables days among its software peers in China due to its government-sponsored public hospital clients, which represents further downside risks due to the weakening of hospitals' financial performance during the COVID-19 pandemic; and 3) Winning Health has to bundle hardware and IT services along with its software products, which is a drag on gross margin and leads to a lower GP per employee compared to its software peers in China; and 4) Winning Health has a high R&D capitalization rate, which may have a long-lasting negative impact on margin expansion.

### **Exhibit 7: Winning Health in our GS Investment Framework**

### Winning Health in our GS Investment Framework 10 KEY FACTORS QUANTITATIVE QUALITATIVE Large TAM: Healthcare IT \$12bn by 2030E CIS and Internet healthcare are at the early TAM with 22% CAGR during 2021-30E adoption phase. Launched WiNEX in 2020 and started to **Cloud Transition** Cloud rev contribution to reach 4% by 2024 acquire subscription clients GP per employee -> 26th out of 30 Hospital clients are negatively impacted by AR days -> 30th out of 30 **Growth Quality** COVID pandemic in near-term which could Core business contribution -> 1st out of 30 stall new booking and cash collection. Investing in PaaS, cloud technology, **R&D** Capability R&D expense intensity ->27th out of 30 medical knowledge database, elderly care system. High R&D capitalization rate. Established subsidiaries in 15 provinces Go-to-market S&M expense efficiency -> 12th out of 30 and have wide and diverse customer base in **Strategies** China Limited data in LTV/CAC LT Framework Supportive government policies on hospital Rule of 40 maintained at 45% in 2021 but digitization. Return expect to deteriorate in 2022. Platform/Best in Client diversity is relatively high given its Expanding its product line to healthcare Class large client base payment, CIS and Internet hospitals No.1 in healthcare IT space Large customer base, leading product Competitive Moat Leading players to develop centralized design, and strong balance sheet platform system for hospitals Entry/Exit Point Both P/S and P/E ratios reached 3-year low Trading at 6.1x TTM P/S off the peak of 14x Started to disclose ESG section within its Others Average INED tenure is 2 years annual report since 2021.

30 peers include Weaver Network, Kingsoft Office, Agora, Baosight, ZWSoft, iFlytek, Sangfor, Venustech, Glodon, Hundsun, Ming Yuan Cloud, Navinfo, Longshine, QiAnXin, Yonyou, Winning Hea Aisino, Shiji, China Software, DHC, Kingdee, Weimob, Kingsoft Cloud, Thundersoft, Neusoft, Tuya, Desay SV, Seeyon, UCloud, MontNet, and B-soft. 20 peers include only A-share-listed stocks of a

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

## Winning Health is a leading healthcare IT software vendor

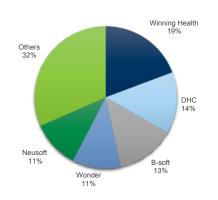
### Winning Health is a leader in healthcare IT industry

Winning Health was established in 1994 and IPO'd in 2011. It was one of the earliest healthcare IT vendors in China. Since its establishment, the company has been providing an integrated solution that bundles software, hardware, and IT services to a wide range of healthcare clients including hospitals, regional public health agencies, social healthcare insurance agencies, commercial healthcare insurance agencies, and government regulators.

Since 2015, the company fully embraced the government's Internet+ policies and adopted a '4+1' development strategy which stands for Cloud health, Cloud medicine, Cloud insurance, Cloud well-being, and one innovative service platform. With steady delivery of sound business execution, the company has been able to achieve a revenue CAGR of 32% and a net profit CAGR of 23% since listing during 2011-2021.

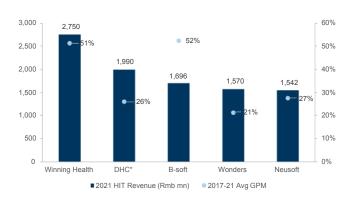
Winning Health has become the largest healthcare software application provider in terms of sales with 19% market share in China based on our estimate. However, the market is still relatively fragmented with the No. 2-5 players taking up just 11-14% market share each while many smaller players account for the remaining ~30% share.

Exhibit 8: Healthcare IT market share in China (2021 revenues)



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 9: Revenue and margin comparison between Winning Health and its peers



\* DHC's number is deducted from its historical values.

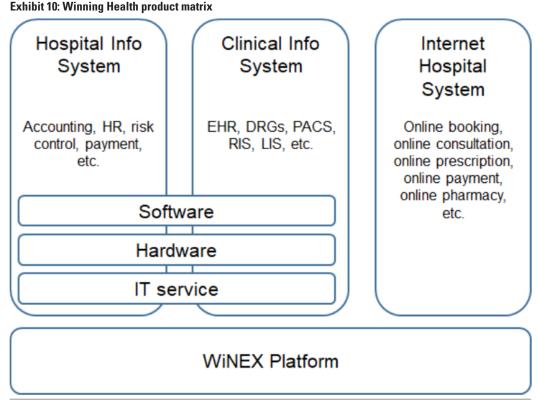
Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### Winning Health has a full-fledged product matrix for hospitals

Winning Health provides three major types of products including 1) **hospital information system (HIS)**, which enables the efficient operation of hospitals by providing management tools such as accounting systems, payment systems, HR systems, risk control systems; 2) **clinical information system (CIS)**, which enables efficient medical practices of hospitals by providing professional tools such as electronic healthcare record system (EHR), diagnosis related groups system (DRGs), picture archive and communication system (PACS), pharmacy information system, nursing information system etc. and 3) **value-add services** such as internet hospital solutions,

public health portals, insurance portals, and patient portals.

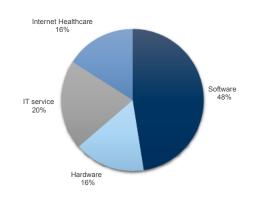
In 2020, Winning Health released its WiNEX PaaS platform, which targets to encapsulate all functional modules into an interoperable system. The company announced that the platform has been delivered to approximately 220 hospital clients across China and its flagship project with Shanghai Punan Hospital that contains 13 core modules has been implemented within 40 days. We believe the continued R&D on the WiNEX platform and new modules will help Winning Health achieve higher module penetration and cross-sales within its large customer pool.



Source: Company data

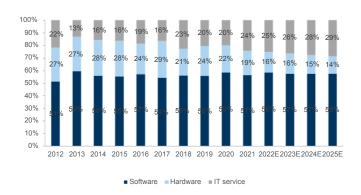
The company provides another way to breakdown revenue by type of product: software, hardware, and IT services. If setting aside the 16% of revenue from the company's Internet healthcare business in 2021, the company reported that 48% of its revenue is generated from software, 16% from hardware, and 20% from IT services. As we group the software, hardware, and IT services products in the healthcare informatization business, we see that Winning Health is becoming more reliant on its high value-add software products and IT services to generate its profit. The revenue contribution from the lower margin hardware segment is steadily decreasing; from 27% in 2012 to 19% in 2021, and we forecast it to decline further to 14% in 2025E as the mix trend continues.

Exhibit 11: Winning Health revenue mix 2021



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 12: Revenue breakdown of Winning Health's healthcare informatization business



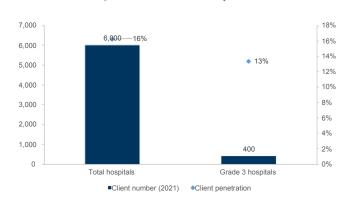
Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### Winning Health's leading customer pool

Winning Health has approximately 6,000 hospital clients, including 400 top-tier Grade 3 hospitals in China. We estimate the company has achieved a 16% client penetration rate among all the hospitals and a 13% penetration rate among the Grade 3 hospitals in China. Compared to its domestic peers, we think Winning Health has more revenue exposure to medium-sized hospitals which helps it to achieve a higher gross profit margin due to more standardized product offerings in this segment.

In terms of regional exposure, Winning Health generates approximately 44% of its revenue from northern China and 43% from eastern China (in 2021), which are considered to more economically advanced regions where project payable defaults are less likely to occur. In the meantime, we note that Winning Health has been able to expand its market exposure from eastern China to other parts of China since its IPO in 2011 where the northern, central, and southern China revenues have surpassed its eastern China revenue in 2020.

Exhibit 13: Winning Health client base and penetration in 2021



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 14: Winning Health's regional revenue exposure



Source: Company data

10 5 September 2022

## Burdened healthcare system in need of digital tools

### Aging society prompting need of healthcare system efficiency gains

Over the past decade, China's population above 65 years-old has increased from 9.4% in 2012 to 14.2% in 2021, and we see the trend continuing particularly given concurrent low birth rates. As China enters into a 'getting-old-before-getting-rich' situation, its aging society will likely also require greater efficiencies in healthcare services especially amid the already burdened healthcare system.

Exhibit 15: Percent of population older than 65 in China

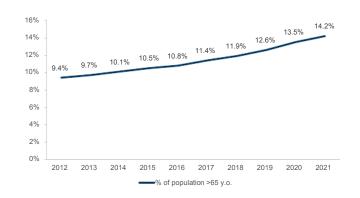
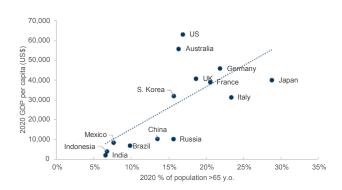


Exhibit 16: The correlation between GDP per capita and aged population (2020)



Source: NBS

Source: United Nations, OECD, NBS

The public healthcare system in China has made tremendous progress in the past with the total number of hospitals increasing by more than 50% in the past decade from 23k in 2012 to 37k in 2021; meanwhile the average doctor per capita gap vs. developed countries has been closing.

**Exhibit 17: Number of hospitals in China** 

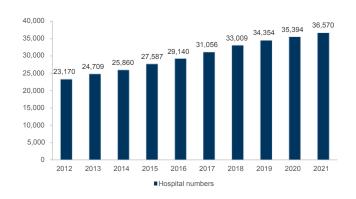
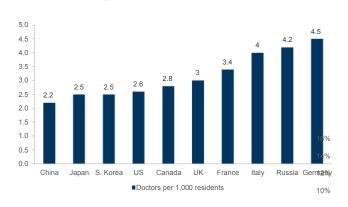


Exhibit 18: Doctors per 1,000 residents by country (2020)

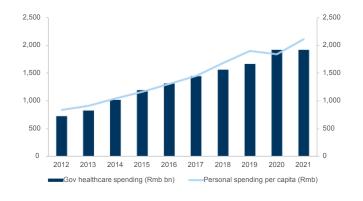


Source: NBS

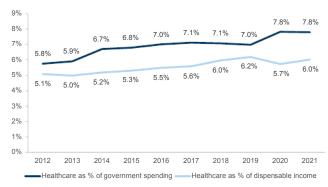
Source: OECD

However, the burden of the healthcare is still clear. The government has increased its healthcare spending by an 11% CAGR during 2012-2021, while the average individual healthcare spending per capita has also increased at an 11% CAGR during 2012-2021. Healthcare spending accounted for 7.8% of the government's total spending and 6.0% of individual's dispensable income in 2021, compared to 5.8% and 5.1% in 2012.

## Exhibit 19: Healthcare spending trend from government and individuals in China



## Exhibit 20: Financial burden of healthcare on both government and personal spending



Source: NBS Source: NBS

### Hospitals may need digitalization to transform from 'big' to 'strong'

Not only have the number of hospitals increased significantly over the last decade, the financial scales of average hospitals have also achieved meaningful expansion. During 2021-2019, the top-tier Grade 3 hospital had achieved an 8.2% CAGR in average annual income from Rmb553mn in 2012 to Rmb961mn in 2019, while Grade 2 hospitals achieved a 7.7% CAGR in average annual income from Rmb84mn in 2012 to Rmb141mn in 2019. In the meantime, the average administrative expenses per hospital have also increased steadily along with the annual income growth. The Grade 3/Grade 2 hospitals on average spent 9%/12% of its annual income on administrative expenses where the IT budgets came from.

Exhibit 21: Average annual income per hospital trend in China

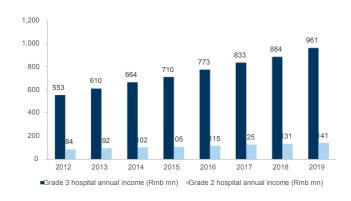


Exhibit 22: Average administrative spending per hospital trend in China



Source: NBS Source: NBS

Although the scale of hospitals in China has improved significantly, the gap in hospital digitalization between China and developed countries remains very large. For example, we estimate the average IT spending by China's hospitals was ~US\$60k in 2021, which was only approximately 1/45 of the US hospital's average spending of US\$2.7mn in 2021. The wider gap is related to average IT spending per hospital bed, where China only spent US\$309 per hospital beds vs. the US' US\$18k per hospital beds in 2021.

Exhibit 23: Average IT spending per hospital in 2021

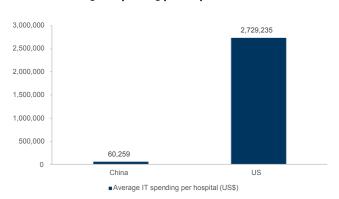
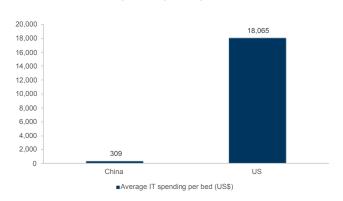


Exhibit 24: Average IT spending per hospital bed in 2021



Source: NBS, American Hospital Association, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

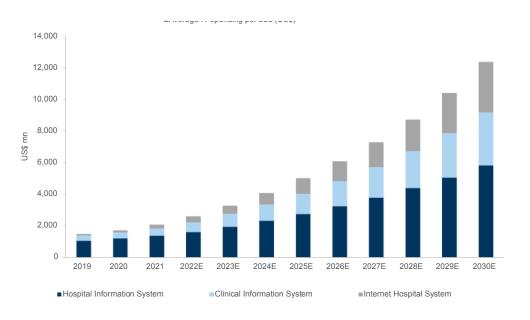
Research, Gao Hua Securities Research

### Upside in TAM for healthcare software application

Currently, we still see China's hospitals at an early stage with respect to digitalization with relatively low penetration across the array of healthcare software applications. We estimate total TAM for healthcare software applications will expand from US\$2.1bn in 2021 to US\$12.4bn in 2030E with a CAGR of 22% based on 1) historical trend of healthcare IT investment (2019-2021), 2) government's policies to push for higher digital penetration, and 3) hospitals' demand for higher operational efficiency through adopting digital tools.

Specifically, we breakup the healthcare software application TAM into three major segments: 1) hospital information system (HIS), 2) clinical information system (CIS), and 3) internet hospital system, which enable healthcare professionals in hospitals to provide healthcare services online.

**Exhibit 25: China Healthcare Software Application TAM estimate** 



Source: NBS, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

For the HIS market segment, we estimate TAM to grow at a 17% CAGR from US\$1.4bn in 2021 to US\$5.8bn in 2030E. We see growth being driven by 1) average spending per adopted hospital's 7% CAGR from US\$95k in 2021 to US\$180k in 2030E, and 2) adoption rate expansion from 39% in 2021 to 70% in 2030E based on 1) the increasingly larger and more complex organizational structure of hospitals in China, and 2) the desire to achieve higher organizational efficiency in resource plannings.

### **Exhibit 26: HIS TAM drivers** 200,000 80% 180.000 70% 160.000 60% 140,000 50% 120,000 40% 100.000 80.000 30% 60.000 20% 40.000 20.000

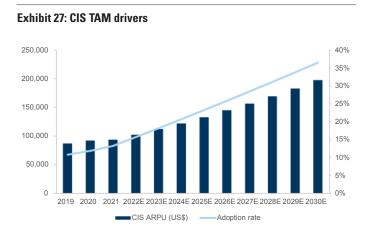
Source: NBS, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

2019 2020 2021 2022E 2023E 2024E 2025E 2026E 2027E 2028E 2029E 2030E

Adoption rate

HIS ARPU (US\$)

For the CIS market segment, we estimate TAM will grow at a 25% CAGR from US\$0.5bn in 2021 to US\$3.3bn in 2030E. We expect growth to be driven by 1) average spending per adopted hospital's 9% CAGR from US\$94k in 2021 to US\$198k in 2030E, and 2) the adoption rate expansion from 13% in 2021 to 37% in 2030E based on 1) government's push for DRGs-complaint social healthcare insurance payment, which require digital tools for doctors to make diagnosis and prescribe medicine, and 2) government's targets for more interconnectivity among hospitals which should spur adoption of electronic medical record systems.

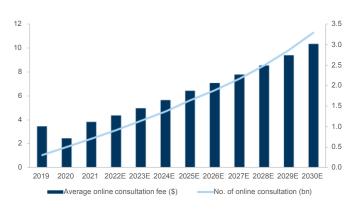


Source: NBS, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

For the internet hospital system market segment, we estimate TAM will grow at a 33% CAGR from US\$0.2bn in 2021 to US\$3.2bn in 2030E. We assume 1) a stable take rate by IT vendors of 9%, and 2) a 33% CAGR on total online consultation fees, which is

driven by a) average online consultation fee's 12% CAGR from US\$3.8 in 2021 to US\$10.3k in 2030E, and 2) the number of online consultation's 19% CAGR from 0.70bn in 2021 to 3.29bn in 2030E.

### **Exhibit 28: Internet hopsital system TAM drivers**



Source: NBS, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

## COVID outbreak may delay near-term digitalization

### Hospital revenue and government healthcare spending declined in 2021

COVID-19 outbreaks have had a significant impact on China's healthcare system. Particularly, from a financial perspective, we see two major components that support normal operations in the healthcare system facing near-term pressure.

Firstly, government spending on healthcare recorded the first YoY decline in 2021. Total government spending on healthcare was Rmb2.07bn in 2021, which was 6% lower than the Rmb2.19bn in 2020. While the government increased its investment in healthcare by 26% YoY in 2020, at the beginning of COVID-19, subsequently lowered its investment in healthcare due to the pandemic in 2021.

Secondly, hospitals' own revenue also recorded the first YoY decline in 2021. Both outpatient revenue and inpatient revenue were growing steadily in the past decade until 2021 when inpatient revenue recorded a YoY decline due to the tight COVID-19 prevention measures.

Exhibit 29: Government spending on healthcare in China

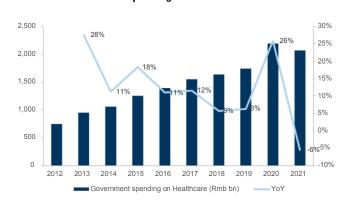
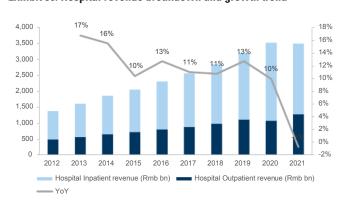


Exhibit 30: Hospital revenue breakdown and growth trend



Source: NBS

Source: NBS

More importantly, financial operating efficiency has declined after the COVID-19 outbreak. On a per doctor basis, the average revenue per doctor per day has not grown between 2019 and 2021 largely due to the COVID-19 pandemic's impact in 2020. For both outpatient services and inpatient services, the two key efficiency metrics: the outpatient visits per doctor per day and hospital bed utilization rate have declined significantly in 2020 and have not been able to recover to pre-COVID-19 level.

Exhibit 31: Revenue per doctor per day trend



Exhibit 32: Doctor and hospital bed utilization rate trend



Source: NBS Source: NBS

### Near-term headwind for healthcare system digitalization

As the COVID-19 pandemic disrupted the performance of the healthcare system, it has also had a negative impact on digitalization projects for Winning Health.

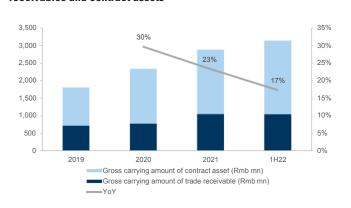
After collecting public bidding data from government websites, we see that the average bidding size has significantly declined, from Rmb2.70mn per project in 2019 to Rmb2.24mn per project in 2020. Although the average project size has recovered to Rmb2.50mn in 2021, we still see relatively slower growth in total bidding volume during 2019-2021 at 13%, which is significantly lower than Winning Health's 2011-2021 revenue CAGR of 32%.

In the meantime, we can see a significant slow down in client's payments for Winning Health's digitalization projects. The gross carrying amount of trade receivables and contract assets have increased 30%/23%/17% YoY in 2020/2021/1H22 respectively, which is faster than the revenue growth of 19%/21%/7% YoY in 2020/2021 respectively. The weakness in cash collection coincides with the challenging environment for hospitals amid the COVID-19 pandemic, suggesting near-term soft revenue growth due to less abundant project pipelines.

Exhibit 33: Public bidding volume and average project size wins by Winning Health



Exhibit 34: Winning Health's gross carrying amount of trade receivables and contract assets



Source: Government websites, QCC, Data compiled by Goldman Sachs Global Investment Source: Company data Research, Gao Hua Securities Research

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## Expecting soft revenue growth and margin expansion for Winning Health's healthcare informatization business

As a result of COVID-19 headwind, we expect Winning Health to face challenges in the near-term in its healthcare informatization business. Specifically we see:

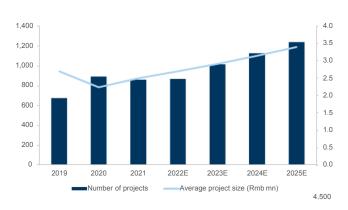
### 1) Slow revenue growth in 2H22E

We expect near-term weakness in the healthcare system to continue to pressure Winning Health's informatization business' growth and expect 15% YoY revenue growth in 2H22E (vs. 2% YoY revenue growth in 1H22) and gradually rebounding to 20%+ YoY beyond 2023E. The slower growth will be primarily driven by slow project number growth of 6% and an average project size growth of 8% in 2022E. However, we remain confident that project number growth can accelerate to 17%/11% YoY in 2023E/2024E while the average project size should sustain its 8% YoY growth in both 2023E/2024E.

Exhibit 35: Winning Health's healthcare informatization business forecast



Exhibit 36: Winning Health healthcare informatization business drivers



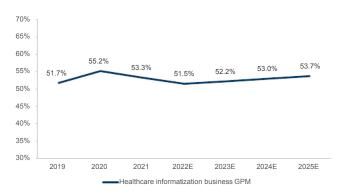
Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### 2) Relatively flattish GPM in healthcare informatization business.

We expect GPM in the healthcare informatization business to remain stable despite the gradually declining revenue portion of lower margin hardware bundle sales. We forecast GPM of the healthcare informatization business to decline from 53.3% in 2021 to 51.5% in 2022E, but rebound to 53.7% in 2025E, which is largely due to 1) expected GPM decline in IT services from 58.6% in 2021 to 54.1% in 2025E due to talent cost hikes and 2) relatively small decline in software GPM from 64.5% in 2021 to 64.0% in 2025E due to the high capitalized R&D expenses amortized in COGS of software business.

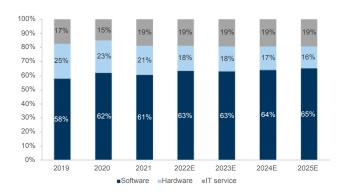
Exhibit 37: Winning Health healthcare informatization business GPM forecast



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities

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Exhibit 38: Winning Health informatization business revenue mix forecast

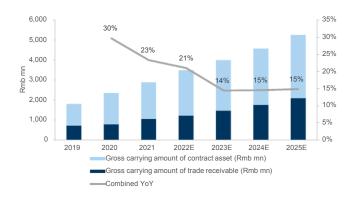


Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

# 3) Continued hikes in trade receivables/contract assets that outpaces revenue growth.

The healthcare informatization business is the primary contributor to trade receivables and contract assets for Winning Health as the business model is mainly project-based. In the past three years, total trade receivables and contract assets increased faster than revenue due to the weakness in the healthcare system and the slow-down in cash collections from finished projects. We see slower cash collections and COVID-19 headwinds continuing to impact trade receivables and contract assets with an estimated 21% YoY growth in gross carrying amount of both contract assets and trade receivables, which is higher than our estimated 14% YoY growth in healthcare informatization business in 2022E.

Exhibit 39: Forecast for gross carrying amount of contract assets and trade receivables



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 40: Forecast on receivables vs. revenue growth



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

# Government aiming for long-term sustainability and improvement in the healthcare system

Although Winning Health faces near-term challenges from COVID-induced healthcare system stress, we see longer-term growth potential for Winning Health due to two major drivers: 1) government policies, and 2) digital penetration improvement.

### Government to rollout new measures to support healthcare system digitalization.

Given the increasing financial burden in government healthcare spending and operating burden from the aging society, the Chinese healthcare authority has launched a push on digitalization and standardization in its public healthcare system. Since 2018, the Chinese healthcare authority has released four sets of standards in four major aspects of hospital digitalization including 1) the standard for electronic medical records, 2) the standard for hospital inter-connectivity, 3) the standard for hospital smart services, and 4) the standard for hospital smart management. The four framework standards are intended to assess the management quality in the medical practice, data-sharing, medical services, and administration respectively and provide a uniform performance evaluation system for the large number of hospitals in China.

Exhibit 41: Major digitalization grading assessment standard

Standard	Electronic medical record	Inter-connectivity	Smart service	Smartmanagement
Guidelines on grading assessment	Electronic Healthcare Record grading assessment standard system (new)	Healthcare information inter- connectivity maturity grading assessment standard system (2020 version)	Hospital smart service grading assessment standard system (trial)	Hospital smart management grading assessment standard system (trial)
Standard release date	2018/12	2020/08	2019/03	2021/03
Grading system	Level 0-8 on 39 major assessment subjects	Level 1-3, 4B, 4A, 5B, 5A on 11 major assessment subjects	Level 0-5 on 17 major assessment subjects	Level 0-5 on 10 major assessment subjects
National policy target	All Grade 3 hospitals to reach Level 3 in 2019 and Level 4 in 2020. All Grade 2 hospitals to reach Level 3 in 2020.			

Source: Ministry of Health

The standards also provide opportunities for software vendors to develop more standardized products and avoid unnecessary customization in digitalization projects. In the meantime, the new standards give clear guidance for hospitals to follow in future digitalization projects.

### Bidding data suggests a meaningful rebound in 1H22

We track the public bidding of hospital digitalization projects to observe the digitalization trend at the micro level. While bidding volume does not completely explain Winning Health's revenue trend, the data does help us understand how the market is trending.

In China, the public sector is required to disclose major procurement projects. For example, through our tracking of new hospital digitalization project bidding, we find that Winning Health has won the digitalization project from Zhoupu Hospital in Pudong New District in Shanghai in March 2022 (bid link). The project is aimed to upgrade Zhoupu Hospital's electronic medical record (EMR) system to Level 5 in the national standards

with a sum of Rmb9.1mn in project value. The contract specifies that Winning Health should deliver the upgrade within 10 months and the payment terms are 30% within 10 days of contract signing, 50% within 10 days of system online, 15% within 10 days of hospital's acceptance report, and 5% within 10 days of the final project audit.

By gathering the data from 2019 to 1H22, we found four major trends:

## 1) Overall bidding volume growth has been slow in 2019-2021 but rebounded in 1H22.

We aggregate the available bidding data and find that bidding volume won by Winning Health only increased 9% and 18% YoY in 2020 and 2021 respectively. However, bidding volume won by Winning Health increased 57% YoY in 1H22, which suggests a solid pipeline for the next 6-12 month. We also correlate the bidding volume against revenue and find the available bidding volume won by Winning Health supports c.40% of its revenue, suggesting to us that this metric could serve as a future business indicator.

Exhibit 42: Public bidding volume growth trend for Winning Health

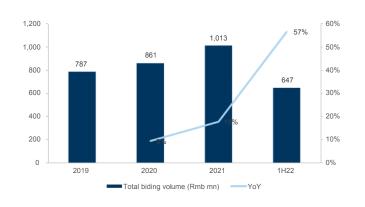
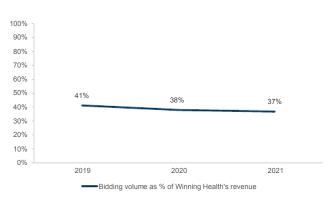


Exhibit 43: Bidding volume as percentage of Winning Health's revenue



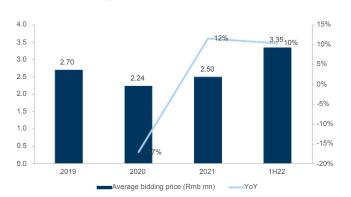
Source: Government websites, QCC, Goldman Sachs Global Investment Research, Gao Hua Source: Government websites, QCC, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### 2) Average project size declined in 2020 but rebounded in 2021 and 1H22

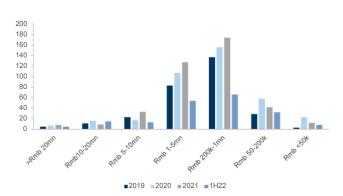
Average project size won by Winning Health was Rmb2.70/2.24/2.50/3.35mn in 2019/2020/2021/1H22, which suggests the average project size declined 17% YoY in 2020 and subsequently rebounded by 12% YoY in 2021 and 10% YoY in 1H22. We believe the initial COVID-19 pandemic outbreak in China in 2020 had a major negative impact on healthcare digitalization projects. But as conditions normalize, digitalization investment and project bidding momentum should resume.

In terms of project size distribution, the majority of the projects won by Winning Health have been between Rmb200k to Rmb5mn, which accounted c.75% of its projects in 2021. We also find that the distribution becomes more bell-shaped as projects are becoming more concentrated within Rmb200k-5mn. This suggests that Winning Health has becomes more product-driven with more standardized offerings rather than service-driven with a low number of larger-sized projects.

**Exhibit 44: Average project size won by Winning Health** 



**Exhibit 45: Project size distribution by Winning Health** 



Source: Government websites, QCC, Goldman Sachs Global Investment Research, Gao Hua Source: Government websites, QCC, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Securities Research

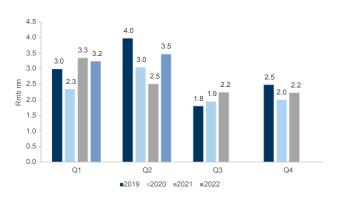
### 3) Seasonality patterns in public bidding

Data suggests that there are two distinct seasonality patterns for Winning Health's projects from public bidding. Firstly, the overall bidding volume is higher in the second half of the year, where the 2H bidding volume accounted for c.56% of the total volume during 2019-2021. Secondly, however, the average project sizes are much higher in 1H-the average project size is Rmb3.0mn in 1H vs. Rmb2.1mn in 2H during 2019-2021. The two patterns indicate that hospitals tend to launch major milestone projects such as EMR upgrade projects and HIS upgrade projects in 1H while making marginal investments to add functional modules in 2H.

Exhibit 46: Quarterly distribution of the bidding volume won by Winning Health



Exhibit 47: Quarterly distribution of average project size won by Winning Health



Source: Government websites, QCC, Goldman Sachs Global Investment Research, Gao Hua Source: Government websites, QCC, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Securities Research

### 4) Demand upgrade

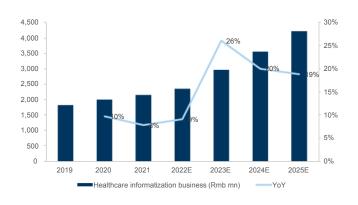
Through the tracking of public bidding, we find the hospitals are demanding increasingly more advanced digitalization. For example, there were many Level 4 EMR upgrades in 2019, but the predominant amount of new contracts in 1H22 were Level 5 EMR upgrades, while the project size increased from Rmb2-4mn in 2019 to Rmb4-15mn in 1H22. In the meantime, we also observe that more and more specific demands in the digitalization projects such as Picture Archiving and Communication System (PACS),

Laboratory Information System (LIS), Radiology Information System (RIS) systems, or nursing station applications, ICU monitoring systems etc. rather than the general over-haul upgrade projects.

In summary, we expect the healthcare digitalization market to gradually improve over time as the government pushes its healthcare digitalization target at the high level while public bidding tracker suggests solid steps are being taken by hospitals in digitalization.

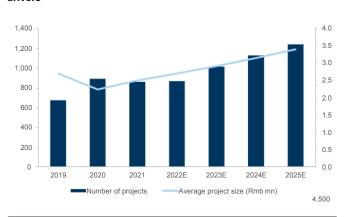
Therefore, we expect Winning Health to enjoy a rebound in its healthcare informatization business to 28%/20% YoY in 2023E/2024E driven by the 8%/8% YoY average project size expansion and 17%/11% YoY project number growth in 2023E/2024E respectively.

Exhibit 48: Winning Health's healthcare informatization business forecast



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 49: Winning Health healthcare informatization business drivers



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities
Research

## Internet healthcare poses growth opportunities for Winning Health

### National policies to push Internet healthcare

In order to alleviate the burdens of the healthcare system, Chinese government has adopted a series of policies to promote the online healthcare to complement the traditional offline-based healthcare system.

During 2016-2022, Chinese government has released policies at various level to promote the healthy development of Internet healthcare service. In 2016, the Health China 2030 plan firstly introduced the Internet healthcare concept into the national healthcare long-term strategy. In 2018, three regulatory guidelines for online medical consultation, Internet hospital, and remote medical service have been release to provide practical reference for market participants. In 2020, the 'Five Ones' initiatives on 14 major areas laid out more detailed plans to support the Internet healthcare. And more recently in May 2022, the 14th Five-Year Plan on National Health mentioned to promote the legislative progress on Internet healthcare services and encourage the online/offline integration of the healthcare services.

Exhibit 50: Summary of China's internet healthcare policies

Date	Policy name	Policy target
2016/10	Guidelines for Health China 2030	Introduce the Internet healthcare concept into the national healthcare long-termstrategy and encourage the innovation on Internet healthcare services.
2018/04	Opinions on promoting the development of 'Internet + Healthcare'	$A im \ to \ provide \ an \ overarching \ supportive \ policy \ framework for \ the \ development \ of internet-based \ health care \ service \ system$
2018/07	Measures for the medical consultation over the internet (trial version)	Provide rules for government to regulate the Internet-based medical consultation and confine the medical consultation in the area of common disease, chronical disease revisit, and family doctor services.
2018/07	Measures for the administration on Internet hospitals (trial version)	Provide rules for government to regulate the establishment of Internet hospitals and specify the requirement of the establishment of Internet hospitals.
2018/07	Measures for the remote medical services (trial version)	Provide rules for government to regulate the third-party involvement in the medical practices and specify the requirement on qualification of healthcare agencies, personnel, equipment during the remote medical services.
2019/08	Lawfor Drug Administration	Remove the restriction and legalize online sales of drugs.
2020/02	Notice on providing Internet medical consultation services during COVID pandemic	Support healthcare agencies to provide online medical services to the society while coping with COVID pandemic.
2020/11	Opinions on promoting social healthcare insurance coverage on Internet medical services	Specify the social healthcare insurance coverage on Internet healthcare services and push the social medical insurance administration to release more specified guideline for the payment and reimbursement procedures.
2020/12	Notification on promoting "Internet+ Healthcare" "Five Ones" initiatives	Promote the "Integrated" share services, "one code pass" merged service, "one-stop" payment service, "one website" government service, "coordinated" anti-COVID services. 14 major initiatives to support and promote healthcare digitization and smart hospital construction. Introduced experiences from regional trial program in different provinces.
2021/10	Measures for the medical consultation over the internet (public hearing version)	Comparing to the trail version, the public hearing version specifies regulations regarding doctor's multiple-site practices, initial visit/follow-up visit, doctor's authentication, prescription rights etc.
2022/05	14th Five-Year Plan on National Health	Promote the legislative progress on Internet healthcare, specify several key areas for Internet healthcare to focus on including family doctor, chronical disease management, follow-up visit, encourage the online/offline integration of the healthcare services and standardized healthcare data.

Source: Ministry of Healthcare

We expect the policies to leverage the existing healthcare system and Internet infrastructure to cover primary care with the aid from advanced technologies and highly efficient supply chain system.

Policies appear to be widely appreciated by society. According to a survey conducted by Accenture (<u>link</u>) in 2021, approximately 63% of Internet users are willing to use an online reservation platform to make doctors appointments, while 47% of Internet users

are willing to conduct an online information inquiry after medical consultations and examinations. Although the willingness to conduct online medical consultations and online disease management is still low, we are also seeing a fast-growing number of online consultations reported by Internet healthcare peers. Based on the disclosure of Internet healthcare companies, we estimate online medical consultations have already increased from 300 million in 2019 to 700 million in 2021 and will continue to grow at a 19% CAGR during 2021-2030E to account for c.30% of the total medical consultations in 2030E.

Exhibit 51: Willingness to take internet healthcare services survey

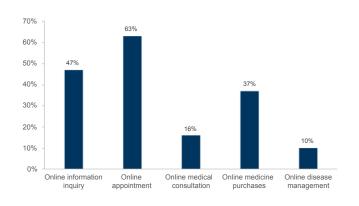
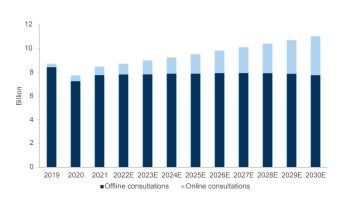


Exhibit 52: Medical consultations forecast in China



Source: NBS, Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

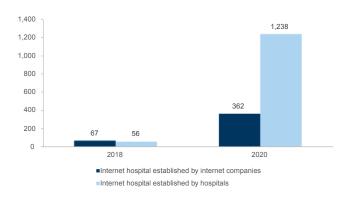
Source: Accenture

### Public hospitals to lead the development of Internet healthcare

Given the policy push and increasing acceptance by society, public hospitals are becoming more and more involved in the development of Internet healthcare. During 2018 and 2020, the government issued ~3x more licenses to hospitals-sponsored internet hospitals than internet company-sponsored internet hospitals.

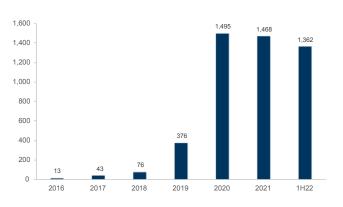
In the meantime, Internet hospital public bidding has increased significantly since 2019. The number of digitalization projects for Internet hospitals in public bidding has increased from 13 projects in 2016 to 376/1,495/1,468 in 2019/2020/2021 respectively. In 1H22, Internet hospital projects in public bidding reached 1,362, which suggests even faster progress in 2022.

## Exhibit 53: Number of Internet hospitals sponsored by Internet companies vs. hospitals



Source: Ministry of Health

## Exhibit 54: Number of projects in public bidding for Internet hospitals



Source: Government websites, QCC, Goldman Sachs Global Investment Research, Gao Hua Securities Research

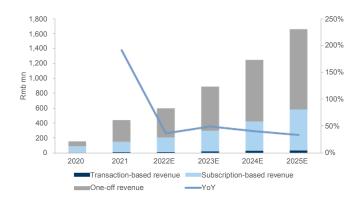
# Winning Health could be a major beneficiary of the development of Internet hospitals

Winning Health has been one of the market leaders to embrace the Internet and announced its '4 Cloud + 1 Platform' strategy in 2015. The company has facilitated its vast hospital customers to build Internet hospitals and gradually formulate its own standardized solutions.

In 2021, the company has been able to facilitate 7,400 healthcare institutes to service more than 40 million Internet healthcare users. The Nali Healthcare Platform provided by Winning Health enabled a total of 1.5 million paid medical online consultations in 2021. In the meantime, the company is exploring new business models such as a transaction-based model and subscription-based model.

Given the ample room in the Internet healthcare market and Winning Health's leading position, we expect the company's Internet hospital business to become a business driver in the near-term future. We forecast that the company will enjoy a 39% revenue CAGR during 2021-2025E for its Internet hospital business, which is largely attributable to 1) the fast growth in Internet hospital digitalization projects and 2) the increasing subscription-based revenue growth.

Exhibit 55: Forecast on Winning Health's Internet Hospital business growth



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

## Key debates

### Near-term budget pressure vs. long-term sustainable demand

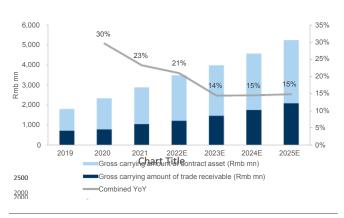
Although there appear to be early signs of a biding volume recovery, there is limited visibility in our view on near-term budgets by hospital clients as well as government funding. Given China's zero COVID policy could still divert the healthcare system's attention and efforts toward COVID control, we see ongoing operational pressure on hospitals' traditional revenue-generating medical practices. From a financial perspective, we see impact potential for Winning Health on the following three aspects:

### 1) Increase in trade receivables and impairment loss.

We expect the soft new booking and slow cash collection in 2021 to continue to impact Winning Health's 2022E balance sheet on the elevated growth of gross carrying amount of contract assets and trade receivables. We expect the gross carrying amounts of both contract assets and trade receivables to increase 29% YoY, which is similar to the level of 2020 onset of COVID in China, and then gradually decelerate to synchronize with revenue growth.

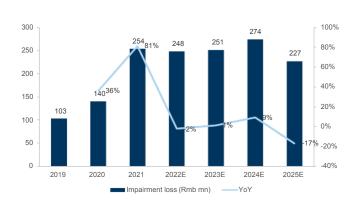
In the meantime, the high-rising contract assets and trade receivables in near-term could materially impact the P/L by translating to an increased impairment loss. We expect impairment losses to continue to maintain at a high percentage, of 8% 2022E's revenue compared to 2021's 9%, which is c.68% of our estimated operating profit in 2022E, dragging net margin significantly.

Exhibit 56: Gross carrying amount of contract assets and trade receivables



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

**Exhibit 57: Winning Health impairment loss forecast** 

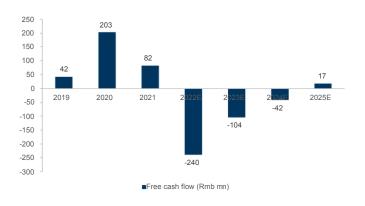


Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### 2) Free cash flow headwind

The slow cash collection momentum could also impact free cash flow in the near future as we forecast a sharp decline in free cash flow in 2022E. Although we forecast a continued negative FCF, we expect free cash flow to gradually recover to breakeven in 2025E as conditions normalize.

Exhibit 58: Forecast on Winning Health's free cash flow



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### 3) Margin pressure

We expect near-term headwinds from weakness in the healthcare system to also negatively impact near-term margin. On the GPM margin level, we expect overall GPM to remain flattish due to 1) a structural revenue shift to the relatively lower-margin internet hospital business, and 2) gradually improving GPMs in both the healthcare informatization business and internet hospital business. On the OPM level, we expect Winning Health to increase its R&D investments on its new product pipelines, especially on its WiNEX platform. On the NPM level, we see the NPM to reach trough in 2023E due to the increased impairment loss and gradually recover as the impairment loss impact declines.

Exhibit 59: Winning Health's gross profit margin by segment forecast

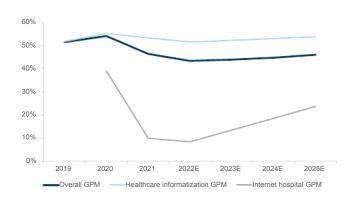
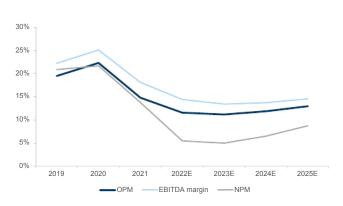


Exhibit 60: Winning Health's OPM, EBITDA margin, and NPM forecasts



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### Cloud transition is slow compared to other software peers

Despite Winning Health owning a diverse customer pool and a relatively large revenue scale, the cloud transition of its business model has been slow. We believe that the slow cloud transition is mainly attributable to its government-sponsored public hospital clients for the following reasons: 1) data security, where the government is increasing the compliance requirements on data security, particularly associated with the public

cloud; 2) project-based budgeting scheme, where hospitals and healthcare agencies normally apply certain digitalization projects for government funding, thus discouraging them to pay recurring fees to obtain the subscription from software vendors; and 3) high level of customization, where the software systems between hospitals are heterogeneous and raise the demand for customized software modules.

From a financial perspective, we can also find evidence for client's reluctance to use Cloud-based system. For example, the contract liability of Winning Health as percentage of its revenue has remained at a low level, which suggests the payment patterns of clients has not changed and that the subscription-based business model has not gained enough traction among clients.

However, we still believe that the launch of its new WiNEX platform in 2020 upon its vast middle-tiered hospital clients as well as the business model exploration in the Internet hospital business provide enough room for Winning Health's business model shift. We forecast an incremental annual recurring revenue (ARR) growth for Winning Health and expect ARR to account for 4.5% of its revenue in 2025E.

Exhibit 61: Winning Health's contract liability forecast



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### Exhibit 62: Winning Health's annual recurring revenue forecast

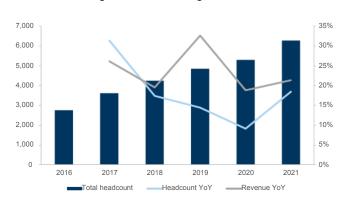


Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

### Headcount structure indicates continued customization

Although the average productivity per employee improved in the past 5 years, revenue growth at a 24% CAGR outpaced headcount growth of 18% CAGR during 2016-2021. That said, the composition of the workforce has not meaningfully changed. Implementation personnel still accounted for 44% of the total workforce in 2021 compared to 45% in 2016, which suggests hospital clients continued to require a high degree of IT services and customization. In the meantime, R&D personnel more than doubled during 2016-2021 but remain at a similar percentage in the total workforce. We believe the larger R&D team could develop more complex products to achieve a balance between standardization and customization in the fast-evolving healthcare digitalization market.

**Exhibit 63: Winning Health headcount growth trend** 



**Exhibit 64: Composition of Winning Health's workforce** 



Source: Company data Source: Company data

### R&D capitalization remains at a high level

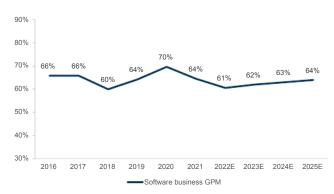
Winning Health chooses to capitalize a high percentage of its R&D investment, where the R&D capitalization ratio is the highest among our list of 30 software peers in China (used in our investment framework comparison). In the past 5 years, the company has maintained an average of 51% of R&D capitalization rate while the amortized R&D cost is booked into COGS of its software business segment and dragged the software business to maintain an average of 65% during 2017-2021. We expect Winning Health to maintain a relatively low GPM for its software business as the R&D expense ratio and R&D capitalization rate remains stable.

Exhibit 65: Winning Health R&D investment and capitalization rate trend



Source: Company data

Exhibit 66: Winning Health's software business GPM forecast



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

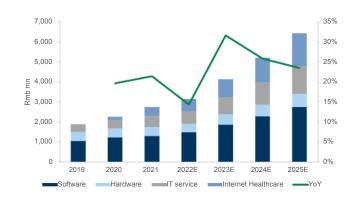
## Financial analysis

### Income statement

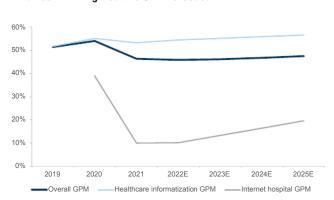
We expect Winning Health's revenue to grow at 19%/32%/26%/23% YoY in 2H22E/2023E/2024E/2025E respectively, which can be segmented to the 15%/28%/22%/20% YoY growth for its healthcare informatization business and the 34%/49%/40%/33% YoY growth for its Internet hospital business in 2H22E-2025E. Key drivers to its top line growth are 1) China Healthcare Digitalization market TAM growth at a 22% CAGR in 2021-2030E driven by policy-supported adoption on more HIS and CIS applications, 2) HIS and CIS penetration improvement from estimated 39%/13% in 2021 to 70%/37% in 2030E, and 3) Winning Health to maintain its c.20% market share in the healthcare digitalization market.

On GPM, we estimate the company to see a 3ppts YoY decline in GPM to 43% in 2022E and enjoy GPM recovery to 46% in 2025E, which is attributable to 1) a structural revenue shift to relatively lower-margin internet hospital business, and 2) gradually improving GPMs in both healthcare informatization business and internet hospital business from the headwind from COVID-dragged healthcare system.

Exhibit 67: Winning Health's revenue growth forecast



**Exhibit 68: Winning Health's GPM forecast** 



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

We model Winning Health's OPM to decline from 15% in 2021 to 12% in 2022E and subsequently to 11% due to our estimated increase in expense ratio, particularly the R&D expense ratio. We forecast the company's S&M/G&A ratio to maintain at 14%/7% during 2022E-2025E, while estimating R&D expense ratio to increase from 9% in 2021 to 10% in 2023E and then subsequently to 11% in 2025E.

Due to the impact from the near-term high level of impairment loss, we estimate net income to decline 54% YoY in 2022E followed by 16%/59%/61% YoY growth in 2023E/2024E/2025E respectively. As a result, we estimate NPM to decline from 14% in 2021 to 6% in 2022E and gradually rebound to 9% in 2025E.

Exhibit 69: Forecast on Winning Health's expense ratio

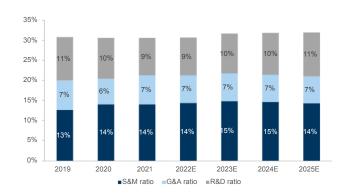
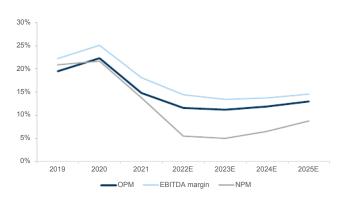


Exhibit 70: Winning Health's OPM, EBITDA marign, and NPM forecast



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

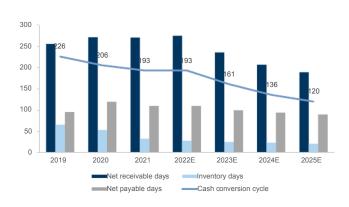
### Balance sheet

**Cash conversion cycle**: Winning Health had a 193 days cash conversion cycle in 2021, and we expect this to maintain at 193 days in 2022E and gradually decline to 120 days in 2025E due to 1) near-term market headwind's negative impact on cash collection and net receivable days in 2022E, but 2) market recovery as conditions normalize, and 3) business model innovation that makes Winning Health rely more on subscription-based and transaction-based models.

**ROE**: Winning Health's ROE was 8% in 2021, and we expect this to continue its decline to 3% in 2022E and gradually recover to 9% in 2025E, driven by near-term headwind but improving demand on new products and improving net margins.

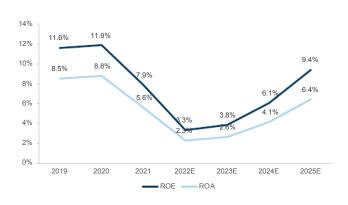
**Gearing ratio**: Winning Health has a net cash position of Rmb702mn, or -14% gearing ratio. Although we forecast a decline in free cash flow in near-term, we expect the free cash flow to be negative during 2022-2024E which could drag the gearing ratio to -3% in 2025E.

Exhibit 71: Winning Health's cash conversion cycle



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 72: Winning Health's ROA and ROE** 



Source: Company data, Goldman Sachs Global Investment Research

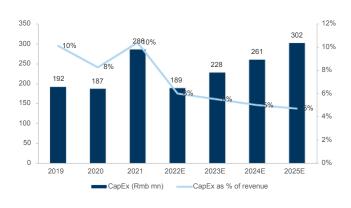
### Cash flow

**CapEx**: Winning Health's CapEx to revenue ratio was 10% in 2021, and we expect the ratio to gradually decline to 5% in 2025E given the revenue contribution from asset-light internet hospital increases.

**Free cash flow**: Winning Health generated a positive free cash flow of Rmb82mn, or 3% free cash flow yield in 2021. We model free cash flow to decline in 2022E to Rmb240mn or -8% FCF yield due to the near-term headwind from COVID-induced pressure in healthcare system and gradually recover to 0% in 2025E as conditions normalize.

**Dividend yield:** Winning Health maintained a 10-11% dividend payout ratio during 2019-2021, but given FCF standing we think it is possible the company could consider halting the dividend in 2022E but resume the same 10% (its historical payout ratio during 2019-2021) a dividend payout after 2023E.

**Exhibit 73: Winning Health CapEx Forecast** 



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Exhibit 74: Winning Health free cash flow and FCF yield forecasts



Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

**Goldman Sachs** 

**Exhibit 75: Winning Health Income Statement Forecast** 

Rmb mn	2019	2020	2021	2022E	2023E	2024E	2025E
Income statement							
Revenue	1,908	2,267	2,750	3,145	4,140	5,210	6,435
Gross profit	981	1,226	1,275	1,363	1,817	2,331	2,958
Opex	(610)	(720)	(868)	(999)	(1,355)	(1,713)	(2, 125)
Sales tax	(22)	(26)	(26)	(34)	(44)	(53)	(67)
S&M expense	(242)	(319)	(387)	(452)	(615)	(760)	(919)
G&A expense	(140)	(145)	(199)	(216)	(285)	(355)	(433)
R&D expense	(206)	(229)	(256)	(297)	(411)	(545)	(706)
OP income	372	`506 <sup>°</sup>	407	364	463	618	833
Pretax income	413	546	373	144	234	385	661
Net income	398	491	378	172	206	339	562
EPS (basic)	0.24	0.23	0.23	0.08	0.09	0.15	0.24
EPS (diluted)	0.24	0.23	0.23	0.08	0.09	0.15	0.24
Margins							
Gross margin	51.4%	54.1%	46.3%	43.3%	43.9%	44.7%	46.0%
Operating margin	19.5%	22.3%	14.8%	11.6%	11.2%	11.9%	12.9%
Pretax margin	21.6%	24.1%	13.6%	4.6%	5.7%	7.4%	10.3%
Net margin	20.9%	21.7%	13.8%	5.5%	5.0%	6.5%	8.7%
Ratios							
S&M ratio	-13%	-14%	-14%	-14%	-15%	-15%	-14%
G&A ratio	-7%	-6%	-7%	-7%	-7%	-7%	-7%
R&D ratio	-11%	-10%	-9%	-9%	-10%	-10%	-11%
Opex ratio	-32%	-32%	-32%	-32%	-33%	-33%	-33%
Tax rate	4%	7%	5%	4%	12%	12%	15%
YoY							
Revenue		19%	21%	14%	32%	26%	23%
Gross profit		25%	4%	7%	33%	28%	27%
OP income		36%	-20%	-11%	27%	34%	35%
Pretax income		32%	-32%	-61%	63%	64%	72%
Net income		23%	-23%	-54%	20%	64%	66%

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

**Goldman Sachs** 

Exhibit 76: Winning Health Bala	nce Sheet Fore	ecast					
Balance Sheet	2019	2020	2021	2022E	2023E	2024E	2025E
Cash and equivalents	715	989	1,601	1,318	1,214	1,151	1,135
Net receivables	1,488	592	708	779	911	1,055	1,258
Inventory	175	128	133	140	178	185	215
Other current assets	228	1,526	1,734	2,019	2,140	2,301	2,548
Current assets	2,606	3,235	4,175	4,257	4,442	4,693	5,156
Net PP&E/Fixed assets	430	465	502	621	769	938	1,136
Net intangibles	382	341	584	564	551	546	547
Other long-term assets	1,701	2,016	2,235	2,235	2,235	2,235	2,235
Long-term assets	2,513	2,822	3,321	3,420	3,555	3,719	3,918
Total assets	5,119	6,057	7,496	7,677	7,997	8,411	9,075
Accounts payable	288	394	495	579	693	790	925
Short-term debt	224	214	-	-	-	-	-
Other current liabilities	594	621	779	736	756	770	792
Current liabilities	1,106	1,229	1,274	1,315	1,450	1,559	1,717
Long-term debt	19	23	898	898	898	898	898
Other long-term liabilities	85	90	151	151	151	151	151
Long term liabilities	105	114	1,049	1,049	1,049	1,049	1,049
Total liabilities	1,211	1,343	2,323	2,364	2,499	2,608	2,766
Common stock	752	486	572	572	572	572	572
Treasury stock	(155)	(55)	-	-	-	-	-
Retained earnings	1,338	1,767	2,062	2,234	2,420	2,724	3,230
Other common equity	1,799	2,325	2,466	2,466	2,466	2,466	2,466
Total common equity	3,733	4,522	5,100	5,272	5,458	5,763	6,269
Minority interest	175	192	73	40	40	40	40
Total equity	3,908	4,714	5,173	5,312	5,498	5,803	6,309
BVPS	2.29	2.25	2.38	2.45	2.47	2.53	2.67
Cash conversion cycle							
Net receivable days	256	272	271	275	236	207	189
Inventory days	66	53	32	28	25	23	21
Net payable days	95	120	110	110	100	94	90
Cash conversion cycle	226	206	193	193	161	136	120
Ratios							
Net debt	(472)	(752)	(702)	(420)	(315)	(253)	(237)
Net debt to total equity	-12%	-16%	-14%	-8%	-6%	-4%	-4%
Net cash per share	0.29	0.37	0.33	0.20	0.14	0.11	0.10

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Goldman Sachs

Exhibit 77: Winning Health Cash Flow F	orecast						
Cash flow statement	2019	2020	2021	2022E	2023E	2024E	2025E
Net income	398	491	378	172	206	339	562
Minority interest add-back	(3)	14	(24)	(33)	-	-	-
Depreciation and amortization add-back	52	63	91	90	93	97	103
Net loss/(gain) on asset sales	0	(0)	(0)	-	-	-	-
(Increase)/decrease in working capital	(225)	(249)	(208)	(280)	(176)	(217)	(345)
Other operating cash flow items	11	71	132	-	-	-	-
Cash flow from operating	233	390	368	<u>(51</u> )	123	219	320
Capital expenditure	(192)	(187)	(286)	(189)	(228)	(261)	(302)
Other investment cash flow items	(70)	101	(57)	-	-	-	-
Cash flow from investing	(262)	(86)	(343)	(189)	(228)	(261)	(302)
Dividends paid	41	51	68	(43)	-	(21)	(34)
Change in common stock	216	(266)	87	-	-	-	-
Increase/(decrease) in short-term debt	73	(11)	(214)	-	-	-	-
Increase/(decrease) in long-term debt	3	4	875	-	-	-	-
Other financing cash flow items	(596)	135	(1,158)	(146)	(228)	(240)	(269)
Cash flow from financing	(262)	(86)	(343)	(189)	(228)	(261)	(302)
Others	-	-	-	-	-	-	-
Net change in cash	198	261	601	(282)	(104)	(62)	(16)
Ratio							
Capex to revenues	10%	8%	10%	6%	6%	5%	5%

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

## GS/GH view vs. consensus

We forecast a softer-than-consensus margin profile but largely similar revenue growth in 2022E reflecting our concerns on the near-term COVID-19 impact in the healthcare system in China. We expect a revenue growth recovery to be faster-than-consensus in 2023E but margin improvement to take longer.

Exhibit 78: GHe vs. consensus

		2022E			2023E	
Rmb m	GHe	Cons.	Diff %	GHe	Cons.	Diff %
Revenues	3,145	3,368	-7%	4,140	4,179	-1%
GP	1,363	1,551	-12%	1,817	1,922	-5%
OP	364	513	-29%	463	664	-30%
Net income	172	498	-65%	206	672	-69%
Margins						
GM	43.3%	46.1%		43.9%	46.0%	
OPM	11.6%	15.2%		11.2%	15.9%	
NM	5.5%	14.8%		5.0%	16.1%	
Opex	31.8%	30.8%		32.7%	30.1%	

Consensus as of 2022/08/28.

Source: Thomson Reuters Eikon, Goldman Sachs Global Investment Research, Gao Hua Securities Research

## Valuation: 12-month TP of Rmb7.50 based on a mix of DCF and EV/Sales

Our 12-month price target of Rmb7.50 is based on an equal mix of two valuation methods: 1) EV/Sales, and 2) 2-stage DCF. For the EV/Sales method, we believe it better reflects the valuation of a software company due to the highly scalable nature of the software product with minimum marginal cost as well as the market sentiment toward the highly volatile software sector. For the 2-stage DCF method, we believe it better reflects the value of long-term positive cash flow from Winning Health's solid market presence and sustainable customer relationships as well as the near-term pressure on free cash flow.

In our EV/Sales method, we reference Winning Health's comparable peers and calculate their average 2023E EV/Sales multiple to be 3.7x based on Thomson Reuters Eikon consensus (peer valuation as of 28 August 2022). We apply this multiple to Winning Health, yielding a total EV of Rmb15.4bn or Rmb7.37 per share.

Comparable peers include: 1) domestic competitors: B-soft, Wonders, DHC, and Neusoft, 2) domestic software subsector leaders: Yonyou, Desay SV, Shiji, and Kingdee, and 3) global healthcare digital service vendors: Allscripts and Teladoc. The average GPM of these peers is 47% based on Thomson Reuters Eikon's consensus in 2022E, which is comparable to our estimate for Winning Health's 43% GPM in 2022E. The average 2021-23E revenue CAGR (excluding Allscripts) is 20% based on Thomson Reuters Eikon's consensus, which is also comparable to our estimate for Winning Health's 23% over the same period.

Exhibit 79: EV/Sales valuation for Winning Health

EV/Sales Valuation	
2023E Revenue (Rmb mn)	4,140
EV/Sales multiple	3.7x
EV (Rmb bn)	15.4
Cash and equivalent (net)	0.4
Shares outstanding	2,148
Valuation per share (Rmb)	7.37
Upside	0%

Source: Goldman Sachs Global Investment Research, Gao Hua Securities Research

**Exhibit 80: Winning Health valuation comps** 

	Ticker	Mkt Cap		EV/Sales			P/E		Revenue CAGR	GPM	NPM
		(USD bn)	2021	2022E	2023E	2021	2022E	2023E	2021-23E	2022E	2022E
Yonyou	600588.SS	10.5	7.3	6.2	4.9	223	94	62	22%	61%	7%
Desay SV	002920.SZ	16.2	7.5	5.5	4.3	120	95	70	32%	25%	9%
Shiji	002153.SZ	4.4	8.4	7.4	6.2	N.A.	187	90	16%	41%	4%
B-soft	300451.SZ	1.6	3.5	2.8	2.3	25	19	15	24%	55%	23%
Wonders	300168.SZ	1.7	3.7	3.3	2.9	139	107	63	13%	34%	2%
DHC	002065.SZ	3.0	1.9	1.7	1.5	39	42	35	15%	N.A.	4%
Neusoft	600718.SS	2.1	1.5	1.3	1.1	12	31	25	16%	26%	4%
Kingdee	0268.HK	7.4	11.8	9.6	7.6	N.A.	N.A.	N.A.	24%	64%	-5%
Allscripts	MDRX.US	1.8	1.6	3.9	3.7	14	26	26	-34%	53%	15%
Teladoc	TDOC.US	6.0	3.3	2.8	2.4	N.A.	N.A.	N.A.	18%	67%	-386%
Average			5.0	4.4	3.7	75	71	46	14%	50%	-28%
Median			3.7	3.8	3.5	33	42	35	16%	54%	4%
Winniing Health	300253.SZ	2.3	5.6	4.9	3.7	42	91	42	23%	43%	5%

Consensus as of 2022/08/28, Thomson Reuter Eikon Consensus is used for all stocks except for Winning Health.

Source: Thomson Reuters Eikon, Goldman Sachs Global Investment Research, Gao Hua Securities Research

In our two-stage DCF valuation, we forecast the fundamentals in 2022E-2031E while extrapolating the free cash flow growth linearly slowing down from 30% to 2% in 2032E-2041E. For the China software sector, we apply a market risk premium of 7.5% due to the long-term profit scaling potential but weak near-term profitability and a beta of 1.20 for Winning Health due to 1) increased near-term headwinds from the COVID pandemic that could weaken hospitals' demand for digitalization upgrades, 2) its leading and diverse customer pool, and 3) relatively low GPM due to clients' customization demand for bundled lower-margin hardware sales, which leads to a cost of equity of 12.0% and a WACC of 12.0%. We also set our terminal growth rate at 2% based on the sticky customer relationship for software products and long-term growth of the software market. As a result, we derive a DCF valuation of Rmb16.0bn, or Rmb7.64 per share. The lower valuation is partially attributable to our projected headwind in the COVID-impact to the healthcare system and the softer-than-consensus FCF yield in near-term.

**Exhibit 81: Winning Health's DCF valuation** 

						Stage	1									5tac	je 2				
Rmb mn	2021	2022E	2023E	2024E	2025E		2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E	2039E	2040E	2041E
P&L																					
Revenue	2,750	3,145	4,140	5.210	6,435	7,827	9,462	11,368	13,569	16,124	18,990										
YoY	21%	14%	32%	26%	23%	22%	21%	20%	19%	19%	18%										
Opex ratio	31.6%	31.8%	32.7%	32.9%	33.0%	32.4%	31.8%	31.2%	30.6%	30.0%	29.4%										
OP income	407	364	463	618	833	1,158	1,587	2,142	2,846	3,731	4.808										
YoY	-20%	-11%	27%	34%	35%	39%	37%	35%	33%	31%	29%										
Pretax income	373	144	234	385	661	954	1.355	1.893	2.589	3,479	4.576										
Net income	378	172	206	339	562	811	1,152	1,609	2,201	2,957	3.890										
YoY	-23%	-54%	20%	64%	66%	44%	42%	40%	37%	34%	32%										
GPM	46.3%	43.3%	43.9%	44.7%	46.0%	47.2%	48.6%	50.1%	51.6%	53.2%	54.7%										
OPM	14.8%	11.6%	11.2%	11.9%	12.9%	14.8%	16.8%	18.8%	21.0%	23.1%	25.3%										
NPM	13.8%	5.5%	5.0%	6.5%	8.7%	10.4%	12.2%	14.2%	16.2%	18.3%	20.5%										
Annual Recurring Revenue	32	66	120	192	287	404	552	737	964	1,240	1.574										
as % of revenue	1%	2%	3%	4%	4%	5%	6%	6%	7%	8%	8%										
Cash flow	170	270	370	470	470	370	0.0	0.70	1 /0	0 / 0	0.0										
CCC	193	193	161	136	120	111	104	98	91	84	78										
Capex	286	189	228	261	302	344	388	432	475	516	551										
Capex to revenues	10%	6%	6%	5%	5%	4%	4%	4%	4%	3%	3%										
Supex to revenues	1070	0.70	0,0	0,70	0.70	470	470	470	470	0.70	0,0										
Free cash flow	82	(240)	(104)	(42)	17	161	404	780	1,355	2,001	2,937	2,657	3,422	4,271	5,159	6,026	6,857	7,667	8,418	9,074	9,601
YoY						824%	151%	93%	74%	48%	47%	33%	29%	25%	21%	17%	14%	12%	10%	8%	6%
Terminal growth																					2%
Terminal value																					20,407
Discount factor		0.96	0.86	0.77	0.69	0.61	0.55	0.49	0.44	0.39	0.35	0.31	0.28	0.25	0.22	0.20	0.18	0.16	0.14	0.13	0.11
Present value of FCF		(231)	(90)	(32)	12	99	221	380	590	778	1,020	824	947	1.055	1,138	1,187	1,206	1,204	1,180	1,136	1,073
Enterprise value 2022E (Rmb m)		15,981																			_
Cash and equivalents (net)		420																			
Equity value in 2022E (Rmb m)		16,401																			
Value per share (Rmb)		7.64																			
Upside		8%																			
Implied 2023E P/E		79x																			
Implied 2023E EV/S		3.9x																			
WACC assumption (2022E)																					
Risk free rate	3.0%																				
Beta	1.20																				
Market risk premium	7.5%																				
Cost of equity	12.0%																				
Cost of debt	6.0%																				
Tax rate	15%																				
Long-run Debt to Asset ratio	0.0%																				
Equity /(debt+equity)	100.0%																				
WACC	12.0%																				
												-									

Source: Company data, Goldman Sachs Global Investment Research

We also cross-check our DCF valuation using a discounted P/E method. We use the same cost of equity and discount our 2031E net profit estimate back to 2022E to calculate the discounted P/E multiple. As a result, we yield an 11x discounted P/E multiple, which we think is valid given our 2021-2031E estimated earning CAGR of 26%.

While Winning Health screens attractive from a valuation perspective, with both current P/S and P/E at 3-year lows and fwd P/S and P/E more than 1 s.d. below historic averages, given near-term overhangs on both financials and growth momentum, we are comfortable with our Neutral rating, relative to other names in our coverage.

Exhibit 82: DCF valuation valuation cross-check based on discounted P/E

Cross-check Discounted P/E	
2031E Net Profit (Rmb mn)	3,890
COE	12.0%
NP discounted to 2022	1,349
Discounted NP per share	0.6
DCF valuation per share(Rmb)	7.0
Discounted 2022E P/E	11x
2021-2031 NP CAGR	26%

Source: Goldman Sachs Global Investment Research

Exhibit 84: Winning Health's forward P/S ratio



Source: Thomson Reuters Eikon

Exhibit 83: Winning Health's forward P/E ratio



Source: Thomson Reuters Eikon

## **M&A Framework**

Across our Greater China Technology and Telecom coverage, we examine stocks using an M&A framework, considering both qualitative factors and quantitative factors (which may vary across sectors and regions) to incorporate the potential that certain companies could be acquired. We then assign an M&A rank as a means of scoring companies under our rated coverage from 1 to 3, with 1 representing high (30%-50%) probability of the company becoming an acquisition target, 2 representing medium (15%-30%) probability and 3 representing low (0%-15%) probability. For companies ranked 1 or 2, in line with our standard departmental guidelines we incorporate an M&A component into our target price. M&A rank of 3 is considered immaterial and therefore does not factor into our price target, and may or may not be discussed in research.

We examine a company's potential as an M&A target based on the assessment of: 1) potential M&A impediments; such as shareholder structure / free float, industry regulations, and government policies; 2) qualitative factors, including the attractiveness of technology, the attractiveness of its customer base, and cost synergy potential; and 3) quantitative factors, including market cap and valuations.

## Shareholder structure and potential M&A impediments

We gauge whether there are any impediments to M&A which would prevent a company from becoming an M&A target, even if it ranks 1 or 2 on qualitative/quantitative criteria.

When assessing potential impediments, we take into consideration:

- 1. Major shareholder preferences/ free float: We assume that shareholders with a 20% or greater stake have significant influence, or a blocking stake, and take into account: any potential actions by major shareholders in the event of a possible acquisition by a third party (including whether they would likely be receptive, or if they may be opposed to selling), or if they have announced a preference to raise their stake in the company;
- 2. Regulatory; and/or

### 3. Government policy impediments

We assign a "No" qualification if one or more of the three considerations above are applicable and a "Yes" qualification if these considerations do not apply.

#### Qualitative assessment criteria

- **1. Technology**: We look at whether a company has attractive technology capable of generating future value, as well as its technological capabilities and intellectual property rights. We assign a rank of "3" if its technology is unattractive, "2" if it is moderately attractive, and "1" if it is very attractive.
- **2. Customer base**: We look at whether a company has an attractive customer base and product applications. We also take customer retention and end-market exposure (including sales channels) into account. We assign a rank of "3" if its customer base and

product applications are unattractive, "2" if they are moderately attractive, and "1" if they are attractive.

**3. Cost synergies**: We look at prospects for growth in business scale and scope for profit margin/yield improvement via acquisition of an M&A target company. We assign a rank of "3" if there is low possibility of synergies, "2" if there is some possibility, and "1" if there is high possibility.

#### Two quantitative assessment criteria

- **1. Market cap**: We rank the companies in our Greater China Technology and Telecom coverage in three tiers based on the assumption that the smaller a company is, the easier it is to be acquired. We also take regional qualities (such as differing market cap ranges between regions) into account.
- **2. Valuation**: We look at whether a target company's three-year average P/E and EV/DACF are below the industry/peer average for the same period, as we believe companies trading at a discount to peers are more likely to be acquired. We assign a rank of "3" if the company appears overvalued relative to its respective industry peer group, "2" if its valuation is in line with the peer average, and "1" if its valuation is discounted. We take into account differing valuation multiple ranges between the companies depending on their region and their peers.

## M&A rank of 3 for Winning Health

We believe Winning Health has a low probability of becoming an M&A target and therefore assign a rank of "3" given 1) Winning Health has a leading position and the largest market share by revenue in the healthcare IT vertical, 2) relatively large size of market capital in the software industry in China, and 3) limited exposure to other vertical industries.

## Exhibit 85: M&A framework table

Company name	Shareho	olders' structure	•	Qualitative score (1-3) Quantitative score (1-3)				Qualitative score (1-3)			Total score M&A Rank		
	Freefloat	Regulatory barrier	Technology	Customer base	Cost synergy	Market cap	Valuation unlocking						
Winning Health	73%	No	3	3	2	2	3	2.6	3				

Source: Goldman Sachs Global Investment Research

# Key risks and what could make us revisit our thesis

Key risks to our thesis include:

- 1) **COVID pandemic.** Although the prevalent omicron variant of COVID-19 in the current wave has had a much lower mortality rate, the Zero COVID policy in China could continue to put pressure on the healthcare system, which could impact the digitalization budgets in the near future. Our assumption is based on no further major outbreaks and additional COVID-induced stress on the healthcare system in the future. However, it is possible new variants of COVID-19 could create new wave of pressure and impact new project acquisitions by Winning Health.
- 2) **Sales execution**. Although Winning Health has established a leading presence in the healthcare system across China, consistent sales execution remains a challenge for Winning Health given the fragmented healthcare digitalization market. The incremental revenue per S&M dollar, which indicates the sales efficiency, has declined from 1.6 in 2017 to 1.2 in 2021, while the average sales per S&M personnel has also declined from Rmb4.2mn in 2017 to Rmb3.3mn in 2021. If these two metrics improve/worsen, we could see the decline/hike in sales & market expense ratio which would translate into margin improvement/deterioration.
- 3) **Balance between customization and standardization.** One big trade-off for Winning Health, as well as other software peers in China, is how to balance between product customization and standardization. In the fast-evolving healthcare industry in China, emerging digital demands require software application vendors to absorb new technology and domain know-how through the initial stage of customization. However, it's often the speed and the process of standardizing these application functions that determines the success of the software vendors. While Winning Health's balance between customization and standardization has result in relatively stable implementation and R&D personnel mix, any meaningful (+/-) change to this strategy could (+/-) impact its top line growth and margin improvement.
- **4) Cash collection cycle for net receivables and contract assets.** Although client diversity is high (top 5 client revenue contribution only 5.8% in 2021), the cash collection cycle has been longer amid the COVID-19 pandemic in 2020-2021 (indicated by the fast growth of net receivables and contract assets). Our current assumption is that the cash collection cycle could reach the peak in the period between 2H22E and 1H23E. However, any dramatic change in cash collection cycle could either positively or negative impact the net profit of Winning Health.

Other risks include: (i) uncertainty in government policy that could accelerate or stall the progress of the adoption of Internet hospitals; (ii) product development, particularly the various application associated with its new WiNEX platform; (iii) unsustainable pace of acquisition - Winning Health has relied its growth on both organic growth and external acquisition in local smaller competitors in the past. However, the company could face both organizational and financial challenges if it makes any acquisition decision at an inappropriate time; and (iv) increasing competition from domestic peers - Neusoft and

DHC in the top-tier market as well as B-soft in the middle-tier market.

#### What could make us revisit out thesis

- 1. Hospitals resume normal operational efficiency. As a part of the medical capacity is being redirected to contain COVID-19 in China, medical resources are not being fully leveraged to treat diseases with revenue declining as a result of lower utilization rates of hospital beds and lower revenue per doctor. Should utilization rates and/or revenue per doctor improve faster than we expect or begin to show signs of stabilization, this could ramp up the need to improve/invest hospital facilities/services which could cause us to revisit our thesis.
- 2. Government increases investment in hospital digitalization. Government spending in healthcare declined for the first time on a YoY base in 2021. This means that hospitals have limited sources of funds from the government to used toward long-term investments/improvements. If the government starts to increase healthcare spending sooner than we expect, the pace of hospital digitalization could speed up, leading us to revisit our thesis.
- **3. The progress of Winning Health's WiNEX product ramp-up.** As a newly released flagship product aimed at encapsulating all functional modules into an interoperable system, adoption by hospital clients could set a solid ground to upsell future new products/modules helping Winning Health to achieve sustainable revenue/profit growth. Faster or better than expected adoption/ramp of WiNEX could lead us to revisit our thesis.
- **4. The progress of Winning Health's internet hospital business.** Given the ample room in the Internet healthcare market and Winning Health's leading position, we expect the company's Internet hospital business to become a key business driver in the near-term future. It is possible that the internet hospital business could grow faster than we expected which could trigger us to revisit our current thesis.

## Glossary

**ARPU**: Average revenue per user (ARPU) refers to the average revenue generated by each user in one year or in one project. Although the ARPU measure can vary in a wide range for different software modules or system, it remains the most commonly used measure for ticket size of a software system.

**ARR**: Annual recurring revenue (ARR) refers to the total dollar amount of existing contracts, which could be recurring over time, at a given point of time. The ARR measure reflects the existing booking in cloud software subscription and can better indicate the growth of the subscription business as subscription revenue can be easily distorted by seasonality.

**CIS**: Clinical information system (CIS) refers to the software applications that can assist medical professionals in medical practices. Such software applications include electronic healthcare record system (EHR), diagnosis related groups system (DRGs), picture archive and communication system (PACS) etc.

**COVID**: Coronavirus disease that broke out in late 2019.

**Grade 3/Grade 2 hospitals**: Chinese government and healthcare authority classifies the hospitals by its scale in beds, doctors, nurses, devices, and track records into three major grades and ten subgrades with Grade 3 being the highest major level and Grade 1 being the lowest major level.

**EHR/EMR**: electronic healthcare record system (EHR) and electronic medical record system (EMR) are the digital version of a patient's record and chart. EHR/EMR are often real-time, patient-centric records that allow patient's record to be shared by different doctors in different hospitals.

**DRGs**: diagnosis related groups system (DRGs) is a medical payment and pricing scheme that correlate the patient's diagnosis with the medical service pricing. The adoption of DRGs is intended to help insurance providers to achieve higher visibility of its insurance payment.

**PACS**: picture archive and communication system (PACS) is a clinical software application to store and analyze the medical image such as X-ray image, MRI image.

**HIS**: Hospital information system or healthcare information system (HIS) is a management software application that help hospitals and healthcare agencies to operate and manage their operations. It often helps hospital administrators to manage accounting, HR, risk control, etc.

**Healthcare informatization**: also known as healthcare digitalization, is a process that allows a healthcare organization to gain digital capabilities with software tools.

**Internet hospital**: is a virtual hospital that allow patient to conduct medical consultation, obtain doctor's prescriptions, purchase medicines, and have certain medical services through Internet. In China, government issues licenses for Internet hospitals and is

ramping up regulatory measures on Internet hospitals.

**WINEX**: is a medical PaaS product developed by Winning Health. It is aiming to provide a more standardized software infrastructure for healthcare organization that allow for higher level of data interoperability.

## Disclosure Appendix

## Reg AC

We, John Wang, Allen Chang, Verena Jeng, Ting Song and Jin Guo, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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	F	Rating Distributio	n	Investme	ent Banking Rela	tionships
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