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# Chinasoft (354 HK)

## **Huawei debut Harmony OS for smartphone**

Huawei launched Harmony OS 2.0 on 2 Jun, which can be used across multiple devices. We believe massive deployment could take some time but this will create more IT service demand for Chinasoft in near term. Maintain BUY.

- Huawei debut Harmony OS 2.0 on smartphones. On 2 Jun, Huawei officially launched Harmony OS 2.0 for smartphone, and stated that the new OS can be used across multiple devices. Huawei targets a total of 300mn devices running Harmony OS in 2021E (200mn being Huawei's products). We believe it is a necessary survival step for Huawei, after being banned by the U.S. on GMS access in 2019. However, we think massive deployment could be more difficult than expected as (1) it will be hard to incentivize developers to port Apps to new OS and without popular apps in near term; and (2) other Chinese smartphone brands may not use Harmony OS and the potential market is limited to home appliances/ IoT products in near term.
- New revenue stream to Chinasoft. We believe Huawei will continue to invest R&D in building its Harmony OS ecosystem given strong cash (RMB357bn in FY20) and patents on hand. Amid the software-centric transition process, there will be additional IT services demand for Chinasoft. We identified 3 new revenue streams including (1) helping build different types of kits on Harmony OS for developers, (2) providing embedded modules for IoT OEM and (3) codeveloping IoT products with OEM.
- Is Harmony OS 2.0 just Android? Some tech blogs commented that Harmony OS 2.0 launched on smartphone is similar to Android instead of self-developed new OS. Rather, the Harmony 1.0 launched for IoT products last year is based on Huawei's LiteOS IoT microkernel. We think it makes sense that Huawei built Harmony OS 2.0 using the Android open source code without Google's ecosystem in China given our earlier concerns on Apps compatibility. Meanwhile, our investment thesis that there will be more IT service demand for Chinasoft will not change, as long as there is a new market/applications/ device that require more testing and development work.
- Maintain BUY. We raised FY21-22E net profit by 2-4% to reflect stronger topline growth. Maintain BUY with new target price of HK\$12.00 (prior HK\$11.57), on unchanged 22x FY22E P/E.

## **Earnings Summary**

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(YE 31 Dec)	FY19A	FY20A	FY21E	FY22E	FY23E
Revenue (RMB mn)	12,042	14,101	17,905	21,197	24,069
YoY growth (%)	10%	15%	29%	19%	14%
Net profit (RMB mn)	755	955	1,189	1,433	1,673
EPS (RMB)	0.28	0.32	0.40	0.48	0.56
YoY growth (%)	10%	13%	25%	21%	17%
Consensus EPS (RMB)	0.28	0.32	0.42	0.53	0.67
PE (x)	29.8	26.5	21.3	17.6	15.1
EV/Sales (x)	2.0	1.6	1.2	0.9	0.8
Dividend Yield (%)	0.00	0.00	0.00	0.00	0.00
ROE (%)	12%	12%	13%	14%	14%
Net debt to equity	net cash				

Source: Company data, Bloomberg, CMBIS estimates

## **BUY (Maintain)**

Target Price HK\$12.00 (Previous TP HK\$11.57)
Up/Downside +24.7%
Current Price HK\$9.62

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#### Stock Data

Mkt Cap (HK\$ mn)	20,310
Avg 3 mths t/o (HK\$ mn)	87.06
52w High/Low (HK\$)	115.65/ 43.27
Total Issued Shares (mn)	178
Source: Bloomberg	

#### **Shareholding Structure**

Chen Yuhong- Chairman	9.7%
Dan Capital	6.2%
CPS (share option scheme)	4.5%
Source: HKEx	

#### **Share Performance**

	Absolute	Relative
1-mth	19.0%	14.5%
3-mth	26.3%	11.6%
6-mth	39.1%	16.2%

Source: Bloomberg

### 12-mth Price Performance



Source: Bloomberg

#### **Auditor: Deloitte**

#### Related Report

Chinasoft (354 HK) – Accelerating growth in FY21E – 31 Mar 2021

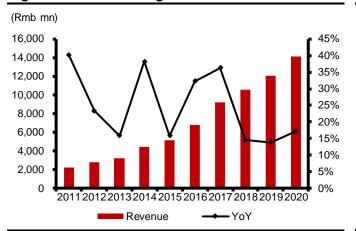
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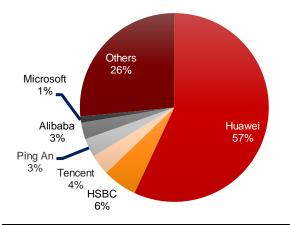
## **Focus Charts**

Figure 1: Revenue and growth



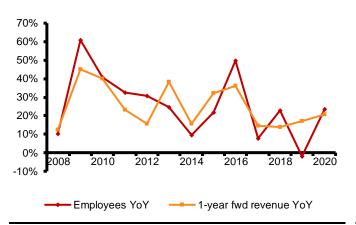
Source: Company data, CMBIS estimates

Figure 3: Customer breakdown (2020)



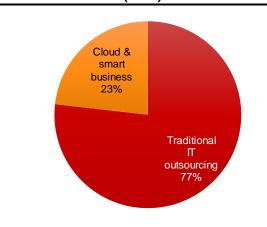
Source: Company data, CMBIS estimates

Figure 5: Forward revenue and employees



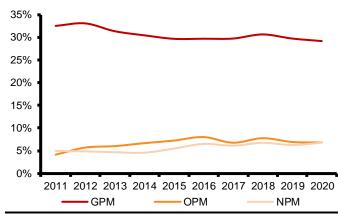
Source: Company data, CMBIS estimates

Figure 2: Revenue mix (2020)



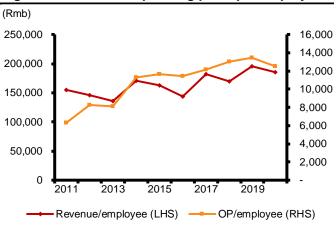
Source: Company data, CMBIS estimates

Figure 4: Margins



Source: Company data, CMBIS estimates

Figure 6: Revenue & operating profit per employee





## **Huawei HarmonyOS**

## Harmony OS event key takeaways

- Huawei officially launched Harmony OS 2.0 (Operating System) for smartphone on 2 Jun 2021 and announced new products (smartphones, tablet, watch, earbuds, smart display) with Harmony OS.
- Harmony OS was first unveiled in Aug 2019, after the US announced trade restrictions that banned Google from providing technical support to new Huawei phone models and access to GMS (Google Mobile Services), the developer services which most Android apps are based. Harmony OS is claimed to be designed for multiple devices. Huawei targets a total of 300mn devices running Harmony OS in 2021 of which 200mn are Huawei's consumer products.

Figure 7: Harmony OS is claimed to be used across multiple devices



Figure 8: More than 300 applications are available in Harmony OS ecosystem



Source: Huawei

# Our view

We believe developing Harmony OS is a necessary survival step for Huawei.
 However, deployment could be more difficult than expected in near term as

#### (1) Hard to incentivize developers/ users to use

It is hard to incentivize developers to port applications from Android to new OS as it is a complex process that consumes time and money. There will be a lot of effort in recompiling and testing to ensure compatibility. Without popular apps, users may not want to use the devices in near term. That was the reason why Samsung tried to push for its self-developed Tizen OS few years ago but failed.

#### (2) Adoption is limited to domestic, non-rival devices

We believe it will be hard to persuade other Chinese smartphone brands to use Harmony OS. As such, the potential market is limited to home appliances/ IoT products companies to use the new OS.



## **Implications to Chinasoft**

- Help Huawei to develop different types of kits on Harmony OS. The
  development cost of each type of kits could range between RMB500k and
  RMB1mn. If Chinasoft is developing 500 kits per year, the related IT service
  revenue would amount to RMB250mn.
- Provide embedded modules for IoT OEM. Chinasoft partners with IoT hardware suppliers to provide embedded modules to OEM such that applications can be easily deployed to Harmony OS smart devices. Chinasoft charges a fixed fee per device deployed. Assuming Chinasoft takes 10% market share of the 100mn non-Huawei smart devices on Harmony OS with each module ASP of RMB10, this will bring RMB100mn revenue opportunity to Chinasoft.
- Co-develop IoT products with OEM. Chinasoft can co-develop IoT products with OEM that wishes to use Harmony OS. This could be charged on project based or by fixed fee per device deployed.

## **Debate on Harmony OS**

- Some tech blogs (<u>link</u>) commented that the lately revealed Harmony OS 2.0 for smartphones is not a proprietary new OS built by Huawei. Instead, the Harmony OS 2.0 is still Android based on Linux, and all apps are Android apps. For the earlier announced Harmony OS 1.0, it is based on Huawei self-developed LiteOS IoT microkernel. However, such OS is just for IoT products instead of smartphones.
- Legally speaking, Huawei can continue to use Android open source code without Google's ecosystem in China. The publicly available software is not subject to U.S. export restrictions.
- Whether Harmony OS is Android based or not will not change our conclusion that there will be additional IT demand (discussed above) for Chinasoft.



## **Earnings revision**

Figure 9: Earnings revision

<u> </u>	Ĭ	2021E			2022E			2023E	
RMB mn	New	Old	%Diff	New	Old	%Diff	New	Old	%Diff
Sales	17,905	17,308	3%	21,197	20,298	4%	24,069	23,530	2%
Gross profit	5,301	5,120	4%	6,304	6,035	4%	7,177	7,013	2%
OP Profit	1,278	1,247	2%	1,545	1,492	4%	1,779	1,743	2%
PBT	1,269	1,235	3%	1,529	1,477	4%	1,796	1,761	2%
Net profit	1,189	1,157	3%	1,433	1,384	4%	1,673	1,641	2%
EPS (RMB)	0.40	0.39	3%	0.48	0.46	4%	0.56	0.55	2%
Margins									
GM	29.6%	29.6%	3 bps	29.7%	29.7%	1 bps	29.8%	29.8%	1 bps
OPM	7.1%	7.2%	-7 bps	7.3%	7.4%	-6 bps	7.4%	7.4%	-2 bps
PBT margin	7.1%	7.1%	-5 bps	7.2%	7.3%	-6 bps	7.5%	7.5%	-2 bps
Net margin	6.6%	6.7%	-4 bps	6.8%	6.8%	-6 bps	7.0%	7.0%	-2 bps

Source: Company data, CMBIS estimates

Figure 10: CMBI estimates vs consensus

		2021E			2022E		2023E			
RMB mn	СМВІ	Street	Diff	СМВІ	Street	Diff	CMBI	Street	Diff	
Sales	17,308	17,372	-0%	20,298	20,727	-2%	24,069	25,472	-6%	
Gross profit	5,120	5,242	-2%	6,035	6,323	-5%	7,177	7,858	-9%	
OP Profit	1,247	1,379	-10%	1,492	1,635	-9%	1,779	2,158	-18%	
PBT	1,234	1,271	-3%	1,475	1,546	-5%	1,796	2,092	-14%	
Net profit	1,156	1,166	-1%	1,383	1,422	-3%	1,673	1,943	-14%	
EPS (RMB)	0.39	0.42	-7%	0.46	0.52	-11%	0.56	0.73	-24%	
Margins										
GM	29.6%	30.2%	-59 bps	29.7%	30.5%	-77 bps	29.8%	30.9%	-103 bps	
OPM	7.2%	7.9%	-73 bps	7.4%	7.9%	-54 bps	7.4%	8.5%	-108 bps	
PBT margin	7.1%	7.3%	-19 bps	7.3%	7.5%	-19 bps	7.5%	8.2%	-75 bps	
Net margin	6.7%	6.7%	-3 bps	6.8%	6.9%	-5 bps	7.0%	7.6%	-68 bps	



## **Operating model**

Figure 11: Operating model

RMB mn	2019	2020	2021E	2022E	2023
Revenues	12,042	14,101	17,905	21,197	24,06
Cost of sales	(8,459)	(9,983)	(12,604)	(14,893)	(16,892
Gross Profit	3,583	4,118	5,301	6,304	7,17
Gross margin	29.8%	29.2%	29.6%	29.7%	29.89
R&D	(809)	(930)	(1,356)	(1,594)	(1,828
SG&A	(1,813)	(2,031)	(2,625)	(3,125)	(3,53
Operating Income	827	952	1,278	1,545	1,77
Operating margin	6.9%	6.7%	7.1%	7.3%	7.4
Non-Operating Income	(28)	83	(9)	(16)	1
Profit Before Tax	799	1,035	1,269	1,529	1,79
Income tax (expense) gain	(42)	(87)	(82)	(102)	(12
Minorities	2	(7)	(2)	(5)	(
Net Income to Shareholders	755	955	1,189	1,433	1,67
Net margin	6.3%	6.8%	6.6%	6.8%	7.0
EPS (RMB)	0.31	0.33	0.40	0.48	0.5
Fully diluted EPS (RMB)	0.28	0.32	0.40	0.48	0.5
Revenue breakdown					
IT outsourcing	10,042	10,830	12,671	14,445	16,03
Emerging cloud business	2,000	3,271	5,234	6,752	8,03
Huawei	6,570	8,030	9,664	10,920	12,23
HSBC	880	830	872	872	87
Tencent	350	500	725	979	1,17
Alibaba	260	400	620	868	1,12
Ping An	300	450	698	977	1,17
Others	3,682	3,891	5,328	6,583	7,49
Growth YoY					
Revenues	14%	17%	27%	18%	14
Gross profit	10%	15%	29%	19%	149
Operating Income	1%	15%	34%	21%	159
EPS	4%	7%	23%	19%	179



Figure 12: Semi-annual operating model

RMB mn	1H19	2H19	1H20	2H20	1H21E	2H21E
Revenues	5,538	6,504	6,059	8,042	7,863	10,042
Gross Profit	1,567	2,016	1,649	2,469	2,202	3,099
Operating profit	426	401	421	531	600	678
Net profit (loss)	363	392	401	554	546	643
EPS (RMB)	0.15	0.16	0.16	0.19	0.19	0.22
<u>Margins</u>						
Gross margin	28.3%	31.0%	27.2%	30.7%	28.0%	30.9%
Operating margin	7.7%	6.2%	6.9%	6.6%	7.6%	6.8%
Net margin	6.5%	6.0%	6.6%	6.9%	6.9%	6.4%
Growth (HoH)						
Revenues	-4%	17%	-7%	33%	-2%	28%
Gross Profit	-16%	29%	-18%	50%	-11%	41%
Operating profit	14%	-6%	5%	26%	13%	13%
Net profit (loss)	2%	8%	2%	38%	-1%	18%
Growth (YoY)						
Revenues	15%	13%	9%	24%	30%	25%
Gross Profit	13%	9%	5%	22%	34%	25%
Operating profit	-3%	7%	-1%	32%	43%	28%
Net profit (loss)	1%	10%	11%	41%	36%	16%



## **Valuation**

## Chinasoft (354 HK, BUY, TP HK\$12.00)

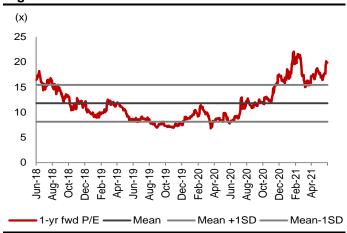
We have BUY rating on Chinasoft with target price of HK\$12.00, based on unchanged 22x FY22E P/E (50% premium to its five-year mean). We believe Chinasoft deserver re-rating given accelerating growth, improving margins and diversifying into non-Huawei large enterprises.

Figure 13: Peers' valuation

			Mk Cap	Price	TP	TP P/E		RO	DE	Sales CAGR	EPS CAGR
Company	Ticker	Rating	(US\$ mn)	(LC)	(LC)	FY21E	FY22E	FY21E	FY22E	FY20-23	FY20-23
Chinasoft	354 HK	BUY	3,603	9.62	12.00	21.2	17.6	12.7	13.6	20%	21%
Digital China	000034 CH	NR	1,872	18.14	N/A	15.1	11.7	14.8	16.3	9%	25%
Infosys	INFO IN	NR	80,567	1380.40	N/A	30.1	26.1	28.4	28.7	13%	15%
Tata Consultancy	TCS IN	NR	158,804	3134.30	N/A	35.5	29.4	38.0	42.2	10%	11%
·					Mean	24.5	21.2	23.5	25.2	13%	18%
					Median	25.7	21.9	21.6	22.5	12%	18%

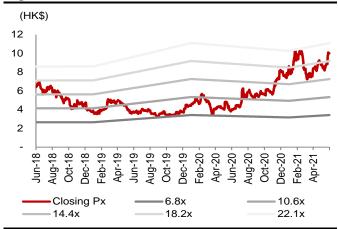
Source: Bloomberg, CMBIS estimates

Figure 14: 12M forward P/E band



Source: Company data, CMBIS

Figure 15: 12M forward P/B band



Source: Company data, CMBIS



## **Financial Summary**

Income statement						Cash flow summary					
YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E	YE 31 Dec (RMB mn)	FY19A	FY20	FY21E	FY22E	FY23E
Revenue	12,042	14,101	17,905	21,197	24,069	Net profit	799	1,035	1,269	1,529	1,796
Cost of sales	(8,459)	(9,983)	(12,604	(14,893	(16,892	Depreciation/amortization	197	170	100	104	108
Gross profit	3,583	4,118	5,301	6,304	7,177	Change in working capital	(516)	(533)	455	(317)	(528)
						Others	274	480	(82)	(102)	(128)
Selling exp	(618)	(729)	(907)	(1,017)	(1,155)	Net cash from operating	754	1,153	1,742	1,214	1,249
Admin exp	(1,196)	(1,302)	(1,718)	(2,107)	(2,376)						
R&D exp	(809)	(930)	(1,356)	(1,594)	(1,828)	Capex	(105)	(159)	(150)	(150)	(150)
Other operating exp.	(134)	(205)	(42)	(40)	(39)	Others	(120)	(32)	(42)	(40)	(39)
Operating profit	827	952	1,278	1,545	1,779	Net cash from investing	(224)	(192)	(192)	(190)	(189)
Finance costs	(166)	(151)	(154)	(197)	(208)	Net borrowings	52	217	1,396	187	293
Other non-oper exp.	138	235	145	180	225	Dividend paid	0	0	(71)	(86)	(100)
Pre-tax profit	799	1,035	1,269	1,529	1,796	Others	(701)	145	2	5	5
						Net cash from financing	(650)	362	1,327	107	197
Income tax expense	(42)	(87)	(82)	(102)	(128)						
Minority interests	2	(7)	(2)	(5)	(5)	Net change in cash	(119)	1,323	2,878	1,131	1,258
Net profit to shareholders	755	955	1,189	1,433	1,673	Cash at beginning of the year	2,646	2,526	3,787	6,729	7,900
						Exchange difference	(1)	(62)	65	40	39
						Cash at the end of the year	2,526	3,787	6,729	7,900	9,196

Balance sheet						Key ratios					
YE 31 Dec (RMB mn)	FY19A	FY20	FY21E	FY22E	FY23E	YE 31 Dec	FY19A	FY20	FY21E	FY22E	FY23E
Current assets	8,198	10,394	13,249	15,208	17,498	Revenue mix					
Cash & equivalents	2,526	3,787	6,729	7,900	9,196	Emerging cloud business	15%	17%	23%	29%	32%
Account receivables	3,297	4,580	3,671	3,978	4,496	Traditional IT outsourcing	85%	83%	77%	71%	68%
Amount due from customers	2,228	1,904	2,663	3,124	3,581						
Other current assets	147	123	186	206	225	Growth (%)					
						Revenue	14%	17%	27%	18%	14%
Non-current assets	2,547	2,693	2,720	2,766	2,808	Gross profit	10%	15%	29%	19%	14%
PPE	802	858	927	1,013	1,093	Operating profit	1%	15%	34%	21%	15%
Intangible assets	1,101	1,086	1,044	1,004	965	Net profit	5%	26%	25%	21%	17%
Other non-current assets	643	749	749	749	749						
Total assets	10,745	13,087	15,969	17,974	20,306	Profit & loss ratio (%)					
						Gross margin	29.8%	29.2%	29.6%	29.7%	29.8%
Current liabilities	3,150	2,718	4,574	5,155	5,791	Operating margin	6.9%	6.7%	7.1%	7.3%	7.4%
ST borrowings	1,523	368	1,856	1,965	2,136	Net profit margin	6.3%	6.8%	6.6%	6.8%	7.0%
Account payables	1,229	1,753	2,663	3,124	3,581						
Accrued expense	106	117	0	0	0	Balance sheet ratio					
Other current liabilities	291	480	55	65	74	Receivable turnover days	99	117	74	68	67
						Amount due days	67	49	54	53	54
Non-current liabilities	1,062	1,592	1,500	1,578	1,701	Payable turnover days	52	63	76	76	76
LT borrowings	928	1,421	1,329	1,407	1,530	Current ratio (x)	2.60	3.82	2.90	2.95	3.02
Other non-current liabilities	134	171	171	171	171	Net debt to equity	net cash				
Total liabilities	4,211	4,311	6,075	6,733	7,492						
						Profitability (%)					
Share capital	116	132	132	132	132	ROE	12.0%	12.5%	12.7%	13.6%	13.9%
Capital surplus	3,145	4,735	4,735	4,735	4,735	ROIC	12.9%	13.5%	18.7%	22.7%	24.2%
Retained earnings	3,677	4,492	5,610	6,957	8,529						
Other reserves	-471	-605	-605	-605	-605	Per share data (RMB)					
Minority interest	66	23	23	23	23	EPS (RMB)	0.28	0.32	0.40	0.48	0.56
Total equity	6,534	8,776	9,894	11,241	12,814	DPS (RMB)	0.02	0.03	0.02	0.03	0.03
Total liabilities and equity	10,745	13,087	15,969	17,974	20,306	BVPS (RMB)	2.45	2.93	3.30	3.75	4.28



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HOLD : Stock with potential return of +15% to -10% over next 12 months
SELL : Stock with potential loss of over 10% over next 12 months

NOT RATED : Stock is not rated by CMBIS

OUTPERFORM : Industry expected to outperform the relevant broad market benchmark over next 12 months

MARKET-PERFORM : Industry expected to perform in-line with the relevant broad market benchmark over next 12 months

UNDERPERFORM : Industry expected to underperform the relevant broad market benchmark over next 12 months

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