

Margin Growth Driver

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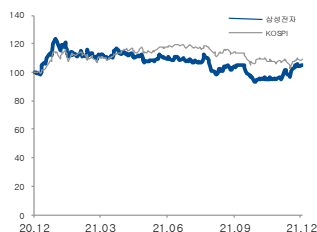
Share price (Dec 16)	100,000
Upside (%)	28.5
Market cap (KRW bn)	464,449
Shares outstanding	5,969,187
Paid-in capital(KRW bn)/ Face value (KRW)	898/5,000
52-week high/low (KRW)	91,000/68,800
60-day avg. daily T/O (KRW bn)	1,130
Foreign ownership (%)	51.79
Major shareholders (%)	Samsung Life Insurance Co.,Ltd & 17 others, 21.15

Price performance	1M	3M	6M
Absolute (%)	9.1	2.2	-4.9
Relative (%p)	8.8	6.4	3.7

K-IFRS, consolidated

(KRW)	EPS(21F)	EPS(22 F)	T/P
Previous	6,502	7,452	100,000
Revised	6,475	7,084	100,000
Consensus	5,841	6,141	95,870
Difference (%)	10.9%	15.4%	4.3%

12-month price performance



Source: FnGuide, Hyundai Motor Securities

Earnings forecasts and valuations

	Sales (KRW bn)	OP (KRW bn)	NP (KRW bn)	EBITDA (KRW bn)	EPS (KRW)	Growth (%)	P/E (x)	P/B (x)	EV/EBITDA (x)	ROE (%)	Div. yield (%)
2019	230,401	27,769	21,505	57,366	3,407	-49.1	16.4	1.5	5.0	8.7	2.5
2020	236,807	35,994	26,091	66,329	3,958	16.2	20.5	2.1	6.8	10.0	3.7
2021F	278,974	53,029	39,845	84,922	6,475	63.6	10.8	1.6	4.3	14.2	2.1
2022F	316,423	58,602	43,480	92,207	7,084	9.4	9.9	1.5	3.8	14.1	2.1
2023F	345,247	60,520	45,004	97,493	7,339	3.6	9.6	1.3	3.4	13.1	2.1

Note: K-IFRS, consolidated

Investment highlights

We maintain BUY and our six-month-forward target price of KRW100,000 (2.2x P/B multiple, 12-month-forward BPS). We expect sales and operating profit to decline by 0.3% and 1.4%, to KRW75.9tn and KRW15.3tn, respectively compared to our previous estimates due to the change in the DRAM contract price outlook. 4Q DRAM ASP should decline by 1.6% QoQ, still higher than Trend Force and consensus estimates. The foundry division will continue to show strong earnings through higher ASP and by putting more weight on the premium product line. In particular, the distribution of Galaxy S22 and Exynos 2200 will also contribute to earnings improvement. The company developed the LP DDR5X model using EUV-based 14nm(1a) processing, improving power efficiency by 20% compared to the previous model and will support 64GB max with 1.3x faster motion with a single package. Server DRAM Module's Staking technology using TSV is enhanced with 512GB DDR5 module with 7200Mbps and will meet the demand for HPC, high-performance and low power consumption smartphones.

Major issues and earnings outlook

We expect Samsung's Foundry division to produce 1st generation products using GAA-based technology MBCFET in 1H22, and apply 3D FinFet technology in the former 2D CIS and even DDI. While MBCFET will be applied in 3nm-based smartphone AP and HPC-used SoC, 3D FinFet technology will be used in consumer products like CIS, DDI, etc. due to rising demand for low-power functions. In particular, the company should benefit along with the full-scale application of logic processor refinement on the bottom of various sensors like CIS, radars, etc., starting with automobiles and smartphones. On top of that, Samsung disclosed its HCube packaging technology, which meets the demands of cloud services and H/W companies by combining hetero semiconductors like logic processors, HBM, etc. Samsung's packaging technology will drive excessive growth in the semiconductor business by meeting the needs for high-performance and low-power environmentally friendly HPCs, smartphones, and automobiles. Meanwhile, the memory business return to a growth trend, after bottoming out in 1H22, and operating profit should rise 1.7% YoY in 2022. The revaluation of the foundry, LSI, and foldable business seems reasonable when considering with the memory business's likely higher profit growth in 2022.

Share price outlook and valuation

Based on the company's positive profit growth outlook, we recommend a Buy & Hold strategy.

COMPANY NOTE

Fig 1. Key assumptions

(KRW bn)		2020	1Q21	2Q21	3Q21	4Q21F	2021F	1Q22F	2Q22F	3Q22F	4Q22F	2022F	
Industry demand	PC shipments growth, by volume (YoY)	25.9%	82.7%	8.2%	7.3%	-6.3%	15.1%	-12.0%	-12.0%	-10.0%	-10.0%	-11.0%	
	Smartphone shipments growth, by volume (YoY)	-11.7%	12.6%	27.8%	10.6%	-14.1%	6.5%	3.8%	9.7%	2.7%	2.7%	4.6%	
	LCD TV shipments growth, by volume (YoY)	3.5%	-2.3%	4.6%	16.6%	2.0%	5.3%	4.6%	2.0%	4.0%	6.8%	4.3%	
Samsung	Semi con	DRAM bit growth	18.5%	5.0%	10.1%	1.8%	0.1%	26.4%	-5.7%	10.6%	18.1%	4.4%	16.4%
		DRAM ASP change (USD, QoQ)	-16.3%	4.8%	17.3%	9.4%	-1.6%	14.3%	-5.0%	-3.2%	-1.2%	6.3%	-0.2%
		NAND bit growth	26.6%	10.0%	8.0%	6.8%	6.5%	41.2%	-1.0%	15.0%	20.0%	5.0%	35.7%
		NAND ASP change (USD, QoQ)	-1.7%	-5.0%	5.0%	10.0%	-3.0%	-8.0%	-10.0%	-10.0%	-2.0%	-5.0%	-16.7%
	SDC	OLED sales (KRW bn)	25,714	6,159	6,527	8,550	8,746	29,981	7,551	6,256	8,646	8,624	31,078
	IM	Smartphone shipments ('000 units)	254,150	76,545	57,000	69,500	63,000	266,045	75,000	70,000	75,000	71,000	291,000
		Tablet shipments ('000 units)	31,000	8,000	8,000	7,000	7,300	30,300	8,240	8,240	7,210	7,519	31,209
CE	LCD TV shipments ('000 units)	48,933	11,368	9,436	9,908	12,000	42,712	11,596	9,624	10,403	12,600	44,223	
USD-KRW		1,179.5	1,114.0	1,121.0	1,160.0	1,190.0	1,146.3	1,200.0	1,205.0	1,200.0	1,200.0	1,200.0	

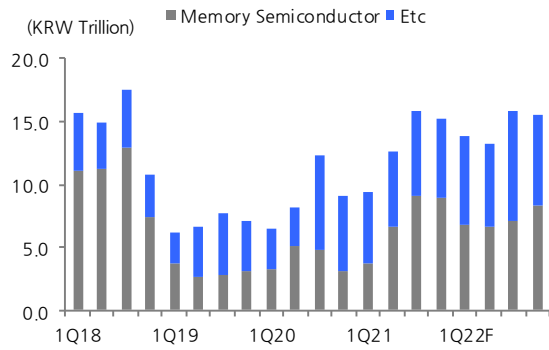
Source: Company data, Hyundai Motor Securities

Fig 2. Quarterly earnings forecasts

(KRW bn)		2020	1Q21	2Q21	3Q21	4Q21F	2021F	1Q22F	2Q22F	3Q22F	4Q22F	2022F
Sales	Semiconductor	72,850	19,010	22,740	26,410	28,661	96,821	26,393	28,782	31,694	34,067	120,935
	Memory	55,540	14,430	17,880	20,830	22,645	75,785	20,271	21,499	24,268	26,809	92,847
	System LSI, LED, and others	17,310	4,580	4,860	5,580	6,016	21,036	6,122	7,283	7,426	7,258	28,088
	DP	30,590	6,920	6,870	8,860	9,025	31,675	7,932	6,428	8,801	8,764	31,925
	IM	99,580	29,210	22,670	28,420	26,451	106,751	30,778	28,550	32,170	29,537	121,035
	Wireless (mobile, tab, PC)	96,020	28,200	21,430	27,340	25,101	102,071	29,566	27,062	30,874	28,120	115,622
	CE	48,170	12,990	13,400	14,123	14,861	55,374	13,918	13,063	13,724	14,001	54,706
	VD	27,710	7,220	7,170	7,823	9,658	31,871	8,091	6,771	7,302	8,746	30,909
	Harman	9,180	2,370	2,420	2,400	2,585	9,775	2,217	1,597	2,780	3,292	9,886
	Intercompany adjustments	-23,563	-5,111	-4,428	-6,233	-5,650	-21,422	-5,265	-4,561	-6,420	-5,819	-22,065
	Total	236,807	65,389	63,672	73,980	75,934	278,974	75,973	73,859	82,749	83,842	316,423
OP	Semiconductor	18,810	3,370	6,930	10,060	9,883	30,243	7,720	7,747	8,324	9,475	33,266
	Memory	16,466	3,696	6,624	9,188	9,005	28,513	6,757	6,687	7,148	8,410	29,002
	System LSI, LED, and others	2,344	-326	306	872	878	1,731	963	1,060	1,176	1,065	4,264
	DP	2,232	360	1,282	1,489	1,383	4,514	661	1,185	1,553	1,459	4,858
	IM	11,470	4,390	3,257	3,361	3,062	14,070	4,442	3,363	4,668	3,619	16,092
	Wireless (mobile, tab, PC)	11,163	4,266	2,944	3,236	2,886	13,332	4,320	3,096	4,409	3,491	15,316
	CE	3,564	1,120	1,060	759	818	3,757	909	977	1,063	870	3,819
	VD	2,225	647	568	581	671	2,467	645	505	581	622	2,353
	Harman	50	110	110	150	86	456	77	80	187	125	469
	Total	35,994	9,383	12,567	15,820	15,259	53,029	13,842	13,279	15,906	15,575	58,602
OPM (%)	Semiconductor	25.8%	17.7%	30.5%	38.1%	34.5%	31.2%	29.3%	26.9%	26.3%	27.8%	27.5%
	Memory	29.6%	25.6%	37.0%	44.1%	39.8%	37.6%	33.3%	31.1%	29.5%	31.4%	31.2%
	System LSI, LED, and others	13.5%	-7.1%	6.3%	15.6%	14.6%	8.2%	15.7%	14.6%	15.8%	14.7%	15.2%
	DP	7.3%	5.2%	18.7%	16.8%	15.3%	14.3%	8.3%	18.4%	17.6%	16.6%	15.2%
	IM	11.5%	15.0%	14.4%	11.8%	11.6%	13.2%	14.4%	11.8%	14.5%	12.3%	13.3%
	Wireless (mobile, tab, PC)	11.6%	15.1%	13.7%	11.8%	11.5%	13.1%	14.6%	11.4%	14.3%	12.4%	13.2%
	CE	7.4%	8.6%	7.9%	5.4%	5.5%	6.8%	6.5%	7.5%	7.7%	6.2%	7.0%
	VD	8.0%	9.0%	7.9%	7.4%	6.9%	7.7%	8.0%	7.5%	8.0%	7.1%	7.6%
	Total	15.2%	14.3%	19.7%	21.4%	20.1%	19.0%	18.2%	18.0%	19.2%	18.6%	18.5%
	Pretax profit	36,345	9,751	12,882	16,361	15,443	54,436	14,070	13,515	16,119	15,796	59,500
	Corporate tax	9,937	2,609	3,248	4,065	3,984	13,906	3,610	3,430	4,097	4,038	15,174
	Net profit (CI)	26,091	7,093	9,451	12,061	11,240	39,845	10,261	9,893	11,792	11,534	43,480

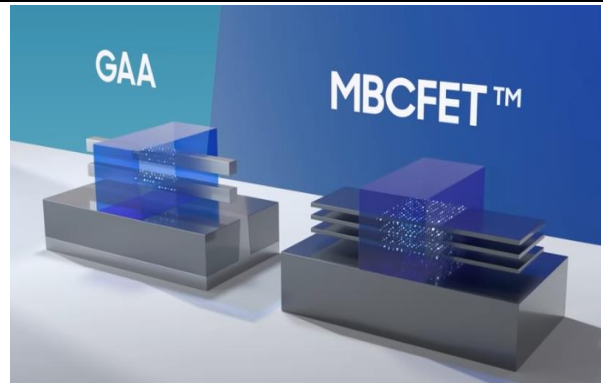
Source: Company data, Hyundai Motor Securities

Fig 1. OP trend of Samsung Electronics(by division)



Source: Samsung Electronics, Hyundai Motor Securities

Fig 2. Samsung Electronics MBCFET



Source: Samsung Electronics, Hyundai Motor Securities

Fig 3. Key indicators of Samsung Foundry EUV



Source: Samsung Electronics, Hyundai Motor Securities

Fig 4. Customers of Samsung foundry(assumption)

Foundry Customers	Products
	AP
	CPU, GPU
	CIS, RF, DDI, PMIC
	Potential Customers

Source: Hyundai Motor Securities

Fig 5. Exynos 2200 GPU



RNDA2(AMD) technology applied (30% speed upgrade compared to Mali)



Source: Hyundai Motor Securities

Income statement

(KRW bn)	2019	2020	2021F	2022F	2023F
Sales	230,401	236,807	278,974	316,423	345,247
Change (%)	-5.5	2.8	17.8	13.4	9.1
Cost of goods sold	147,240	144,488	163,915	186,990	206,671
of sales	63.9	61.0	58.8	59.1	59.9
Gross profit	83,161	92,319	115,058	129,433	138,576
Gross margin (%)	36.1	39.0	41.2	40.9	40.1
Change (%)	-25.3	11.0	24.6	12.5	7.1
SG&A expenses	55,393	56,325	62,030	70,831	78,056
of sales	24.0	23.8	22.2	22.4	22.6
EBITDA	57,366	66,329	84,922	92,207	97,493
EBITDA margin (%)	24.9	28.0	30.4	29.1	28.2
Change (%)	-32.8	15.6	28.0	8.6	5.7
Operating profit	27,769	35,994	53,029	58,602	60,520
Operating margin (%)	12.1	15.2	19.0	18.5	17.5
Change (%)	-52.8	29.6	47.3	10.5	3.3
Non-operating profit	2,251	-155	1,073	898	1,055
Interest income	10,162	12,268	4,515	1,185	1,343
Interest expenses	8,275	11,318	3,660	287	287
Other non-operating income	364	-1,105	218	0	0
Subsidiaries/affiliate	413	507	335	0	0
Pretax profit from cont ops	30,432	36,345	54,436	59,500	61,575
Pretax margin (%)	13.2	15.3	19.5	18.8	17.8
Change (%)	-50.2	19.4	49.8	9.3	3.5
Income tax	8,693	9,937	13,906	15,174	15,695
Profit from continuing ops	21,739	26,408	40,531	44,326	45,880
Profit from discontinuing ops	0	0	0	0	0
Net profit	21,739	26,408	40,531	44,326	45,880
Net margin (%)	9.4	11.2	14.5	14.0	13.3
Change (%)	-51.0	21.5	53.5	9.4	3.5
NP from controlling interest	21,505	26,091	39,845	43,480	45,004
NP from non-controlling interest	234	317	686	846	875
Other comprehensive income	3,016	-3,674	5,651	0	0
Total comprehensive income	24,755	22,734	46,181	44,326	45,880

Cash flow statement

(KRW bn)	2019	2020	2021F	2022F	2023F
Operating cash flow	45,383	65,287	70,740	73,326	83,390
Net profit	21,739	26,408	40,531	44,326	45,880
Depreciation on tangible assets	26,574	27,116	28,843	30,799	34,578
Amortization on intangible assets	3,024	3,220	3,051	2,806	2,395
FX-related profit	0	0	0	0	0
Dec (inc) in working capital	-2,546	122	-2,873	-4,605	537
Others	-3,408	8,421	1,188	0	0
Investing cash flow	-39,948	-53,629	-61,210	-67,106	-66,807
Dec (inc) in investment assets	-342	-1,328	434	-1,038	-1,002
Decrease in tangible assets	513	377	261	0	0
Increase in tangible assets (capex)	-25,368	-37,592	-41,248	-48,962	-53,858
Others	-14,752	-15,086	-20,656	-17,106	-11,947
Financing cash flow	-9,485	-8,328	-24,547	-9,809	-9,809
Increase (decrease) in debt	2,969	1,962	-3,513	0	0
Increase (decrease) in bond	13	-27	-458	0	0
Increase in capital	0	0	0	0	0
Dividend	-9,639	-9,677	-20,481	-9,809	-9,809
Others	-2,828	-586	-96	0	0
Other cash flow	595	-834	802	0	0
Increase (decrease) in cash	-3,455	2,497	-14,216	-3,589	6,773
Beginning cash	30,341	26,886	29,383	15,167	11,578
Ending cash	26,886	29,383	15,167	11,578	18,351

Note: K-IFRS, consolidated

Balance sheet

(KRW bn)	2019	2020	2021F	2022F	2023F
Current assets	181,385	198,216	222,360	251,026	279,393
Cash and cash equivalents	26,886	29,383	15,167	11,578	18,351
Short-term investment	76,252	92,442	114,042	131,148	143,095
Accounts receivable	35,131	30,965	38,200	45,076	49,183
Inventory assets	26,766	32,043	39,530	45,460	49,601
Other current assets	10,708	10,555	13,021	15,364	16,764
Non-current assets	171,179	180,020	196,796	213,191	231,078
Tangible assets	119,825	128,953	142,628	160,791	180,071
Intangible assets	20,704	18,469	19,168	16,362	13,967
Investment assets	17,561	21,855	23,963	25,001	26,003
Other non-current assets	13,089	10,744	11,037	11,037	11,037
Other financial assets	0	0	0	0	0
Total assets	352,564	378,236	419,156	464,217	510,471
Current liabilities	63,783	75,604	86,058	93,552	100,791
Short-term debt	14,393	16,553	12,888	12,888	12,888
Accounts payable	8,718	9,739	12,015	13,266	14,475
Current portion of long-term debt	846	716	1,204	1,204	1,204
Other current debt	39,825	48,596	59,950	66,194	72,224
Non-current liabilities	25,901	26,683	31,924	34,974	37,919
Bonds	975	948	490	490	490
Long-term debt	2,197	2,000	2,152	2,152	2,152
LT financial debt (incl. lease)	0	0	0	0	0
Other non-current debt	22,729	23,735	29,282	32,331	35,276
Other financial liabilities	0	0	0	0	0
Total liabilities	89,684	102,288	117,982	128,526	138,710
Owners of parent equity	254,915	267,670	292,558	326,229	361,423
Paid-in capital	898	898	898	898	898
Capital surplus	4,404	4,404	4,404	4,404	4,404
Capital adjustment, etc.	60	27	54	54	54
Other accum earnings and	-5,029	-8,726	-6,280	-6,280	-6,280
Retained earnings	254,583	271,068	293,482	327,153	362,348
Non-controlling interest	7,965	8,278	8,617	9,463	10,338
Total equity	262,880	275,948	301,175	335,691	371,761

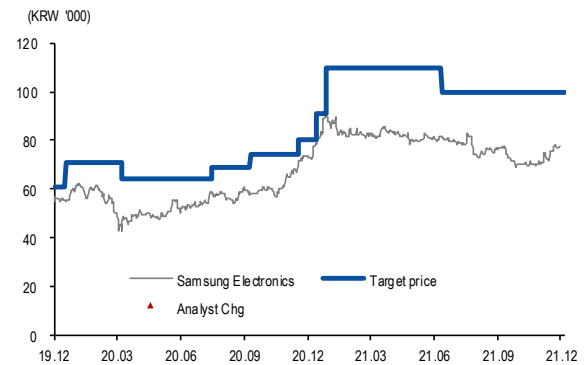
Key financial data

(KRW, x, %)	2019	2020	2021F	2022F	2023F
EPS (based on net profit)	3,446	4,011	6,590	7,226	7,486
EPS (based on parent net profit)	3,407	3,958	6,475	7,084	7,339
BPS (based on total equity)	38,701	40,624	44,338	49,420	54,730
BPS (based on owners of parent equity)	37,528	39,406	43,070	48,027	53,208
DPS	1,416	2,994	1,444	1,444	1,444
P/E (based on net profit)	16.2	20.2	10.6	9.7	9.4
P/E (based on parent net profit)	16.4	20.5	10.8	9.9	9.6
P/B (based on total equity)	1.4	2.0	1.6	1.4	1.3
P/B (based on owners of parent equity)	1.5	2.1	1.6	1.5	1.3
EV/EBITDA (reported)	5.0	6.8	4.3	3.8	3.4
Dividend yield	2.5	3.7	2.1	2.1	2.1
Growth (%)					
EPS (based on net profit)	-49.0	16.4	64.3	9.6	3.6
EPS (based on parent net profit)	-49.1	16.2	63.6	9.4	3.6
Profitability (%)					
ROE (based on net profit)	8.5	9.8	14.0	13.9	13.0
ROE (based on parent net profit)	8.7	10.0	14.2	14.1	13.1
ROA	6.3	7.2	10.2	10.0	9.4
Stability (%)					
Total liabilities/equity	34.1	37.1	39.2	38.3	37.3
Net debt/equity	순현금	순현금	순현금	순현금	순현금
Interest coverage	40.5	61.7	168.7	203.9	210.6

Investment rating and target price history

Date	Rating	TP	Difference (%)	
			Average	High/Low
2019.10.01	BUY	61,000	-14.93	-7.05
2020.01.02	BUY	71,000	-20.12	-12.11
2020.03.24	BUY	64,000	-19.73	-7.81
2020.07.31	BUY	69,000	-16.59	-11.59
2020.09.25	BUY	74,000	-16.21	-5.81
2020.12.04	BUY	80,000	-7.65	-1.63
2020.12.29	BUY	91,000	-6.94	0.00
2021.01.12	BUY	110,000	-24.86	-18.45
2021.06.28	BUY	100,000	-24.68	-17.10
2021.12.16	BUY	100,000		

Two-year price chart



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Investment rating

- Hyundai Motor Securities offers three sector investment ratings based on six-month forward fundamentals and share price outlook.
- OVERWEIGHT: Sector-wide fundamentals and share prices are expected to turn up.
 - NEUTRAL: No meaningful fundamental improvement is expected.
 - UNDERWEIGHT: Sector-wide fundamentals and share prices are expected to turn down.

- Hyundai Motor Securities offers three company investment ratings based on the relative return expected in the following six months, based on the closing price on the date of rating declaration.
- BUY: Excess return of +15p or more
 - MARKETPERFORM (M.PERFORM): Excess return of between -15p and +15p
 - SELL: Excess return of -15p or less

Stock ratings distribution (2020.10.01-2021.09.30)

Rating	Count	% of rating category
BUY	143	91.1
MARKETPERFORM	14	8.9
SELL	0	0

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