Semiconductor Industry Analysis and Insight

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STMicro 4Q Miss on Slower-Than-Expected Automotive Growth

STM	8 est.	STMicroelectronics		CY24rev:	-5%
Qtr:	4Q	Grade:	D	Growth	(qtr-qtr)
Rev:	4,282	Rev:	-	Rev:	-3.4%
GM:	45.5%	EPS:	+++	Fcst:	-19-12%
EPS:	\$1.14	Fcst:		Div:	\$0.06

STMicroelectronics (STM \$45.60 -0.36 after the close on 1/25/24. Initiating a BUY recommendation)

4Q Earnings: STM announced 4Q results below expectations last night due to weaker than expected growth from still-healthy Automotive markets, while 1Q guidance is impacted by the continuing deterioration of Industrial markets. The Automotive weakness appears to be a short-term ADAS hiccup from customer Mobileye's recent weakness, while Industrial market channel inventory of microcontrollers probably won't clear until mid-year.

4Q Results: Revenue and gross margin were slightly below the midpoint of guidance as higher Personal Electronics sales were offset by softer-than-expected growth in Automotive. Bookings decreased due to further deterioration in Industrial while Automotive demand was stable and Personal Electronics remained dormant. Gross margin of 45.5% declined by -210 basis points sequentially primarily due to an Industrial market inventory correction of microcontrollers reflected in weakness from declining MDG sales and operating margin. Cap ex was \$798M, dividends totaled \$60M, \$86M in shares were repurchased, and a one-time non-cash income tax benefit was \$191M.

2023 Results: 2023 revenue increased +7.2% to \$17.29 billion driven by Automotive and Industrial, partially offset by lower Personal Electronics. Cap ex was \$4.11B (vs. \$3.52B), dividends \$223M, and share-buy-backs \$346M.

Automotive accounted for 41% of sales and grew by +33.5% as strong demand was boosted by inventory replenishment and capacity reservation fees. **Industrial** was 30% up +11.4% amid strength from Power and Energy (EV charging stations, renewable energy systems), Factory Automation and Robotics (MEMS and optical sensors), and Industrial Infrastructure. The company announced the world's first Microcontroller Edge-AI hardware and development platform. **Communications Equipment and Computer Peripherals** (CECP) at 10% decreased by -4.2% although RF Communications Equipment remained strong with next generation design wins in SpaceX's Starlink and in cellular communication infrastructure. **Personal Electronics** at 19% was down by -25.1%, but is poised for recovery with design wins in flagship devices of sensors, wireless charging, touch display controllers, and secure solutions. By region of customer origin, the Americas accounted for 37% and declined by -3%, Asia Pacific at 30% up +7%, and EMEA at 33% up by +22%.

ADG (Automotive and Discrete Group) grew +31.5%, from both Automotive and Power Discrete at an operating margin of 31.8%, up from 24.6%; **AMS** (Analog, MEMS and Sensors Group) decreased by -18.7% due to a specific Personal Electronics customer program loss at 17.3% operating margin down from 25.2%; and **MDG** (Microcontrollers and Digital ICs Group) increased by +3.9% from RF Communications amid flat Microcontrollers at 33.8% margin down from 35.0%.

Silicon Carbide Growth: STMicro continued its ramp of silicon carbide (SiC) front-end production in Catania and Singapore with increased back-end capacity in Morocco and China, including new substrate manufacturing in Catania and a joint-venture with Sanan Optoelectronics for high-volume 200mm manufacturing in China beginning 4Q25. SiC revenue for the year was \$1.14B, up > 60% vs. 2022 with expectations for \$1.5-1.6B this year, \$2B next, and >\$5B by 2030. The company exited last year with 160 design wins across 100 customers, mostly automotive.

Separately, a new 300mm CMOS wafer fab in Agrate, Italy began production and an agreement was made with GlobalFoundries and the French Government for a future joint-venture 300mm facility in Crolles.

Guidance: 1Q revenue at \$3.6B down by -15.9% +/-350 basis points and gross margin of 42.3% +/-200 basis points based on \$1.09 = €1.00. 2024 sales expected at \$15.9-\$16.9B, gross margin in the low/mid-40%, and cap ex \$2.5B.

1H24 will be hurt by a significant inventory correction in Industrial (much lower backlog than last year), with significant revenue growth 2H driven by a rebound in Industrial and Computer Peripherals, continued growth in Automotive and Communications Equipment, and the usual seasonality in Personal Electronics. The company claims solid backlog already for the year in Automotive and 'engaged customer programs' in Communications Equipment and Computer Peripherals markets.

STM Financials

	202	22			2023		
_	4Q	2022	10	2Q	3Q	4Q	2023
Product Group	1						
ADG(auto/discrete)	1,696	5,969	1,807	1,955	2,025	2,060	7,847
AMS(analog/MEMS MDG (MCU/digital)	1,339 1,383	4,911 5,228	1,068 1,368	940 1.427	990 1,412	993 1,225	3,991 5,432
Others	6	20	1,308	4	4	4	16
Total	4,424	16,128	4,247	4,326	4,431	4,282	17,286
Gross Profit	2,102	7,635	2,110	2,119	2,109	1,949	8,287
Gross Margin	47.5%	47.3%	49.7%	49.0%	47.6%	45.5%	47.9%
Ex Rate €/\$	1.04	1.10	1.06	1.08	1.09	1.08	1.08
	1.04	1.10	1.00	1.00	1.09	1.00	1.00
Product Percent	20. 20/	27.00/	42 50/	45 207	45.7%	40.10/	45 40/
ADG AMS	38.3% 30.3%	37.0% 30.5%	42.5% 25.1%	45.2% 21.7%	45.7% 22.3%	48.1% 23.2%	45.4% 23.1%
MDG	31.3%	32.4%	32.2%	33.0%	31.9%	28.6%	31.4%
Others	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Product Growth							
ADG		37.2%	6.5%	8.2%	3.6%	1.7%	31.5%
AMS		7.1%	-20.2%	-12.0%	5.3%	0.3%	-18.7%
MDG		37.5%	-1.1%	4.3%	-1.1%	-13.2%	3.9%
Others		27, 407	-33.3%	0.0%	0.0%	0.0%	-20.0%
Total		26.4%	-4.0%	1.9%	2.4%	-3.4%	7.2%
Operating Profit							
ADG	470	1,469	577	624	638	657	2,496
AMS MDG	346 495	1,237 1,830	218 495	139 505	186 496	147 342	690 1,838
Others	(24)	(97)	(89)	(122)	(79)	(123)	(413)
Total	1,287	4,439	1,934	1,972	1,241	1,023	4,611
Operating Margin							
ADG	27.7%	24.6%	31.9%	31.9%	31.5%	31.9%	31.8%
AMS	25.8%	25.2%	20.4%	14.8%	18.8%	14.8%	17.3%
MDG	35.8%	35.0%	36.2%	35.4%	35.1%	27.9%	33.8%
Others	neg						
Total	29.1%	27.5%	45.5%	45.6%	28.0%	23.9%	26.7%
Channel Percent							
OEM	68%	67%	64%	64%	67%	70%	66%
Distribution	32%	33%	36%	36%	33%	30%	34%
Channel Revenue OEM	3,008	10,806	2,718	2,769	2,969	2,997	11,409
Distribution	1,416	5,322	2,716 1,529	2,769 1,557	2,969 1,462	1,285	5,877
Channel Growth	.,	0,022	1,027	1,007	1,102	.,200	0,077
OEM			-9.6%	1.9%	7.2%	1.0%	5.6%
Distribution			8.0%	1.9%	-6.1%	-12.1%	10.4%
End Market		F 000					7.007
Automotive Industrial		5,322					7,087
Personal Ele		4,677 4,355					5,186 3,284
Comm/Comp		1,774					1,729
Market Percent	-					-	
Automotive		33.0%					41.0%
Industrial		29.0%					30.0%
Personal Ele		27.0%					19.0%
Comm/Comp Market Growth	-	11.0%				-	10.0%
Automotive		51.0%					33.2%
Industrial		34.0%					10.9%
Personal Ele		2.0%					-24.6%
Comm/Comp	_	19.0%				_	-2.6%
Region							. 20.
Americas Asia Pacific		6,612 4,838					6,396 5,186
EMEA		4,636 4,677					5,704
Regional Percent	_	.,				_	-,,
Americas		41.0%					37.0%
Asia Pacific		30.0%					30.0%
EMEA	_	29.0%				_	33.0%
<i>Regional Growth</i> Americas							-3.3%
Asia Pacific							-3.3% 7.2%
EMEA							22.0%
						_	

Attractive Valuation—Buy Recommendation: Finally, a stock I like. STM's biggest problem right now is a microcontroller inventory correction adversely impacting its Industrial, MDG and distribution business that probably won't clear itself until mid-year. It is also in a lull between a big Personal Electronics AMS customer program loss last year and new programs in Communications Equipment and Computer Peripherals that are not yet delivering. In the mean time, Automotive marches on with compelling upside in silicon carbide.

As management characterized in their earnings release:

"Following several years of revenue growth and increased profitability, we see 2024 as a transition year. We are adapting our plans according to market dynamics while continuing to execute on our established strategy and operating model, continuing to strongly focus on Automotive and Industrial as a broad range supplier, and being selective in our approach in Personal Electronics and Communications Equipment and Computer Peripherals."

I am very much inclined to buy into management confidence in 2H24 business recovery and strength. I agree the microcontroller inventory correction is unlikely to last much longer—although this is clearly a risk. It's hard to argue with its strength in Automotive—especially with its SiC offering—and frankly, this current Mobileye weakness thing is probably just limiting share price action which just accentuates potential future upside. In the mean time, the year is *ALREADY BOOKED* for Automotive and 'engaged customer programs' in Communications Equipment and Computer Peripherals markets. Okay, not a guarantee—but about as good as it gets.

The valuation challenge with respect to earnings estimates is that obvious and significant growth in annual sales and earnings won't occur until 2025, so between last year, this year (expected to be down), and next year the numbers are about in the same range. However, if 2H24 unfolds like management believes it will, the shares could easily begin to rally no later than July when 2Q earnings are announced—along with 3Q guidance—that could boost earnings expectations and enthuse investors.

The shares are trading at just over 2.5-times book value, about 2.5-times sales (all three years-ish), and just over 12-times earnings (also three years-ish) that consensus estimates have approaching \$3.75 per share—all of which are below longer-term averages and very much attractive on an absolute basis, in my opinion.

LEGEND							
+++	exceeded the high-end of the range	Grade					
++	above consensus, within the high-end of the range	Α	all +++				
+	slightly above consensus	В	all +				
0	met consensus	С	all o/+				
-	slightly below consensus	D	mixed -/o/+				
	missed consensus, within the low-end of the range	Ε	all o/-				
	missed the low-end of the range	F	all -				

—Dan K. Scovel Semiconductor Analyst

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