

ACM Research, Inc. (ACMR)

Fabrication of a 10-Bagger

We are long shares of ACM Research (NASDAQ: ACMR), an emerging, high-growth semiconductor wafer fabrication equipment (WFE) company. ACMR, domiciled in the U.S. but with its main operations in Shanghai, is the leading Chinese supplier of wafer cleaning tools. The company is a direct beneficiary of China's massive crusade to build out its domestic semiconductor manufacturing industry. As the United States increasingly attempts to restrict China's ability to manufacture advanced semiconductors, China is pulling every lever possible to funnel business to its small collection of WFE national champions. ACMR is one of those national champions. We predict that ACMR will continue to rapidly grow within the Chinese market, supplying an expanding array of tools to China's fast-growing base of fabs. Then over time, as the company builds out its capabilities supplying an advancing Chinese market, it will become a powerful competitor to the global WFE players and gain market share outside of China as it penetrates international tier-one customers. Billions of dollars in revenue and a \$10+ billion market capitalization is our base case forecast, and the company's depressed valuation today offers asymmetric upside. At a \$1.2 billion market capitalization and trading at just 1x 2025E revenue, we think investors in ACMR are buying into an ultimate 10-bagger.

The Biden Administration enacted multiple rounds of export restrictions to cut off semiconductor technology transfer to China. Trump will likely double down on those efforts. China's response has been predictable – it has accelerated its push to build up its own WFE sector so that domestic fab capacity can expand unabated. For ACMR, that has translated into 10x revenue growth over the past six years. But this is only the beginning. As one of a handful of Chinese WFE companies with meaningful revenue scale and a foothold in the major Chinese chip customers, ACMR is positioned to continue growing its dominance in cleaning equipment while also expanding into numerous complimentary tool markets. Each new U.S. law that tightens the noose around China's access to imported WFE equipment only increases the strategic importance of ACMR and adds fuel to its explosive growth, as the company has become a critical pawn in China's efforts to win the high stakes battle for global semiconductor leadership.

Given ACMR's amazing long-term growth prospects, the company should be trading at 5x-10x revenue. And in fact, it is... in China. Headquartered in Fremont, California and listed in the U.S., ACM Research's main operations are in China, where it generates virtually all its revenue through its subsidiary ACM Research (Shanghai) Inc. ("ACMS"). ACMS went public in China in 2021, and ACMR owns 82% of ACMS. These Shanghai-listed shares currently sport a \$5.9 billion market capitalization and trade at 6x 2025E revenue. That implies a valuation for ACMR of \$4.9 billion, over 300% higher than ACM Research's current trading levels. Wild. ACMR helps customers make chips for logic and memory, but its NASDAQ valuation defies logic, and as investors better diligence this small-cap dislocation, its extreme valuation discount will become a distant memory.

Disclaimer: As of the publication date of this report, Kerrisdale Capital Management, LLC and its affiliates (collectively, "Kerrisdale"), have long positions in and call options on the shares of ACM Research, Inc. Kerrisdale stands to realize gains in the event that the price of the stock increases. Following publication, Kerrisdale may transact in the securities of the company. All expressions of opinion are subject to change without notice, and Kerrisdale does not undertake to update this report or any information herein. Please read our full legal disclaimer at the end of this report.

Table of Contents

I. INVESTMENT HIGHLIGHTS	3
II. COMPANY BACKGROUND	7
III. RIDING THE CHINESE SEMICONDUCTOR WAVE	8
Localization Makes Chinese WFE Supplier Growth a High Confidence Bet.....	8
The China WFE Landscape: Creation of National Champions.....	10
IV. BUILDING A PLATFORM COMPANY BY EXPANDING PRODUCT BREADTH	11
ACMR’s Core Cleaning Products: Becoming a One-Stop Shop.....	12
Diversifying Beyond Cleaning Dramatically Expands ACMR’s SAM	13
V. BECOMING A GLOBAL SUPPLIER TO THE INDUSTRY’S LEADERS	16
United States: Landing the Whale	16
South Korea: Highly Strategic Launching Pad	17
VI. THE CHINA WFE OUTLOOK	18
ACMR’s Revenue Recognition Masks Its Business Momentum.....	20
2025: It’s in the Bank.....	20
VII. FIRING UP THE CASH MACHINE.....	21
VIII. GEOPOLITICS AND “CHINA RISK”	22
Export Restrictions	22
J Capital Report.....	24
IX. VALUATION: MULTI-BAGGER UPSIDE.....	24
ACMR Trades at a Massive Discount to U.S. and Chinese Peers	24
Both High-Level Math and a Detailed DCF Support Massive Upside	26
X. CONCLUSION	27
FULL LEGAL DISCLAIMER.....	28

I. Investment Highlights

The Little Company That Could. As exciting as ACMR's future prospects are, its journey thus far is an equally inspiring story. Founded by CEO David Wang twenty-six years ago and run by him and his brother Jian who manages ACMS out of China, ACMR has grown revenue from less than \$30 million in 2016 to \$730 million over the last twelve months ended September 30, 2024. In the mid-2000s, China sought to spur domestic WFE development by directing research grants to companies targeting specific wafer fabrication process steps, and ACMR was a beneficiary of such grants in cleaning. ACMR made early progress in the lower end of the cleaning market, but the company's share gains have accelerated as it has developed more advanced solutions and broadened its product portfolio to include nearly all steps in the cleaning process. Today, it is the leading domestic supplier of wafer cleaning tools in China. Cleaning accounts for the most front end process steps, gets harder as line widths shrink, and directly impacts yields. At this point, ACMR has delivered over 925 tools, generated nearly \$1.5 billion of revenue over the past five years, and compiled nearly 500 patents. We think ACMR has shipped tools into at least 12 of the world's top 20 largest semiconductor capital spenders. The company has penetrated virtually every top-tier Chinese fab, including those employing more advanced process technologies. For example, at YMTC, China's largest memory chip company, ACMR has won ~40% share of the cleaning opportunity versus just ~35% share for global and China share leader Screen. And while many investors overly focus on the latest technologies, there is a massive runway for ACMR supplying tools for trailing edge process technologies in China, which still provides exposure to several technology themes de jour, such as devices for EVs (silicon carbide), IoT, and mobile.

China's All-In Bet on Its Homegrown Semiconductor Sector. The opportunity ahead for ACMR is staggering. Chinese brands account for 35% of global chip demand, yet Chinese companies produce only 7% of global chip supply, according to a 2023 Goldman report. The government desperately wants to bridge that gap and is aggressively pursuing self-sufficiency, or the goal of producing chips domestically rather than importing from abroad. To do that, it needs capital equipment, and Goldman estimates that it may cost China between \$3-14 trillion to expand its fab capacity to fulfill domestic demand over the next 10 to 30 years. We believe the growth of China's semiconductor manufacturing capability is virtually guaranteed, and the strategic imperative of WFE self-sufficiency (ie, sourcing chipmaking equipment from domestic rather than foreign suppliers) ensures that ACMR will continue to take share from U.S. and Japanese suppliers.

The Biden Administration has spearheaded a campaign to cut off capital equipment sales to China in an effort to slow the country's progress in making leading edge chips. In response, China has focused on building out its own WFE sector, recognizing that to reduce reliance on imported chips, it also needs to reduce reliance on imported chip-making equipment. As U.S. export restrictions and other policies have choked off capital equipment sales to China, the CCP has relentlessly launched initiatives and incentives to spur the growth of a homegrown WFE industry. Investors fretting about the December 2024 addition of ACM Research (Shanghai) to the Export Administration Regulations' Entity List are completely missing the point – these

actions only enhance the strategic importance of and the bull case for ACMR. The more aggressively the U.S. seeks to limit access to foreign WFE, the brighter the future for China's homegrown WFE national champions, including ACMR, China's cleaning equipment leader.

This transition from foreign chipmaking equipment to domestic tools remains in its early stages. Bernstein calculates that Chinese WFE self-sufficiency grew from just 4% in 2019 to 17% in 2024, and, more importantly, they see the pace of localization only accelerating, forecasting an expansion to 36% in 2026. Chinese fabs seek to achieve at least 50% self-sufficiency by 2028. As these fabs redirect spend away from foreign vendors, domestic WFE suppliers will continue to experience outsized revenue growth. By both choice and necessity, China – through public, quasi-public, and private foundries – has been and will continue to be spending an enormous amount of money to build its own national versions of Lam Research, Applied Materials, and Tokyo Electron.

Enhancing Growth Through New Product Introduction and Platform Expansion. ACMR benefits from a rich array of growth drivers within the Chinese market. Within its core cleaning market, ACMR is gaining share, launching new products, and winning new customers. Additionally, the company is in the process of launching and qualifying multiple new products for other process steps, including plating, thermal, and deposition, that more than double its addressable market. Additionally, many of ACMR's tools are now targeting back end advanced packaging applications, a key enabler of multi-chip packages for AI processors, high-bandwidth memory, and other high-performance applications.

Opportunity Beyond China. As Chinese WFE companies grow within China, over time they are building the capabilities to supply global tier-one customers outside of China. We've seen this movie before in solar cells, electric vehicles, and dozens of other industries. Chinese upstarts – spurred by government incentives, employing sophisticated technology transfer from foreign leaders, benefiting from deep, efficient supply chains, and leveraging a hungry, educated labor force – slowly but steadily master their craft supplying the domestic market, gradually catching up in quality to foreign products. Ultimately, they replace the non-Chinese imports. Once they fully conquer the domestic market, these companies turn their gaze outwards and flood the international markets with cost effective and competitive products that begin gaining market share outside China's borders. ACMR is already on the verge of winning breakthrough international mandates. The company has been qualified at Intel and is ramping its presence at SK Hynix. We believe it is actively engaged with Infineon, a global leader in power management and automotive semiconductors and a top ten capital spender. At some point, ACMR will cross the chasm of credibility and will enter a virtuous cycle of additional tier-one customer wins outside China. At the current share price, investors are getting this ex-China international upside for free.

Trading at an Unsustainable Discount. ACMR's NASDAQ-listed shares are trading at an inexplicable discount, and numerous common sense valuation methodologies imply a multi-bagger re-rating. As mentioned, the company's 82%-owned Shanghai subsidiary, which generates nearly all of the company's revenue and operating profit, trades at 6.0x 2025E

revenue, which represents a discount to other publicly-listed Chinese WFE companies that trade at a median 7.3x. ACMR, in contrast, trades at 1.1x revenue. ACMR and ACMS are basically the same company. A revaluation of ACMR at ACMS' revenue multiple implies an ACMR stock price of \$73. Yes, \$73.

Further on the topic of comparable company valuations, semiconductor capital equipment businesses, across the board, trade at healthy multiples, reflecting inherently attractive business models. WFE companies are terrific long-term investments for many reasons, including: (1) they sell to a secularly growing end market with no end in sight, as it doesn't look like the rapid proliferation of semiconductor chips will slow down in our lifetimes, (2) barriers to entry are high, because once a WFE tool becomes embedded within a customer's line, technological progress becomes a symbiotic process, and it becomes tremendously difficult for other companies to muscle their way into the relationship and begin developing competitive alternatives, explaining why the global WFE industry is a concentrated oligopoly, and (3) service and maintenance becomes a sticky, recurring revenue stream over time. Large-cap WFE players like Applied Materials and Lam Research trade at ~5x 2025E revenue. Small-cap NASDAQ-listed WFE companies like Camtek, Nova, and Onto trade at ~8x 2025E revenue. Japanese WFE players trade at a median ~5x 2025E revenue. What about ACMR, whose secular tailwinds are superior to these comparable sets? Shares of ACMR trade at, on 2025E consensus projections, 1.1x revenue, 5.4x EBITDA, and 10.3x P/E. These multiples are absurd contrasted against its peers.

From a modeling perspective, we think ACMR is on a clear path to greater scale and can generate nearly \$3/share of GAAP EPS in 2028. Applying a normalized sector P/E multiple and discounting to the present implies a \$63 share price, or 3.6x the current trading value. In fact, every valuation methodology we apply to ACMR yields massive upside.

Summary ACMR Share Price Upside Implied by Valuation Methodologies		
Methodology	Price	Upside
Valuation of ACMS Holding at Current Levels	\$73	318%
Based on Median Chinese WFE EV / 2025E Revenue Multiple	\$102	481%
Based on Median Small-Cap US WFE EV / 2025E Revenue Multiple	\$104	496%
Based on Median Large-Cap US/Japan WFE EV / 2025E Revenue Multiple	\$72	310%
Discounted 2028E EPS Valued at Sector 30x P/E Multiple	\$63	259%
Discounted Cash Flow Analysis	\$72	311%
Average	\$81	362%
<i>Source: S&P Capital IQ, Kerrisdale analysis</i>		

Investors buying ACMR shares today in the teens are getting a steal. The muddled rationales out there trying to justify the current low stock price are all silly. Worried about the ownership structure? The company's founder and CEO David Wang owns ACMR shares, and ACMR directly owns ACMS – the corporate structure is airtight, and NASDAQ shareholders' incentives are the same as the founder-CEO's. Worried about fraud? Channel checks clearly and unanimously demonstrate that ACM Research has thus far won the domestic Chinese wafer cleaning market. Worried about the United States trying to stymie China's semiconductor industry growth? Over the long-term, it likely won't work, and, regardless, China's WFE

companies will experience explosive growth either way. Worried about touching anything China? Sentiment will turn, sooner or later, and dirt-cheap Chinese companies will be valued based on the present value of their future discounted cash flows instead of meaningless geopolitical headlines.

Unlocking Value. There are several ways through which management can attempt to unlock value in ACMR. The company could sell a modest amount of its ACMS shares and fund a similarly modest dividend or share buyback at ACMR. It could pursue a more sizeable ACMS share sale and dividend the entire value of ACMR back to shareholders. It could work with a private equity firm to take private ACMR in the United States at a 100% premium to the current share price, yet still a dramatic discount to the company's value as implied by its ACMS holding. It could pursue a "[homecoming](#)" listing and dual list its shares in Hong Kong. There are several similarly structured companies listed in Hong Kong whose operations are based in China and whose chief Chinese operating subsidiary trades publicly in China. The discounts between the HK-listed holding companies and China-listed operating companies are far smaller than the massive disparity currently between ACMR and ACMS shares.

ACM Research is also an attractive acquisition target for the two larger Chinese WFE players, AMEC and Naura. The Chinese WFE market has developed an oligopolistic structure similar to that of the global industry. M&A is a logical strategy in WFE to achieve product/process breadth. There are numerous precedent transactions around ACMR's product areas that reinforce the industrial logic: Applied Materials / Semitool, Lam Research / SEZ, and Lam Research / Novellus Systems to name a few. Chinese WFE players AMEC and Naura have market values 3-5x larger than ACMS, suggesting it is a digestible target. In our view of how a transaction would play out, the strategic acquirer would purchase ACM Shanghai at a small premium, and 82% of proceeds would go to ACMR shareholders, triggering a 5x windfall for ACMR holders overnight.

II. Company Background

ACMR Historical Financials, Consensus Estimates, and Valuation									
<i>(FYE Dec; \$ in millions except per share figures)</i>									
Valuation			2020	2021	2022	2023	2024E	2025E	2026E
Stock Price (as of 1/29/25)	\$17.48	Revenue	\$157	\$260	\$389	\$558	\$762	\$911	\$1,048
Shares Outstanding (1)	63	YoY Growth		66%	50%	43%	37%	20%	15%
Dilutive Shares	4	EBITDA	\$23	\$41	\$64	\$104	\$168	\$189	\$201
Fully Diluted Shares Out.	67	Margin	14%	16%	17%	19%	22%	21%	19%
Market Capitalization	\$1,173	Net Inc. to ACMR	\$19	\$38	\$39	\$77	\$97	\$114	\$129
Cash (2)	333	Margin	12%	15%	10%	14%	13%	12%	12%
Debt	171	EV/EBITDA					6.0x	5.4x	5.1x
Lease Liabilities	6	P/E					12.1x	10.3x	9.1x
Enterprise Value	\$1,015								

(1) Includes 10.0m stock options with a \$9.43 average exercise price
(2) Excludes \$35.6m of short- and long-term time deposits and restricted cash
Source: Company filings, S&P Capital IQ, Kerrisdale analysis

ACM Research (ACMR) was founded in 1998 in Silicon Valley by current CEO David Wang, who retains a 9% ownership stake. Like many founder-led companies, ACMR has benefited from a clear strategic vision and an ownership mentality that has driven an impressive history of execution in the face of tall obstacles to success. Competing against global behemoths such as Lam Research, Tokyo Electron, Screen Holdings, and Applied Materials, ACMR has become the leading Chinese supplier of cleaning tools for semiconductor fabrication (contributing over 70% of revenue) and has begun to branch into other sub-segments of the wafer fabrication equipment (WFE) market. ACMR sells to every tier-one manufacturer in China, including the two largest pure play foundries, Semiconductor Manufacturing International (SMIC) and Hua Hong Group, and memory chip leaders Yangtze Memory Technologies (YMTC) and ChangXin Memory Technologies (CXMT). South Korea's SK Hynix has been a customer since 2011, and ACMR is now penetrating a number of industry leaders outside China, including Intel and Infineon. The company grew revenue from \$75 million in 2018 to \$558 million in 2023, representing a 50% CAGR. With 26% LTM non-GAAP EBITDA margins, ACMR has achieved a profitability profile largely comparable to that of its U.S. peers.

ACMR's structure deftly captures the benefits of its dual citizenship. ACMR is a U.S.-domiciled holding company that listed on NASDAQ in 2017. The company established its Shanghai subsidiary in 2005, which, viewed as a local supplier, benefitted from the subsequent massive wave of demand as China built a domestic semiconductor manufacturing capability. That entity, ACM Research Shanghai (ACMS), listed on the Shanghai Stock Exchange STAR market in 2021 (ticker: 688082) and currently generates most of the company's revenue. ACMR does not utilize the Cayman-domiciled variable interest entity (VIE) structure common among U.S.-listed Chinese companies and therefore avoids the concomitant potential legal and shareholder risks. ACMR owns 82% of ACMS, making the two entities substantially the same company, though ACMS reported financials differ due to its adherence to Chinese GAAP.

ACMR and ACMS trade at starkly different valuations. In the Chinese stock market, the Shanghai-listed ACMS trades at 6.0x 2025E revenue, an 18% discount to the 7.3x median for

its WFE national champion peers such as AMEC, Naura Technology, KINGSEMI, Piotech, and others. U.S.-listed ACMR, whose revenue-generating operations are derived almost entirely from its 82%-owned subsidiary ACMS, trades at 1.1x revenue. From a fundamental business perspective, ACMR and ACMS are literally the same company. The ACMR valuation makes no sense, and valuing ACMR's stake at ACMS current trading levels would imply an ACMR share price of \$73, representing 318% upside.

Summary of Entity Valuations				
Entity	Current Market Cap in USD	Consensus 2025E Revenue	EV / 2025E Revenue Multiple	Implied Value to ACMR Holders
ACMR	\$1,173	\$911	1.1x	\$1,173
ACMS	\$5,917	\$965	6.0x	\$4,899
			Upside	318%

Source: S&P Capital IQ, Kerrisdale analysis

III. Riding the Chinese Semiconductor Wave

Localization Makes Chinese WFE Supplier Growth a High Confidence Bet

Semiconductors are a foundational technology that have rightly become an issue of strategic geopolitical importance. China was slow to develop a domestic semiconductor design and manufacturing capability. However, largely over just the past twenty years, China has used industrial policy to direct massive resources toward the goal of semiconductor self-sufficiency. In 2014, China implemented a national strategy to build out a complete semiconductor supply chain. The program involved investment into fab construction and process technology development, the alignment of higher education programs, and the formation of partnerships with global manufacturing leaders to facilitate technology transfer. Admittedly, China's semiconductor push remains a work in progress. Although the country's fabs have dramatically narrowed the technology gap with global leaders such as TSMC, Samsung, and Intel, the bulk of its aggregate capacity runs trailing edge process technologies.

Importantly, only about 17% of Chinese WFE purchases in 2024 came from domestic suppliers, highlighting its reliance on equipment from the U.S., Japan, and the Netherlands as China's greatest vulnerability on its path to self-sufficiency. The deterioration of U.S.-China trade relations and the issuance of technology export restrictions from 2022 to 2024, which restrict China's access to WFE capable of supporting the most advanced process technologies, has only elevated the importance of China's WFE localization efforts. The government directed additional resources toward self-sufficiency with the May 2024 announcement of Phase 3 of the National Integrated Circuit Industry Investment Fund. And crucially, Chinese fabs continue to more closely align with and support domestic WFE suppliers to ensure their own growth and independence. In the wake of the 2022 export controls, Chinese fabs boosted their WFE purchases to secure access to equipment and accounted for an outsized portion of global

spend. The government also began explicitly pushing the consumption of domestic WFE to the benefit of suppliers like ACMR, and Bernstein believes that China's WFE self-sufficiency ratio (ie, the percentage of WFE purchases in China from domestic suppliers) could more than double to 36% in 2026. As a result, even though most forecasters are calling for tepid China WFE growth over the next several years¹ as customers digest the large 2024 spend, the increase in domestic self-sufficiency should result in continued massive growth for Chinese WFE suppliers.

Global and Chinese Historical and Projected WFE Growth (\$B)										
	2019	2020	2021	2022	2023	2024E	2025E	2026E	2023-26 CAGR	
Global WFE	\$ 54	\$ 64	\$ 92	\$ 98	\$ 98	\$ 108	\$ 107	\$ 116	6%	
RoW WFE	\$ 40	\$ 47	\$ 66	\$ 71	\$ 61	\$ 64	\$ 72	\$ 81	10%	
China WFE	\$ 14	\$ 17	\$ 26	\$ 26	\$ 37	\$ 43	\$ 35	\$ 35	(2%)	
Global Suppliers	\$ 13	\$ 16	\$ 24	\$ 23	\$ 32	\$ 36	\$ 25	\$ 22	(12%)	
Domestic Suppliers	\$ 1	\$ 1	\$ 2	\$ 3	\$ 5	\$ 7	\$ 10	\$ 13	38%	
China Share of WFE	26%	26%	28%	27%	38%	40%	33%	30%		
China Self Sufficiency	4%	6%	7%	12%	14%	17%	28%	36%		

Source: Bernstein, Gartner, SEMI

Chinese WFE suppliers have made great strides in technology development and commercialization and are now able to produce equipment for advanced nodes down to 5nm. That said, localization is progressing faster in some sub-segments of the Chinese WFE market due to differing technology barriers. To date, Chinese suppliers have made the greatest progress capturing domestic share from the global leaders in etch, deposition, and cleaning, making these sub-segments most likely to see continued acceleration in self-sufficiency over the coming years. Of course, implementing advanced process nodes requires capable tools for each process step, and China (and arguably the entire world outside the Netherlands) has made the least progress in lithography. A key technology for the creation of the most bleeding edge devices, the advanced lithography market is dominated by Dutch company ASML, while the rest of the market is supplied by Japan's Canon and Nikon. The U.S. government has ratcheted up its pressure on the Dutch government, and any further restrictions on access to advanced lithography could slow China's progress at the leading edge. Yet those concerns are less impactful for ACMR, as a large portion of its tools address less advanced processes. Recent news also suggests China is making progress in lithography as well. In September, MIIT [published](#) its list of recommended domestic suppliers of WFE equipment, and the list included what appears to be a relatively advanced lithography tool from Shanghai Micro Electronics Equipment (SMEE), the only domestic supplier. While we caution there were some inconsistencies in the data provided, we believe incremental innovation by domestic Chinese WFE suppliers to narrow the technology gap is inevitable.

¹ Morgan Stanley, for instance, forecast in December 2024 an overall decline in Chinese WFE of -15% in 2025, but, for ACMR, revenue growth of 16% in 2025 and 10% in 2026, as ACMR gains market share from foreign players. In early January, Bernstein forecasted a Chinese WFE decline of -19% for 2025 but simultaneously forecasted Chinese supplier WFE sales to grow 32%, as their market share grows from 17% to 28% from 2024 to 2025. For 2026, Bernstein forecasts Chinese supplier WFE sales to grow ~30%, as their market share grows to 36%.

The China WFE Landscape: Creation of National Champions

The global WFE market is highly specialized and oligopolistic, with just a handful of companies dominating the sub-segments related to each process step. A small number of companies offer a breadth of tools that span multiple sub-segments. The Chinese WFE market has developed a similar structure by design. In 2006, the Chinese government's VLSI Fabrication Technology Research Program sought to spur domestic WFE development by directing research grants to companies targeting specific wafer fabrication process steps: Naura in deposition, AMEC in etch, and ACM Research in cleaning, among others. Despite their late start, COVID, growing trade wars, and the massive disadvantage of competing against some of the world's most dominant companies, the emerging Chinese WFE players have experienced explosive growth, making it no longer reasonable to question their credibility.

WFE Global Leader vs Chinese Supplier Revenue Growth Comparison (\$B)							
	2018	2019	2020	2021	2022	2023	CAGR
<u>Global Big Four (1)</u>							
Revenue	\$43.4	\$40.2	\$48.6	\$65.2	\$72.6	\$63.5	8%
YoY Growth		(7%)	21%	34%	11%	(12%)	
<u>Chinese Listed Suppliers (2)</u>							
Revenue (3)	\$1.2	\$1.5	\$2.2	\$3.5	\$4.9	\$6.6	42%
YoY Growth		32%	45%	57%	41%	35%	
<i>(1) Includes AMAT, KLAC, LRCX, and TEL. Excludes ASML due to lack of material lithography in China</i>							
<i>(2) Includes ACMS, AMEC, Hwatsing, Jingce, Kingsemi, Leadmicro, Naura, Piotech, PNC, and Skyverse</i>							
<i>(3) Represents total revenue; may include non-semiconductor revenue for selected companies</i>							
<i>Source: S&P Capital IQ</i>							

Cleaning tools (specifically wet stations and spray processors) is an approximate \$2 billion market in China, representing about 6% of the domestic WFE market. Japan's Screen is the market leader with 45% share, with Tokyo Electron and Lam Research holding 18% and 11% positions, respectively. ACMR is the dominant domestic cleaning tool supplier with 14% share, or 61% among just the Chinese suppliers. As impressive as their share is how they've won it. Not surprisingly, ACMR made early progress in the lower end of the cleaning market, but the company's share gains have accelerated as it has developed more advanced solutions and broadened its product portfolio to include nearly all steps in the cleaning process. The company has penetrated virtually every top-tier Chinese fab, including those employing more advanced process technologies. For example, at YMTC, China's largest memory chip company, ACMR has won ~40% share of the cleaning opportunity versus just ~35% share for global/China share leader Screen. More importantly, we understand that YMTC made the decision not based on tool price (ACMR's was actually higher), but because of lower total cost of ownership, in part driven by higher throughput. We think this directly contradicts the well-worn trope that Chinese companies win solely on price. As well, ACMR has proven its ability to land and expand, even with mature products. For example, customer SiEn (QingDao) Integrated Circuits Co., Ltd.

(SiEN) became ACMR’s second largest customer in 2023 at 15% of revenue, largely on the back of auto bench cleaning tools for mature nodes, and the company now sees opportunities for plating and furnace tools there going forward.

Chinese WFE Market Landscape: Leading Global and Domestic Chinese Suppliers by Segment (2023)									
Segment	Deposition	Photoresist	Litho	Dry Etch	Cleaning	CMP	Doping	Thermal	Pro. Ctrl.
China TAM (\$B)	\$8.4	\$1.3	\$8.8	\$5.6	\$2.1	\$1.0	\$1.3	\$1.1	\$4.3
Global Leader	Applied	TEL	ASML	Lam	Screen	Applied	Applied	Applied	KLA
Share	44%	80%	83%	30%	45%	43%	54%	33%	54%
Chinese Leader	Naura	Kingsemi	None	Naura	ACMR	Hwatsing	CETC	Naura	Skyverse
Share	11%	5%	0%	13%	14%	31%	4%	16%	2%
Localization	17%	6%	<1%	26%	24%	38%	7%	27%	5%

Source: Bernstein

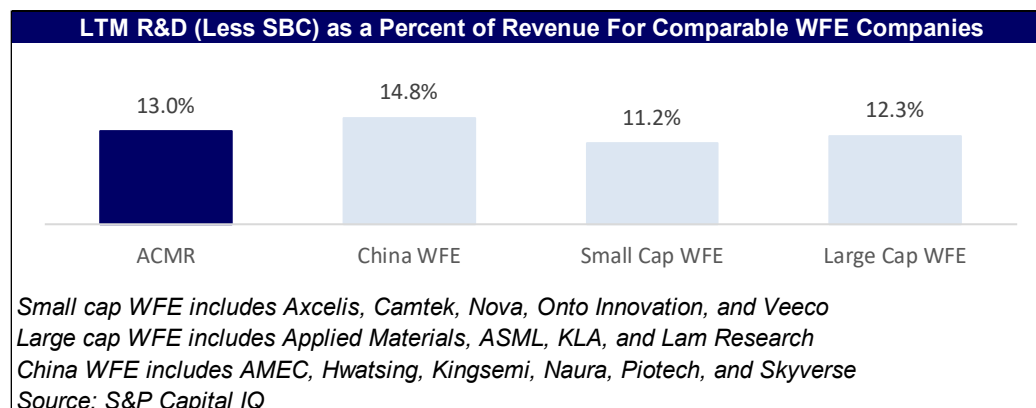
Of note, there has been minimal expansion by domestic players outside their original sub-segments. While both Naura and AMEC are expanding beyond their core deposition and etch segments, we think each company’s strategic focus remains expanding their core product reach into advanced process nodes (a greater priority since the introduction of trade restrictions) and beating global players in their target markets. Thus, we see little near-term threat to ACMR’s cleaning franchise from local suppliers.

IV. Building a Platform Company by Expanding Product Breadth

Simplistically, the manufacture of semiconductors is a highly iterative process of laying down materials (deposition), using ultra-violet light to create patterns (lithography), removing select excess material to form structures (etch), removing the photoresist, changing the conductivity of the wafer (ion implantation and annealing), and connecting the various transistors through metallization (electroplating), all during which the surface of the wafer needs to be made perfectly flat (chemical mechanical planarization (CMP)). After each of these steps, wafer cleaning tools are used to remove unwanted microscopic particles to ensure high yields without damaging the delicate 3D structures being formed. These steps are then repeated hundreds of times depending on the complexity of the chip being produced. The process of wafer patterning (fabrication) is referred to as the “front end”, while the dicing and packaging of individual die, traditionally a relatively lower-tech activity, is referred to as the “back end”. However, the advent of advanced packaging (AP), which refers to the various techniques used to package multiple die into a single package, often stacking them vertically, to achieve improved price/power/performance, has led to the use of front end processing equipment for back end applications, thus further increasing demand for cleaning and other front end tools. As a result, wafer cleaning is one of the most repeated steps in the production process, and each successive process migration to smaller line widths increases the number of cleaning steps by ~15%. At ~\$6 billion globally, cleaning accounts for about 6-7% of total WFE spend.

ACMR’s tools are cleaning at a microscopic scale and have \$2-5 million average selling prices. We have heard that ACMR has been able to capture 20-30% share of the total cleaning business (and perhaps over 80% of back end cleaning) at SMIC (China’s most advanced

foundry), winning against Screen and Lam Research, so the company obviously offers valuable differentiation. We also remind that trailing edge processes were bleeding edge for most fabs just a few years ago. As further support, we note that there has been virtually no meaningful competitive entry in the cleaning segment over the past ten years outside the emergence of ACMR. Finally, R&D spend at ACMR and other Chinese WFE players is in line with that of Western peers.



ACMR’s Core Cleaning Products: Becoming a One-Stop Shop

Depending on the application, several types of technologies may be employed to control how cleaning chemicals interact with the wafer, including soaking/dissolving, scrubbing, ultrasonic, megasonic, and spin/jet spray, and tools can be configured to process either individual or batches of wafers. Since it began shipping its first tools to major customers a little over a decade ago, ACMR has patiently developed a comprehensive cleaning tool portfolio that now covers about 95% of cleaning applications and includes both single-wafer (typically used below 28nm) and wet bench (typically used above 45nm) solutions. One of ACMR’s key competitive advantages has been its development of proprietary megasonic technology. Megasonics (high-frequency sound waves) is a technique for creating bubbles in cleaning liquids that push unwanted particles away from the surface of the wafer. The challenge with megasonics, which led most WFE companies to abandon the approach, is that when a bubble bursts it can release energy that can damage the delicate structures on the wafer. ACMR’s proprietary technology controls the bubble and causes it to oscillate rather than burst. ACMR’s key cleaning technologies include:

- Space Alternated Phase Shift (SAPS): employs alternating phases of megasonic waves uniformly across the entire wafer surface to improve particle removal efficiency.
- Timely Energized Bubble Oscillation (TEBO): uses the precise control of bubble cavitation to enable damage-free cleaning of 2D and 3D patterned wafers at advanced process nodes down to 16-19nm used for FinFET, DRAM, and 3D NAND chips.
- Tahoe: uses sulfuric peroxide mix (SPM) cleaning technology required for advanced process nodes. ACMR’s Tahoe tools uniquely integrate both wet bench and single wafer processing to reduce chemical usage by over 80%, which lowers total cost of ownership

and environmental impacts. Low/medium temperature Tahoe tools have been ramping orders in 2024, and the company sees great potential for Tahoe tools outside China.

ACMR has introduced an impressive array of new cleaning tools over the past few years. Perhaps the most significant is the introduction of SPM tools across the temperature range. SPM tools are used to clean wafers after photoresist removal and CMP and comprise 25-30% of the front end cleaning market, so the introduction of these tools materially expanded ACMR's addressable market. Leveraging unique ACMR intellectual property, the company's differentiated high-temperature tool faces direct competition from only one other supplier (Screen, since Lam Research has fared poorly in SPM), facilitating share gain, even if only as a key second source. This tool also positions ACMR as a one-stop-shop for a fab's full range of cleaning needs. ACMR has over ten customers currently in evaluation or production and expects revenue to ramp over the next 12-24 months. ACMR is also ramping a bevel etch cleaning tool that should contribute meaningful revenue in 2024 and a differentiated TEBO tool combining supercritical CO2 drying technology (which the company believes is held by only three companies) that should complete evaluation at multiple customers in 2024 and ramp orders in 2025. More recent introductions include the Ultra C v Vacuum tool developed with several key customers and a Frame Wafer cleaning tool introduced in Q1 2024 that has completed qualification at a key customer. ACMR believes it can eventually capture 55-60% share of the Chinese cleaning market, which equates to an incremental \$820 million of revenue even in the unlikely scenario where the Chinese WFE market remains flat.

Diversifying Beyond Cleaning Dramatically Expands ACMR's SAM

ACMR has ambitions beyond the cleaning market and has developed differentiated products in five key areas that expand the company's SAM by \$3.5 billion in China and \$11.1 billion globally. And despite the company's size, we think new product execution to date has been impressive. Beyond providing incremental revenue opportunities, they also provide ACMR with exposure to several exciting high-growth technology trends such as advanced packaging, specifically Fan-Out Panel Level Packaging (FOPLP), and High-Bandwidth Memory (HBM).

ACMR SAM Expansion Beyond Cleaning (\$B)				
Market	First Entry	Key Products	Global SAM	China SAM
Advanced Packaging	2014	2024: Ultra C vac-p Flux	\$ 0.9	\$ 0.3
Electrochemical Plating (ECP)	2017	2024: ECP-ap-p	\$ 1.2	\$ 0.4
Furnace	2020	2022: ALD Furnace	\$ 2.2	\$ 0.7
Track	2022	2022: Ultra Track	\$ 2.5	\$ 0.8
PECVD	2022	2023: Ultra Pmax	\$ 4.3	\$ 1.3
		Incremental SAM	\$ 11.1	\$ 3.5

Source: ACMR investor presentation

Electrochemical plating (ECP). ECP is a deposition process that involves laying down a thin layer of conductive material (copper, nickel, tin, silver, gold) to create the interconnects that form electrical circuits. ECP is used both in front end wafer processing and in the back end for a variety of advanced packaging techniques, including 2.5/3D, ball grid arrays, chip-scale

packages, and wafer-level packages for applications such as flip-chip, fan-out, fan-in, and hybrid bonding. ECP can also be used to create multiple interconnect structures such as micro-pillars and through-silicon vias (TSVs) used for stacked die. ACMR sells into both front and back end customers and believes it holds about 30% share in China ECP due to its tools' high throughput, lower cost of ownership, and proprietary horizontal plating method which ensures superior uniformity for sub-micron applications. The ECP market is growing rapidly due to the adoption of advanced packaging for high performance applications. ACMR sees significant opportunity to expand outside China given the small number of other ECP competitors worldwide (Lam Research in the front end and a few others in the back end) and the company's solid patent barriers in the area. We think SK Hynix is a key international tier-one customer that has placed demo orders for ECP. ACMR's recently introduced Ultra ECP ap-p tool is particularly exciting. Along with the new Ultra C vac-p Flux cleaning tool, this product targets the nascent fan-out panel-level packaging (FOPLP) market. FOPLP is a next-generation AP technology that may eventually [replace](#) Chip on Wafer on Substrate (CoWoS), a technology currently in focus due to its use with AI GPUs and high-bandwidth memory. This capability positions ACMR to penetrate global leaders and is currently a topic of engagement with TSMC, which [may migrate](#) to FOPLP by 2027. We think ECP revenue began to ramp in earnest in 2024 and offers upside in 2025 and beyond, which should also be margin-accretive given the higher gross margins of ECP tools.

Furnace. ACMR's furnace tools employ proprietary designs and address deposition-related drying processes for low-pressure chemical vapor deposition (LPCVD), atomic layer deposition (ALD), oxidation, and annealing. The company entered the furnace market in 2020 and only shipped its first ALD furnace in 2022, but new customer adoption has been brisk. ACMR has said that the furnace product cycle is about 18 months behind plating, but the company still guided that it would end 2024 with 16 customers. The company expects that ECP and furnace combined will account for 15-20% of revenue in the near-term. While standard furnace tool gross margins hover around the corporate average, newer ALD furnaces generate above average gross margins.

Advanced Packaging (AP). AP is a transformational technology that enables higher performance solutions by packaging multiple die into a single package as opposed to solely relying on process scaling (ie, Moore's Law). Due to the delicate nature of stacking, interconnecting, and packaging multiple die, often using additional substrates, front end process equipment is being used in back end AP applications. AP was initially used for a narrow range of devices targeting low power, small form factor applications such as handsets, but its use is spreading to the highest performance AI processors and advanced memory chips. Thus, AP represents a highly attractive growth market for ACMR. The company has a comprehensive portfolio of wet process equipment for AP with tools spanning cleaning, wet etching, coating, developing, stripping, electroplating, and polishing. The company also recently introduced a Frame Wafer cleaning tool for post-debonding wafer cleaning using an innovative solvent reclamation system that has completed qualification at a major Chinese customer. ACMR already sells to all the meaningful packagers in China, including #4 global player Tongfu Microelectronics (002156) and JCET (600584), the former STATS ChipPAC, and should benefit

as more advanced techniques such as TSV electroplating are [adopted](#) locally. AP is also providing an opening for engagement with top-tier foundries and packaging companies outside China. Over the near term, ACMR expects AP to generate 10-15% of total revenue.

Track. Track systems are used for coating and developing photoresist as part of inline lithography processes and account for 3-4% of global WFE spend. ACMR introduced its first Ultra Lith Track tool in 2022, and it is currently in evaluation at a major Chinese foundry. ACMR's track portfolio covers i-line, ArF and KrF lithography processes, though the focus has been on ramping for KrF, a larger segment that covers more steps in both mature and advanced processes. ACMR believes its track tools employ a proprietary design to offer high throughput and low maintenance and that its products cover about half of track process steps. We think offering a track solution also creates bundling opportunities that only Tokyo Electron, who dominates the market, can offer today. At the very least, we see ACMR becoming a viable second source. The company expects track revenue to start in late 2025 and be more meaningful in 2026.

Plasma Enhanced Chemical Vapor Deposition (PECVD). PECVD is a deposition process that uses plasma to deposit thin films on a substrate using lower temperatures. Also introduced in 2022, ACMR's Ultra Pmax tool employs a unique configuration that combines the attributes of the two leading tool designs to enable multiple PECVD processes on a single platform, and the chamber's proprietary internal design improves uniformity, stress control, and contamination reduction. ACMR's tool will target mid/high end logic and memory chip production. ACMR shipped its PECVD tool to a large customer in July 2024 and expected to end the year with 2-3 customers.

ACMR New Product Ramps		
Area	Product	Progress and Timing
Cleaning	Tahoe-Single Low/Med-Temp SPM	Qualified for production by multiple customers; ramping with a substantial number of orders planned for delivery in 2024
	Single High-Temp SPM	10+ customers in evaluation or production; expect to ramp orders over next 12-24 months
	Bevel Etch	Shipping; expected to contribute "meaningful revenue" in 2024
	Supercritical CO2 Dry	Expect to complete evaluation at multiple customers in 2024 and ramp revenue in 2025
	Ultra C v Vacuum	Intro Q3 2023 after development with several key customers; delivered Q1 2024 to major customer
ECP	Ultra ECP ap-p	Intro Q2 2024
Furnace	Ultra fn platform	Expect to end year with 16 customers vs 9 in 2023; expect qualification and follow-on orders in 2H 2024
AP	Ultra C vacuum-p Flux	Intro Q2 2024; shipped to new China-based packaging manufacturer in July
	Frame Wafer Cleaning	Intro Q1 2024; completed qualification at key customer
Photoresist	Ultra Lith (Track)	In evaluation at major Chinese foundry; first revenue likely late 2025 with material ramp in 2026
Deposition	Ultra Pmax (PECVD)	Shipped beta to large customer in July; expect multiple customer evaluations in 2024; first revenue likely late 2025 with material ramp in 2026

Source: ACMR SEC filings and earnings call transcripts and Kerrisdale analysis

V. Becoming a Global Supplier to the Industry's Leaders

China alone has fueled ACMR's massive growth to date, and we have already outlined multiple revenue drivers, such as new products, share capture, and new capacity builds, that can clearly propel the company to well over a billion dollars in revenue from China alone. But ACMR also features massive upside represented by becoming a mainstream global supplier. WFE companies are big game hunters by necessity. The top ten semiconductor capital spenders account for 76% of total spend. We think ACMR will land transformational tier one wins that are not factored into its current valuation. Penetrating these massive, technologically sophisticated players is a challenging multi-year process that requires a true sustainable advantage often backed by intellectual property. ACMR has 18 IP lawyers in house and ~500 global patents, and the company incorporates proprietary design elements and technology into its tools. We think tier one success will confer a stamp of approval that can accelerate additional new customer acquisition. Moreover, we think investors should not underestimate the virtuous cycle of technology feedback and innovation that will come from a sophisticated customer running wafers on ACMR tools.

ACMR Position at 2024E Top 20 Worldwide Semiconductor Capital Spenders			
Rank	Company	\$B	ACMR Status
1	Samsung Electronics	\$ 34.5	
2	TSMC	\$ 31.0	Engaged
3	Intel	\$ 24.0	Qualified / Evaluating
4	SMIC	\$ 6.0	>10% customer from 2022-2023
5	SK Hynix	\$ 6.0	>10% customer from 2016-2019
6	Texas Instruments	\$ 6.0	
7	Micron Technology	\$ 5.5	
8	STMicroelectronics	\$ 5.0	
9	Infineon Technologies	\$ 3.4	Evaluating
10	UMC	\$ 2.5	Customer
11	ChangXin Memory Tech. (CXMT)	\$ 2.0	>10% customer in 2023
12	Huali Huahong Group	\$ 2.0	>10% customer from 2018-2022
13	United Nova Tech. (SMEC)	\$ 1.8	Customer
14	Powerchip Semi. Mftg.	\$ 1.6	
15	ASE Technology	\$ 1.6	Evaluating
16	GlobalFoundries	\$ 1.4	
17	Nexchip	\$ 1.1	Customer
18	Yangtze Memory Tech. (YMTC)	\$ 1.0	>10% customer from 2017-2022
19	Winbond Electronics	\$ 1.0	
20	Amkor Technology	\$ 1.0	
	Top 20 Total	\$ 138.4	
	Chinese in Top 20 Total (Shaded)	\$ 13.9	

Source: Gartner, Kerrisdale analysis

United States: Landing the Whale

ACMR has been engaged with Intel since 2021 and has thoughtfully positioned itself for success. The company's senior sales executive (a 29-year Applied Materials veteran) is based in Hillsboro, OR, and ACMR made a major commitment to its effort by recently acquiring a

40,000 square foot R&D facility that includes a fully functional 5,000 square foot cleanroom. Beyond serving Intel, we think it will act as a sales and service hub that can facilitate additional U.S. market expansion. ACMR achieved the major milestone of qualifying its SAPS cleaning tool at Intel in Q4 2023, and the company also delivered its Ultra C b backside and Bevel Etch tools to Intel in Q2 2024. In September, ACMR announced an order for four AP tools that will ship in 1H 2025, two of which we believe are headed to Intel. We think orders from Intel will ramp through 2025. Some may dismiss the significance of an Intel win due to its headline-grabbing recent struggles. That would be a major mistake, as Intel remains, by far, the most technologically sophisticated domestic manufacturer of semiconductors and has an annual capital expenditure budget roughly the size of ACMR's current customer base in aggregate, making even minor share capture there a huge win. And we are not particularly concerned about Intel's recent cuts to 2025 capex, as its technology roadmap remains unchanged, and its Arizona fab is on schedule to ramp in 2025.

ACM Research's U.S. facility will also be used to service European customers. ACMR has engaged with several European customers, one of which we believe is Infineon, a global leader in power management and automotive semiconductors and a top ten capital spender. The evaluation of an Ultra C SAPS-V tool should be completed soon, with volume production expected in 2H 2024.

South Korea: Highly Strategic Launching Pad

SK Hynix is the world's second largest DRAM and NAND memory manufacturer and has been an ACMR customer since 2011. They accounted for over 10% of revenue from 2016 to 2019, but the bulk of that spend was related to SK Hynix's Wuxi facility in China. We think trends at SK Hynix and ACMR's focus on South Korea deserve greater attention. SK Hynix about doubled revenue in 2024 and is expected to continue its strong growth as the company benefits from a broad memory upgrade cycle powered by AI/data center spend, the emergence of heavy demand for HBM (40% of DRAM revenue in the recent quarter), and a PC and handset refresh cycle, all driving a 2x YoY bit shipment target. Based on SK Hynix management's comments, HBM capacity expansion, accompanied by back-end TSV spend, is a near-term priority, and we think ACMR is well positioned to target HBM opportunities with its SAPS cleaning and new ECP tools. And since the acceptance standards are the same for its Wuxi and South Korean fabs, ACMR can avoid repeated verification. ACMR recently named longtime SK Hynix veteran David Kim as CEO of ACM Research Korea, and the company is in the process of expanding its R&D and production capabilities at its Incheon facility. We think the creation of a bifurcated technology hub outside China is vital to win other regional business. ACMR is engaged with multiple South Korean customers (including packager Nepes) spanning nearly its entire product portfolio, and SK Hynix wins locally will represent yet another tier one proof point.

We think the convergence of the right tools and a credible ex-China regional presence position ACMR for success in the WFE promised land: Taiwan. UMC, the second largest Taiwanese foundry, purchased ACMR tools for use in China, and so represents fertile ground for engagement. We think both UMC and leading global outsourced semiconductor assembly and

test (OSAT) vendor ASE Technology have placed orders for FOPLP/HBM applications, particularly for ECP where ACMR has a notable technology advantage. TSMC is also evaluating ACMR tools for FOPLP. While the results of this engagement won't be known for over a year, we are encouraged that TSMC is now a topic of conversation. ACMR management has also highlighted major opportunities in Singapore but has yet to name a customer. Based on our review of facilities, we suspect they are referencing either UMC or GlobalFoundries, which acquired local foundry Chartered Semiconductor in 2010.

ACMR Status Penetrating Major Customers Outside China			
Region	Customer	Progress	Timing
United States	Intel	Qualified SAPS tool in Q4 2023; delivered Ultra C b backside and Bevel Etch tools in Q2 2024 (ordered in Q3 2023)	Expect orders in 2H 2024 and 2025; revenue ramp in 2025
	"WLP House"	Received order for coater/developer tool in Q2 2024	Expect delivery in 1H 2025
Europe	Infineon	Installed SAPS tool in Q4 2023; evaluation in final stages	Expect volume production as early as mid-2024
	Other Unnamed	Engaged with multiple customers	Unclear
South Korea	SK Hynix	Existing customer; begun evaluation for Korean fab	Expect move to final production eval for plating tool in 2H 2024
	Other Unnamed	Engaged with multiple customers	Expect to ship R&D tools in 2H 2024
Singapore	Unnamed	Engaged with multiple customers	Expect increased activity in 2025
Taiwan	UMC	Existing customer in China; engaged on plating tools outside China	Expect increased activity in 2025
	TSMC	Engaged on plating tools	Expect orders in 2026 if successful

Source: ACMR SEC filings and earnings call transcripts and Kerrisdale analysis

ACMR recently disclosed a long-term revenue target of \$1.5 billion for business outside China. Our reaction to such a lofty goal was a healthy mix of disappointment and excitement. Disappointment, because we would have preferred to see management gradually raise the bar as the tangible milestones of global tier-one penetration were ticked off. Yet, we appreciate that management's bullish view on global penetration is founded on real engagements with many of the world's leading capital spenders. And not only does this goal likely represent just 1% of ex-China WFE spend when achieved, but the global story doesn't need to play out for the stock to work. In our forecast, we conservatively assume the global business grows to just \$430 million by 2030. We remind investors that ACMR's previous goal of reaching a billion dollars of revenue on the back of China alone (revised upward to \$1.5 billion) seemed equally audacious at the time it was announced in mid-2022.

VI. The China WFE Outlook

The 2025 outlook for WFE in China is one of the biggest topics of conversation around ACMR shares. We think it is also one of the least important. We understand that (1) the threat of further export restrictions likely pulled forward some WFE demand into 2024, (2) industry commentary around China only deteriorated through 2H 2024, and (3) experienced WFE investors will always be prone to hand-wringing around the timing of cyclical downturns, despite the sector's

greater diversification and relatively lower volatility compared to decades past. We also admit there is always a certain “fog of war” in assessing downcycle timing. For every positive datapoint (capex disclosures by NexChip, prospects for recovery in Chinese memory fab spend, sustained positive Chinese customs import data for WFE tools through Q3) there will be datapoints that generate unease (continued auto/industrial market weakness, global memory pricing weakness, expectations for a 30%+ YoY drop in capex spending at China’s largest foundry SMIC). Moreover, we acknowledge that the capital spending prospects for smaller private IDMs in China which account for a material portion of spend is a black box.

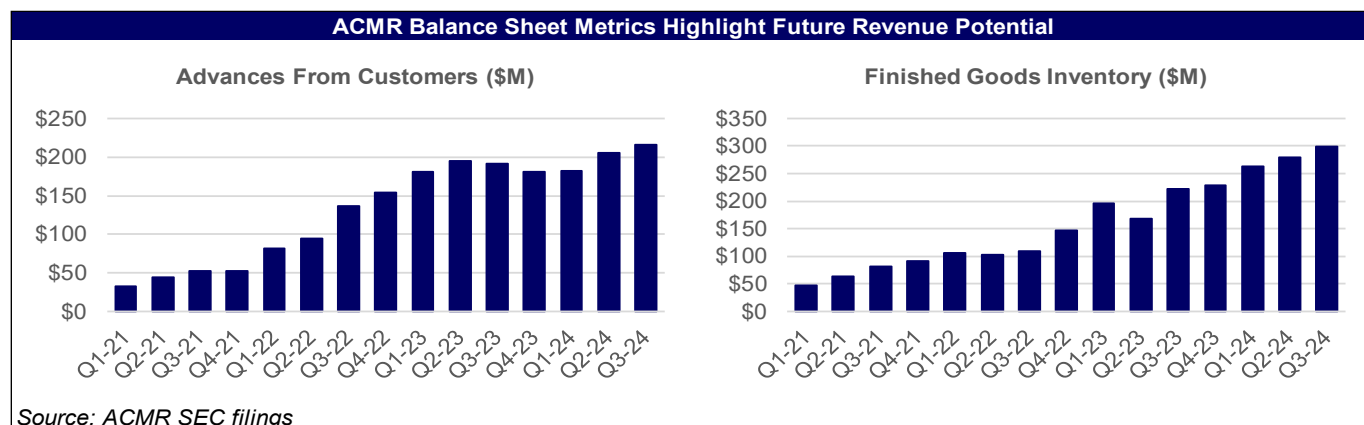
These concerns are misplaced for several reasons. First, as previously discussed, ACMR can grow revenue from localization-driven share gains, making overall China market growth less important. With the exception of SEMI’s reaffirmation of global growth in 2025, many recent China WFE forecasts call for -10-20% declines off record 2024 levels, which for ACMR is just fine as we will show. Second, most U.S. investors, given their natural inclination to focus on the U.S. WFE players, have a tendency to focus excessively on the advanced process nodes where those companies dominate. But not every chip is an Nvidia GPU. A 2021 Semiconductor Industry Association whitepaper estimated that 95% of China’s installed capacity was at trailing edge (>28nm) nodes. This is ACMR’s bread and butter and has a more positive outlook for 2025. Finally, we note that Chinese capital spending growth has exceeded global rates since 2018. While there has been talk that 2024 was fueled by demand pull forward driven by the expectation of additional U.S. export restrictions, ACMR management and our research suggest that any such activity occurred outside the cleaning segment. In fact, at the mid-December SemiCon Japan event, major Japanese WFE players (who are the China cleaning share leaders) confirmed that the market for cleaning tools remains strong with brisk demand seen through 1H 2025 at least. Street estimates for ACMR’s Chinese equipment peers call for continued 30%+ YoY revenue growth. If anything, this suggests potential upside for ACMR. Note that in the below table, we show ACMS figures based on Chinese GAAP revenue recognition (upon tool delivery).

Comparison of China WFE 2024 and 2025 Street Consensus Revenue (RMB M)					
Company	2023	2024E	YoY	2025E	YoY
NAURA Technology	22,044	29,952	36%	39,041	30%
AMEC	6,264	8,612	37%	11,932	39%
Piotech	2,634	3,921	49%	5,459	39%
Hwatsing Technology	2,508	3,526	41%	4,616	31%
Wuhan Jingce Electronic	2,383	2,780	17%	3,476	25%
KINGSEMI	1,679	1,901	13%	2,884	52%
Skyverse Technology	876	1,336	52%	1,984	49%
Median			37%		39%
ACM Research (Shanghai)	3,715	5,797	56%	6,997	21%

Source: S&P Capital IQ

ACMR's Revenue Recognition Masks Its Business Momentum

ACMR has adopted highly conservative revenue recognition policies under which it does not book revenue for shipments of first tools (either a new customer or a new product at an existing customer) until the customer accepts/qualifies the tool. Until then, first tools shipped are recorded as finished goods inventory, making that account reflective of the cumulative cost of goods for first tools under evaluation. Revenue for repeat tool shipments is generally recognized upon delivery. Given ACMR's expanding customer base and product portfolio, first tool shipments have generally accounted for ~45-50% of total shipments, and we think those generally take 1-2 years to turn into revenue given the length of tool qualification cycles. Thus, while actual shipment metrics can be variable due to seasonal or customer-specific factors (further amplified by ACMR's high tool ASPs), ACMR has a massive balance sheet asset that begins converting into revenue a year after shipment.



2025: It's in the Bank

Even if China WFE demand falls to current worst-case forecast levels, we think ACMR will have little problem meeting Street consensus estimates. Assuming YTD shipments and management's recent 2H 2024 shipment guidance, flat repeat tool shipment growth, and the recognition of first tool revenue from Q+4 to Q+7 after shipment, we estimate that ACMR needs to find just \$90-95 million of incremental revenue to meet consensus. After including \$40-45 million of anticipated international revenue, that number declines to about \$50 million, which can come from share gains, new products, new customers, or new capacity builds. We note that Bernstein calculates that the China WFE self-sufficiency rate increased from 6% in 2020 to 14% in 2023 and projects the pace of localization will accelerate as it jumps from 17% in 2024 to 28% in 2025. If we assume that ACMR can achieve just a 2% China cleaning market share gain in 2025, it represents an incremental ~\$40 million of revenue.

ACMR Should Be Able to Easily Meet Consensus Revenue Even If China WFE is Flat YoY		
	Value (\$M)	Comment
2024 Shipment Forecast		
YTD 2024 Shipments	\$ 709	Actual
Est. Q4 2024 Shipments	\$ 187	Assumes flat H-H despite management guidance of "a bit" higher in 2H in Q3
Est. 2024 Total	\$ 895	
Est. Repeat Tool Shipments to China	\$ 433	Assumes 50% of shipments based on Q3 YTD and assumes 97% of total to China
2025 Revenue Analysis		
Street Consensus	\$ 911	S&P Capital IQ (as of 1/29/25)
Repeat Tool Shipments	\$ 433	Assumes 0% YoY China WFE growth
Acceptance of First Tools	\$ 386	Assumes equal recognition of past shipments over Q+4 to Q+7 and 97% to China
Total	\$ 819	
Revenue to Meet Consensus	\$ 92	
Est. 2025 International Revenue	\$ 43	Assumes 5% of total revenue
China Revenue to Meet Consensus	\$ 49	Sourced from new customers, new products, footprint expansion, or share gain
Revenue From 2% Share Gain	\$ 42	Assumes \$2.1B China cleaning TAM (Bernstein); excludes new product growth

Source: ACMR SEC filings and earnings calls, S&P Capital IQ, Bernstein, and Kerrisdale analysis

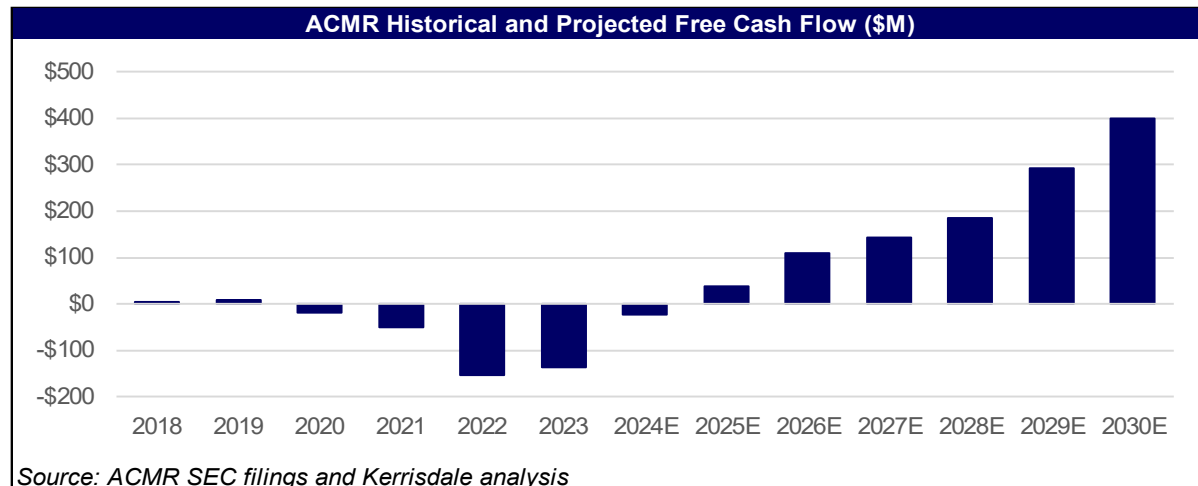
VII. Firing Up the Cash Machine

Our near-term forecast for ACMR falls 5-7% below consensus on revenue based on our conservatism regarding China WFE over the next two years. We note wide variability in Street models on profit metrics due to a lack of clarity around a transitory bump in stock-based compensation and the progression of gross margins (not to mention what we believe is some mixing of GAAP and non-GAAP metrics in consensus). We assume China share gains well below ACMR's long-term objective (55% of China cleaning WFE) and a gradual ramp of international revenue (not reaching 10% of revenue until 2028). We also assume that, over the next 2-3 years, ACMR stabilizes at 20% GAAP operating margins, representing modest margin expansion given the prospects for improved operating leverage and margin-accretive new products accounting for a larger portion of revenue.

Kerrisdale Forecast Variance Versus Consensus				
	2024E	2025E	2026E	2027E
Consensus				
Revenue	\$ 762	\$ 911	\$ 1,048	\$ 1,260
Non-GAAP EBITDA	\$ 168	\$ 189	\$ 201	\$ 268
GAAP Net Income to Common	\$ 97	\$ 114	\$ 129	\$ 152
Kerrisdale				
Revenue	\$ 755	\$ 860	\$ 975	\$ 1,258
Non-GAAP EBITDA	\$ 200	\$ 191	\$ 227	\$ 296
GAAP Net Income to Common	\$ 96	\$ 104	\$ 125	\$ 164
Kerrisdale vs Consensus Variance				
Revenue	(0.9%)	(5.6%)	(6.9%)	(0.1%)
Non-GAAP EBITDA	19.2%	0.8%	12.9%	10.3%
GAAP Net Income to Common	(0.6%)	(8.5%)	(3.6%)	8.0%

Source: S&P Capital IQ and Kerrisdale analysis

Crucially, we expect ACMR to undergo a working capital normalization over the coming years driven by (1) an increase in repeat tools as a percent of total shipments, (2) the maturation of existing customer relationships, (3) the qualification of the large number of new products currently being introduced to market, and (4) international customers, which are likely to exhibit more supplier-friendly purchasing behavior, accounting for a growing portion of revenue. In our model, we assume a gradual decline in DIOs from over 700 at FYE 2023 to 400 days by 2039, a level which is still 24% higher than the average of 322 days from 2016 to 2020. As a result, we think ACMR can generate attractive cash flows in the coming years.



In January 2024, ACMS announced that it intends to sell 43.6 million shares, which would reduce ACMR’s stake to 74.6%. While the timing is indeterminate, we anticipate the transaction likely occurs in 2025. The company has guided investors to expect that funds will be used to invest in growth. Yet, with a transition to cash generation on the horizon and the approval by ACMS of a \$38 million dividend payment to its shareholders by the end of 2024, some analysts covering the company have raised the prospect of a return of capital to ACMR shareholders.

VIII. Geopolitics and “China Risk”

Export Restrictions

On December 2, 2024, the U.S. added ACMR’s subsidiaries ACM Shanghai and ACM Research Korea Co., Ltd. (“ACM Korea”), along with 138 other companies related to semiconductor manufacturing in China, to its Entity List under its Export Administration Regulations. These regulations restrict U.S. suppliers from exporting products to ACM Shanghai and ACM Korea without a special license. They would also restrict certain non-U.S., non-China suppliers from supplying these entities if certain foreign direct product (FDP) rules apply. In reality, this is only the latest iteration of U.S. export restrictions to the Chinese semiconductor industry, a Biden policy which initially began in 2022, and ACM and other Chinese semiconductor companies have long been pivoting to non-U.S. suppliers and suppliers that can

bypass FDP-based export restrictions. ACMR management says that U.S. suppliers now supply maybe “a few percentage points” of the company’s COGS and remains confident that any supply chain issues can be effectively managed.

Further concern that these rules will materially slow down Chinese WFE spending also seem overblown to us. Again, the December 2 additions are merely the latest salvo in the United States’ wider war against China building out its indigenous semiconductor industry. China has been taking measures and will continue to take measures to source non-U.S. supplies, find ways to mitigate FDP-related export restrictions, and continue the build-out of its semiconductor manufacturing base. Most of ACMR’s Chinese customers have been on the BIS entity list for years, which hasn’t stopped Chinese WFE spend from growing at a high CAGR. In fact, after export controls were first announced in October 2022, it represented only a minor speedbump for both domestic and global WFE suppliers’ China revenue. In fact, over the past four quarters, China has accounted for 30-45% of revenue for the leading U.S. WFE companies.

China will continue to do whatever it can to foster the growth of its homegrown WFE industry, because its ability to source supplies and equipment from the U.S. and the West will continue to shrink over time. ACMR is a direct beneficiary of this, and these sorts of export restrictions form the fundamental pillar of our long thesis.

Historical China Revenue For Top WFE Suppliers After 2022 Trade Restrictions							
	2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	YoY%
Chinese Majors							
Naura	\$ 2,130	\$ 564	\$ 628	\$ 845	\$ 1,055	\$ 3,110	46%
AMEC	\$ 687	\$ 178	\$ 180	\$ 208	\$ 313	\$ 882	28%
ACMS	\$ 420	\$ 90	\$ 137	\$ 156	\$ 160	\$ 543	29%
Total	\$ 3,237	\$ 832	\$ 945	\$ 1,209	\$ 1,528	\$ 4,535	40%
International Majors							
Applied Materials (FQ1/Jan=CQ4)	\$ 6,412	\$ 1,405	\$ 1,734	\$ 2,963	\$ 2,997	\$ 9,099	42%
Lam Research	\$ 5,485	\$ 851	\$ 834	\$ 1,671	\$ 1,503	\$ 4,860	(11%)
Tokyo Electron	\$ 3,615	\$ 988	\$ 1,065	\$ 1,224	\$ 1,541	\$ 4,819	33%
KLA	\$ 2,957	\$ 633	\$ 707	\$ 1,031	\$ 1,028	\$ 3,398	15%
ASML (System revenue only)	\$ 2,378	\$ 465	\$ 1,469	\$ 2,584	\$ 2,452	\$ 6,970	193%
Screen (WFE only)	\$ 515	\$ 196	\$ 131	\$ 382	\$ 297	\$ 1,006	95%
Total	\$ 21,362	\$ 4,538	\$ 5,940	\$ 9,855	\$ 9,818	\$ 30,152	41%

Source: ACMR

Finally, we believe that the recent revelations around DeepSeek, which caused so much market volatility earlier this week, only support our core thesis on ACMR. Attempts to restrict China’s access to the hardware required to develop advanced AI models not only didn’t prevent China’s success, it resulted in the more efficient development of comparable technology - a great example of the law of unintended consequences that we expect will be repeated in the WFE market. A component of the bear thesis around ACMR is that, in the wake of tighter export restrictions, that China’s ability to build out fab capacity would be hamstrung, yet we believe the march of technology progress will continue with only modest disruption at best. If anything, we believe the DeepSeek news signals additional upside for China’s domestic semiconductor

industry, as it suggests the country will require more AI infrastructure to accommodate the greater demand for inference as DeepSeek usage grows.

J Capital Report

J Capital Research, a credible short activist with a track record of targeting Chinese companies, published a short report on ACMR in 2020 largely focused on accounting and related party issues. We disagree with the report's conclusions. While many in the short selling community have rightly focused their attention on U.S.-listed Chinese companies given their ability to evade the SEC's weak guardrails, Chinese securities regulators are no patsies and take the potential for fraud perpetrated on domestic investors quite seriously. ACM Research Shanghai had already filed for its IPO when the report was published, so the company had to file an extremely detailed 116-page response with regulators addressing the report's allegations, probably one of the most informative rebuttals to a short report we have seen. Today, the company is audited by Ernst & Young Hua Ming LLP and generates 5x times the revenue it did in 2019, delivering products to a trove of top-tier customers.

Investing in any company with Chinese operations involves elevated risk. However, we give ACMR kudos for better than average disclosure practices. Arguably the two biggest issues the company can reasonably address are revenue recognition and customer traction. We note that ACMR provides detailed disclosure around the composition of shipments, inventories, and progress with new products and customers. The company also provides detailed English-language disclosure of ACMS investor presentations in China, putting in securities filings information that might make some U.S.-listed technology companies uncomfortable. The overhang of any persistent China concerns is more than discounted in the current stock price.

IX. Valuation: Multi-bagger Upside

We think overly bearish sentiment overshadowed what was a remarkable 2024 for ACMR. The company repeatedly raised annual guidance throughout the year, announced its first tool qualification at Intel, and introduced several new products that capitalize on high-growth (and AI-related!) technology themes. Yet ACMR shares were down -23% for the year compared to a +19% gain for the PHLX Semiconductor Index (SOX).

ACMR Trades at a Massive Discount to U.S. and Chinese Peers

A comparison of ACMR's valuation to sets of comparable companies demonstrates the stark discount at which ACM Research's shares on NASDAQ trade. In the below table, we show data for four comparable companies sets: (1) small capitalization WFE companies, (2) large capitalization WFE companies, (3) Japanese WFE companies, and (4) Chinese WFE companies. We show the companies' sizes (market cap and revenue), growth, margin profiles, and valuation multiples, including both revenue and profit multiples. Despite superior anticipated

revenue growth and comparable profitability, ACMR trades at approximate 50-85% discounts to the various WFE medians.

ACMR Comparable Company Analysis (\$M)										
Company	Market Overview			LTM		YoY Rev Growth		2025E Multiples		
	Stock Price	1-Year Return	Market Cap	Revenue	EBITDA Margin	2024E	2025E	EV/Rev	EV/EBITDA	P/E
Axcelis Technologies	\$ 68.61	(49%)	\$ 2,230	\$ 1,076	25%	(11%)	(7%)	1.8x	11.0x	14.9x
Camtek	\$ 87.97	10%	\$ 3,993	\$ 401	30%	35%	14%	7.6x	23.6x	27.9x
Nova	\$ 232.38	59%	\$ 6,750	\$ 612	34%	28%	18%	7.9x	24.4x	30.3x
Onto Innovation	\$ 191.81	17%	\$ 9,474	\$ 942	28%	21%	17%	7.5x	21.8x	34.9x
Veeco Instruments	\$ 24.53	(25%)	\$ 1,393	\$ 709	21%	7%	1%	1.9x	12.2x	20.4x
Small Cap WFE Median		10%	\$ 3,993	\$ 709	28%	21%	14%	7.5x	21.8x	27.9x
Applied Materials	\$ 175.28	4%	\$ 142,450	\$ 27,176	33%	4%	7%	4.7x	15.1x	18.3x
KLA	\$ 712.97	19%	\$ 95,367	\$ 10,257	44%	11%	9%	8.4x	19.1x	24.5x
Lam Research	\$ 75.15	(11%)	\$ 96,694	\$ 15,591	34%	13%	11%	5.3x	16.3x	20.3x
Large Cap WFE Median		4%	\$ 96,694	\$ 15,591	34%	11%	9%	5.3x	16.3x	20.3x
Disco	\$ 292.18	6%	\$ 31,664	\$ 2,397	48%	21%	17%	10.6x	21.2x	33.2x
Lasertec	\$ 96.95	(64%)	\$ 8,744	\$ 1,417	45%	2%	20%	5.1x	11.0x	16.6x
SCREEN Holdings	\$ 68.84	(29%)	\$ 6,014	\$ 3,902	23%	9%	5%	1.2x	5.7x	11.1x
Tokyo Electron	\$ 160.53	(15%)	\$ 73,667	\$ 14,886	30%	11%	9%	4.5x	13.9x	22.9x
Japanese WFE Median		(22%)	\$ 20,204	\$ 3,150	38%	10%	13%	4.8x	12.4x	19.8x
AMEC	\$ 24.84	47%	\$ 15,455	\$ 1,102	20%	34%	39%	8.8x	35.9x	43.8x
Hwatsung Technology	\$ 21.84	46%	\$ 5,167	\$ 445	32%	37%	32%	7.2x	21.8x	27.7x
KINGSEMI	\$ 10.32	10%	\$ 2,073	\$ 230	12%	10%	53%	5.2x	22.5x	33.8x
NAURA Technology	\$ 51.99	54%	\$ 27,714	\$ 3,969	26%	32%	31%	5.0x	21.2x	26.2x
Piotech	\$ 19.67	23%	\$ 5,477	\$ 468	16%	45%	40%	7.5x	32.1x	40.3x
Skyverse Technology	\$ 12.31	48%	\$ 3,939	\$ 159	(7%)	48%	50%	14.1x	90.9x	110.1x
Chinese WFE Median		46%	\$ 5,322	\$ 456	18%	35%	40%	7.3x	27.3x	37.0x
ACM Research (Shanghai)	\$ 13.49	20%	\$ 5,917	\$ 729	23%	52%	21%	6.0x	25.2x	28.6x
ACM Research	\$ 17.48	(7%)	\$ 1,173	\$ 729	26%	37%	20%	1.1x	5.4x	10.3x

Source: S&P Capital IQ

Arguably the most direct comparable companies are the Chinese WFE players, all of which are traded in Shanghai. Despite featuring similar growth rates (adjusting for Chinese GAAP) and lower margins, ACMR's Chinese peers trade at 5x to 14x revenue and 26x to 44x P/E multiples. A simple re-rating of ACMR to its direct comparables set – other Chinese WFE national champions that will continue to be directed revenue by Chinese semiconductor customers for many years to come as the country aggressively builds out its homegrown industry – implies multi-bagger returns for ACMR shareholders.

Our large-cap WFE comparables set of Applied Materials, Lam Research, and KLA trades at median revenue and P/E multiples of 5x and 20x, respectively. Given the more mature profile of these global leaders with higher margins and larger revenue scale, a revenue multiple would be more appropriate to apply to ACMR, but we highlight that ACMR's profit profile does not differ too greatly from the sector's leaders despite being in the early stages of its growth curve. Applying the 5x revenue multiple of these large-caps implies over 300% returns for ACMR shareholders.

Small-cap WFE companies, in large part due to exposure to and growth expected from several suppliers' exposure to advanced packaging applications, trade at even higher multiples, about 8x revenue and 28x P/E ratios. Japanese WFE players trade a few turns lower, at a median of 5x revenue and 20x P/E, while featuring lower growth profiles than ACMR. In addition, while peer multiples have expanded by 50-100% on average since the beginning of 2023, ACMR multiples have remained flat or declined despite the company's many accomplishments. Thus, the simple conclusion is that valuing ACMR in line with practically any other WFE company yields tremendous upside.

Both High-Level Math and a Detailed DCF Support Massive Upside

We further illustrate the absurdity of ACMR's current valuation with two back of the envelope calculations: the value of ACMR's ownership stake in ACMS and future (2028E) EPS at a projected P/E multiple discounted back to the present. Both suggest massive upside.

Two Alternative Valuation Approaches			
Value of ACMR Stake in ACMS		Value Based on Discounted 2028E EPS	
ACMS Enterprise Value (RMB m)	¥ 41,889	Kerrisdale 2028E Diluted GAAP EPS	\$ 2.92
USD / RMB	7.25	Normalized WFE CY+1 P/E	30x
ACMS Enterprise Value (USD m)	\$ 5,777	Value in 2027	\$ 87.46
ACMR Ownership	82.1%	ACMR WACC	11.7%
Value of ACMR Stake in ACMS (\$ m)	\$ 4,743	Discounted 3 Years to Today	\$ 62.82
Less Net Debt	\$ (157)	ACMR Current Price	\$ 17.48
Implied ACMR Equity Value	\$ 4,900	Upside to Discounted Future EPS	259%
Implied ACMR Share Price	\$ 73.04		
ACMR Current Price	\$ 17.48		
Upside to Value of ACMS Ownership	318%		

Source: Kerrisdale analysis

Looking at current share prices, the company's subsidiary ACM Research (Shanghai) trades at a \$5.8 billion enterprise value on the Shanghai Stock Exchange STAR Market. Given ACMR's 82% ownership, that implies a value of \$4.7 billion for ACMR's stake. Adding net cash, the implied share price for ACMR is \$73, or over 300% higher than current trading levels.

In our second methodology, we forecast ACMR GAAP EPS of ~\$3 in 2028. We assume low-teens revenue growth over the next two years to be conservative after several years of heavy domestic Chinese spending, with growth re-accelerating to 29% in 2027 and then dropping to 25% in 2028, 18% in 2029, and 16% in 2030, driven by healthy mid-teens/low-twenties growth for ACMR's core cleaning business, 20-35% annual growth in the key ECP and furnace new products areas, and growth in track and PECVD revenue from zero currently to \$200 million in 2030. We assume that gross margins land in the high end of the company's 40-45% long-term guidance range due to favorable mix. The past year's levels were well above 50%. Finally, we assume ACMR can achieve 20-21% GAAP operating margins, assuming modest additional operating leverage above the ~19% expected for 2024. Applying a sector 30x P/E ratio to the

resultant ~\$3 of GAAP EPS and discounting back to the present at ACMR's 11.7% WACC yields a \$63 stock price, more than triple the current price.

Finally, we believe that our valuation thesis is supported by a 10-year discounted cash flow analysis. With healthy growth continuing into the 2030s, GAAP EBIT margins in the 21% range, an 11.7% WACC, and a 17.5x EV / LTM EBITDA exit multiple (relative to a current small-cap WFE average of 24x), we get a \$72 per share fair value for ACMR, representing 300%+ upside from current levels.

ACMR Discounted Cash Flow Analysis													
(\$ in millions, FYE December)	Historical			Projected									
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Revenue	389	558	755	860	975	1,258	1,570	1,858	2,150	2,451	2,769	3,102	3,443
EBIT	59	96	144	164	197	258	330	387	453	475	546	620	699
Income Tax Expense	(17)	(19)	(25)	(31)	(32)	(42)	(54)	(64)	(75)	(76)	(87)	(99)	(112)
EBIAT	42	76	119	132	165	216	276	323	378	399	458	521	587
Plus: Depreciation & Amortization	5	8	10	13	15	19	24	28	32	37	42	47	52
Less: Capital Expenditures	(91)	(62)	(102)	(65)	(68)	(82)	(94)	(102)	(107)	(123)	(138)	(155)	(172)
Less: Inc./(Dec.) in Working Cap.	132	185	122	62	23	37	57	0	(42)	(47)	(54)	(60)	(67)
Unlevered Free Cash Flow	(175)	(162)	(96)	19	88	116	149	249	344	361	415	472	533
Discount Period (mid-year)				0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5
Discount Factor				0.95	0.85	0.76	0.68	0.61	0.55	0.49	0.44	0.39	0.35
Present Value of Unlevered FCF				18	75	88	101	151	188	176	181	185	187

Valuation	Per Share Derivation	Assumptions
Terminal Value	Basic Shares Outstanding	Risk-free Rate (10yr T-Note)
13,134	62.6	4.5%
PV of Terminal Value	Dilutive Shares	Equity Beta
4,357	4.5	1.54
PV of Cash Flows	Fully Diluted Shares Outstanding	Equity Risk Premium
1,350	67.1	5.5%
Enterprise Value	Price Per Share	Cost of Equity
5,707	\$ 71.76	13.0%
Less: Total Debt	Current Price	Cost of Debt
176	\$ 17.48	3.0%
Plus: Cash and Equivalents	Premium/(Discount) to Current	Marginal Tax Rate
333	311%	17.5%
Equity Value		After-tax Cost of Debt
5,864		2.5%
Current ACMS Ownership		Target Percent Equity
82.1%		87.3%
Equity Value to ACMR Common		Target Percent Debt
4,814		12.7%
		WACC
		11.7%
		Terminal Multiple (LTM EBITDA)
		17.5x
		Implied Terminal Growth Rate
		7.1%

Source: ACMR SEC filings, S&P Capital IQ, Kerrisdale analysis

X. Conclusion

If it were 1995, would you invest in Lam Research or Applied Materials? China is pulling out all the stops to create its own set of platform WFE companies, and we bet it'll be successful. ACM Research has a front row seat at the show, and it'll either be one of the surviving platforms or bought out in the inevitable sector consolidation. If it's acquired, the payout will likely be a reasonable premium, say 30%, to where the Shanghai shares are trading. Most of the cash will take a speedy path to the pockets of the shareholders of ACMR, because that's the entity that founder and CEO David Wang owns shares of. Such a buyout would yield an immediate 5x windfall for U.S. shareholders at today's trading levels. ACMR is an enticing tuck-in for Naura or AMEC, and Wang must be intrigued by the prospect of making such a massive return overnight. In the absence of M&A, however, there remains a tremendous amount of white space for ACMR to grow into, and Premier Xi is one of the company's biggest cheerleaders. China is dead set on building out its chip sector and is gunning for global dominance. Regardless of the degree to which it gets there, ACM Research will be a much larger company ten years from now, or will be acquired. We're fully, not semi, excited about the upside available in ACMR shares.

Full Legal Disclaimer

As of the publication date of this report, Kerrisdale Capital Management LLC and its affiliates (collectively "Kerrisdale") have long positions in and call options on the stock of ACM Research Inc. (the "Covered Issuer"). In addition, others that contributed research to this report and others that we have shared our research with (collectively with Kerrisdale, the "Authors") likewise may have long positions in the stock of the Covered Issuer. The Authors stand to realize gains in the event that the price of the stock increases.

This report is not a recommendation to buy shares of any company, including the Covered Issuer, and is only a discussion of why Kerrisdale is long the Covered Issuer. We are not your financial advisor and we do not owe a fiduciary duty to you. We don't recommend that you do anything whatsoever – we don't even know who you are.

Following publication of the report, the Authors will transact in the securities of the Covered Issuer. The Authors may buy, sell or short shares of the Covered Issuer and other securities covered herein subsequent to publication. The Authors will continue to transact in the Covered Issuers' securities for an indefinite period, and such position(s) may be long, short, or neutral at any time hereafter regardless of the Authors' initial position(s) and views as stated in this report. Kerrisdale will not update this report to reflect changes in its positions.

All content in this report represents the opinions of Kerrisdale. The Authors have obtained all information herein from sources they believe to be accurate and reliable. However, such information is presented "as is," without warranty of any kind – whether express or implied. The Authors make no representation, express or implied, as to the accuracy, timeliness, or completeness of any such information or with regard to the results obtained from its use. All expressions of opinion are subject to change without notice, and the Authors do not undertake to update or supplement this report or any information contained herein.

This document is for informational purposes only. It is not intended as an official confirmation of any transaction. All market prices, data and other information are not warranted as to completeness or accuracy and are subject to change without notice. The information included in this document is based upon selected public market data and reflects prevailing conditions and the Authors' views as of this date, all of which are accordingly subject to change. The Authors' opinions and estimates constitute a best efforts judgment and should be regarded as indicative, preliminary and for illustrative purposes only.

This report discusses estimated fair values of securities and companies, utilizing valuation methodologies. Such estimated fair values are not price targets and the Authors will not hold securities until such estimated fair values are reached. The Authors may change their estimates of fair values at any time in the future without updating this report or disclosing the new fair values publicly. The Authors will also transact in the securities of the Covered Issuer and any companies covered herein for many reasons that have nothing to do with the Authors' estimates of the securities' fair values. The estimated fair values only represent a best efforts estimate of

the potential fundamental valuation of a specific security, and are not expressed as, or implied as, assessments of the quality of a security, a summary of past performance, or an actionable investment strategy for an investor.

Any investment involves substantial risks, including, but not limited to, pricing volatility, inadequate liquidity, and the potential complete loss of principal.

This document does not in any way constitute an offer or solicitation of an offer to buy or sell any investment, security, or commodity discussed herein or of any of the affiliates of the Authors. Also, this document does not in any way constitute an offer or solicitation of an offer to buy or sell any security in any jurisdiction in which such an offer would be unlawful under the securities laws of such jurisdiction. To the best of the Authors' abilities and beliefs, all information contained herein is accurate and reliable. The Authors reserve the rights for their affiliates, officers, and employees to hold cash or derivative positions in any company discussed in this document at any time. As of the original publication date of this document, investors should assume that the Authors are long shares of the Covered Issuer and stand to potentially realize gains in the event that the market valuation of the company's common equity is higher than prior to the original publication date.

The Authors shall have no obligation to inform any investor or viewer of this report about their historical, current, and future trading activities. In addition, the Authors may benefit from any change in the valuation of any other companies, securities, or commodities discussed in this document.

Kerrisdale does not provide investment advice to the readers of its reports. You understand and agree that Kerrisdale does not have any investment advisory relationship with you and does not owe fiduciary duties to you. Giving investment advice requires knowledge of your financial situation, investment objectives, and risk tolerance, and Kerrisdale has no such knowledge about you. In no event shall Kerrisdale and the Authors be liable for any claims, losses, costs or damages of any kind, including direct, indirect, punitive, exemplary, incidental, special or consequential damages, arising out of or in any way connected with any information presented in any Kerrisdale report. This limitation of liability applies regardless of any negligence or gross negligence of Kerrisdale and the Authors. You accept all risks in relying on the information presented in this report.

The information contained in this document may include, or incorporate by reference, forward-looking statements, which would include any statements that are not statements of historical fact. Any or all of the Authors' forward-looking assumptions, expectations, projections, intentions or beliefs about future events may turn out to be wrong. These forward-looking statements can be affected by inaccurate assumptions or by known or unknown risks, uncertainties and other factors, most of which are beyond the Authors' control. Investors should conduct independent due diligence, with assistance from professional financial, legal and tax experts, on all securities, companies, and commodities discussed in this document and develop a stand-alone judgment of the relevant markets prior to making any investment decision.

You agree that any dispute between you and Kerrisdale or the Authors arising from or related to this report or viewing the material presented herein shall be governed by the laws of the State of Florida, without regard to any conflict of law provisions. The failure of Kerrisdale to exercise or enforce any right or provision of this Full Legal Disclaimer shall not constitute a waiver of that right or provision. If any provision of this Full Legal Disclaimer is found by a court of competent jurisdiction to be invalid, the parties nevertheless agree that the court should endeavor to give effect to the parties' intentions as reflected in the provision and rule that the other provisions of this Full Legal Disclaimer remain in full force and effect, in particular as to the governing law and jurisdiction provision. You agree that regardless of any statute or law to the contrary, any claim or cause of action arising out of or related to this report or related material must be filed within one (1) year after the occurrence of the alleged harm that gave rise to such claim or cause of action, or such claim or cause of action be forever barred.