November 17, 2020

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November 17, 2020

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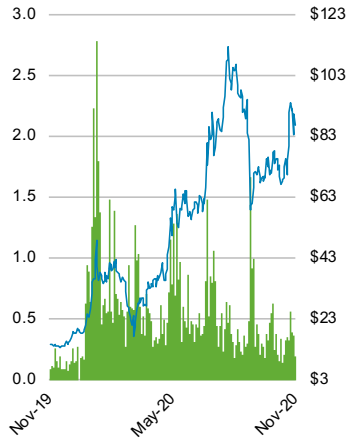
ACM Research (ACMR US)

Share Price in USD	$82.
Market Cap in USD (mln)	$1,519
P/E (TTM)	122x
Price/Revenue	11x

ACM Research (ACMR US) last share price in USD (blue, right) and volume (green, left, mln shares)



Source: S&P Capital IQ November 17, 2020

ACM Research (ACMR US)

Curiouser and Curiouser

We posed a number of questions for ACM Research (ACMR) before its Q3 results, but the quarter report just deepened the mystery.

Our biggest question is why ACMR seems so cash-starved when the company reported a cash balance of $92.2 mln in Q3 2020 and a positive operating cash flow. Nevertheless, the company took on new debt specifically to fund short-term working capital. Q3 2020 short-term debt rose from $25.8 mln in Q2 2020 to $28.3 mln.

Meanwhile, interest income earned from cash balances took a peculiar fall. Interest income earned during Q3 2020 was just $179,000 compared to end-period cash balances of $92.2 mln, a dramatic fall relative to the $320,000 in interest earned in the previous quarter, when end-period cash balances were lower, at $86.4 mln. In Q3 2020, the company incurred an interest expense of $272,000, far higher than interest earned. That emphasizes how strange it is that cash should coexist with debt. Unexplained discrepancies related to interest earned on cash balances are a well-known red flag.

The company now has a total of 15 different lines of credit, 14 from mainland China banks, of which 10 bear personal guarantees by CEO David Wang. No debt is collateralized or guaranteed by the company's assets on Mainland China, where the principal operations are located. This is highly unusual. If assets are real and unencumbered, why is the company unwilling to use Mainland China assets, including cash or subsidiary guarantees, against primarily Mainland Chinese debt obligations? Why the need at all for these lines of credit?

NOTE 6 – SHORT-TERM BORROWINGS

At September 30, 2020 and December 31, 2019, short-term borrowings consisted of the following:

	September 30, 2020	December 31, 2019
Line of credit up to RMB 50,000 from Bank of Shanghai Pudong Branch, due on January 23, 2020 with an annual interest rate of 5.22%, guaranteed by the Company's CEO and Cleanchip Technologies Limited. It was fully repaid on January 23, 2020.	$ -	$ 5,057
Line of credit up to RMB 20,000 from Shanghai Rural Commercial Bank, due on February 21, 2020 with an annual interest rate of 5.66%, guaranteed by the Company's CEO and pledged by accounts receivable. It was fully repaid on February 21, 2020.	-	1,433
Line of credit up to RMB 20,000 from Bank of Communications, due on January 18, 2020 with an annual interest rate of 5.66% and fully repaid on January 19, 2020.	-	1,433
Line of credit up to RMB 20,000 from Bank of Communications, due on January 22, 2020 with an annual interest rate of 5.66% and fully repaid on January 22, 2020.	-	717
Line of credit up to RMB 20,000 from Bank of Communications, due on February 14, 2020 with an annual interest rate of 5.66% and fully repaid on February 14, 2020.	-	717
Line of credit up to RMB 50,000 from China Everbright Bank, due on March 25, 2020 with an annual interest rate of 4.94%, guaranteed by the Company's CEO and fully repaid on March 24, 2020.	-	3,250
Line of credit up to RMB 50,000 from China Everbright Bank, due on April 17, 2020 with an annual interest rate of 5.66%, guaranteed by the Company's CEO and fully repaid on April 2, 2020.	-	1,146
Line of credit up to RMB 80,000 from China Everbright Bank, due on April 1, 2021 with an annual interest rate of 4.70%, guaranteed by the Company's CEO.	4,404	-
Line of credit up to RMB 80,000 from China Everbright Bank, due on June 27, 2021 with an annual interest rate of 4.25%, guaranteed by the Company's CEO.	1,321	-
Line of credit up to RMB 80,000 from China Everbright Bank, due on April 29, 2021 with an annual interest rate of 2.80%, guaranteed by the Company's CEO.	820	-
Line of credit up to RMB 80,000 from China Everbright Bank, due on June 27, 2021 with an annual interest rate of 2.70%, guaranteed by the Company's CEO.	2,079	-
Line of credit up to RMB 20,000 from Bank of Communications, due on April 12, 2021 with an annual interest rate of 4.65%.	1,468	-
Line of credit up to RMB 20,000 from Bank of Communications, due on May 24, 2021 with an annual interest rate of 3.65%.	1,468	-
Line of credit up to RMB 70,000 from Bank of Shanghai Pudong Branch, due on May 27, 2021 with an annual interest rate of 4.68%, guaranteed by the Company's CEO and Cleanchip Technologies Limited.	2,466	-
Line of credit up to RMB 70,000 from Bank of Shanghai Pudong Branch, due on June 27, 2021 with an annual interest rate of 4.68%, guaranteed by the Company's CEO and Cleanchip Technologies Limited.	1,321	-
Line of credit up to RMB 70,000 from Bank of Shanghai Pudong Branch, due on May 28, 2021 with an annual interest rate of 3.48%, guaranteed by the Company's CEO and Cleanchip Technologies Limited.	2,441	-
Line of credit up to RMB 70,000 from Bank of Shanghai Pudong Branch, due on June 7, 2021 with an annual interest rate of 3.50%, guaranteed by the Company's CEO and Cleanchip Technologies Limited.	1,521	-
Line of credit up to RMB 70,000 from Bank of Shanghai Pudong Branch, due on June 16, 2021 with an annual interest rate of 3.50%, guaranteed by the Company's CEO and Cleanchip Technologies Limited.	1,837	-
Line of credit up to RMB 30,000 from Bank of China Pudong Branch, due on December 17, 2020 with annual interest rate of 4.35%, guaranteed by the Company's CEO.	2,496	-
Line of credit up to RMB 80,000 from China Merchants Bank,due on August 10, 2021 with annual interest rate of 3.85%.	1,321	-
Line of credit up to RMB 80,000 from China Merchants Bank,due on August 25, 2021 with annual interest rate of 3.85%.	2,936	-
Line of credit up to KRW 500,000 from Industrial Bank of Korea, due on July 11, 2021 with an annual interest rate of 3.99%,guaranteed by the ACM-KOREA CEO.	428	-
Total	$ 28,327	$ 13,753

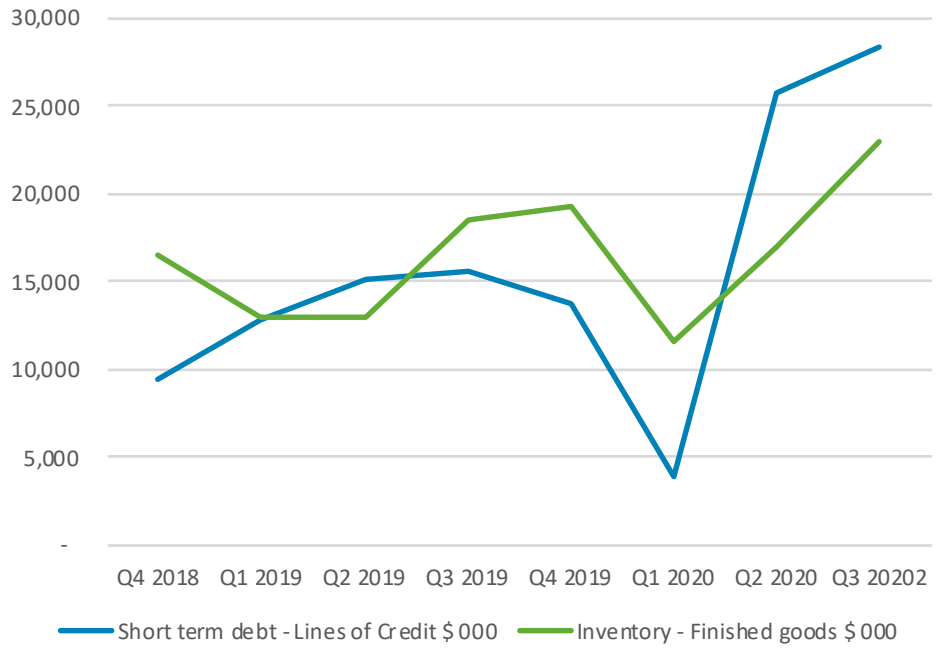
It could be dismissed as a coincidence that at end Q3 2020 the 15 different lines of credit happen to equal the estimated number of 15 delivered but not paid-for machines, apparently sitting at customer premises waiting to be paid for some day if they feel like it, whenever.....

> *"Since 2009 we have delivered* ***more than 120 single-wafer wet cleaning and other front-end processing tools, more than 105 of which have been accepted by customers*** *and thereby generated revenue to us and the balance of which are awaiting customer acceptance should contractual conditions be met."*

Yet quarterly trends also show a strong correlation between lines of credit value compared to finished goods inventory by value. Despite this correlation, the company has not disclosed that this mysteriously finished inventory was used directly or indirectly as collateral to obtain bank loans. This inventory is not located at the company warehouse for the auditors to physically

check, nor are there tax receipts or cash transactions for auditors to verify, because no sale has been booked. Cash balances could easily be used instead of debt. If this difficult-to-verify inventory has been collateralized, it cannot be sold without great difficulty. If it exists only notionally for the purpose of gaining bank loans, it either cannot be sold or it hides substantial losses.

Chart 1. Lines of Credit vs. Finished Inventory



Source: Company disclosures

Disclosures in the most recent quarterly filings shows ACMR can take on part of the "working capital" debt through gold leasing. Since we don't understand this esoteric form of credit, we spoke with Chinese bankers from Ping An Bank and ICBC. They said this form of credit is fairly common among miners and jewelers but rare for industrial companies. A Ping An gold-leasing specialist told us that manufacturers who use gold leasing are either speculating on the price of gold—if it declines, you pay less for the loan—or bulking up their balance sheets.

"If you make semiconductor cleaning equipment," the banker said, "the gold you secure for leasing becomes your inventory. It's really a trading security, but no one can tell it apart from other inventory. It does not show up as debt. It's purely a way to fatten the balance sheet."

Special Provisions on Gold Leasing Business

1. "Gold leasing" refers to the business in which Party A leases physical gold to Party B, and upon expiration, Party B will return the same amount of gold of the same property and pay the lease fee in RMB to Party A on time.

2. Party A may handle the gold leasing business for Party B within the credit period and the credit line based on Party B's application. The physical gold leased by Party A shall utilize the credit line with the value prescribed in the gold lease agreement between both parties, and it shall constitute Party B's debt owed to Party A.

Source: ACMR 10Q, November 9, 2020

The gold leasing provision is yet another reason to doubt that ACMR actually has or can access the $92.2 mln it claims to have in cash. ACMR filings define Party A as China Merchants Bank, and Party B as ACM Research (Shanghai).

Some other issues:

- ACMR gifted $18 mln to a group of related parties, including someone who is the company's largest sales agent and a major supplier. The Q3 2020 report includes an agreement granting 242,681 warrants at $7.50 each for shares in ACMR to Shengxin (Shanghai) Management Consulting Limited Partnership (SMC). The shares are currently trading at $82.

Table 1. Selected Shareholders of Shengxin (Shanghai) Management Consulting

Name of Partner	Category of Partner	Shareholding Percentage	Amount of Subscribed Contribution (in RMB ten thousand)	Position	J Cap Note
YUN MA	Limited Partner	9.54%	200.000	No position in the Company	Business partner of sales agent and supplier Wang Beiyi via Xinwei Consulting
YITONG TANG	Limited Partner	7.75%	162.500	No position in the Company	Equity owner in semi equipment company Unisemipower
GANG HUANG	Limited Partner	4.65%	97.500	No position in the Company	Partner in Xinwei Consulting, a shareholder in ACM Shanghai. Represents a U.S. industrial controls company called Cimetrix.
BEIYI WANG	Limited Partner	2.32%	48.750	No position in the Company	Owner of Lida Technology, responsible for 41% of 2019 sales, and of ACMR supplier Shengyi Semiconductor
BAOMING LI	Limited Partner	1.55%	32.500	Core Business Personnel	100% owner of Yixun Autos, an R&D "partner" to ACMR
HONG ZHOU	Limited Partner	1.55%	32.500	Core Business Personnel	Shareholder of a semiconductor company in Wuxi
YUFENG HUANG	Limited Partner	0.31%	6.500	Core Business Personnel	Chief rep of Cimetrix and shareholder of an investment company in Shanghai

Source: ACMR June 1, 2020 8K, Chinese AIC records via Qixin and Qichacha

- ACMR again made extensive new disclosures to Shanghai regulators and failed to inform U.S. investors. Among the details that readers of Chinese learned:

  - ACMR inflates its gross profit margin by foisting production costs off on the R&D budget. There are several ways in which ACMR hides costs. One key manner is to charge raw materials to the R&D budget. In a document submitted to Shanghai regulators, ACMR reported that some materials for machines, which are always customized, are paid for on the R&D budget. On page 8-1-1-208 of the company's recent responses to Shanghai regulators[1] entitled "Regarding R&D Expenses," ACMR reported that ¥18.7 mln in raw materials in H1 2020, 5.3% of revenue in the half, were charged to the R&D budget. Adding these materials to cost of goods sold in H1 would have lowered gross margin from

1 Download the Chinese-language document here: https://jcapitalresearch.box.com/s/2kh0quwqkfjtew1ow0f0k5uxe6wdxddb or on the J Capital website: https://www.jcapitalresearch.com/acmr.html

46.7% to 42.2%. If the purported R&D expenses were added to COGS for Q3 2020, as we believe they should be, gross margin would drop by 20 points. There are other suspicious charges to R&D, such as direct labor, that inflate margin. We also suspect that ACMR may be using this R&D ruse, along with demo tools, to avoid paying VAT, thus boosting profit margins further but risking penalties, a reversal of this strategy, and unwelcome regulatory scrutiny on its proposed STAR IPO listing.

问题 26.2（1）报告期各期研发费用中物料消耗的具体内容、金额及变化原因；

报告期内，公司研发费用中物料消耗的具体内容、金额如下：

单位：万元

项目	2020 年 1-6 月	2019 年度	2018 年度	2017 年度
机械类	1,014.75	1,373.51	693.92	588.85
气路类	645.83	984.22	541.69	348.32
电气类	118.27	111.45	284.80	273.87
物料传送	10.81	71.90	264.90	365.31
特种装置类	66.10	29.12	73.22	298.53
驱动类	2.85	9.50	27.64	61.40
其他	16.19	84.41	121.02	127.06
总计	1,874.79	2,664.11	2,007.19	2,063.33

Page 8-1-1-208 of the ACMR response to Shanghai regulators

Question 26.2 (1) The reason for the specific content, amount spent, and changes to material consumption in the R&D expenses of each period:

During the reporting period, the specific content and amount of material consumption in the company's R&D expenses are as follows:

Unit: 10,000 RMB

Category	H1 2020	2019	2018	2017
Machinery	1,014.75	1,373.51	693.92	588.85
Airways	645.83	984.22	541.69	348.32
Electronics	118.27	111.45	284.8	273.87
Logistics	10.81	71.9	264.9	365.31
Special equipment	66.1	29.12	73.22	298.53
Drives	2.85	9.5	27.64	61.4
Other	16.19	84.41	121.02	127.06
Total	1,874.79	2,664.11	2,007.19	2,063.33

- The STAR company and ACMR US have adopted rules to keep ACMR US from "making use of the issuer's funds." This provides an added layer of certainty that U.S. investors will not be able to access any profits that could come from the Shanghai subsidiary, where 98% of ACMR's business takes place.

- The company responded to J Capital's detailed report only to claim that all its disclosures are accurate.

ACMR continues its tradition of giving equipment away to customers and letting them pay if they feel like it. The company reports that 12.5% of equipment delivered since 2009 has not been paid for:

> Using a "demo-to-sales" process, we have placed evaluation equipment, or "first tools," with a number of selected customers. Since 2009 we have delivered more than 120 single-wafer wet cleaning and other front-end processing tools, more than 105 of which have been accepted by customers and thereby generated revenue to us

and the balance of which are awaiting customer acceptance should contractual conditions be met. (Q3 2020 10-Q page 26)

ACMR helpfully specifies that this "pay if you feel like it" equipment is counted as finished goods inventory: "Finished goods inventory represents 'demo-to-sales' product which have been delivered to customers for evaluation." (Q3 2020 earnings presentation page 8) CFO Mark McKechnie specified on the earnings call that the inventory uptick in Q3 was for demo tools.

Table 2. Growth of Increments in Receivables vs. Sales

in mln USD	Q1 2020	Q2 2020	Q3 2020
Sales Growth YoY	$3.85	$10.04	$14.24
Accounts Receivable Growth YoY	$12.16	$27.51	$16.65

Source: Company disclosures

- The company reported high sales growth of 43% YoY but seemed to be strapped for cash, stretching its working capital

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