ROLL-UP MERCURY SYSTEMS SET TO UNRAVEL

NASDAQ: MRCY
MERCURY SYSTEMS, INC.

NASDAQ: MRCY

SUMMARY

Initiation of Mercury Systems (MRCY) with a Strong Sell Opinion

Mercury Systems is a serial acquirer that uses acquisitions to mask suspect revenues and earnings.

As the core business continues to decay, management’s recent premature revenue recognition and transition to long-term contracts have backfired as milestone delays and outsized contract assets are material headwinds for the company moving forward.

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Roll-Up Model at Mercury Conceals Deteriorating Core Company

Mercury Systems (MRCY) is a technology company that produces components, modules, and subsystems for the aerospace and defense industries. Over the twelve-trailing-months, stated organic revenue growth was negative for the first time since FY2018, putting management in a precarious position. Our analysis on MRCY will reveal how management has used accounting gimmicks to obfuscate true economic earnings while concealing the decay of its core company.

Our short thesis revolves around the following:

- Stated organic decline of 9.0% in the latest period is severely overstated (we calculate true organic decline of 19.5%).
- MRCY’s recent Physical Optics acquisition has been a disaster with all prior estimates falling well short of initial targets.
- Management has prematurely recognized revenue on significant projects boosting both revenue and earnings unsustainably.
- Program delays and lack of critical parts have wreaked havoc on inventory, which will negatively impact margins going forward.
- Recent acquisitions have been used to obfuscate true economic earnings with material non-GAAP exclusions employed over the TTM.
- And finally, the already dire stated TTM free-cash-flow of $–2.7 million is also grossly overstated as the company has been stiffing its vendors to conserve cash.

On 08/03/21, management introduced a new cost-cutting program called “1MPACT”. “From a financial standpoint, 1MPACT is expected to yield estimated annualized net savings of $30-$50 million by FY2025, with approximately $22 million of this total expected to be realized in FY2022,” CEO Mark Aslett stated in the Q4 FY2021 earnings call. Time and time again, we have analyzed companies that introduced new strategic programs to reduce cost and increase earnings, only for them to use the restructuring program as a non-GAAP safe haven.

Based on our analysis, we believe this is happening at Mercury Systems, with management stuffing normal everyday expenses into its non-GAAP excluded “restructuring” expenses. It also appears that management is still gung-ho on continued acquisition expansion that will lead to heightened “one-time” charges.
Reported Organic Revenue is Greatly Overstated

Mercury Systems is non-apologetic about its growth strategy to $1 billion in sales for fiscal year 2022. Management is myopically focused on hitting this goal in Q4, through either non-existent organic growth or acquisitions. Discussing this goal with long-term targets, management introduced 1MPACT, a new program focused on increasing growth and efficiency in the FY2021 10K:

1MPACT
On August 3, 2021, we announced a companywide effort, called 1MPACT, to lay the foundation for the next phase of our value creation at scale. The goal of 1MPACT is to achieve our full growth, margin expansion and adjusted EBITDA potential over the next five years. Since fiscal year 2014, we have completed 13 acquisitions, deploying $1.2 billion of capital and, as a result, dramatically scaled and transformed the business. Over this time, we have extracted substantial revenue and cost synergies from these acquisitions.

Now, as we approach the milestone of $1 billion of revenue, we believe there is significant opportunity to realize further scale through consolidating and streamlining our organizational structure which will improve visibility, speed of decision making and accountability.

Since 08/03/21, Mercury acquired two more companies, Avalex and Atlanta Micro in FY2022. A main focal point of our thesis revolves around management’s reckless aspiration of $1 billion in revenue by any means necessary. Illustrating this trend, MRCY’s organic growth has fallen off a cliff over the past fiscal year, trending negative from Q4 FY2021 onward. In the last four periods, organic revenue declined 3.0%, 11.0%, 13.0%, and 9.0% YOY, in periods Q4 FY2021, Q1, Q2, and Q3 FY2022, respectively. Organic growth has bifurcated from stated consolidated growth as the company only reported a consolidated revenue decline in the latest period of 1.5% YOY.

In the Q4 FY2021 earnings call, CEO Mark Aslett detailed the weakness in organic growth that afflicted the company:

Throughout fiscal ’21 and as we discussed, our organic revenues were impacted by COVID-related modernization delays on SEWIP and other naval surface programs. Customer execution issues on the F-35 TR3 and a delay in a large foreign military sale. In addition to lowering bookings, these issues combined reduced our organic revenue growth by approximately 5 percentage points for the year. On our call last quarter, we previewed fiscal ’22, expecting mid- to high single-digit organic growth, leading to total company revenue growth in the mid-teens.
Given our experience in fiscal '21, we've taken a more conservative stance on organic growth for fiscal '22. This includes reducing our expected fiscal '22 revenues from SEWIP and other naval fleet upgrades, the F-35 and certain FMS programs. The biggest change since our last quarter relates to LTAMDS. Raytheon at their recent Investor Day said that the next LTAMDS award will likely be in their next fiscal year. We have been expecting a large booking in the second quarter of fiscal '22.

This booking has now moved to our fiscal '23 with revenue spread over several years. Like SEWIP and F-35, LTAMDS is an important well-funded program. It's the largest single design win in the company's history to date and will be a significant driver of growth beginning in fiscal '23 and over the course of the next 5 years and beyond.

As Mike will discuss in detail, as a result of these changes, we're now expecting flat organic growth in fiscal '22. We're expecting approximately 10% total company revenue growth prior to future M&A, eclipsing $1 billion for the first time and record adjusted EBITDA. We're expecting a number of programs to drive growth in fiscal '22. These include revenue associated with the large FMS order that was delayed in Q1 last year.

In Q2, management revised organic revenue estimates downward after already doing so in the beginning of the fiscal year. CFO Michael Ruppert then disclosed the following in the Q2 earnings call:

“For full fiscal '22, we're maintaining our prior guidance for revenue, adjusted EBITDA and adjusted EPS. Our updated guidance incorporates the acquisitions of Avalex and Atlanta Micro as well as a more cautious organic revenue outlook, primarily due to elevated supply chain risk. We continue to expect fiscal '22 to be weighted towards H2 and especially Q4 as margins expand and free cash flow begins to normalize. Given our backlog at the end of Q2 and forecasted Q3 bookings, we expect to exit Q3 with strong visibility into Q4.

Organically, the midpoint is a 3% revenue decline year-over-year, reflecting the supply chain and other risks I previously mentioned.”
Management kept the fiscal year organic decline of 3% guidance (consolidated guidance of $1.00 to $1.02 billion) in Q3 even after posting another 9.0% decline. They also declined to give any guidance for fiscal year 2023. After organic revenue declines in four consecutive periods, we estimate that Mercury would need to report an organic growth rate of 18% in Q4 to hit their mid-point guidance. That’s a tall task for a company that revised their organic estimates downward twice in one year and delayed some of its largest projects such as the aforementioned SEWIP, F-35, TR3 and LTAMDS (AKA GhostEye).

Table 1: Organic Versus Acquired Revenue

<table>
<thead>
<tr>
<th>Period Ended</th>
<th>Q3 2022</th>
<th>Q2 2022</th>
<th>Q1 2022</th>
<th>Q4 2021</th>
<th>Q3 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stated Organic Revenue</td>
<td>$233.7</td>
<td>$182.9</td>
<td>$183.7</td>
<td>$210.0</td>
<td>$218.4</td>
</tr>
<tr>
<td>Acquired Revenue</td>
<td>$19.3</td>
<td>$37.5</td>
<td>$41.3</td>
<td>$40.8</td>
<td>$38.5</td>
</tr>
<tr>
<td>Consolidated Revenue</td>
<td>$253.1</td>
<td>$220.4</td>
<td>$225.0</td>
<td>$250.8</td>
<td>$256.9</td>
</tr>
<tr>
<td>Organic Growth (%)</td>
<td>−9.0%</td>
<td>−13.0%</td>
<td>−11.0%</td>
<td>−3.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Management Concealing Degeneration of Physical Optics Acquisition

Digging deep into MRCY’s disclosed acquired revenue numbers, we find many red flags when looking into the company’s recent acquisition performance figures. In one of the company’s largest acquisitions to date, MRCY acquired Physical Optics Corporation (POC) for $310 million in total consideration. Management revealed high hopes for synergies and revenue estimates at the time detailing the following in the Q2 FY2021 earnings call:

> As we stated when we announced POC, the company had calendar year ’20 revenue of approximately $120 million.

> We expect the business to grow at a high single digit, low double-digit rate in calendar year ’21, weighted towards the second half of the calendar year. The midpoint of our guidance for

1 A 3% decline represents a target organic revenue figure for FY2022 to be $896.3 million.
fiscal '21 assumes that POC will generate approximately $60 million of revenue for Mercury's H2 and $10.5 million of EBITDA or approximately 18% EBITDA margins. We expect revenue from the POC business to continue to grow at a high single digit, low double-digit rate in fiscal '22 and EBITDA margins to expand.

Based on the statement above, we would expect POC to report revenues of approximately $30 million in Q1 and Q2 FY2022 followed by revenue near $36 million in Q3 and Q4 FY2022. While everything seemed to be going to plan in the H1 FY2022, we estimate that POC's revenue figures have fallen off a cliff and has also been concealed by management.

Illustrating this, management previously disclosed in both the Q4 and Q3 FY2021 filings the exact amount of acquired revenue attributed to POC (below).

This excerpt was curiously removed in the following 10Q filings subsequently, with management only disclosing the total amount of acquired revenue. This is where things get interesting. In Q2 FY2022, management again disclosed the total $37.5 million in acquired revenue on the conference call, however in the 10Q filing revenue section, this was disclosed as $37.3 million. A small difference, however, it is rare that a company this size would make a numerical error like this in a filing.

Specifically, the 10Q states, “The increase in total revenue was primarily due to an additional $37.3 million of acquired revenues primarily from the POC business, partially offset by $27.6 million less organic revenues.” The same 10Q also discloses that acquired revenue from the Atlanta Micro and Avalex acquisitions contributed $6.0 million to revenue. Again, why disclose these two revenue amounts, but not POC or Pentek?

Therefore, if total acquired revenue was $37.5 million and Atlanta/Avalex contributed $6.0 million, that leaves only $31.5 million between Pentek and POC. If we assume Pentek reported near $5 million in revenue based on

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2 This is based on a 10% revenue rise from $120 million ($132 million) with an estimated back half weighting.
management estimates\textsuperscript{3}, that leaves POC with a depressed revenue figure of $26.5 million, well below the $36.0 million guidance given by management.

An explanation for the rapid decline may be attributed to POC losing its small business status after being acquired by Mercury. Shown by the chart below, we can see that awards given to POC by the SBIR (Small Business Innovation Research) was substantial going back over 10 years.

However, since the time of acquisition (12/30/2020), the awards have fallen off a cliff, presumably due to losing their small business status. With the lack of disclosures and comments made by management regarding one of the largest acquisitions ever made at the company, we believe management has been less than forthright when discussing the weakness in this material acquisition.

\textbf{Exhibit 1: Physical Optics Corporation Awards from SBIR}

\textsuperscript{3} For Mercury’s fiscal year ending July 1, 2022, Pentek is expected to generate revenue of approximately $20 million with profit margins in line with Mercury’s. The acquisition is expected to be immediately accretive to adjusted EPS. [Press Release 05/27/21]
Abnormal Contract Assets Rise Provide Aesthetic Boost to Revenues

Our analysts at GHR intend to show that without the added aesthetic boosts to revenue using its percentage-of-completion accounting, MRCY’s reported consolidated and organic revenue figures would have deteriorated to much lower figures. Based on our analysis on net contract assets (discussed in the next section), we believe that MRCY benefitted from a staggering $110 million in questionable revenue over the TTM.⁴

Looking into specific quarters, based on the abnormal rise in net contract assets (i.e. subjective revenue), we estimate that revenue was artificially bolstered by $27.8 million, $43.1 million, $20.2 million, and $18.8 million in periods Q4 FY2021 and Q1, Q2, and Q3 FY2022, respectively.⁵ This provides a one-time boost to the top and bottom lines, which we predict will violently unwind over the next year, as management prematurely recognized revenue on its delayed projects.

Chart 1: Organic and Consolidated Revenue Growth Trends

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⁴ Analysis provided in the net contract assets section on Page 14.
⁵ Analysis provided in the net contract assets section on Page 14.
Mercury’s Contract Assets Reach Historic Highs

GlassHouse analysts have an abundance of experience analyzing long-term contract companies like Tutor Perini, Cubic Corporation, and Aerojet Rocketdyne. A crucial harbinger in determining their future demise lies within the company’s percentage-of-completion (PoC) accounting. When costs in excess of billings surge, and inversely, billings/deferred revenues decline relative to historical norms, we can predict: 1) future shortfalls in sales and earnings, 2) delays and missed milestones are encumbering certain projects, and/or 3) management may be recognizing revenue prematurely.

Long-term trends clearly illustrate how Mercury’s revenues shifted from primarily “point-in-time” contracts to a majority of long-term contracts (see Chart 2, Page 12). This has great implications for revenue recognition and has caused a massive premature revenue problem at MRCY. For example, it’s easier to determine the performance obligations of point-in-time revenue rather than long-term contracts, which are highly complex to estimate.

As such, performance obligations for long-term/fixed price contracts rely heavily on management subjectivity. Take a look at this excerpt from the latest 10K:

Accounting for long-term contracts requires significant judgment relative to estimating total contract revenues and costs, in particular, assumptions relative to the amount of time to complete the contract, including the assessment of the nature and complexity of the work to be performed. Our estimates are based upon the professional knowledge and experience of our engineers, program managers and other personnel, who review each long-term contract monthly to assess the contract’s schedule, performance, technical matters and estimated cost at completion. Changes in estimates are applied retrospectively and when adjustments in estimated contract costs are identified, such revisions may result in current period adjustments to earnings applicable to performance in prior periods. [underline added]

We are not surprised that contract assets skyrocketed while long-term contracts rose to such a substantial portion of Mercury revenues. Subjective revenue can lead to accounting gimmicks where fantom revenue is either recognized early or shifted in at the end of a period to hit bonus goals.

Because management, rather than outside auditors, determines its own revenue and profits each period, we believe that Mercury managers are highly motivated to game the system for their own benefit. Later in our analysis, we
reveal that the C-Suite at Mercury have been too liberal in recognizing recent revenues and profits, all at the expense of future earnings and potential restatements.

But don’t just take our word for it, take that of MRCY’s auditor, KPMG, critical audit matter (CAM) opinion regarding percentage-of-completion revenue from the 2021 10K:

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We identified the evaluation of total contract costs to be incurred for fixed price contract revenue recognized over time as a critical audit matter given the complex nature of the Company’s products sold under such contracts. In particular, evaluating the Company’s judgments regarding the amount of time to complete the contracts, including the assessment of the nature and complexity of the work to be performed, involved a high degree of subjective auditor judgment.
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While the CAM disclosed above by Mercury’s auditor KPMG is fairly boilerplate for long-term contract companies, we are more concerned with the magnitude of lower margin, long-term contract revenue that has taken over as the primary revenue source (see Chart 2, below). The higher percentage of revenue that comes from fixed price contracts, the more power management has regarding revenue recognition.

Furthermore, since these are on a fixed-price, rather than cost-plus basis, margins will continue to dwindle as delays run rampant at Mercury. CEO Mark Aslett discussed the recent margin degradation in the Q3 earnings call:

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So, I think if you look at the majority of our revenue today is fixed price, and we're largely operating on the commercial terms. This year, with POC, we estimate that roughly $40 million is cost-plus reimbursable. The cost-plus type contracts do allow you to pass on higher cost to the customer where fixed price contracts typically do not.
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In the same call, management pointed to margin expansion in FY2023 as certain “programs transition to production.” However, when looking at MRCY’s trends toward lower margin long-term contracts, we find it hard to believe this will be the case.
Skyrocketing Contract Assets Suggest a Pull-Forward of $110 million of Revenue

Over the last two fiscal years, our analysts tracked a salient rise in contract assets (AKA unbilled receivables) at Mercury, giving us grave cause for concern. Due to MRCY’s client base, this is not a credit concern, but a revenue recognition red flag, which we deem to be much worse. Thus, the focus of our research is mainly on unbilled, rather than billed, receivables. These risky types of receivables represent revenue already recognized by management; however, the client has yet to be billed or agreed on any type of pricing.

When contract assets continue to grow as contract liabilities decrease, it creates a cash flow problem. It also means:

1) The company is spending faster than they are billing on their projects
2) The project managers are behind in getting their bills out, and/or
3) The company has costs on the balance sheet that are actually losses, such as job overruns or change orders that are not or will not be approved.
Basically, contract assets represent revenue that has been recognized by management on the income statement but has not been invoiced or agreed upon by the client yet. This recognized revenue is totally subjective and up to MRCY management’s decision making. Below, we lay out Mercury’s hostile contract assets trends, which will be a threat to future persistence of earnings:

- In the latest period (Q3 FY2022), 3M revenue was lackluster, declining 1.5% YOY to $253.1 million while contract assets surged 75.1% YOY to $242.3 million. We won’t sugar coat this. It is extremely rare to have such a bifurcation between revenue and receivable trends in the same period.

- Three-month unbilled DSO\(^6\) rose by 71.7% YOY to a five-year-high of 79 days. Longer-term trends display 12M unbilled DSO rising by 60.8% YOY to 72 days, representing a five-year high for the company (see Table 2, below).

- Unbilled receivables account for over 66.0% of current receivables at the end of Q3 FY2022, the highest value reported by MRCY in the last five years (five-year average of 40.9%). See Chart 3, on Page 14.

Table 2: Unbilled Receivables/Contract Assets Metrics ($ in millions)

<table>
<thead>
<tr>
<th>Period Ended</th>
<th>Q3 2022</th>
<th>Q2 2022</th>
<th>Q1 2022</th>
<th>Q4 2021</th>
<th>Q3 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Assets / Unbilleds</td>
<td>$242.3</td>
<td>$193.8</td>
<td>$194.4</td>
<td>$162.9</td>
<td>$138.4</td>
</tr>
<tr>
<td>Contract Assets to Total AR (%)</td>
<td>66.0%</td>
<td>60.5%</td>
<td>64.5%</td>
<td>55.8%</td>
<td>52.4%</td>
</tr>
<tr>
<td>Unbilled 3M DSO (days)</td>
<td>79</td>
<td>80</td>
<td>72</td>
<td>55</td>
<td>46</td>
</tr>
<tr>
<td>Unbilled to 12M DSO (days)</td>
<td>72</td>
<td>62</td>
<td>56</td>
<td>49</td>
<td>45</td>
</tr>
</tbody>
</table>

YOY

| Contract Assets (%) | 75.1% | 62.4% | 78.7% | 80.4% | 59.3% |
| Contract Assets to Total AR (bps) | 1,359 | 1,085 | 1,220 | 1,300 | 1,183 |
| Unbilled 3M DSO (%) | 71.7% | 62.7% | 64.0% | 47.4% | 40.9% |
| Unbilled to 12M DSO (%) | 60.8% | 53.1% | 52.2% | 46.6% | 39.9% |

\(^6\) Three-month unbilled days sales outstanding (3M unbilled DSO) = Average current contract assets QOQ / 3M Sales * 91.25. Twelve-month unbilled days sales outstanding (12M DSO) = Average current contract assets YOY / 12M Sales * 365.
Chart 3: Billed and Unbilled Receivables Trends

Net Contract Assets Spike 50% YOY in Q3 FY2022

Our analysts like to evaluate both contract asset and liability trends to get a full picture of a firm's quality of revenues. In most cases, a company with a net balance near $0 or negative would signal positive earnings quality, meaning the firm's customer advances are above unbilled AR. This is not the case for MRCY, as shown by our calculations below:

- We calculate Mercury’s net contract assets (NCA) as total contract assets net of total contract liabilities. NCA reached its highest absolute value in company history surging by 49.8% YOY to $346.3 million in Q3 FY2022.

- As a result, NCA jumped by 4,685 bps YOY to 136.8% relative to quarterly sales, representing the highest ratio reached in any period over the past five years. Net contract assets-to-12M sales also reported the highest value reached in the last five years at 36.5%.

- We can reverse engineer Mercury’s NCA balance using the firm’s NCA relative to sales from the prior period to quantify the impact of recognizing this revenue earlier than the historical standard. We calculate that MRCY
recognized an astonishing $110.0 million gain in revenue (also pure margin gains) over the TTM.\(^7\) Breaking this down by period, that denotes a revenue boost of $18.8 million, $20.2 million, $43.1 million, and $27.8 million in periods Q4 FY2021, Q1, Q2, and Q3 FY2022, respectively.

- Without this $110.0 million artificial tailwind, stated and organic revenue would have declined greatly over the TTM, missing management's outlook by a mile! This substantial sum would have also pressured the recent negative organic figures into dire territory. Considering organic versus acquired revenue, we estimate that organic revenue would have declined by 19.5% if not for this aesthetic boost to revenues.\(^8\)

Table 3: Net Contract Assets Metrics
($ in millions)

<table>
<thead>
<tr>
<th>Period Ended</th>
<th>Q3 2022</th>
<th>Q2 2022</th>
<th>Q1 2022</th>
<th>Q4 2021</th>
<th>Q3 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Contract Assets (NCA)</td>
<td>$346.3</td>
<td>$285.2</td>
<td>$270.6</td>
<td>$253.6</td>
<td>$231.1</td>
</tr>
<tr>
<td>NCA-to-3M sales (%)</td>
<td>136.8%</td>
<td>129.4%</td>
<td>120.2%</td>
<td>101.1%</td>
<td>90.0%</td>
</tr>
<tr>
<td>NCA-to-12M sales (%)</td>
<td>36.5%</td>
<td>29.9%</td>
<td>28.7%</td>
<td>27.4%</td>
<td>26.0%</td>
</tr>
<tr>
<td>NCA 3M DSO (days)</td>
<td>114</td>
<td>115</td>
<td>106</td>
<td>88</td>
<td>78</td>
</tr>
<tr>
<td>NCA 12M DSO (days)</td>
<td>107</td>
<td>96</td>
<td>88</td>
<td>84</td>
<td>83</td>
</tr>
<tr>
<td>YOY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Contract Assets (%)</td>
<td>49.8%</td>
<td>37.9%</td>
<td>49.5%</td>
<td>32.2%</td>
<td>14.7%</td>
</tr>
<tr>
<td>NCA-to-3M sales (bps)</td>
<td>4,685</td>
<td>3,127</td>
<td>3,225</td>
<td>1,287</td>
<td>-691</td>
</tr>
<tr>
<td>NCA-to-12M sales (bps)</td>
<td>1,052</td>
<td>536</td>
<td>675</td>
<td>337</td>
<td>-70</td>
</tr>
<tr>
<td>NCA 3M DSO (%)</td>
<td>46.4%</td>
<td>37.0%</td>
<td>28.5%</td>
<td>6.8%</td>
<td>-6.3%</td>
</tr>
<tr>
<td>NCA 12M DSO (%)</td>
<td>28.5%</td>
<td>15.0%</td>
<td>8.7%</td>
<td>1.6%</td>
<td>-1.4%</td>
</tr>
</tbody>
</table>

\(^7\) With a net contract asset value of 129.4% in Q2 FY2022 ($285.2 million of NCA / $220.4 million in 3M sales), this assumes that NCA should equate to a normalized balance of $327.5 million versus the stated $346.3 balance in Q3 FY2022. We performed this same calculation from the prior three periods to get our full TTM figure of $110.0M.

\(^8\) We calculate that the salient rise in net contract assets attributed $110 million to the top line. We multiplied this figure by 85% (organic revenue relative to total revenue) to get our true estimated organic revenue figure.
Chart 4: Net Contract Assets Trends ($ in millions)

Table 4: Adjusted Revenue Metrics Vs. Estimates ($ in millions)

<table>
<thead>
<tr>
<th>Period Ended</th>
<th>Q3 2022</th>
<th>Q2 2022</th>
<th>Q1 2022</th>
<th>Q4 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stated Revenue</td>
<td>$253.1</td>
<td>$220.4</td>
<td>$225.0</td>
<td>$250.8</td>
</tr>
<tr>
<td>Consensus Estimates</td>
<td>$249.3</td>
<td>$223.4</td>
<td>$215.4</td>
<td>$243.4</td>
</tr>
<tr>
<td>Management Guidance (midpoint)</td>
<td>$250.0</td>
<td>$220.0</td>
<td>$215.0</td>
<td>$241.5</td>
</tr>
<tr>
<td>GlassHouse Adjusted Revenue</td>
<td>$234.3</td>
<td>$200.2</td>
<td>$181.9</td>
<td>$223.0</td>
</tr>
<tr>
<td>Difference from Actual (%)</td>
<td>-7.4%</td>
<td>-9.2%</td>
<td>-19.2%</td>
<td>-11.1%</td>
</tr>
</tbody>
</table>
Mercury Systems (NASDAQ:MRCY)

Delays and Supply Chain Constraints Drive Unbilleds Spike

Before we expand on Mercury’s recent receivables woes, let’s take a step back and recall MRCY’s Q3 FY2018 period, when receivables were in an inauspicious position. An earnings miss, coupled with its prior CFO leaving abruptly, caused the stock to drop 19% on April 24, 2018, earnings day. Newly appointed CFO Michael Ruppert discussed what went wrong in the period in the Q3 FY2018 earnings call:

“So, if you look at what happened in the first 3 quarters, the biggest use of cash was what Mark talked about, it was the inventory by far and the second was Accounts Receivable. And in Q3, we had two things, if you look at the balance sheet, on the accounts receivable, we see that AR increased in Q3 by $14 million. $6 million of that was from Themis, $8 million was from an organic increase. And that was really driven primarily by the back-end nature of the quarter due to the extended CR, that Mark to talked about, that reduced the in-quarter collections and thereby increased AR at the quarter end.

So, we actually saw a cash outflow of close to $10 million in Q3 associated with AR. And what we’ve also seen over the last couple of quarters and as I’ve come in it's one of the things that I'm focused on where I think we’ve got good opportunity is if you look at the accounts receivable for the first 3 quarters of the year, we did see an increase in Q1 and Q2 as well as our DSOs grew disproportionately to revenue.

So, AR grew with revenue but DSOs grew as well. And the primary driver of that, that we saw was towards the end of the year, so our customers’ fiscal year, the calendar year 12/31, our Q2, was our customers were really managing their cash and their AP at the end of the year. And if you’ve looked at Q1 and Q2, we saw an uptick in average days late from our customers that drove DSOs higher. So we think there is a lot of opportunity to reduce DSOs going forward. We’ve seen the actions of our customers in terms of late payments have already started to ameliorate somewhat. And so we expect DSOs to go down.

Mr. Ruppert here loosely admits to the company shifting revenue from future periods to current periods, referencing the “back-end nature of the quarter”.
Management also admitting to issues with its DSO balances that need to be rectified (this was the last time management discussed DSO in its calls).

In Q3 FY2018, total billed and unbilled receivables increased 46.5% YOY to $141.6 million, contrasting with a 3M revenue increase of only 8.4% YOY. As a result, 3M DSO (12M DSO) increased by 26.1% YOY to 104 days (11.5% YOY to 95 days). Both balances represented highs for the firm at the time.

Fast forward to today, four years later in the same Q3 period. Total AR increased by 39.1% YOY to $367.1 million, again in contrast with 3M sales decline of 1.5%. This increase caused a 3M DSO rise of 38.3% YOY to 124 days and a 12M DSO increase of 27.4% YOY to 119 days. Both these metrics represent five-year highs for the company.

Management was concerned with DSO values near 100 days in prior quarters; current values are at much higher rates. As such, we believe the risk of a shortfall of future revenue is substantially higher than the period that lost 19% of its stock price at Q3 FY2018 earnings release.

Chart 5: Three-Month Days-Sales-Outstanding Trends

CFO makes comment on bringing down high DSO value. [Q3 FY2018]
Management's Explanations for Spike in Contract Assets

The chart above illustrates how MRCY's receivables/DSO issues began in FY2021. The main driver for the DSO rise lies within the riskiest type of receivable – contract assets/unbilleds. Contract assets have risen by an astonishing 179.0% dating back to Q3 FY2020 (sales rose only 21.7%). The magnitude of bifurcation between these two accounts is extremely abnormal based on our expertise within percentage-of-completion accounting companies.

The company stayed fairly mum regarding the rise in contract assets throughout FY2021. However, on the Q1 FY2022 earnings call, management innocuously stated, “we experienced some changes in customer payment patterns.” A peculiar statement, as this pertains to a collectability issue.

In Q2 of this fiscal year, it appears that management could not stay quiet on the unbilleds trend any longer, making the following comments about contract assets:

- From a working capital perspective, we continue to be focused on improving efficiencies in key accounts, including unbilled receivables and inventory.

- Our unbilled receivables balance has naturally increased as well. We expect to continue to make progress in reducing our unbilled receivables as a percentage of overtime revenue in future quarters.

- In addition, the decrease was due to lower deferred revenue and customer advances, higher unbilled receivables and costs in excess of billings, as well as income tax payments.

- As a result of the Company’s content expansion strategy, revenues associated with modules and sub-assemblies or integrated subsystems and related services has increased over the last several years and especially with the acquisition of POC on December 30, 2020. These revenues are typically recognized over time and can include milestone billing structures which drive higher unbilled balances.

Finally, in the latest earnings call, management spent a significant amount of time discussing the $48 million sequential increase in contract assets, as they could no longer avoid it. This statement from CFO Ruppert contradicts his earlier statement of “customer payment patterns” and squarely puts the onus on Mercury itself, although put in a more eloquent way.
CFO Ruppert [Q3 FY2022 Earnings Call]:

“From a working capital perspective, unbilled receivables increased $48 million from Q2. This was driven by the growing proportion of overtime revenue in our mix as we execute on our content expansion strategy. The increase was amplified by the impacts of supply chain disruptions, which delayed delivery milestones and cash collections in the quarter.

Like our customers, we recognize most of our revenue associated with the development and production of subassemblies and subsystems on an overtime or percentage of completion basis. Revenue is recognized as we perform work and progress on our performance obligations.

Billings, on the other hand, are typically subject to the completion of specific milestones such as the final delivery of an end product... Also, in Q3, supplier component decommits and extended lead times delayed final shipment milestones on certain programs...

So, while we expect some of the unbilled to come down in Q3, we have other programs where we're seeing supply chain decommits and we actually think unbilled are going to be up at the end of Q4 due to program timing and milestones...

We look at unbilled as a percentage of our overtime revenue. And we do think that that's going to come down over time. And a lot of the reasons that you discussed. We're working with our customers on milestone payments, negotiating better milestones around those contracts, especially in this environment. [underline added]

Don’t get it twisted. This is code for management failing to reach milestones on projects either due to missing parts or inefficiencies as they fall behind on work. However, management still decided to recognize revenue on these unfinished products. Management knows it cannot invoice/bill its customers for products that are partially completed with the price and scope yet to be determined. What they can do is prematurely recognize revenue on their own books to artificially reach performance targets. Shady.

With long-term contracts, it is customary to invoice the client throughout the progress of the contract as checkpoints are hit. Usually, milestones and performance obligations are synced together to invoice/recognize revenue as progress is made. Based on the numbers, we believe that revenue was
prematurely recognized on many projects, which will cause a massive shortfall in future periods.

**Backlog Data Indicates Inefficiencies at Mercury**

Mercury backlog data reveals that the company has fallen behind on many long-term projects. Previously, MRCY displayed stronger efficiencies in backlog conversion dating back over five years ago.

At the end of FY2017, the company disclosed a backlog balance of $357 million, also listing the amount to be shipped in the next year as $281.3 million; this represented a strong 81.5% conversion ratio over the NTM. However, since then the company’s backlog efficiency ratio has steadily declined (see Chart 6, below).

The near five-year minimum 12M conversion rate of 64.0%, reported in the latest period, leads us to believe that the company needs increasingly longer timeframes to finish its projects. This once again confirms our thesis that Mercury is falling well behind on its projects, causing missed milestones and delays throughout the company.

**Chart 6: Backlog Conversion Rate Over NTM**

![Chart 6: Backlog Conversion Rate Over NTM](image_url)

Mercury Systems (NASDAQ:MRCY)
Outsized Inventory Exacerbates Earnings Quality Concerns

Earlier in the fiscal year, CFO Michael Ruppert stated, “We also invested in inventory to forecasted revenue growth in the second half of the year.” To the dismay of Mr. Ruppert, the company faced a challenging Q3 with declining revenues, but continued to press for a strong Q4 FY2022. The revenue decline caused an outsized build of inventory levels over the last three periods that have been stored on the balance sheet.

Making matters worse, even with the heightened inventory build as of Q3, Mercury continues to have supply chain issues with its vendors, delaying shipments on certain products. We believe that management has done a poor job procuring inventory to finish jobs and ship out to customers. This was confirmed in the latest earnings call, with CFO Ruppert detailing the recent inventory woes:

“We've had a variety of programs that drove the unbilled receivable balance up and have quite a few examples of situations where we were working on the program, we got 80% complete. Milestones were based on final delivery and that was delayed because of supply chain disruption.

And so that's really what's been driving the working capital inventory. There's not specific programs. I mean we are buying parts for specific programs, but it's more around those parts that we use in a lot of our products. And one thing to remember is that we are an electronics company, we're a computer company. And from a direct material perspective, nearly 40% of our direct materials are related to semiconductors. And from an inventory perspective, that's one of the areas we've been focused in terms of prebuying those capabilities because that's where we're seeing the longest delays and supplier decommits.

It's the perfect storm for Mercury, which prebought tons of inventory well above historical norms to guard against supply chain issues. However, it looks like MRCY was not able to procure vital semiconductor parts in order to complete and ship out final products.

An inventory-related risk factor germane to the situation is detailed in the latest 10K:

9 Q1 FY2022 Earnings Call.
We may not be able to effectively manage our relationships with contract manufacturers.

We may not be able to effectively manage our relationship with contract manufacturers, and the contract manufacturers may not meet future requirements for timely delivery. We rely on contract manufacturers to build hardware sub-assemblies for certain of our products in accordance with our specifications. During the normal course of business, we may provide demand forecasts to contract manufacturers several months prior to scheduled delivery of our products to customers. If we overestimate requirements, the contract manufacturers may assess cancellation penalties or we may be left with excess inventory, which may negatively impact our earnings. If we underestimate requirements, the contract manufacturers may have inadequate inventory, which could interrupt manufacturing of our products and result in delays in shipment to customers and revenue recognition. [underline added]

So, Mercury has an outsized inventory build on the balance sheet, but does not have some of its most essential inventory in stock, a total calamity.

Inventory Outpaces Revenue Growth in Nine Consecutive Periods

In the most recent period, inventories increased 14.4% YOY to $259.6 million, the highest reported balance by Mercury in company history. In contrast, 3M sales fell by 1.5% YOY to $253.1 million. As a result, inventory diagnostics for the company continued to deteriorate into Q3. But this is not the first time management failed to accurately procure inventory at the company. For example, at the start of FY2021, CFO Ruppert incorrectly predict, “We expect this inventory to burn down over the course of fiscal ’21 and inventory turns to increase as we move through the year.” This did not happen. Instead, turns continued to deteriorate to where unfavorable inventory diagnostics are at today. These ominous inventory trends are detailed below:

- While inventories outpaced sales over the past two fiscal years, inventory turnover has eroded. For example, 3M days sales in inventory\(^{10}\) (DSI) increased from 127 days in Q3 FY2020 to 152 days currently.

- In more recent trends, MRCY’s inventory-to-3M sales spiked 1,427 bps YOY to 102.6%, representing the highest seasonal value in the last five years by far (see Table 5, Page 25). Relative to twelve-month sales, inventory increased 188 bps to a five-year high of 27.3%.

\(^{10}\) Three-month days sales of inventory (3M DSI) = Average inventory QOQ / 3M COGS * 91.25.
As detailed above, management attributed the inventory growth to sales growth in future periods, especially the back half of FY2022. However, even when using the consensus heightened sales estimates for the NTM, our analysis finds an out-of-control inventory balance that will need to be dealt with.

For instance, using the forward sales estimates of $1.08 billion over the NTM\textsuperscript{11}, we find that inventories remained at a five-year high balance of 24.1%, compared with a five-year average of 19.6%.

To get an accurate picture of all inventory procurement at MRCY, our analysts also factored in MRCY’s purchase obligations (PO) detailed as “Purchase Obligations represent open non-cancelable purchase commitments for certain inventory components and services used in normal operations.” (2021 10K)

In the most recent period, MRCY disclosed purchase obligations of $187.9 million, the highest value ever disclosed by the company. We combined MRCY’s inventory and PO balance for a total of $447.5 million, representing a 20.4% YOY increase, labeling it as “All-In Inventory”.

Mercury’s all-in inventory becomes exacerbated when taking turnover diagnostics into account. All-in inventory jumped 3,207 bps YOY to 176.8%, representing a five-year seasonal maximum. Twelve-month figures followed the same unfavorable pattern, rising 539 bps YOY to 47.1%, again a five-year high in any period.

All-in DSI has not fared any better for MRCY. Three-month all-in DSI spiked by 20.6% YOY to 263 days, a five-year seasonal high and the twelfth consecutive YOY increase at Mercury.

\textsuperscript{11} Equates to $307.7 million, $246.1 million, $253.2 million, and $269.4 million in periods Q4 FY2022, Q1 FY2023, Q2 FY2023, and Q3 FY2023, respectively.
Table 5: Inventory Metrics
($ in millions)

<table>
<thead>
<tr>
<th></th>
<th>Q3 2022</th>
<th>Q2 2022</th>
<th>Q1 2022</th>
<th>Q4 2021</th>
<th>Q3 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>$259.6</td>
<td>$251.3</td>
<td>$234.4</td>
<td>$221.6</td>
<td>$226.8</td>
</tr>
<tr>
<td>Inventory-to-3M sales</td>
<td>102.6%</td>
<td>114.0%</td>
<td>104.2%</td>
<td>88.4%</td>
<td>88.3%</td>
</tr>
<tr>
<td>Inventory-to-12M sales</td>
<td>27.3%</td>
<td>26.4%</td>
<td>24.8%</td>
<td>24.0%</td>
<td>25.5%</td>
</tr>
<tr>
<td>3M DSI</td>
<td>152</td>
<td>166</td>
<td>151</td>
<td>137</td>
<td>134</td>
</tr>
<tr>
<td>12M DSI</td>
<td>152</td>
<td>147</td>
<td>144</td>
<td>142</td>
<td>142</td>
</tr>
</tbody>
</table>

YOY

<table>
<thead>
<tr>
<th></th>
<th>Q3 2022</th>
<th>Q2 2022</th>
<th>Q1 2022</th>
<th>Q4 2021</th>
<th>Q3 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>14.4%</td>
<td>15.0%</td>
<td>13.8%</td>
<td>24.5%</td>
<td>40.1%</td>
</tr>
<tr>
<td>Inventory-to-3M sales</td>
<td>1,427</td>
<td>1,035</td>
<td>397</td>
<td>643</td>
<td>1,050</td>
</tr>
<tr>
<td>Inventory-to-12M sales</td>
<td>188</td>
<td>41</td>
<td>-13</td>
<td>163</td>
<td>407</td>
</tr>
<tr>
<td>3M DSI</td>
<td>13.2%</td>
<td>4.8%</td>
<td>1.0%</td>
<td>6.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>12M DSI</td>
<td>7.3%</td>
<td>4.0%</td>
<td>6.5%</td>
<td>9.6%</td>
<td>9.8%</td>
</tr>
</tbody>
</table>

Chart 7: Twelve-Month DSI and All-In DSI Trends
Roll-Up Model Distorts True Economic Earnings at Mercury

Management has touted its 15 acquisitions since FY2014; It is pretty obvious it doesn’t plan to stop acquiring new companies anytime soon. MRCY couldn’t stop its acquisition spending spree even if it wanted to without running the risk of revealing its core company decay. Here’s how management can use these acquisitions to conceal unwanted performance:

- **Mercury’s acquisitions inorganically boost its revenue to hit the arbitrary $1 billion revenue goal set by management:** Without these purchased gains, MRCY would be nowhere near its target revenue of $1 billion for FY2022. Earlier, we revealed how MRCY’s true organic revenue has been on a nosedive into negative territory.

- Organic revenue has now fallen in four consecutive YOY periods. Why should management be rewarded for hitting a round number such as $1 billion, when $139 million of acquired TTM revenue is the real reason for it? This skewed thinking rewards management for purchasing target companies at any cost.

Chart 8: Organic and Acquired Revenue Split

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Organic Revenue %</th>
<th>Acquired Revenue %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2020</td>
<td>89.1%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Q2 2020</td>
<td>91.6%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Q3 2020</td>
<td>92.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Q4 2020</td>
<td>94.5%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Q1 2021</td>
<td>95.7%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Q2 2021</td>
<td>99.9%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Q3 2021</td>
<td>85.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Q4 2021</td>
<td>83.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Q1 2022</td>
<td>81.7%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Q2 2022</td>
<td>83.0%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Q3 2022</td>
<td>92.4%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>
Management has an added incentive to manipulate revenue and EBITDA exclusions based on Performance Goals. Perplexing to us, the MRCY board has chosen to reward its C-suite with stock awards and bonus compensation based on two factors: revenue growth and adjusted EBITDA. This makes the C-suite highly motivated to juice numbers in their favor to reach performance objectives.

The company already attributes a higher percentage of variable pay to its CEO than its peer group (85% versus 75% for the industry)\(^\text{12}\). Thus, allowing management to base their bonus and equity awards on manipulated metrics such as revenue growth and adjusted EBITDA.

Revenue growth targets only incentivize management to acquire as much revenue as possible through suspect acquisitions! Reading through the firm's latest proxy, we don't find any delineation between acquired and organic revenue growth when calculating performance compensation. If MRCY is short on hitting a revenue goal at the end of the period, it could just acquire a random company to artificially achieve that goal. Mercury’s “adjusted EBITDA” calculation below is even more alarming.

Exhibit 2: Mercury FY2021 Adjusted EBITDA

\[\begin{array}{|c|c|}
\hline
\text{Appendix A} & \text{Fiscal} \\
\text{(in thousands)} & \text{2021} \\
\hline
\text{Net income} & \$ 62,044 \\
\text{Other non-operating adjustments, net} & (724) \\
\text{Interest expense (income), net} & 1,043 \\
\text{Income tax provision} & 15,129 \\
\text{Depreciation} & 25,912 \\
\text{Amortization of intangible assets} & 41,171 \\
\text{Restructuring and other charges} & 9,222 \\
\text{Impairment of long-lived assets} & 0 \\
\text{Acquisition and financing costs} & 8,600 \\
\text{Fair value adjustments from purchase accounting} & (290) \\
\text{Litigation and settlement expense, net} & 622 \\
\text{COVID related expenses} & 9,943 \\
\text{Stock-based and other non-cash compensation expense} & 29,224 \\
\text{Adjusted EBITDA} & \$ 201,896 \\
\hline
\end{array}\]

\(^{12}\) FY2021 Proxy
If the Board continues to allow management to receive its full non-salary compensation for the above adjusted EBITDA metric, Mercury is in trouble. Management is motivated to do exactly the opposite of what these performance bonuses were meant to do; build long-term sustainable growth at Mercury. Instead, management is now motivated to:

- Exclude amortization expenses (where real cash was spent on the acquisition) from non-GAAP earnings because it incorrectly deems them as “non-cash”. Mercury’s amortization expenses accounted for 66% of FY2021 net income, which is completely ignored when calculating bonuses!

- Exclude recurring restructuring and acquisition expenses from non-GAAP earnings because management considers them to be “non-recurring”. These two excluded expenses accounted for 29% of net income, again just ignored. As long as Mercury is a self-proclaimed serial acquirer, these are normal operating expenses they will always have. MRCY has classified “one-time” restructuring/acquisitions expenses in 12 consecutive periods spanning into FY2022. That seems pretty frequent to us.

- Excluding stock-based compensation encourages a liberal use of non-cash compensation at the cost of diluting MRYC’s shareholders. The SBC amount of $28.3 million has now grown to 47.1% of net income in FY2021.

- Aesthetically boost margins by not spending on R&D expenses. In the latest period, R&D margin was at just 10%, a 173 bps YOY decline. This was the lowest value reported by MRCY for any period since FY2018. This was a major factor in Valeant Pharmaceutical’s demise back in 2015.

- Spring-load its acquisitions by delaying revenues and accelerating expenses pre-acquisition, but after the deal has closed. We can’t ascertain data related to this scheme, since most MRCY’s acquisitions have been private. However, this option is easily available to serial acquirers.

Beware serial acquirers, they often write down the assets of the acquired firm in the stub period that no one sees. Ask management what the net assets of the firm were on their latest end of quarter and what they were when they were acquired. Most management won’t tell you this, some will, however. But by writing down inventory and A/R they can “spring load” results once.
the company is acquired. They’re supposed to adjust the purchase price but most don’t.

- Jim Chanos

Return on Invested Capital Exhibits Salient Decline

GlassHouse believes that most companies that engage in serial acquisitions do so to conceal tribulations within the core company. There is just too much motivation and opportunity in acquisitions for nefarious actions to occur. To judge whether management’s recent acquisitions have positively impacted the consolidated company, we performed an analysis of return on invested capital (ROIC), which helps us identify changes within a company’s earnings risk profile.

We used EBIT in our numerator as our earnings proxy and calculated metrics using average assets, equity, and invested capital. In each case, we observed a precipitous decline in every metric (see Chart 9, below). ROIC alone has declined in consistent fashion since its height of 8.6% in FY2020. At the end of Q3 FY2022, this TTM metric decreased 348 bps YOY to 3.7%, well below the five-year average of 7.3%. This number now stands at the lowest value reported in the last-five years, at 3.7%. It seems that the more companies MRCY acquires, the less efficient it becomes.

Chart 9: TTM Profitability Metrics

Mercury Systems (NASDAQ:MRCY)
Mercury’s Free-Cash-Flow Numbers Are Atrocious

Mercury Systems (NASDAQ:MRCY)’s free-cash-flow (FCF) numbers reveal that the company is in dire straits, falling into negative territory for the first time since FY2018. Since the beginning of FY2022, the firm has consumed a reported total of $19.0 million. We already detailed how MRCY’s unbilled receivables and inventories have driven free-cash-flow to historic lows. But we also found that MRCY has been stiffing its vendors at an above average rate in what appears to be an effort to conserve its dwindling cash (accounts payable generated $30.2 million TTM on the cash flow statement).

As accountants, we take issue with MRCY’s liberal use of cash acquisitions and exclusions from free-cash-flow. If management sporadically acquired companies, we could somewhat justify excluding this cash spent. However, it’s abundantly clear that management intends to continue to grow through acquisitions, no matter what the cost. In the most recent earnings call, CEO Mark Aslett stated, “Looking ahead longer term, our five-year plan continues to target high single-digit to low double-digit organic revenue growth over time, coupled with margin expansion and M&A.”

Our free-cash-flow chart on Page 32, shows just how much of cash Mercury burned through and how badly it deteriorated in the last year. These declines will apparently not be alleviated in Q4 with future FCF losses on the come, according to CFO Ruppert in the Q3 FY2022 earnings call:

“We continue to experience delays and extended lead times for semiconductor components and other materials in the fourth quarter. As a result, and similar to Q3, we expect a free cash outflow in Q4 primarily due to continued supply chain constraints. The team remains focused on minimizing supply chain impacts, both operationally and financially. We expect our unbilled receivables and cash conversion cycles to normalize as these headwinds subside.”

Our detailed analysis of MRCY’s free-cash-flow is as follows:

- Mercury reported TTM FCF figures of $16.3 million, $7.4 million, $1.2 million, and $10.4 million in Q4 FY2021, Q1, Q2, and Q3 FY2022, respectively. The aggregate TTM total of negative $2.6 million was the first time MRCY reported a TTM FCF loss, going back over 10 years.
• However, Mercury’s accounts payable balance increased 59.5% YOY to a historic high of $90.3 million, an immense increase of 40.9% YOY to 45 days at the end of Q3 FY2022 when calculating 3M days-payables-outstanding (DPO).13

• The cash flow statement reveals that accounts payable provided a $30.2 million boost to free-cash-flow. But a more accurate method of estimating the one-time boost to FCF would be to normalize the company’s DPO balance and reverse engineer the correct accounts payable balance. Using this method, we calculate that the recent accounts payable balance provided a $36.0 million boost to FCF; in other words, MRCY conserved cash by stiffing its vendors.14

• Accounting for this cosmetic boost to free-cash-flow, MRCY’s adjusted free-cash-flow fell into negative territory, with TTM adjusted FCF standing at –$38.6 million rather than the reported –$2.6 million (see Chart 10, Page 32).

• To make matters worse, when we aggregate FCF over the last five years, we find that MRCY generated a reported $219.9 million in cash. However, when we include cash acquisitions, the firm consumed an astonishing $872.8 million in FCF. While analysts can make the case not to include acquisitions into free-cash-flow, we believe it is necessary to do so in serial acquirer companies that only grow through acquisitions.

• While management may address the situation by saying the company is spending for future growth, we believe that it has run out of options to organically grow the company. Instead, anemic acquisitions and prematurely recognized revenue have led to inorganic growth in recent years.

13 Three-month days payables outstanding (3M DPO) = Average AP QOQ / 3M COGS * 91.25.
14 We estimated normalized accounts payable by using the prior periods DPO figure and then reverse engineering our calculated accounts payable balance.
Chart 10: TTM Free Cash Flow Five-Year Trends
($ in millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>FCF w/Acquisitions</th>
<th>FCF</th>
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</thead>
<tbody>
<tr>
<td>2018</td>
<td>$-28.2</td>
<td>$-57.2</td>
</tr>
<tr>
<td>2019</td>
<td>$70.8</td>
<td>$-56.3</td>
</tr>
<tr>
<td>2020</td>
<td>$71.9</td>
<td>$24.6</td>
</tr>
<tr>
<td>2021</td>
<td>$51.6</td>
<td></td>
</tr>
<tr>
<td>Q3 2022</td>
<td>$1.7</td>
<td>$13.6</td>
</tr>
</tbody>
</table>
Insiders Hold Near Lowest Amount of Stock in 10 Years

Affirming our short thesis, insiders at Mercury hold near record low levels of the company's stock, as detailed in latest Proxy Report from September 2021. As of FY2021, insiders (listed as 14 directors and executives) held a total of 1,156,995 shares of MRCY's stock. This number has consistently dropped over the last 10 years, with a slight increase in the last year (see Chart 11, below).

Insiders held approximately 2.0% of stock in the company, less than half of the 10-year average of 4.3%. The recent drawdown of insider stock only corroborates our thesis.

In complete transparency, this data comes from September of last year, with some of the C-suite receiving equity awards on 02/15/22. For example, CEO Mark Aslett received was granted 229,090 extra shares on the aforementioned date. However, historical data shows that Aslett usually sells a large number of shares in August of each year dating back over 10 years.

Chart 11: Insider Ownership at Mercury
Accounting Red Flags Could Lead to Substantial Downside in FY2023

The bull case regarding Mercury Systems' stock price revolves around the following tenets that we believe the sell-side community has misunderstood:

- Analysts believe that MRCY's recent sales decline is transitory (both organic and acquired) and will turn around to grow near 10% annually in FY2023 and beyond.
- Analysts believe that MRCY will reach a long-term target of organic growth rate near 10% over the next five years.
- Analysts believe the company will be able to realize $30 million to $50 million of incremental adjusted EBITDA by FY2025.

We have gone step-by-step to debunk many of these flawed reasonings for investors and analysts. Based on our analysis, we believe that much of the recent sales growth was attributable to prematurely recognizing revenue. With respect to the company's already diminished cash flow figures, we believe stated free cash flow fails to consider the company's delay of payment to suppliers and the massive amount of cash spent on acquisitions. When including these items, free-cash-flow would have been abysmal for FY2022 and prior.

We believe the spike in contract assets suggest that management is behind on major projects and has not reached milestones as determined by their own project engineers. Furthermore, the stagnation in customer advances suggest a low quality of revenues that will be a material topline headwind going into FY2023.

As such, we believe MRCY's stock price will decline precipitously over the next twelve months as these accounting gimmicks reverse and project delays ensue. Furthermore, we highly doubt that the sell-side community fully comprehends the magnitude of accounting headwinds that MRCY will face over the next year based on our analysis.

Accordingly, we are initiating coverage on Mercury Systems (MRCY) with a Strong Sell Opinion.
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