

## Treace

### A Differentiated Solution for the Large, Poorly Treated Bunion Market; Initiating at OW and \$37 PT

We are initiating coverage of Treace with an Overweight rating and a December 2021 price target of \$37. Treace has developed the innovative Lapiplasty system, an innovative solution for the treatment of bunions, which is a ~\$5B US market today that's underpenetrated with a high unmet need for a quality solution. Despite the fact that bunions are a three-dimensional deformity that occurs at the great toe joint, currently available surgical solutions on the market do not reliably address the root cause and are associated with (a) unpredictable outcomes, (b) high recurrence rates, and (c) low patient satisfaction. The Treace Lapiplasty kit is the only surgical kit on the market that reliably addresses all three dimensions of the deformity while delivering better and more consistent outcomes than existing solutions. Additionally, the strong IP surrounding the Lapiplasty kit has created high barriers to entry, offering a long runway to greater penetration within the surgical market for bunions, which currently stands at ~450k procedures annually. With the ongoing shift to a direct sales force coupled with direct-to-patient outreach to drive increased awareness and adoption, we forecast a sales growth trajectory for Treace that's well above its orthopedic peers (+31% CAGR through 2025E). The innovative technology coupled with positive surgeon and patient real-world feedback are bullish signals, in our view, and drive a pathway for multiple years of beat-and-raise potential.

- **The Treace's Lapiplasty system is the first to correct all three dimensions of the bunion deformity, addressing the root cause of the issue to deliver more consistent and highly durable outcomes.** The Treace system is differentiated from the existing Osteotomy and Lapidus fusion procedures available on the market by its superior clinical outcomes, plus positive physician and patient real-world feedback in our physician checks. The Treace hardware kit and associated methodology both have strong IP, keeping high barriers to entry from competitor offerings that seeks to emulate the Lapiplasty consistency and durability with a similar procedure.
- **We forecast a ~31% sales growth CAGR through 2025 driven by growing awareness, an expanding sales force, and ultimately increasing utilization.** The company's expansion and transition to a predominantly direct sales force should enable a consistent cadence of new center additions, while utilization should increase in line with historical levels as physicians become more comfortable with the procedure. We forecast active surgeons increasing to ~2,500 exiting 2023, relative to ~1,275 today, and annual utilization improving to 13 kits per year, relative to ~10 in 2020. As a result, we forecast sales growing from \$57M in 2020 to \$218M in 2025, which is conservative in our view given the size of the addressable market and superiority of the technology.
- **Initiating at OW; \$37 Dec 2021 PT.** This values TMCI at 14x our 2023 revenue estimate, discounted back a year at 7%. We view this valuation as appropriate given the large addressable market and very low penetration today.

### Initiation Overweight

TMCI, TMCI US

Price (17 May 21): \$29.36

Price Target (Dec-21): \$37.00

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### Quarterly Forecasts (FYE Dec)

| Adj. EPS (\$) | 2020A  | 2021E  | 2022E  |
|---------------|--------|--------|--------|
| Q1            |        |        |        |
| Q2            |        | (0.14) |        |
| Q3            |        | (0.13) |        |
| Q4            |        | 0.02   |        |
| FY            | (3.67) | (0.31) | (0.23) |

### Style Exposure

| Quant Factors | Current %Rank | Hist %Rank (1=Top) |    |    |    |
|---------------|---------------|--------------------|----|----|----|
|               |               | 6M                 | 1Y | 3Y | 5Y |
| Value         |               |                    |    |    |    |
| Growth        |               |                    |    |    |    |
| Momentum      |               |                    |    |    |    |
| Quality       | 100           | 100                | 99 | 97 | 96 |
| Low Vol       |               |                    |    |    |    |

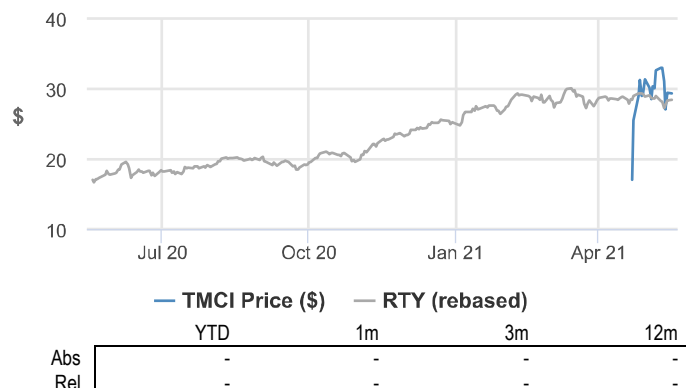
Paragon 28, Inc. v. Treace Medical Concepts, Inc.  
PGR2026-00020  
Treace Ex. 2010

Sources for: Style Exposure – J.P. Morgan Quantitative and Derivatives Strategy; all other tables are company data and J.P. Morgan estimates.

### See page 25 for analyst certification and important disclosures.

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## Price Performance



## Company Data

|                            |              |
|----------------------------|--------------|
| Shares O/S (mn)            | 0            |
| 52-week range (\$)         | 34.47-24.25  |
| Market cap (\$ mn)         | 1,502.23     |
| Exchange rate              | 1.00         |
| Free float(%)              | 21.6%        |
| 3M - Avg daily vol (mn)    | -            |
| 3M - Avg daily val (\$ mn) | -            |
| Volatility (90 Day)        | -            |
| Index                      | RUSSELL 2000 |
| BBG BUY HOLD SELL          | -            |

## Key Metrics (FYE Dec)

| \$ in millions             | FY20A    | FY21E     | FY22E   | FY23E   |
|----------------------------|----------|-----------|---------|---------|
| <b>Financial Estimates</b> |          |           |         |         |
| Revenue                    | 57       | 85        | 114     | 147     |
| Adj. EBITDA                | 1        | (11)      | (12)    | (7)     |
| Adj. EBIT                  | 1        | (11)      | (12)    | (7)     |
| Adj. net income            | (4)      | (15)      | (13)    | (8)     |
| Adj. EPS                   | (3.67)   | (0.31)    | (0.23)  | (0.14)  |
| BBG EPS                    | -        | -         | -       | -       |
| Cashflow from operations   | (4)      | (18)      | (15)    | (11)    |
| FCFF                       | (1)      | (18)      | (17)    | (14)    |
| <b>Margins and Growth</b>  |          |           |         |         |
| Revenue growth             | 45.5%    | 47.7%     | 34.2%   | 29.5%   |
| EBITDA margin              | 1.5%     | (12.8%)   | (10.5%) | (4.8%)  |
| EBITDA growth              | (124.2%) | (1369.7%) | 9.7%    | (41.4%) |
| EBIT margin                | 1.5%     | (12.8%)   | (10.5%) | (4.8%)  |
| Net margin                 | (6.4%)   | (17.6%)   | (11.3%) | (5.3%)  |
| Adj. EPS growth            | (14.0%)  | (91.5%)   | (25.1%) | (40.1%) |
| <b>Ratios</b>              |          |           |         |         |
| Adj. tax rate              | 0.0%     | -         | -       | -       |
| Interest cover             | 0.2      | NM        | NM      | NM      |
| Net debt/Equity            | 16.6     | NM        | NM      | NM      |
| Net debt/EBITDA            | 15.1     | 7.4       | 5.2     | 6.8     |
| ROCE                       | 3.2%     | (12.8%)   | (8.9%)  | (5.5%)  |
| ROE                        | (186.1%) | (27.5%)   | (12.4%) | (8.1%)  |
| <b>Valuation</b>           |          |           |         |         |
| FCFF yield                 | (3.5%)   | (1.3%)    | (1.1%)  | (0.8%)  |
| Dividend yield             | -        | -         | -       | -       |
| EV/Revenue                 | 27.8     | 20.1      | 14.9    | 11.6    |
| EV/EBITDA                  | 1,861.6  | NM        | NM      | NM      |
| Adj. P/E                   | NM       | NM        | NM      | NM      |

## Summary Investment Thesis and Valuation

Treace has developed the innovative Lapiplasty system, an innovative solution for the treatment of bunions, which is a ~\$5B US market today that's underpenetrated with a high unmet need for a quality solution. Despite the fact that bunions are a three-dimensional deformity that occurs at the great toe joint, currently available surgical solutions on the market do not reliably address the root cause and are associated with (a) unpredictable outcomes, (b) high recurrence rates, and (c) low patient satisfaction. The Treace Lapiplasty kit is the only surgical kit on the market that reliably addresses all three dimensions of the deformity while delivering better and more consistent outcomes than existing solutions. Additionally, the strong IP surrounding the Lapiplasty kit has created high barriers to entry, offering a long runway to greater penetration within the surgical market for bunions, which currently stands at ~450k procedures annually.

Our Dec 2021 price target is \$37, which values TMCI at 14.0x our 2023 revenue forecast discounted back one year at a 7% discount rate. This compares to its high-growth MedTech peer group at ~14.0x 2021E EV/sales, though we note Treace has a higher 2019-2024E sales growth CAGR (36% vs. 32%), a strong gross margin profile at ~80%, and only 2-3% market share of the current \$2B+ bunion market, or only ~1% of the ~\$5B US addressable market.

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## Investment Thesis

### Treace (TMCI) Overweight

#### **Treace's Lapiplasty system addresses the limitations of existing solutions for patients suffering from bunions**

Treace's Lapiplasty kit enables a surgical procedure that addresses all three dimensions of malalignment that are typical to bunion deformities, something existing Osteotomy and Lapidus Fusion procedures are unable to reliably correct. Bunion patients treated with the Treace Lapiplasty system experience lower bunion recurrence rates, faster times to weight-bearing, lower non-union rates, and an overall greater satisfaction with the quality of life following the procedure. Our physician checks confirm that the Lapiplasty system is easier and faster to complete than the existing Lapidus fusion procedure but still offers better outcomes.

#### **At only ~2.5% penetration within the large \$5B+ US market for bunion surgeries, Treace has significant runway to gain market share**

With ~1.1M candidates for Bunion surgery and ~450K surgeries performed annually in the US, Treace has a significant opportunity to increase utilization of its Lapiplasty system, both through new center additions as well as increasing utilization as existing surgeons become more experienced with the surgery. Treace's expansion and transition to a predominantly direct sales force should enable the company to accelerate and broaden adoption of its kit throughout the US. Given the lack of solutions with consistent outcomes available on the market today, we forecast a steady uptake in adoption as awareness grows.

#### **Patient engagement when treating a bunion is high, which Treace has capitalized on through its direct-to-consumer efforts**

Given that a bunion is something that originally appears as a cosmetic abnormality and can develop into a more severe deformity over time, patients are generally well educated on their surgical options when it comes to managing the treatment process. This, coupled with Treace's direct-to-patient outreach and marketing, means that many patients visit surgery centers already educated on the Lapiplasty procedure and often visit a podiatrist specifically because Lapiplasty is offered. This is all to say that despite the relatively low penetration levels today, Treace is driving campaigns to generate awareness both among the physician community as well as directly to patients, which should continue to support the rapid growth trajectory that Treace has been on.

#### **Treace's differentiated offering provides a clear pathway to share capture, creating a growth profile that sets it apart from orthopedic peers**

The company posted top-line revenue growth of 46% in 2020 off a revenue base of ~\$40M in 2019, despite the fact that bunions were a highly deferrable procedure in a COVID-19 year. The large and penetrable market opportunity, coupled with the more recent direct sales force transition as well as direct-to-patient marketing give us confidence that Treace can continue on this high-growth trajectory, something we can't say for many of Treace's peers in the orthopedic space.

### **Initiating coverage of TMCI at Overweight, \$37 December 2021 Price Target**

This values Treace at 14.0x our 2023 revenue forecast discounted back one year at a 7% discount rate. This compares to its high-growth MedTech peer group at ~14.0x 2021 EV/sales, though we note Treace has a higher 2019-2024E sales growth CAGR (36% vs. 32%), a strong gross margin profile at ~80%, and only 2-3% market share of the current \$2B+ bunion market, or only ~1% of the ~\$5B US addressable market.

## **Risks to Rating and Price Target**

### **Treace is attempting to change the treatment paradigm in the bunion correction market**

While we are confident in Treace's ability to continue driving Lapiplasty adoption, its success rests largely on its ability to capture share from existing procedures, namely osteotomy and Lapidus fusion. As a new treatment option aiming to supplant much older procedures, some physicians may be less willing to switch over to a new procedure from older procedures they're more comfortable with. The company's success will likely require significant investment in driving physician and patient awareness, physician education and training, and the continued expansion of its sales force.

### **Treace faces competition from larger companies in the MedTech space**

We believe Treace has a competitive advantage over peers given its broad intellectual property (IP) portfolio covering key methods of 3D bunion surgery, the core of the Lapiplasty procedure. However, larger companies in the bunion correction market, including Zimmer Biomet, Stryker, and larger companies in the broader orthopedic foot and ankle market that manufacture ancillary products, including Johnson & Johnson and Smith & Nephew, all have access to a broader pool of customers through their own diversification strategies and have greater access to capital, both of which represent notable competitive threats.

### **Pricing dynamics in orthopedics could pressure Treace's ASP, sales, and margins**

Cost containment measures within the healthcare industry have put pricing pressure on certain medical devices, including orthopedics products like Lapiplasty. We expect Treace to be able to drive ASP growth in the near term as the company continues to expand its portfolio of ancillary products, though we forecast ~2% of price headwinds annually longer-term, in line with the broader orthopedics market. In addition, ramping competition from larger competitors with more bandwidth to leverage price as a competitive tool also represents a notable risk. In all, these negative trends could limit the company's ability to sell its products at a favorable price, putting pressure on both sales and margins.

### **Treace has a history of losses**

As of December 2020, the company's accumulated deficit stood at \$21.4M. Following its IPO in April, we expect that Treace will exit 2021 with approximately \$94M in cash and \$31M in debt. We also expect the company to remain FCF negative through the balance of our modeling horizon with a cash burn of \$21.8M in 2021 and \$3.0M in 2025. We do not forecast FCF profitability in our modeling horizon, though we expect the first full year of EPS profitability in 2025. Efforts to

expand the portfolio and enter international markets could also require more funding than expected and cause profitability delays.

## Company Description

Treace is a Ponte Vedra, Florida, based commercial-stage medical device company that offers a proprietary system for the correction of bunions (hallux valgus) called the Lapiplasty 3D Bunion Correction System. What sets Lapiplasty apart from existing osteotomy and Lapidus fusion procedures is that (1) unlike osteotomy, Lapiplasty addresses the root cause of the deformity, and (2) unlike Lapidus fusion, Lapiplasty (a) addresses all three dimensions of the deformity and (b) includes instrumentation to guide the surgeon and simplify the procedure, in turn delivering favorable clinical outcomes. As of December 31, 2020, ~24,500 patients had received a Lapiplasty procedure, while 450,000 bunion surgeries occur annually. On April 22, 2021, Treace participated in an IPO led by J.P. Morgan.

## Market Background

**A bunion is a common deformity of the big toe joint, also known as a hallux valgus deformity.** The deformity is defined as a lateral deviation of the great toe (hallux) at the first metatarsal joint, and it results in internal rotation of the toe. This deviated position often results in pain, and as the bunion increases in severity, bursitis may occur. This is when the big toe may angle and crowd the smaller toes, which can result in the skin on the bottom of the foot becoming thick and painful. With a disproportionate incidence in women (roughly 9x more common in women than men, according to the AAOS), research suggest that 30-50% of the shoe wearing population has at least some degree of hallux valgus.

**The bunion surgical market represents an estimated ~\$5 billion opportunity.** There are an estimated 65 million individuals with bunions in the US, with ~4.4 million seeking medical care annually according to the American Foot and Ankle Society. Of these ~4.4 million, ~1.1 million are considered candidates for a surgical procedure; however, Treace estimates that ~450,000 bunion surgeries are actually performed annually due to limitations of traditional surgical treatments. We forecast the global bunion treatment market to grow in the mid-single-digit range, slightly better than the overall orthopedic market growth rate of 3-4%.

**Patients often initially turn to wider shoes and over-the-counter options to address the bunion.** These include toe spreaders, custom insoles for shoes, and shoes with a wider toe box. Bunion patients often don't seek medical attention until they feel pain, at which point the likelihood of a surgical procedure is much higher. Due to the widespread prevalence of bunions, many view the presence of this bump as a cosmetic deformity and don't seek medical care until the pain is too severe.

Figure 1: Bunions Occur at the Metatarsal Joint

**Complex 3D Deformity**

*More than a simple "bump" of bone ...*

*Unstable joint in midfoot allows metatarsal bone to drift out of alignment in all 3 anatomic dimensions*



Source: Company filings.

**The bunion is a result of three dimensions of misalignment at the first tarsometatarsal (TMT) joint.** The three anatomic dimensions are (1) the transverse plane, which is a horizontal misalignment in which the metatarsal bone leans sideways, causing the bump; (2) the sagittal plane, which is a vertical misalignment where the bone elevates and transfers pressure to other toes and the ball of the foot; and (3) the frontal plane, which is a rotational misalignment in which the metatarsal bone rotates, causing abnormal wear on the great toe joint.

**Once the bunion reaches a certain severity, a surgical procedure is needed to correct the deformity. However, existing surgical solutions make it very difficult to address all three dimensions of the rotation.** By the time a patient has visited a podiatrist or orthopedist, they have most likely exhausted all home remedy solutions and have a severe enough disease progression to be a good surgical candidate. There have been two primary approaches to the surgical treatment of bunions up until now: (1) an osteotomy (75%) or (2) a Lapidus fusion procedure (25%). Treace estimates that ~87% of bunions have a rotational component in addition to the horizontal and vertical misalignment, making the recovery of a fully functional joint hard to perform. Below, we cover how existing solutions address (or fail to address) these three dimensions.

**The osteotomy procedure focuses on the removal of the bump but does not address the root cause.** In this procedure the bone is cut and the "bump" is shaved off, but the unstable joint remains, meaning the patient often still feels pain, leaving a significant chance the bunion will reemerge. A bunion is a three-dimensional irregularity, but the osteotomy only addresses two of these planes. Given the simplicity of the procedure, the osteotomy often becomes the "workhorse" at many high-volume centers. Doctors perform the osteotomy at the distal end of the toe (called a chevron osteotomy) to address minor deformities, or toward the joint for more severe cases. A typical osteotomy procedure can be anywhere between 25-75 minutes, followed by a recovery time between one to six non-weight bearing weeks depending on the severity of the procedure. Treace reports that patient dissatisfaction rates for the procedure are ~30%.

**While the Lapidus fusion procedure does attempt to address all three planes, outcomes are highly unpredictable given a lack of standardized instrumentation.** Notably, the Lapidus procedure is a “freehand” procedure, meaning outcomes often come down to individual surgeon skill (and it often requires a partner). Our physician diligence suggests that the procedure requires complex corrections without assistive instrumentation that is standard in other orthopedic procedures, leading to inconsistent outcomes, and it is often reserved for cases that display very severe bunion pathology. The recovery time is between six to eight non-weight-bearing weeks (often in a cast), but recurrence rates are generally lower than with an osteotomy. Treace reports that patient dissatisfaction rates for the Lapidus procedure are lower at 7-13%.

Figure 2: Lapidus Fusion Procedure



Source: Treace company filings.

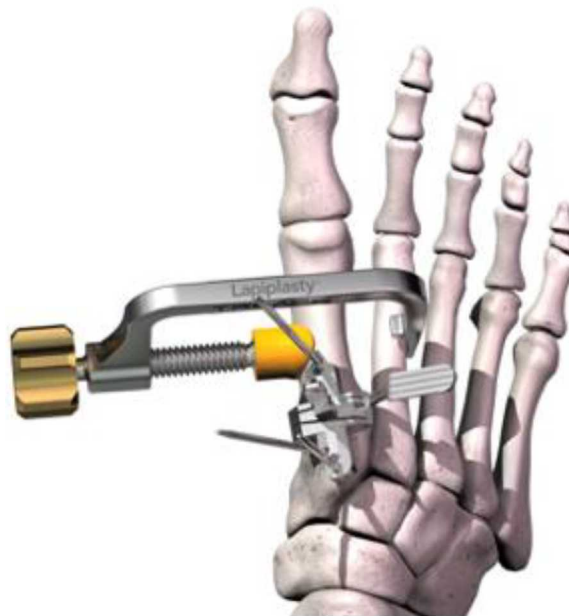
## The Treace Solution

**Treace’s Lapiplasty system was the first to correct all three dimensions of the bunion deformity, addressing the root cause of the issue and delivering more consistent outcomes.** Using a combination of proprietary implants, instrumentation, and surgical techniques, the Lapiplasty system rotates the metatarsal bone in all three dimensions, which both eliminates the visible bump on the toe and leaves the bone in the proper anatomical position. What sets Lapiplasty apart from traditional osteotomy and Lapidus fusion procedures is that (1) unlike osteotomy, Lapiplasty addresses the root cause of the deformity, and (2) unlike Lapidus fusion, Lapiplasty (a) addresses all three dimensions of the deformity and (b) includes standardized instrumentation to guide the surgeon and simplify the procedure, in turn delivering favorable clinical outcomes.

**The Lapiplasty system includes both reusable procedural instrumentation and sterile-packed implant kits.** With the procedural instrumentation included in the Lapiplasty system, surgeons are able to accurately and consistently correct the bunion deformity, simplifying the procedure and significantly reducing the variability in outcomes that often results from the freehanded technique required to perform a Lapidus fusion procedure. Walking through the steps of the Lapiplasty procedure, before making any cuts the Lapiplasty positioner is used to reposition the entire metatarsal bone in all three dimensions into the proper alignment. Once the correction has been made, the Lapiplasty Cut Guide is then used to cut the unstable joint surfaces, after which the joint is secured using the Biplanar Plating implants

that are fixated at 90-degree angles. Average skin-to-skin time for the Lapiplasty procedure is 70-75 minutes vs. 25-75 for osteotomy and 40-120 for Lapidus fusion, though our doc checks indicate that more experienced surgeons can perform the procedure in less time than that.

Figure 3: Lapiplasty System

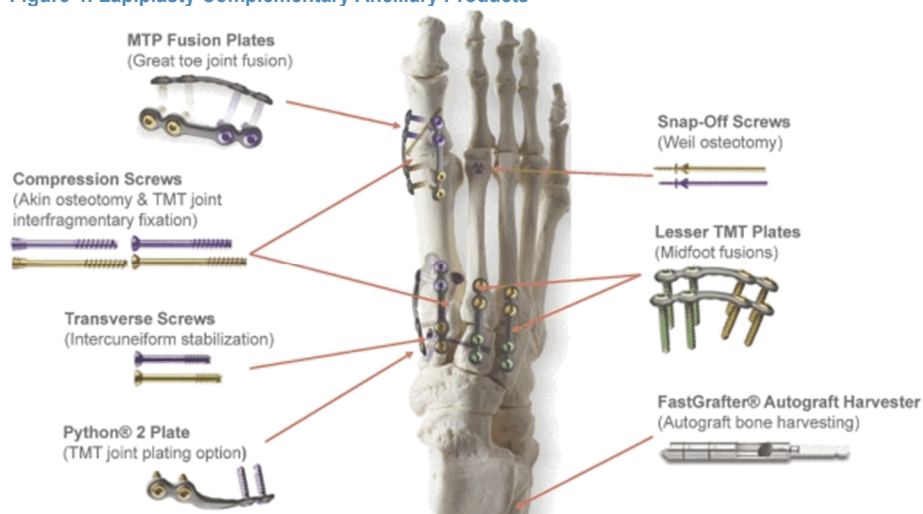


Source: Company presentation.

**The recently launched Lapiplasty Mini-Incision System reduces incision size from 6-8cm to 3.5cm, leaving a smaller, less visible scar.** The system includes a new fixation plate, the PlantarPower Plate, which is contoured to allow for locking screw access without requiring significant retraction of the incision. Following a limited release in 2020, the Mini-Incision System should grow from 5-10% of volumes to 20-25% in 2021, with a focus on driving adoption in more experienced surgeons first before rolling out to a wider customer base. While there are clear benefits to the Mini-Incision System, we think there will continue to be a role for the original Lapiplasty system as (a) many doctors are already satisfied with their outcomes with the original Lapiplasty system, which does not result in that large of a scar, (b) the open procedure may be better suited for patients with more significant deformities, and (c) doctors will often correct more than just the bunion during surgery, so an open procedure may be preferred.

**Treace's portfolio of complementary ancillary products allows the company to address procedures often performed alongside Lapiplasty.** According to our doc checks, ~25% of patients undergo other procedures alongside bunion correction surgeries, including Akin osteotomies (procedures to stabilize the straight toe), Weil osteotomies (procedures to shorten the lesser toes), intercuneiform stabilization (stabilization between the first and second cuneiforms), lesser tarsometatarsal joint fusion, and autograft bone harvesting. Treace's portfolio of ancillary products, including screws, plates, and autograft bone harvesters, allows the company to serve as a one-stop-shop for surgical instrumentation and capture a greater share of case revenue.

Figure 4: Lapiplasty Complementary Ancillary Products



Source: Company filings.

**As demonstrated by 15 peer-reviewed publications, Lapiplasty outcomes outperform osteotomy and Lapidus fusion on several key metrics.** Lapiplasty recurrence rates range from just 0.9-3.2%, whereas outcomes with osteotomy (1.8-78%) and Lapidus fusion (0-46%) are much more variable and have a much higher likelihood of recurrence as they do not address the root cause of the bunion. Lapiplasty patients can begin to bear weight 1-11 days post-surgery in a post-operative boot, whereas osteotomy and Lapidus fusions patients have an average time to weight-bearing of 1-6 weeks in a post-operative boot and 6-8 weeks in a cast, respectively. The non-union rate, a measure of the incidence of the bones not healing together, is 0-2.6% for Lapiplasty vs. 0-4% for osteotomy and 2-12% for Lapidus fusion, and the hardware removal rate is 0-3.1% for Lapiplasty vs. 0-12% for osteotomy and 2-17% for Lapidus fusion.

Table 1: Comparison of Clinical Outcomes

| Key Endpoints          | 3D Lapiplasty                      | 2D Osteotomy                       | Lapidus Fusion   |
|------------------------|------------------------------------|------------------------------------|------------------|
| Recurrence Rate        | 0.9-3.2%                           | 1.8-78%                            | 0-46%            |
| Time to Weight-Bearing | 1-11 days<br>(post-operative boot) | 1-6 weeks<br>(post-operative boot) | 6-8 weeks (cast) |
| Non-Union Rate         | 0-2.6%                             | 0-4%                               | 2-12%            |
| Hardware Removal Rate  | 3.1%                               | 0-12%                              | 2-17%            |

Source: Company filings.

**Additional clinical data is being gathered through the ALIGN3D post-market study.** ALIGN3D is a prospective, multicenter, unblinded study evaluating Lapiplasty outcomes in 200 patients. The trial has a 24-month primary endpoint of whether 3D correction is maintained, and as of January 2021 it has enrolled 162 patients. Interim clinical outcomes based on 74 patients at six weeks, 62 patients at six months, and 26 patients at 12 months were presented at the American Orthopedic Foot & Ankle Society conference in September 2020 and demonstrated an average time to weight-bearing of 8 days, average number of days to return to work of 19 days (full work at ~41 days), and average number of days to return to unrestricted activity of 115 days. Additional data will be presented May 18-21 at the American College of Foot & Ankle Surgeons.

## Competitive Landscape

**Our physician diligence checks indicate a clear preference for Lapiplasty over competitive procedures.** While several bunion correction systems similar to Treace's Lapiplasty have emerged in recent years, competitive products either (1) make tradeoffs to work around Treace's IP or (2) face several of the same drawbacks that traditional osteotomy or Lapidus fusion procedures do, which has limited surgeon uptake of these systems. In addition, we see Treace's size and dedication to the bunion correction market as an advantage relative to larger competitors, like Zimmer Biomet and Stryker, which are less focused on bunion correction. As a result, we see traditional 2D osteotomies, which comprise ~75% of surgical procedure volumes today, as Treace's main competition, rather than branded implants/solutions.

**While there are several instrumented Lapidus systems similar to Lapiplasty, competitors have to make tradeoffs to work around Treace's IP.** Instrumented 2D Lapidus systems, like Zimmer Biomet's Incore and Paragon 28's Phantom Nail, improve upon traditional Lapidus fusion systems by providing instrumentation to guide surgeons through the procedure, eliminating the challenging freehand aspect of traditional Lapidus fusion procedures. 3D instrumented Lapidus fusion systems, like Wright's LapiFuse and CrossRoads' DynaBunion, take this a step further by also correcting all three dimensions of the deformity. However, Treace's correct-before-you-cut patent protected methodology forces competitive systems to rely on cutting first, introducing an element of variability into the procedure similar to traditional Lapidus fusion. In addition, whereas Treace has iterated on its Lapiplasty system, each of these instrumented Lapidus systems are first-generation devices that have several kinks that have yet to be ironed out, in our opinion.

**Minimally invasive osteotomy systems significantly reduce incision size, though they still face several of same the drawbacks as traditional osteotomies.** Minimally invasive osteotomy systems, including Wright's PROstep, Novastep's Centrolock, and Crossroads' MINI BUNION, are significantly less invasive than both traditional osteotomies and Treace's Lapiplasty with just 4-5 incisions 6-10mm in size. While less invasive, these systems are still osteotomies and as a result still face the same drawbacks as traditional osteotomy procedures: they do not address all three dimensions of the deformity or treat the root cause of the bunion at the metatarsal joint, in turn resulting in more variable outcomes.

## Lapiplasty Market Opportunity

**The surgical market represents a TAM of ~\$5B, with a current market size of ~\$2.3B in the US.** According to the company, ~65M Americans have bunions, including 25% of adults 18-65 years old and 35% of adults aged 65+. With higher prevalence among older adults, the population of individuals with bunions should continue to grow as the US population ages. Approximately ~4.4M individuals seek medical treatment annually, of which ~1.1M have deformities that have progressed to a point where they cannot be addressed by non-surgical options and are candidates for surgical treatment. At Treace's ASP of ~\$5,000 this represents an annual total addressable market (TAM) of ~\$5B. However, with poor outcomes from traditional surgical procedures and long recovery times, only 450k surgical bunion procedures are performed annually, which equates to a current US market size of ~\$2.3B based on the Lapiplasty average selling price (ASP).

**With significantly better outcomes, we think Lapiplasty should be able to both capture share from traditional procedures and expand the current ~\$2.3B US surgical market.** With high rates of recurrence, long recovery times, and high patient dissatisfaction rates following osteotomy and Lapidus fusion procedures, the treated population (~450k procedures annually) remains well below the total population of surgical candidates (1.1M individuals). However, with superior outcomes across several key metrics such as durability and speed of recovery, we think Treace should be able to both capture share from osteotomy and Lapidus fusion and expand the current ~\$2.3B US market by attracting patients who have shied away from traditional bunion correction surgery. Our physician diligence checks point to a meaningful increase in patient flow since the launch of Lapiplasty, driven by both word of mouth and Treace's direct-to-consumer marketing push.

**With ~11k procedures performed in 2020, Lapiplasty penetration stood at just 2.5% of the current surgical market.** As of 2020, the company had trained 1,275 of the 10,000 surgical podiatrists and orthopedic surgeons in the US, which we expect to grow to 3,262 by 2025. Coupled with an increase in surgeon utilization, which we expect to grow from 9.8 kits per surgeon per year in 2020 to 14.7 by 2025 as physicians become more experienced with the procedure and the pace of new hiring begins to slow, this should drive a step up in penetration to ~45k procedures in 2025, or ~10% of the total surgical market (holding total procedures per year steady at ~450k). Looking at Treace's TAM, with 1.1M surgical candidates annually, our estimates for kits sold in 2020 and 2025 point to penetration of just 1% and 4%, respectively, leaving a long runway for future growth.

## Pipeline

**Turning to the pipeline of new products, Treace is moving into a full launch of its Lapiplasty Mini-Incision System.** This new offering allows the procedure to be performed through a smaller 3.0-3.5cm incision compared to today's 6.0-8.0cm incision. This is favored by patients for the smaller scar it leaves post-procedure and should be an attractive offering for physicians as well given potential procedure time improvement with lower levels of dissection. The limited launch of this device began last year with a focus on more experienced surgeons first, something that should be expanded over the course of 2021. This should grow to become closer to 20-25% of cases in 2021 from 5-10% of cases today, which should drive a modest ASP improvement as well.

**Other products in the pipeline could include common procedures performed alongside traditional bunion or Lapiplasty procedures.** There are other foot deformities that are often treated during a bunion procedure like metatarsus adductus deformities that have been historically ignored. With potential add-on sales from plates and screws used during other procedures tacked on to Lapiplasty, Treace would be able to keep competitive reps out of the picture and become a one-stop shop for the procedure, a meaningful competitive advantage should other competitive products become available further down the line.

**On the clinical side, Treace is enrolling [ALIGN3D](#) to assess the outcomes of Lapiplasty over a five-year period.** The single-arm study completed its 200-patient enrollment in 1Q21 with a primary endpoint looking at radiographic recurrence of bunions at 24 months and secondary endpoints around complications, healing, and change in VAS pain scores out to five years. Looking at initial results from 74

patients at a mix of six months and 12 months that were presented at AOFAS in September 2020, patients saw (1) an average of eight days until weight bearing, (2) 19 days before a return to work (41 days for full work), (3) 115 days until unrestricted activity, and (4) dramatic improvements in patient-reported pain scores like VAS and MOxFQ. We should see longer-term data in the 12-month and 24-month time frame at ACFAS in mid May with peer-review publication following the conference.

## Reimbursement

**Lapliasty is reimbursed under existing procedure codes with roughly 63% of cases reimbursed by commercial payors.** A representative procedure will bill for codes 28740, 28298, and 28308, with Medicare's finalized FY21 rates establishing a physician fee of \$1,006, the ASC at \$6,982, and the hospital at \$6,265 or \$12,315 depending on whether or not a complexity code is billed alongside the procedure (it is in 70% of cases). The majority of Treace's patient base is covered under commercial pay, with management highlighting higher reimbursement of ~50% for the physician, ASC, and/or hospital.

**Table 2: Lapliasty Reimbursement Codes (FY21)**

| CPT Code     | Physician      | ASC            | APC            | Hospital        |
|--------------|----------------|----------------|----------------|-----------------|
| 28740        | \$587          | \$4,412        | 5114           | \$6,265         |
| 28298        | \$473          | \$3,805        | 5115           | \$12,315        |
| 28308        | \$364          | \$1,335        |                |                 |
| <b>Total</b> | <b>\$1,006</b> | <b>\$6,982</b> | <b>Average</b> | <b>\$10,500</b> |

Source: CMS.

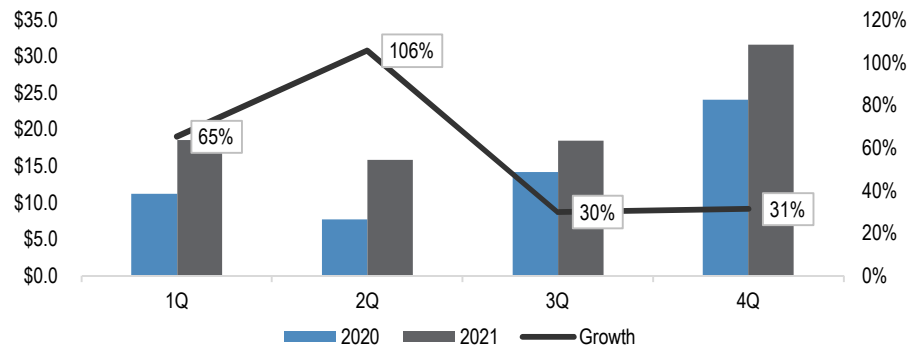
## Financial Outlook

### Revenue

Our forecast calls for Treace to generate sales of \$84.7M (+48%) in 2021 after generating sales of \$57.4M in 2020. Taking a look back at last year, it's important to note that despite a sequential step-down in sales from 1Q (\$11.3M) to 2Q (\$7.7M) due to COVID-19, sales rebounded very quickly in the back half of the year with sales of \$14.3M (+61%) and \$24.1M (+44%) in 3Q and 4Q, respectively. We already saw this same kind of strength continuing into the first quarter of 2021, with flashed sales of \$18.5-18.7M (+64-66%) coming in well above previous expectations for closer to \$14.0M off the back of easy comps, pent-up demand despite the impressive 3Q20 and 4Q20 results, and improved sales mix.

**With a conservative guidance raise to kick off the year, we see room for further beat-and-raise quarters throughout 2021.** With a conservative guidance raise up to \$85.1M from \$84.1M previously despite the \$4M+ beat we saw in 1Q21, we think it's clear that there's likely more upside to come in our near-term revenue forecasts. We currently forecast sales of only \$15.9M (+106%), \$18.5M (+30%), and \$31.6M (+31%) in 2Q-4Q21 even though strong 1Q21 trends should continue. The company's business model does experience significant seasonality to keep in mind, however, with 3Q21 likely to be impacted by a return to more normalized summer seasonality with a significant pickup in 4Q21.

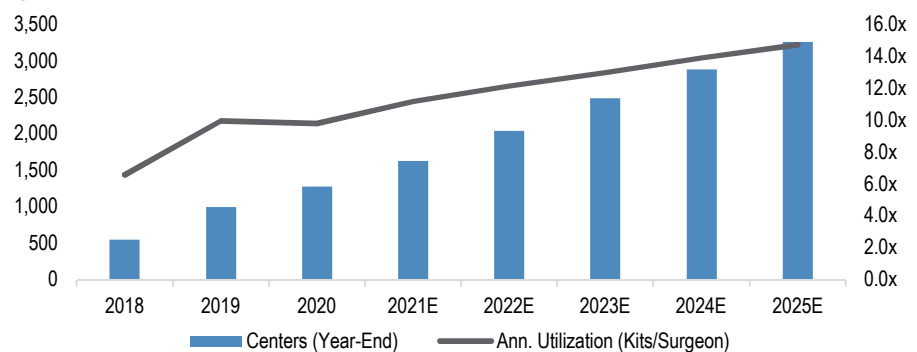
Figure 5: Treace Quarterly Growth Trends (2021)



Source: J.P. Morgan estimates, company data.

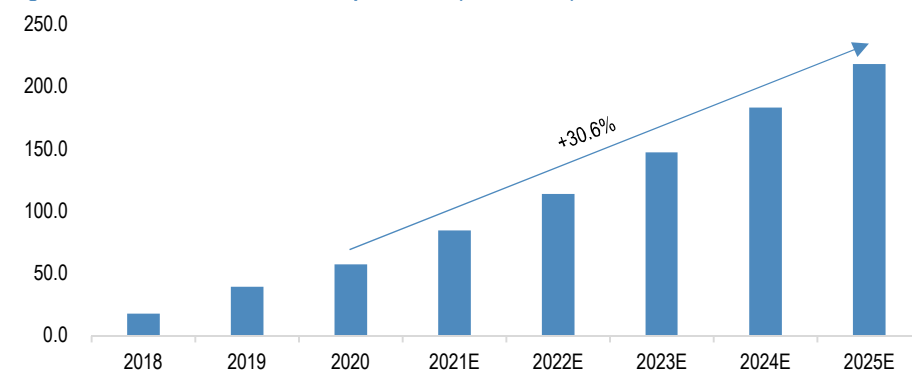
**Using a bottom-up model, we forecast sales growing at a +31% CAGR from 2020-2025.** The main drivers of our model are (1) the number of active surgeons, (2) annual utilization per surgeon, and (3) ASP. The company ended 2020 with 1,275 surgeons trained and saw annual utilization of 9.8x for the full-year, all of which was coupled with an ASP of \$5,162. We forecast the company adding an additional 352 docs over the course of 2021, which should lead to more modest utilization growth to 11.2 (+14%) procedures per year as these new physicians come up the curve. We see new physician adds continuing at a healthy pace with a total base of 3,262 at the end of 2025, with utilization growing to roughly 14.7 kits per surgeon over the same time period as the surgeon base begins to skew more experienced. We see ASPs declining modestly, similar to other orthopedic procedures, but this could wind up conservative as offerings in the bunion space are less commoditized than those in other areas of orthopedics.

Figure 6: Treace Center Adds vs. Annual Utilization (2018-2025E)



Source: J.P. Morgan estimates, company data.

Figure 7: Treace Revenue Growth Expectations (2018-2025E)



Source: J.P. Morgan estimates, company data.

Table 3: Treace Full Revenue Model (2018-2025E)

| <i>\$ in millions</i>           | 2018          | 2019          | 2020          | 2021E         | 2022E          | 2023E          | 2024E          | 2025E          |        | 2019  | 2020   | 2021E | 2022E | 2023E | 2024E  | 2025E | 2020-25E<br>CAGR |
|---------------------------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|--------|-------|--------|-------|-------|-------|--------|-------|------------------|
| <u>Active Surgeons</u>          |               |               |               |               |                |                |                |                |        |       |        |       |       |       |        |       |                  |
| Beginning                       |               | 553           | 997           | 1,275         | 1,627          | 2,037          | 2,487          | 2,887          |        |       | 80.3%  | 27.9% | 27.6% | 25.2% | 22.1%  | 16.1% | 23.7%            |
| New                             |               | <u>444</u>    | <u>278</u>    | <u>352</u>    | <u>410</u>     | <u>450</u>     | <u>400</u>     | <u>375</u>     |        |       | -37.4% | 26.6% | 16.5% | 9.8%  | -11.1% | -6.3% | 6.2%             |
| Ending                          | 553           | 997           | 1,275         | 1,627         | 2,037          | 2,487          | 2,887          | 3,262          | 80.3%  | 27.9% | 27.6%  | 25.2% | 22.1% | 16.1% | 13.0%  |       | 20.7%            |
| Average                         | 553           | 775           | 1,136         | 1,451         | 1,832          | 2,262          | 2,687          | 3,075          | 40.1%  | 46.6% | 27.7%  | 26.3% | 23.5% | 18.8% | 14.4%  |       | 22.0%            |
| Procedure Kits                  | 3,627         | 7,714         | 11,113        | 16,217        | 22,216         | 29,351         | 37,306         | 45,247         | 112.7% | 44.1% | 45.9%  | 37.0% | 32.1% | 27.1% | 21.3%  |       | 32.4%            |
| Ann. Utilization (Kits/Surgeon) | 6.6x          | 10.0x         | 9.8x          | 11.2x         | 12.1x          | 13.0x          | 13.9x          | 14.7x          | 51.8%  | -1.7% | 14.3%  | 8.5%  | 7.0%  | 7.0%  | 6.0%   |       | 8.5%             |
| ASP                             | \$4,892       | \$5,110       | \$5,162       | \$5,223       | \$5,119        | \$5,016        | \$4,916        | \$4,818        | 4.4%   | 1.0%  | 1.2%   | -2.0% | -2.0% | -2.0% | -2.0%  |       | -1.4%            |
| <b>Net Revenue (\$M)</b>        | <b>\$17.7</b> | <b>\$39.4</b> | <b>\$57.4</b> | <b>\$84.7</b> | <b>\$113.7</b> | <b>\$147.2</b> | <b>\$183.4</b> | <b>\$218.0</b> | 122.1% | 45.5% | 47.7%  | 34.2% | 29.5% | 24.6% | 18.9%  |       | 30.6%            |

Source: J.P. Morgan estimates, company data.

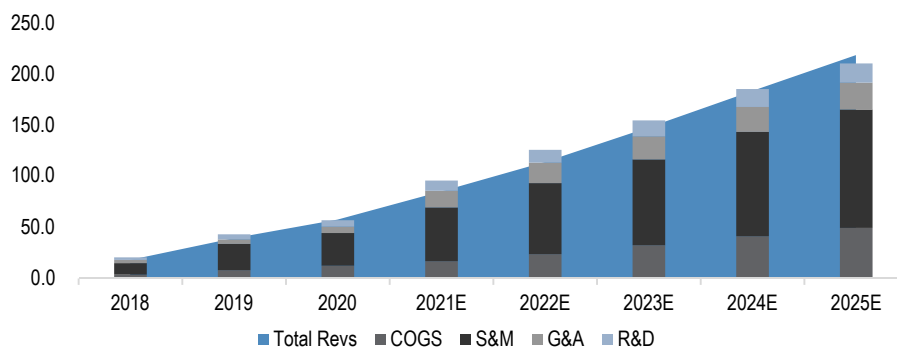
## Margins

We conservatively forecast gross margins moderating slightly over the coming years from 80.2% in 2021 down to 77.5% in 2025. While the majority of manufacturing is expected to remain outsourced, some components like packaging could be brought in house if it made financial sense. Part of our conservatism stems from our modelling of pricing headwinds, with 200bps of price realized each year from 2022E to 2025E. However, as highlighted previously, we could see Treace holding price steadier or even taking price increases, a sharp contrast to traditional ortho products, which is driven by the underserved nature of its end market and the lack of other major competitors.

With respect to S&M, we see spend growing at a +30% CAGR from 2020-2025 on a dollar basis but declining as a percentage of sales from 61.7% in 2021 to 53.0% in 2025. This will be the main focus of spend as Treace aims to drive deeper penetration into the existing market of ~10K surgeons who perform bunion procedures, with additional upside to that number possible as general orthopedists learn about and begin performing the procedure. G&A should come in at a higher 32% CAGR over this same time period, but off a much lower base at 19.1% of sales in 2021E to 12.1% in 2025E.

We see R&D spend growing at a +27% CAGR from 2020-2025E after stepping up meaningfully in 2021E to \$10.3M. Spend in 2020 was reduced significantly given COVID-19 challenges when it came to hiring new engineers and running studies, but management aims to double R&D engineering staff. Spending will also be incurred in the development of next-gen systems and solutions for common procedures around the Lapiplasty procedure, which should enable Treace to become a one-stop shop that can keep competitor reps out of the surgical suite.

Figure 8: Treace P&L Forecast (2018-2025E)



Source: J.P. Morgan estimates, company data.

We expect this to result in an operating loss of \$10.9M in 2021 following a year of positive income of \$0.9M in 2020 as COVID-19 headwinds to the top line were more than offset by reduced spend. While operating loss will increase slightly in 2022E as the company reinvests its IPO proceeds back into the business, we ultimately see the company reaching positive income of \$8.0M in 2025E.

## Earnings

Treace has posted losses in recent years as it has worked to commercialize its 3D Lapiplasty system, work on new innovation like the recently launched Mini-Incision

system, and generate clinical data to support continued adoption. As of December 31, 2020, its accumulated deficit stood at \$21.4M with \$29.2M of principal outstanding under its term loan agreement. With roughly ~\$1M of interest expense each year going forward, we see Treace reporting a net loss of \$14.9M in 2021E and \$12.8M in 2022E, with profitability ultimately reached in 2025E as the company achieves scale and expense growth moderates.

### Cash Flow

The company has been cash flow negative in recent years as it has invested in the rollout of its Lapiplasty system, sales force expansion, and clinical efforts. Free cash flow was negative \$5.6M in 2020 but will take a step down to negative \$21.8M in 2021E. This continues through our modeling horizon with FCF losses of \$18.2M, \$14.5M, \$9.4M, and +0.2M in 2022-2025E. However, with our current top-line assumptions likely skewing conservative, we could see FCF breakeven earlier than we currently forecast. We don't see the company requiring any capital raises within our modeling horizon.

## Valuation

### Comparable Company Analysis

We value Treace on an EV/sales basis, similar to how we evaluate the rest of our SMid-cap MedTech coverage. For our comp group, we use a representative sample of other high-growth SMid-cap names including Eargo (EAR), Glaukos (GKOS), Inari (NARI), Nevro (NVRO), Penumbra (PEN), Silk Road (SILK), and others as seen in the table below. Based on Bloomberg consensus and J.P. Morgan estimates where appropriate, this group currently trades at 14.0x 2021E EV/sales (see Table 4), below where Treace is trading at 16.8x its 2021E forward estimate. The group's average growth CAGR from 2019-2024E is roughly +32%, also below Treace's expected growth rate of +36%.

To derive our \$37 December 2021 price target, we are applying a 14.0x multiple to our 2023E revenue forecast of \$147M and discount it back one year at 7.0%. We believe Treace's valuation is justified due to its (1) higher 2019-2024E sales growth CAGR (36% vs. 32%), (2) a strong gross margin profile at ~80%, (3) and only 2-3% market share of the current \$2B+ bunion market, or only ~1% of the ~\$5B US addressable market.

Table 4: TMCI Comparable Company Analysis

| \$ in millions | Ticker      | JPM Rating | YE21 Price Target | Price 17-May   | Market Cap.  | Revenues    |              |              | EV/Sales     |              |             | NTM Multiple | 19-24E CAGR |
|----------------|-------------|------------|-------------------|----------------|--------------|-------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|
|                |             |            |                   |                |              | CY21E       | CY22E        | CY23E        | CY21E        | CY22E        | CY23E       |              |             |
| Axonics        | AXNX        | NC         |                   | \$54.41        | 2,495        | \$179       | \$245        | \$307        | 13.7x        | 10.0x        | 8.0x        | 12.3x        | 49%         |
| Eargo          | EAR         | OW         | \$52              | \$33.53        | 1,299        | \$90        | \$115        | \$152        | 12.4x        | 9.6x         | 7.3x        | 11.4x        | 43%         |
| Glaukos        | GKOS        | UW         | \$85              | \$73.75        | 3,413        | \$297       | \$353        | \$428        | 10.4x        | 8.8x         | 7.2x        | 9.8x         | 18%         |
| Inari          | NARI        | NC         |                   | \$81.63        | 4,055        | \$247       | \$313        | \$386        | 15.7x        | 12.4x        | 10.1x       | 14.5x        | 54%         |
| Inspire        | INSP        | OW         | \$250             | \$168.43       | 4,584        | \$195       | \$261        | \$337        | 22.5x        | 16.8x        | 13.0x       | 20.4x        | 39%         |
| Nevro          | NVRO        | N          | \$160             | \$144.19       | 5,014        | \$447       | \$521        | \$571        | 10.7x        | 9.2x         | 8.4x        | 10.1x        | 10%         |
| Penumbra       | PEN         | OW         | \$315             | \$235.00       | 8,573        | \$703       | \$822        | \$940        | 12.0x        | 10.2x        | 8.9x        | 11.3x        | 14%         |
| Shockwave      | SWAV        | NC         |                   | \$157.48       | 5,509        | \$202       | \$306        | \$419        | 26.5x        | 17.5x        | 12.8x       | 23.1x        | 54%         |
| Silk Road      | SILK        | OW         | \$75              | \$46.54        | 1,605        | \$107       | \$145        | \$178        | 14.2x        | 10.5x        | 8.6x        | 12.8x        | 27%         |
| Alphatec       | ATEC        | NC         |                   | \$14.86        | 1,448        | \$194       | \$235        | \$293        | 6.8x         | 5.6x         | 4.5x        | 6.4x         | 27%         |
| SI-Bone        | SIBN        | NC         |                   | \$31.54        | 1,036        | \$94        | \$120        | \$145        | 9.5x         | 7.4x         | 6.1x        | 8.7x         | 21%         |
| <b>Average</b> |             |            |                   |                |              |             |              |              | <b>14.0x</b> | <b>10.7x</b> | <b>8.6x</b> | <b>12.8x</b> | <b>32%</b>  |
| <b>Treace</b>  | <b>TMCI</b> | <b>OW</b>  | <b>\$37</b>       | <b>\$29.36</b> | <b>1,502</b> | <b>\$85</b> | <b>\$114</b> | <b>\$147</b> | <b>16.8x</b> | <b>12.5x</b> | <b>9.7x</b> | <b>15.2x</b> | <b>36%</b>  |

Source: J.P. Morgan estimates for EAR, GKOS, INSP, NVRO, PEN, and SILK; Bloomberg Finance L.P. consensus for all other estimates. Note: J.P. Morgan ratings: OW = Overweight; N = Neutral; UW = Underweight; NR = Not Rated; NC = not covered.

Table 5: TMCI Price Target Methodology

|                                           | Implied        |
|-------------------------------------------|----------------|
| Projected 2023 Revenues                   | \$147.2        |
| 1-Year Forward Multiple                   | 14.0x          |
| Enterprise Value                          | \$2,061.3      |
| Discount Rate                             | 7.0%           |
| Period in Years                           | 0.50           |
| Discounted EV                             | \$1,992.7      |
| Projected Cash (YE22)                     | 72.8           |
| Projected Debt (YE22)                     | 24.3           |
| Implied Market Cap                        | \$2,041.2      |
| Projected Shares Outstanding (YE22)       | 54.9           |
| <b>Implied Price per Share (Dec-2022)</b> | <b>\$37.00</b> |
| Upside from Current Price                 | 26%            |

Source: J.P. Morgan estimates

Table 6: Treace P&L Model (2018-2025E)

| \$ in millions, except EPS   | 2018         | 2019       | 2020        | 2021E           | 2022E           | 2023E           | 2024E           | 2025E         |
|------------------------------|--------------|------------|-------------|-----------------|-----------------|-----------------|-----------------|---------------|
| Total Revs                   | 17.7         | 39.4       | 57.4        | 84.7            | 113.7           | 147.2           | 183.4           | 218.0         |
| Cost of Goods Sold           | <u>3.2</u>   | <u>7.6</u> | <u>12.5</u> | <u>16.8</u>     | <u>23.3</u>     | <u>32.0</u>     | <u>40.9</u>     | <u>49.0</u>   |
| Gross Profit                 | 14.6         | 31.8       | 44.9        | 67.9            | 90.4            | 115.2           | 142.5           | 168.9         |
| S&M Expenses                 | 11.7         | 25.8       | 31.7        | 52.2            | 69.4            | 83.9            | 101.8           | 115.5         |
| G&A Expenses                 | 2.9          | 4.5        | 6.5         | 16.2            | 20.5            | 22.8            | 24.8            | 26.4          |
| R&D Expenses                 | 2.8          | 5.1        | 5.8         | 10.3            | 12.5            | 15.5            | 17.4            | 19.1          |
| One-Time Items               | <u>0.0</u>   | <u>0.0</u> | <u>0.0</u>  | <u>0.0</u>      | <u>0.0</u>      | <u>0.0</u>      | <u>0.0</u>      | <u>0.0</u>    |
| Operating Income             | (2.8)        | (3.5)      | 0.9         | (10.9)          | (11.9)          | (7.0)           | (1.5)           | 8.0           |
| Operating Income Ex-Unusuals | (2.8)        | (3.5)      | 0.9         | (10.9)          | (11.9)          | (7.0)           | (1.5)           | 8.0           |
| Interest and Other (Income)  | <u>(0.0)</u> | <u>0.7</u> | <u>4.5</u>  | <u>4.0</u>      | <u>0.9</u>      | <u>0.9</u>      | <u>0.9</u>      | <u>0.9</u>    |
| Pre-Tax Income               | (2.8)        | (4.3)      | (3.7)       | (14.9)          | (12.8)          | (7.9)           | (2.3)           | 7.1           |
| Income Tax Expense           | <u>0.0</u>   | <u>0.0</u> | <u>0.0</u>  | <u>0.0</u>      | <u>0.0</u>      | <u>0.0</u>      | <u>0.0</u>      | <u>0.0</u>    |
| Net Income                   | (2.8)        | (4.3)      | (3.7)       | (14.9)          | (12.8)          | (7.9)           | (2.3)           | 7.1           |
| Reported EPS                 |              |            |             | (\$0.31)        | (\$0.23)        | (\$0.14)        | (\$0.04)        | \$0.11        |
| EPS Ex-Unusuals              |              |            |             | <b>(\$0.31)</b> | <b>(\$0.23)</b> | <b>(\$0.14)</b> | <b>(\$0.04)</b> | <b>\$0.11</b> |
| Diluted Shares Outstanding   |              |            |             | 47.8            | 54.9            | 56.2            | 57.6            | 63.1          |
| Margin Analysis              | 2018         | 2019       | 2020        | 2021E           | 2022E           | 2023E           | 2024E           | 2025E         |
| COGS                         | 17.9%        | 19.4%      | 21.7%       | 19.8%           | 20.5%           | 21.8%           | 22.3%           | 22.5%         |
| Gross Margin                 | 82.1%        | 80.6%      | 78.3%       | 80.2%           | 79.5%           | 78.3%           | 77.7%           | 77.5%         |
| S&M                          | 65.7%        | 65.4%      | 55.2%       | 61.7%           | 61.0%           | 57.0%           | 55.5%           | 53.0%         |
| G&A                          | 16.5%        | 11.3%      | 11.4%       | 19.1%           | 18.0%           | 15.5%           | 13.5%           | 12.1%         |
| R&D                          | 15.9%        | 12.9%      | 10.2%       | 12.2%           | 11.0%           | 10.5%           | 9.5%            | 8.8%          |
| Operating Margin             | NM           | NM         | 1.5%        | NM              | NM              | NM              | NM              | 3.7%          |
| Pretax Margin                | NM           | NM         | NM          | NM              | NM              | NM              | NM              | 3.3%          |
| Tax Rate                     | NM           | NM         | NM          | NM              | NM              | NM              | NM              | 0.0%          |
| Net Margin                   | NM           | NM         | NM          | NM              | NM              | NM              | NM              | 3.3%          |

Source: J.P. Morgan estimates, company data.

Table 7: Treace Balance Sheet (2018-2025E)

| <i>\$ in millions</i>                               | 2019          | 2020          | 2021E          | 2022E          | 2023E          | 2024E          | 2025E          |
|-----------------------------------------------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|
| <b>Assets</b>                                       |               |               |                |                |                |                |                |
| Cash and Equivalents                                | 12.1          | 18.1          | 111.0          | 92.7           | 78.3           | 68.9           | 69.1           |
| Accounts Receivable                                 | 10.4          | 14.5          | 21.4           | 28.7           | 37.2           | 46.3           | 55.0           |
| Inventories                                         | 5.6           | 7.8           | 10.5           | 14.6           | 20.1           | 25.6           | 30.8           |
| Prepaid Expenses & Other                            | <u>0.5</u>    | <u>0.6</u>    | <u>0.8</u>     | <u>1.1</u>     | <u>1.5</u>     | <u>1.9</u>     | <u>2.3</u>     |
| Total Current Assets                                | 28.6          | 41.0          | 143.7          | 137.2          | 137.1          | 142.8          | 157.2          |
| Property and Equipment                              | 1.1           | 0.8           | 3.8            | 5.1            | 6.7            | 8.8            | 11.9           |
| Other Assets                                        | <u>0.0</u>    | <u>0.0</u>    | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>     |
| <b>Total Assets</b>                                 | <b>\$29.7</b> | <b>\$41.8</b> | <b>\$147.6</b> | <b>\$142.3</b> | <b>\$143.8</b> | <b>\$151.6</b> | <b>\$169.2</b> |
| <b>Liabilities</b>                                  |               |               |                |                |                |                |                |
| Accounts Payable                                    | 0.9           | 2.3           | 3.1            | 4.2            | 5.8            | 7.4            | 8.9            |
| Accrued Expenses                                    | 3.8           | 4.0           | 5.4            | 7.5            | 10.4           | 13.2           | 15.9           |
| Term Loans, Current                                 | 0.0           | 1.8           | 13.3           | 6.7            | 0.0            | 0.0            | 0.0            |
| Deferred Commissions, Current                       | 2.6           | 3.5           | 0.2            | 0.3            | 0.3            | 0.4            | 0.4            |
| Other Current Liabilities                           | <u>0.0</u>    | <u>0.0</u>    | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>     |
| Total Current Liabilities                           | 7.3           | 11.6          | 22.0           | 18.7           | 16.5           | 21.1           | 25.2           |
| Long Term Debt                                      | 19.2          | 29.2          | 17.6           | 24.3           | 31.0           | 31.0           | 31.0           |
| Other Long-Term Liabilities                         | <u>0.0</u>    | <u>0.2</u>    | <u>0.3</u>     | <u>0.5</u>     | <u>0.6</u>     | <u>0.8</u>     | <u>1.0</u>     |
| Total Liabilities                                   | 26.6          | 41.0          | 40.0           | 43.5           | 48.1           | 52.8           | 57.1           |
| Total Shareholders' Equity                          | 3.2           | 0.8           | 107.6          | 98.8           | 95.7           | 98.8           | 112.1          |
| <b>Total Liabilities &amp; Shareholders' Equity</b> | <b>\$29.7</b> | <b>\$41.8</b> | <b>\$147.6</b> | <b>\$142.3</b> | <b>\$143.8</b> | <b>\$151.6</b> | <b>\$169.2</b> |

Source: J.P. Morgan estimates, company data.

Table 8: Treace Cash Flow (2018-2025E)

| \$ in millions                              | 2019          | 2020          | 2021E          | 2022E         | 2023E         | 2024E         | 2025E         |
|---------------------------------------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|
| <b>Cash Flows from Operations</b>           |               |               |                |               |               |               |               |
| Net Income (Loss)                           | (4.3)         | (3.7)         | (14.9)         | (12.8)        | (7.9)         | (2.3)         | 7.1           |
| Depreciation & Amortization                 | 0.8           | 1.2           | 0.6            | 1.7           | 1.8           | 2.0           | 1.8           |
| Stock-Based Compensation                    | 0.8           | 0.9           | 1.7            | 2.3           | 2.9           | 3.7           | 4.4           |
| Other                                       | 0.3           | 2.4           | 2.0            | 2.0           | 2.0           | 2.0           | 2.0           |
| Changes in Operating Assets & Liabilities   | <u>(5.3)</u>  | <u>(5.3)</u>  | <u>(7.6)</u>   | <u>(8.4)</u>  | <u>(9.9)</u>  | <u>(10.6)</u> | <u>(10.1)</u> |
| Receivables                                 | (6.0)         | (4.3)         | (6.9)          | (7.3)         | (8.5)         | (9.1)         | (8.7)         |
| Inventories                                 | (2.8)         | (3.4)         | (2.7)          | (4.1)         | (5.5)         | (5.6)         | (5.1)         |
| Prepaid Expenses & Other                    | (0.1)         | (0.1)         | (0.2)          | (0.3)         | (0.4)         | (0.4)         | (0.4)         |
| Accounts Payable                            | (0.2)         | 1.3           | 0.8            | 1.2           | 1.6           | 1.6           | 1.5           |
| Accrued Liabilities & Other                 | <u>3.9</u>    | <u>1.1</u>    | <u>1.4</u>     | <u>2.1</u>    | <u>2.8</u>    | <u>2.9</u>    | <u>2.6</u>    |
| Total Cash Flows from Operations            | (7.7)         | (4.5)         | (18.2)         | (15.2)        | (11.1)        | (5.3)         | 5.1           |
| <b>Cash Flows from Investing</b>            |               |               |                |               |               |               |               |
| Other Investing                             | 0.0           | 0.0           | 0.0            | 0.0           | 0.0           | 0.0           | 0.0           |
| Capital Expenditures                        | <u>(1.2)</u>  | <u>(1.1)</u>  | <u>(3.6)</u>   | <u>(3.0)</u>  | <u>(3.4)</u>  | <u>(4.1)</u>  | <u>(4.9)</u>  |
| Total Cash Flows from Investing             | (1.2)         | (1.1)         | (3.6)          | (3.0)         | (3.4)         | (4.1)         | (4.9)         |
| <b>Cash Flows from Financing</b>            |               |               |                |               |               |               |               |
| Proceeds from Equity                        | 0.0           | 0.0           | 108.7          | 0.0           | 0.0           | 0.0           | 0.0           |
| Proceeds from Debt Issuance                 | 20.0          | 29.5          | 0.0            | 0.0           | 0.0           | 0.0           | 0.0           |
| Payments on Debt Outstanding                | 0.0           | (20.0)        | 0.0            | 0.0           | 0.0           | 0.0           | 0.0           |
| Other                                       | <u>(0.3)</u>  | <u>2.0</u>    | <u>6.0</u>     | <u>0.0</u>    | <u>0.0</u>    | <u>0.0</u>    | <u>0.0</u>    |
| Total Cash Flows from Financing             | 19.7          | 11.5          | 114.7          | 0.0           | 0.0           | 0.0           | 0.0           |
| Effect of Foreign Exchange Rates            | 0.0           | 0.0           | 0.0            | 0.0           | 0.0           | 0.0           | 0.0           |
| Beginning Cash                              | 1.3           | 12.1          | 18.1           | 111.0         | 92.7          | 78.3          | 68.9          |
| Increase (Decrease) in Cash and Equivalents | <u>10.9</u>   | <u>5.9</u>    | <u>92.9</u>    | <u>(18.2)</u> | <u>(14.5)</u> | <u>(9.4)</u>  | <u>0.2</u>    |
| <b>Ending Cash</b>                          | <b>\$12.1</b> | <b>\$18.1</b> | <b>\$111.0</b> | <b>\$92.7</b> | <b>\$78.3</b> | <b>\$68.9</b> | <b>\$69.1</b> |
| <b>Notes</b>                                |               |               |                |               |               |               |               |
|                                             | 2019          | 2020          | 2021E          | 2022E         | 2023E         | 2024E         | 2025E         |
| EBITDA                                      | (1.9)         | 2.8           | (10.3)         | (10.2)        | (5.2)         | 0.5           | 9.7           |
| Free Cash Flow                              | (8.9)         | (5.6)         | (21.8)         | (18.2)        | (14.5)        | (9.4)         | 0.2           |

Source: J.P. Morgan estimates, company data.

## Investment Thesis, Valuation and Risks

### Treace Medical Concepts, Inc. (Overweight; Price Target: \$37.00)

#### Investment Thesis

Treace has developed the innovative Lapiplasty system, an innovative solution for the treatment of bunions, which is a ~\$5B US market today that's underpenetrated with a high unmet need for a quality solution. Despite the fact that bunions are a three-dimensional deformity that occurs at the great toe joint, currently available surgical solutions on the market do not reliably address the root cause and are associated with (a) unpredictable outcomes, (b) high recurrence rates, and (c) low patient satisfaction. The Treace Lapiplasty kit is the only surgical kit on the market that reliably addresses all three dimensions of the deformity while delivering better and more consistent outcomes than existing solutions. Additionally, the strong IP surrounding the Lapiplasty kit has created high barriers to entry, offering a long runway to greater penetration within the surgical market for bunions, which currently stands at ~450k procedures annually. With the ongoing shift to a direct sales force coupled with direct-to-patient outreach to drive increased awareness and adoption, we forecast a sales growth trajectory for Treace that's well above its orthopedic peers. The innovative technology coupled with positive surgeon and patient real-world feedback are bullish signals, in our view, and drive a pathway for multiple years of beat-and-raise potential.

#### Valuation

Our Dec 2021 price target of \$37 values Treace at 14.0x our 2023 revenue forecast discounted back one year at a 7% discount rate. This compares to its high-growth MedTech peer group at ~14.0x 2021E EV/sales, though we note Treace has a higher 2019-2024E sales growth CAGR (36% vs. 32%), a strong gross margin profile at ~80%, and only 2-3% market share of the current \$2B+ bunion market, or only ~1% of the ~\$5B US addressable market.

#### Risks to Rating and Price Target

Risks to the downside include: (1) Treace is dependent on the success of its key product, Lapiplasty, meaning any recalls, manufacturing shortage, or safety issues would materially impact sales; (2) a slower than expected sales force expansion; (3) slower than expected physician adoption and/or utilization; and (4) the possibility that a competitor is able to circumvent Treace's patent portfolio and market a 3D solution for bunions that is better than Lapiplasty—we are unaware of any such products or pipeline products at this time.

## Treace: Summary of Financials

| Income Statement - Annual           |        |         |         |         |         | Income Statement - Quarterly |          |          |           |         |          |
|-------------------------------------|--------|---------|---------|---------|---------|------------------------------|----------|----------|-----------|---------|----------|
|                                     | FY19A  | FY20A   | FY21E   | FY22E   | FY23E   |                              | 1Q21E    | 2Q21E    | 3Q21E     | 4Q21E   |          |
| Revenue                             | 39     | 57      | 85      | 114     | 147     | Revenue                      | 19       | 16       | 19        | 32      |          |
| COGS                                | (8)    | (12)    | (17)    | (23)    | (32)    | COGS                         | (3)      | (3)      | (4)       | (6)     |          |
| Gross profit                        | -      | -       | -       | -       | -       | Gross profit                 | -        | -        | -         | -       |          |
| SG&A                                | (30)   | (38)    | (68)    | (90)    | (107)   | SG&A                         | (14)     | (16)     | (18)      | (21)    |          |
| Adj. EBITDA                         | (4)    | 1       | (11)    | (12)    | (7)     | Adj. EBITDA                  | (1)      | (5)      | (6)       | 2       |          |
| D&A                                 | -      | -       | -       | -       | -       | D&A                          | -        | -        | -         | -       |          |
| Adj. EBIT                           | (4)    | 1       | (11)    | (12)    | (7)     | Adj. EBIT                    | (1)      | (5)      | (6)       | 2       |          |
| Net Interest                        | (1)    | (5)     | (4)     | (1)     | (1)     | Net Interest                 | (1)      | (1)      | (1)       | (1)     |          |
| Adj. PBT                            | (4)    | (4)     | (15)    | (13)    | (8)     | Adj. PBT                     | (2)      | (6)      | (7)       | 1       |          |
| Tax                                 | 0      | 0       | -       | -       | -       | Tax                          | -        | -        | -         | -       |          |
| Minority Interest                   | -      | -       | -       | -       | -       | Minority Interest            | -        | -        | -         | -       |          |
| Adj. Net Income                     | (4)    | (4)     | (15)    | (13)    | (8)     | Adj. Net Income              | (2)      | (6)      | (7)       | 1       |          |
| Reported EPS                        | (4.26) | (3.67)  | (0.31)  | (0.23)  | (0.14)  | Reported EPS                 | -        | (0.14)   | (0.13)    | 0.02    |          |
| Adj. EPS                            | (4.26) | (3.67)  | (0.31)  | (0.23)  | (0.14)  | Adj. EPS                     | -        | (0.14)   | (0.13)    | 0.02    |          |
| DPS                                 | -      | -       | -       | -       | -       | DPS                          | -        | -        | -         | -       |          |
| Payout ratio                        | -      | -       | -       | -       | -       | Payout ratio                 | -        | -        | -         | -       |          |
| Shares outstanding                  | 1      | 1       | 48      | 55      | 56      | Shares outstanding           | -        | 46       | 53        | 54      |          |
| Balance Sheet & Cash Flow Statement |        |         |         |         |         | Ratio Analysis               |          |          |           |         |          |
|                                     | FY19A  | FY20A   | FY21E   | FY22E   | FY23E   |                              | FY19A    | FY20A    | FY21E     | FY22E   | FY23E    |
| Cash and cash equivalents           | 12     | 18      | 111     | 93      | 78      | Gross margin                 | -        | -        | -         | -       | -        |
| Accounts receivable                 | 10     | 14      | 21      | 29      | 37      | EBITDA margin                | (9.0%)   | 1.5%     | (12.8%)   | (10.5%) | (4.8%)   |
| Inventories                         | 6      | 8       | 11      | 15      | 20      | EBIT margin                  | (9.0%)   | 1.5%     | (12.8%)   | (10.5%) | (4.8%)   |
| Other current assets                | 0      | 1       | 1       | 1       | 2       | Net profit margin            | (10.8%)  | (6.4%)   | (17.6%)   | (11.3%) | (5.3%)   |
| Current assets                      | 29     | 41      | 144     | 137     | 137     | ROE                          | (269.8%) | (186.1%) | (27.5%)   | (12.4%) | (8.1%)   |
| PP&E                                | 1      | 1       | 4       | 5       | 7       | ROA                          | (28.7%)  | (10.2%)  | (15.7%)   | (8.8%)  | (5.5%)   |
| LT investments                      | -      | -       | -       | -       | -       | ROCE                         | (31.6%)  | 3.2%     | (12.8%)   | (8.9%)  | (5.5%)   |
| Other non current assets            | 0      | 0       | 0       | 0       | 0       | SG&A/Sales                   | 76.7%    | 66.6%    | 80.8%     | 79.0%   | 72.5%    |
| Total assets                        | 30     | 42      | 148     | 142     | 144     | Net debt/equity              | 2.2      | 16.6     | NM        | NM      | NM       |
| Short term borrowings               | 0      | 2       | 13      | 7       | 0       | P/E (x)                      | NM       | NM       | NM        | NM      | NM       |
| Payables                            | 1      | 2       | 3       | 4       | 6       | P/BV (x)                     | 9.3      | 37.8     | 13.0      | 16.3    | 17.3     |
| Other short term liabilities        | 6      | 8       | 6       | 8       | 11      | EV/EBITDA (x)                | NM       | 1,861.6  | NM        | NM      | NM       |
| Current liabilities                 | 7      | 12      | 22      | 19      | 16      | Dividend Yield               | -        | -        | -         | -       | -        |
| Long-term debt                      | 19     | 29      | 18      | 24      | 31      | Sales/Assets (x)             | 2.7      | 1.6      | 0.9       | 0.8     | 1.0      |
| Other long term liabilities         | 0      | 0       | 0       | 0       | 1       | Interest cover (x)           | NM       | 0.2      | NM        | NM      | NM       |
| Total liabilities                   | 27     | 41      | 40      | 44      | 48      | Operating leverage           | -        | (272.8%) | (2874.0%) | 28.4%   | (140.6%) |
| Shareholders' equity                | 3      | 1       | 108     | 99      | 96      | Revenue y/y Growth           | -        | 45.5%    | 47.7%     | 34.2%   | 29.5%    |
| Minority interests                  | -      | -       | -       | -       | -       | EBITDA y/y Growth            | -        | (124.2%) | (1369.7%) | 9.7%    | (41.4%)  |
| Total liabilities & equity          | 30     | 42      | 148     | 142     | 144     | Tax rate                     | 0.0%     | 0.0%     | -         | -       | -        |
| BVPS                                | 3.16   | 0.78    | 2.25    | 1.80    | 1.70    | Adj. Net Income y/y Growth   | -        | (14.0%)  | 306.0%    | (13.9%) | (38.6%)  |
| y/y Growth                          | -      | (75.4%) | 189.9%  | (20.1%) | (5.5%)  | EPS y/y Growth               | -        | (14.0%)  | (91.5%)   | (25.1%) | (40.1%)  |
| Net debt/(cash)                     | 7      | 13      | (80)    | (62)    | (47)    | DPS y/y Growth               | -        | -        | -         | -       | -        |
| Cash flow from operating activities | (8)    | (4)     | (18)    | (15)    | (11)    |                              |          |          |           |         |          |
| o/w Depreciation & amortization     | 1      | 1       | 1       | 2       | 2       |                              |          |          |           |         |          |
| o/w Changes in working capital      | (5)    | (5)     | (8)     | (8)     | (10)    |                              |          |          |           |         |          |
| Cash flow from investing activities | (1)    | (1)     | (4)     | (3)     | (3)     |                              |          |          |           |         |          |
| o/w Capital expenditure             | (1)    | (1)     | (4)     | (3)     | (3)     |                              |          |          |           |         |          |
| as % of sales                       | 3.1%   | 1.9%    | 4.3%    | 2.6%    | 2.3%    |                              |          |          |           |         |          |
| Cash flow from financing activities | 20     | 12      | 115     | 0       | 0       |                              |          |          |           |         |          |
| o/w Dividends paid                  | -      | -       | -       | -       | -       |                              |          |          |           |         |          |
| o/w Net debt issued/(repaid)        | 20     | 10      | 0       | 0       | 0       |                              |          |          |           |         |          |
| Net change in cash                  | 11     | 6       | 93      | (18)    | (14)    |                              |          |          |           |         |          |
| Adj. Free cash flow to firm         | (8)    | (1)     | (18)    | (17)    | (14)    |                              |          |          |           |         |          |
| y/y Growth                          | -      | (87.2%) | 1611.4% | (2.6%)  | (21.7%) |                              |          |          |           |         |          |

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

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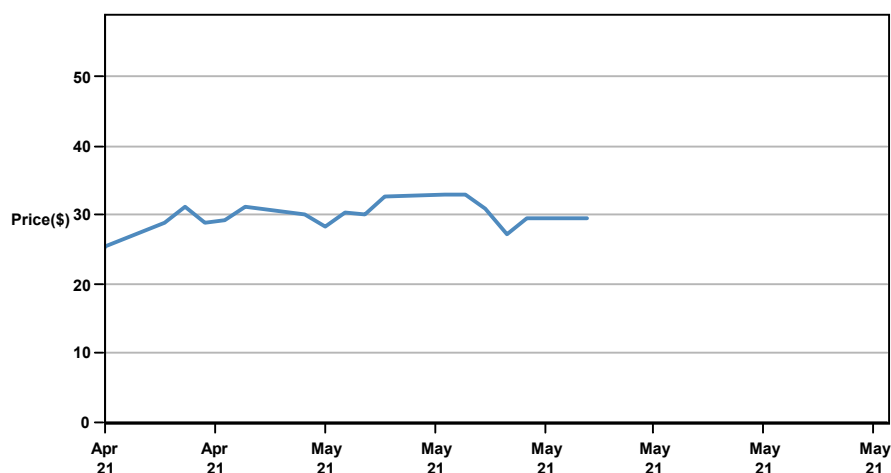
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Treace (TMCI, TMCI US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.

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