

Krause Fund Research Fall 2023



TEREX®

NYSE: **TEX**

Heavy Machinery Industry

Recommendation: BUY

(October 31, 2023)

Analysts:

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Current: \$45.80

Target: \$68-74

Investment Thesis

With a target price ranging from \$68-74, we recommend a **BUY** rating for Terex. Sitting in the lower end of Mid-Cap stocks, Terex demonstrates a strong investment by illustrating consistently strong margins when compared to other companies within the Heavy Machinery Industry in terms of overall growth and R&D dollar allocations.

Drivers of Thesis:

- Terex sits atop the industry in Sales and Operating Profit growth on a Quarter over Quarter basis, beating out large names like CAT, CMI, and DE. From Q2 2022 to Q3 2023, Terex recorded a 30% increase in sales and recorded Operating Profit that consisted of 15% of sales.

Risks to Thesis:

- Major risks to this thesis involve continuance of government spending. Due to current economic uncertainty, if the government decides to cut funding for projects that require Terex products, a majority of Terex's revenue is immediately lost.

Company Description

Terex is a global manufacturer of Materials Processing Equipment (MP) and Aerial Work Platforms (AWP). The company focuses on products used in construction, maintenance, manufacturing, energy, recycling, minerals, and materials management applications. Terex's Materials Processing Equipment segment is mainly used to process aggregate materials for building applications. Their Aerial Work Platforms segment is useful in positioning workers and materials easily and quickly in elevated work areas. For the fiscal year ended 12/31/22, total revenues rose 13.7% to \$4.418 billion.

Financial Snapshot (m)

Stock Performance:

| | |
|--------------------|---------|
| 52 Week High: | \$65.60 |
| 52 Week Low: | \$40.50 |
| Raw Beta: | 1.44 |
| Avg. Daily Volume: | 0.908 |

Model Predictions:

| | |
|--------------|---------|
| DCF/EP: | \$68.14 |
| DDM: | \$73.66 |
| Relative P/E | \$63.61 |

Share Highlights:

| | |
|---------------------|--------|
| Market Cap: | 3,248 |
| Shares Outstanding: | 67.5 |
| EPS (Q3 2023): | \$1.77 |
| PE: | 6.9 |
| Dividend Yield: | 1.4% |

Company Performance:

| | |
|--------|--------|
| Sales: | 4417.7 |
| ROE: | 25.40% |
| ROA: | 9.62% |

Financial Ratios:

| | |
|----------------|------|
| Current Ratio: | 1.96 |
| Debt/Equity: | 0.66 |

12 Month Return



Source: Google Finance

Executive Summary

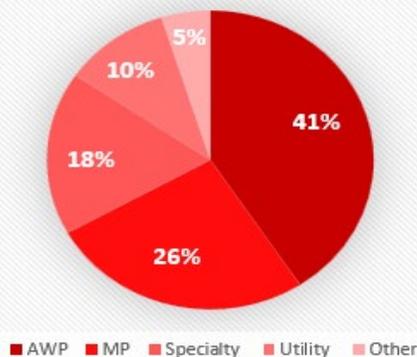
Terex Corporation (NYSE: TEX) is a leading American construction equipment manufacturing company headquartered in Norwalk, CT. Terex is a leader among Mid-Cap manufacturing companies. Products from Terex are manufactured in North America, Europe, Australia, and Asia. These products are sold all over the globe with 56% of 2022 sales coming from North America.

Company Analysis

Terex is differentiated by its MP (Materials Processing Equipment) and AWP (Aerial Work Platforms) segments. Other small segments that fall within Terex's scope is Specialty Equipment and Utility Equipment. Products that fall under the MP segment are used to process materials that are needed in the quarrying, mining, construction, demolition, recycling, landscaping, and biomass production industries. Common products seen in this segment include crushing equipment, Concrete Pavers, Tower Cranes, Conveyors, Washing Systems, Pick and Carry Cranes, and Material Handlers. Products that fall under the AWP segment are used to position workers and materials easily and quickly in the safest manner possible. These products are aimed to be a replacement to scaffolding. Products you will see in this segment include Boom Lifts, Telehandlers, Scissor Lifts, and Portable Material Lifts.

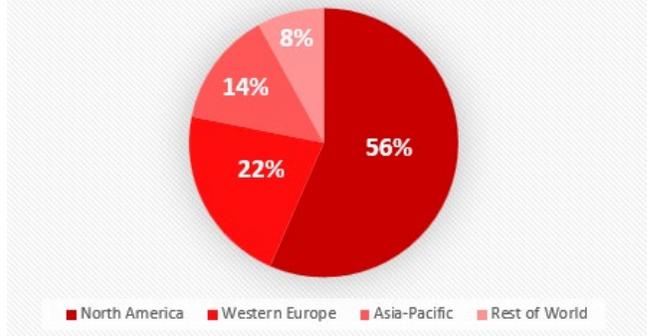
Terex aims to differentiate themselves by offering various products that are electric and hybrid, leading to quiet and emission-free performance. Terex also engages in products that support renewable energy, allowing the customer to reduce their carbon footprint, which is where a large percentage of their R&D dollars are currently going. It is also worth noting that in 2022, none of Terex's customers individually accounted for more than 10% of net sales, which solidifies Terex's wide customer base.

AWP Leads Sales by Segment (2022)



Source: Terex 10-K

North America Leads Sales by Region (2022)



Source: Terex 10-K

The pie charts above represent sales categorized by region and product segment. The breakdown of product and regional segments are provided in more detail below.

Product Segments

MP (Materials Processing Equipment):

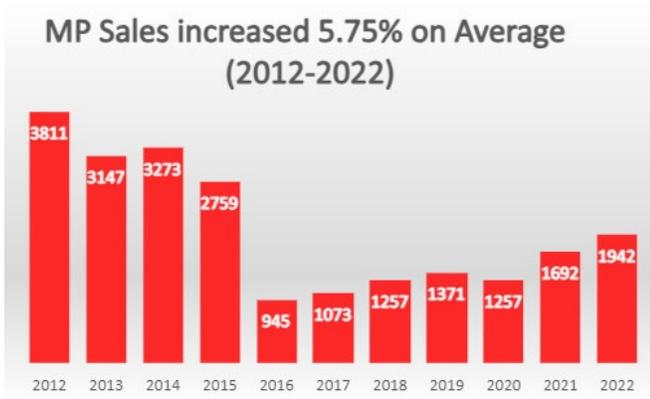
The MP segment consists of products that are used for processing materials for building applications in the quarrying, mining, construction, demolition, recycling, landscaping, and biomass production industries. Products found in this segment include crushers, screens, trommels, feeders, washing systems, conveyors, wood and biomass chipper, and grinders. Excluding the divestment activity in 2016 where Konecranes acquired Terex's Material Handling & Port Solutions segment (embedded within MP), Materials Processing Equipment has returned a sales growth of 5.75% since 2012. Its best year was in 2021 with sales growth of 34.61%, and its worst year in 2015 with a sales decline of 15.71%. It is reasonable to assume that this significant sales decline led to the divestment deal. It is also reasonable to assume that the large sales growth in 2021 was due to the recovery of the COVID-19 pandemic.

Recently, the MP segment has done exceptionally well with 34.61% sales growth in 2021 and 14.78% sales growth in 2022. While Terex does not explicitly release what specific products are driving revenue, they do give insight as to why certain product lines are showing increases in sales.

Cement product sales are being driven by a continued increase in construction and infrastructure spending. Diversification into waste, scrap, port and timber applications are causing the material handlers product line to benefit. Wood processing, biomass and recycling equipment are benefiting from the increased awareness in environmental and waste recycling solutions. Strong commodity prices result in an increased demand for the pick and carry cranes, located in Australia.

The bar graph below shows historical data for the Material Processing Equipment segment from 2012-2022. All data is

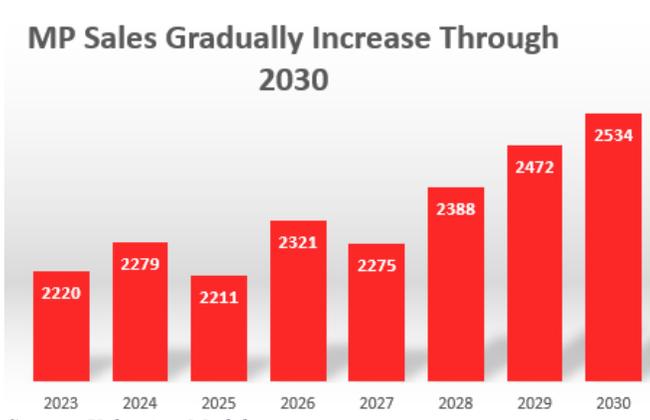
shown in millions. Note that in 2016 Konecranes acquired Terex's Material Handling & Port Solutions segment, which was embedded within Materials Procession Equipment and explains the drastic decrease in sales.



Source: Mergent

Looking into the future, we expect to see around a 14.5% growth in MP segment to conclude 2023, which will be driven by increased construction spending. Moving into 2024 and 2025 we expect growth to level off significantly, potentially even having negative growth in 2025. This is mainly driven by economic uncertainty and a seemingly imminent downturn in the overall market. Fortunately, 2024 being an election year will keep sales above water as funding towards large construction projects will not be cut, thus allowing Terex to continue to sell their products. As we move into 2025, we expect to see sales to drop due to the weak economy. Through 2030, we expect to see steady growth at around 2-5% By this time Terex is expected to establish itself in the market and solidify its mature, but gradually growing customer base.

The bar graph below illustrates projected revenue streams through 2030 for the MP segment. All values are in millions.



Source: Valuation Model

AWP (Aerial Work Platforms)

The products within the AWP segment are designed to position workers and material swiftly and safely to elevated areas, which ultimately enhance workplace safety and

productivity at significant heights. Products generally found within this segment include portable material lifts, portable aerial work platforms, trailer-mounted articulating booms, self-propelled articulating and self-propelled telescopic booms, and scissor lifts. Since 2012, AWP has averaged a sales growth of 3.16%. This lower percentage of sales growth can be attributed to 2020, which returned a -34.62% sales decline due to the COVID-19 pandemic. Excluding 2020, we see a strong sales growth of 7.36%. AWP's largest sales growth came in 2018 with a value of 23.55%.

In recent years, AWP has seen exceptional growth with a 22.21% increase in 2021 and a 14.00% increase in 2022. Like MP, Terex does not release product specific information, but does give insight into various product lines.

Sales growth in the last year has been due to higher demand of fleet replacement realization of efficiently managing rising costs. Terex's Genie products saw sales growth as construction, infrastructure, and industrial applications increased their demand for AWP products. Most of these applications revolve around the construction of large warehouses or manufacturing facilities. Globally, increased jobsite safety protocols are driving sales of AWP products as they are built to replace various types of scaffolding, which can be considered highly unsafe at times.

The bar graph below illustrates historical sales data for the AWP segment from 2012-2022. Note that all values are shown in millions. There are no major acquisitions or divestments causing untransparent data.



Source: Mergent

Forecasting out, we expect to see a strong sales growth of 17.51% to conclude 2023 which is believed to be driven by increased construction spending and increased demand. Similar to MP, we expect to see a decrease in sales growth in 2024 and 2025 with the possibility of reaching around a -1% decline in sales. Economic uncertainty and a general weak market is going to determine sales outcomes of the entire Heavy Construction Industry during this two-year span. 2024 being an election year also plays a part in potential sales. In 2025 we expect to see a decline in sales, expected to be around the 2-4% area. Moving through 2030, sales will continue to be consistently in the 2-5% range as Terex solidifies themselves

in the Heavy Construction equipment market as a defined player.

The bar graph below shows projected revenue streams through 2030 for the AWP segment. All values shown are in millions.

AWP Sales Gradually Increase Through 2030



Source: Valuation Model

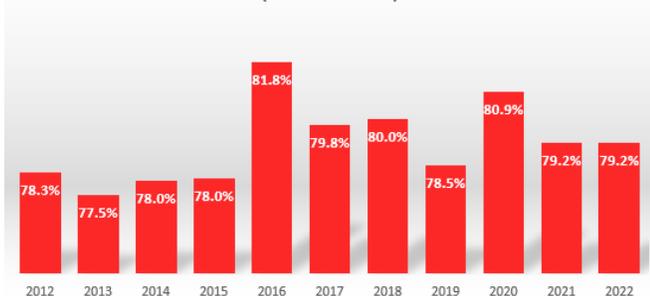
Expense Analysis

Cost of Sales:

Cost of sales is significantly the largest line item for Terex. For the past 10 years (2012-2022) the Cost of sales for Terex has floated between 77% and 82% of sales. While Terex doesn't release specific line items within Cost of Sales, we can reasonably assume that the driving cost is materials. However, since the price of materials isn't necessarily variable from company to company, the driving factor that should be considered is direct labor costs. Having access to these costs would determine how efficiently Terex operates among competitors. Strictly from a Cost of Sales standpoint, Terex does a fair job managing their cost of sales as competing companies like Oshkosh, Wabash National, and Manitowoc generally float around 86% to 91% of sales.

Below is a bar graph that illustrates Cost of Sales from 2012-2022. All data shown is in percentage of sales.

Cost of Sales Floated Around 77-82% of Sales (2012-2022)

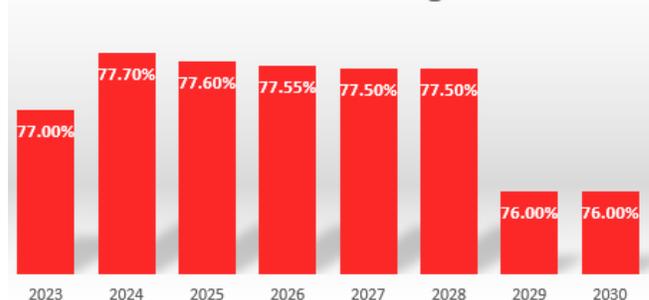


Source: Mergent

Looking into the future, we do not expect much to change in Cost of Sales until the later years of the 2020s. Cost of Sales are expected to finish out at around 79% of sales in 2023, very similar to what is seen in 2022. Considering the large growth in sales expected from 2022 to 2023, it is a good sign to see that Terex has managed to maintain Cost of Sales at that level. Through 2030, we expect Cost of Sales to sit around the 77% mark. This lower assumption is reflected for large competitor Caterpillar, whose Cost of Sales sits around 70% of sales. As Terex becomes a well-defined company in the Heavy Machinery Industry, we expect Terex to find ways to mitigate Cost of Sales. As we go into 2029 and 2030, we expect AI to begin integration into various manufacturing procedures, lowering Cost of Sales to 76% of sales. The rationale behind this taking many years is that AI is brand new and will need to pass rigorous testing before being able to be implemented into everyday functions of a manufacturing company.

Below is a graph showing projected Cost of Sales as a percentage of sales.

Cost of Sales Projected to Float around 76-77% of Sales Through 2030



Source: Valuation Model

Selling, General, and Administrative:

SG&A costs for Terex generally include selling, technology, and engineering costs. For the past 10 years (2012-2022) Terex has sat in the 10% to 15.4% of sales range. For similar companies of similar size, Terex sits on the higher end of the spectrum as similar companies average SG&A at around 5% to 10% of sales. We attribute this increase cost of SG&A to the increase R&D dollars that Terex is contributing to the company, which is embedded within SG&A For the past 3 years, Terex has invested over 50 million dollars to find more fuel-efficient solutions for their products.

Below is a bar graph showing SG&A costs as a percentage of sales since 2012.

SG&A Costs Sat Around 10% to 16% of Sales
(2012-2022)



Source: Mergent

Looking into the future, we expect SG&A costs to be higher through 2025 as more R&D dollars are allocated to researching the implementation of AI into the manufacturing process. SG&A is forecasted to sit around 13% to 14% of sales through 2025. Then through 2030, SG&A is expected to level off at 10.6% of sales as the aggressive R&D allocation will discontinue.

Below is a graph that shows projected SG&A costs as a percentage of sales.

SG&A Costs Projected to Sit in the
10% to 14% of Sales Range through
2023



Source: Valuation Model

Margin Analysis

EBIT:

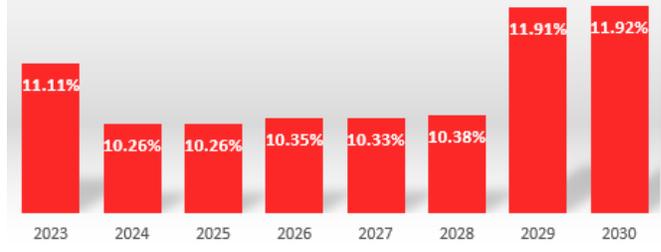
Prior to 2020, Terex’s EBIT has generally stayed in the 5% of sales range. After 2020, Terex recovered nicely and produced an 8.44% EBIT in 2021 and a 9.51% EBIT in 2022. We believe this is because the pandemic enlightened management that certain functions were not needed on the corporate side. Considering their Cost of Sales also went down during this time, we believe that more efficient manufacturing practices were also put into place. Currently Terex’s EBIT margins are about 3-5% than competitors like Oshkosh and Manitowoc.

Building from positive Cost of Sales and SG&A projections, we project EBIT to gradually raise through 2030. As Terex

solidifies themselves in the market, more efficient processes will be implemented because of higher R&D allocation.

Below is a bar graph of our EBIT projections through 2030. All values are listed as a percentage of sales.

EBIT to Rise into the 11.50% to 12% of
Sales Mark Through 2030



Source: Mergent

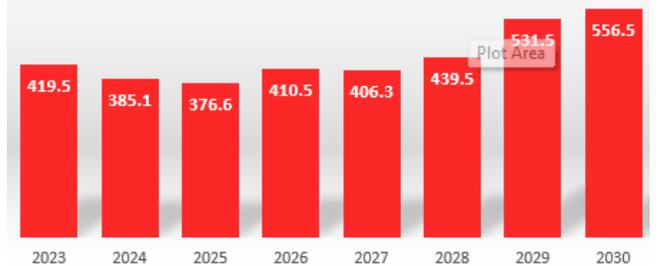
Net Income:

Prior to 2020, Terex ran a relatively small margin business, only netting a couple hundred million dollars of income. This rounded out to about 1-3% of sales. In 2021 and 2022, Terex reached new heights by producing a net income that was 5.68% and 6.79% of sales, respectively. This was due to strict cost management, likely a result from the pandemic.

Looking into the future, we expect Terex to continue strict cost management, which will ultimately drive up their net income. Through 2030 we predict Terex will gradually increase their net income from 8% all the way to 9.5% of sales.

Below is a bar graph that shows projected net income in millions through 2030.

Net Income Gradually Increases
Through 2030



Source: Mergent

Capital Expenditures:

In 2023, Terex plans to spend around \$135 million dollars in capital expenditures due to a new manufacturing plant being built in Mexico City. Prior to that, Terex averaged around \$83 million a year in capital expenditures. Looking into the future, we are predicting capital expenditures to stay in the low \$90 million dollar range as a result of having to maintain the new facility, and to upgrade tangible assets as AI moves its way into the industry.

Debt Maturity:

The image below illustrates Terex's debt maturity schedule, which is shown in millions.

| Terex's Debt Maturity Schedule | (in M) |
|---------------------------------------|-----------|
| 2023 | \$ 0.10 |
| 2024 | \$ 0.10 |
| 2025 | \$ 0.10 |
| 2026 | \$ 177.00 |
| 2027 | \$ - |
| Thereafter | \$ 600.00 |
| Total Debt | \$ 777.30 |
| Less: Unamortized debt issuance costs | \$ 6.00 |
| Net debt | \$ 771.30 |

Source: Terex 10-K

For the most part, Terex does not hold a substantial amount of debt. In 2026, the \$177 million shown is a minimum payment of a capital lease. The \$600 million shown in the "Thereafter" section represents an issuance of 5% Senior Notes that are due in 2029.

From what is shown on the debt maturity schedule, Terex will be able service this debt with ease. According to the S&P 500, Terex has a credit rating of BB-, and a Ba3 rating from Moody's. Comparing across similar companies in the industry, Oshkosh has a BBB rating from the S&P, and a Baa3 rating from Moody's. Manitowoc hold a B rating from the S&P, and a B2 rating from Moody's. Generally speaking, companies of similar size within the Heavy Construction Industry are going to a credit rating that is slightly below investment grade.

SWOT Analysis

Strengths: High Margins Compared to Competitors

Terex boasts high margins in comparison to competitors of similar size, which illustrates leading the way in terms of growth. As Terex moves its way into a more mid-cap sized company, reevaluation will need to be made to see if they can keep those high margins. Looking at larger sized companies like CAT and Cummins who have high margins, we believe Terex will also not face issues in maintaining those margins.

Weaknesses: R&D spent on a US dollar basis:

While Terex does lead the industry in R&D dollars spent as a percentage of sales (about 1.1%-1.5%), the absolute amount invested is not substantial. Comparing among similar size firms, this doesn't necessarily pose an issue. However, when compared to bigger companies like CAT or John Deere, they are able to invest more dollars into their research, which increases their potential reward. To combat this, Terex needs to be very specific in what they invest in to make sure they will receive that potential reward.

Opportunities: Stable Cash Flow & Sustainability Focus

Terex's stable cash flow allows them to invest in new product areas. Currently, management is looking to expand their Materials Processing segment and also expand into new markets. Along with that, Terex has an opportunity to put a big focus on sustainability, which would differentiate themselves from other competitors in the industry.

Threats: Big Corporations and Government Spending

Given Terex's size, there will always be a threat of large corporations taking up larger market shares. Fortunately, Terex has a large and reliable customer base, so we are confident that Terex will be able to increase its market share.

M&A Activity

In 2022, Terex acquired Steelweld, a steel company located in Northern Ireland. This acquisition was done to continue growth presence in Ireland and assist manufacturing of MP products. This deal amounted to \$6 million in cash considerations. Also, in 2022 Terex acquired a volumetric mixer manufacturer in Canada in efforts to expand their concrete product offering. This deal was worth about \$40 million.

Industry Analysis

Industrial Machinery Outlook: Positive

We expect there to be a positive outlook within the industrial machinery industry. We believe there will be a positive impact through the advancements of technology, specifically impacting manufacturing and operational efficiencies and higher profit margins. Despite the economy not currently being in a strong position, we expect slow growth in the industry at 1.9% in the next 1 to 2 years, followed by higher growth of 3.6% in the long term (2-5 years). As of September 2023, the total revenue for the industry rose 1% to \$313.9 billion.

Industry Description:

The Industrial Machinery Industry spans from the manufacturing of tools and heavy machinery for construction and mining to the equipment essential for infrastructure development. Revenue is generated from the demand of various construction projects.

Focusing in, the construction equipment industry consists of construction equipment and engines that assist in the excavation, construction, or demolition of various construction projects. Products that are commonly seen within this industry include bulldozers, backhoes, skid loaders, graders, excavators, payloaders, semi-trucks, and the engines that are within these machines. Further, this industry is generally segmented into engines, cranes, loaders, dozers, and excavators.

Economic Drivers

Industrial Production Index:

Industrial production is a key metric utilized in measuring the value that is added through machinery and construction costs. The production is measured through the volume of output. We expect the industrial production to expand 1.5% in the next 1

Industrial Production Index



*Data through February 2023.
Source: Federal Reserve Board.

to 2 years due to technology driving industrial output.

Capacity Utilization:

Capacity utilization scales the efficiency of production without incurring additional costs. Within the industrial machinery sector, maintaining optimal capacity is vital, as running machines at their maximum efficiency is essential for-profit maximization.

Capacity Utilization

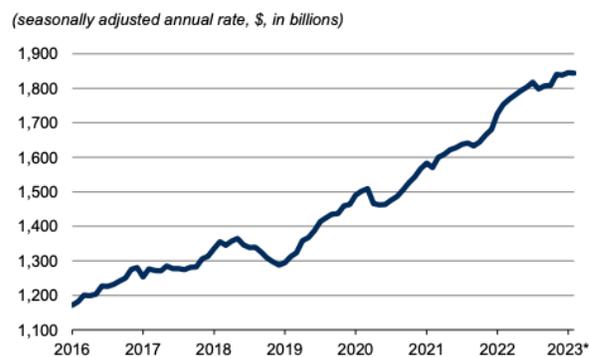


*Data through February 2023.
Source: Federal Reserve Board.

Construction Spending:

Construction spending determines whether there are projects in need of industrial machinery, which is crucial to keep the industry in demand. Construction spending has been increasingly growing over the past two years and we expect the growth to slow down but remain positive.

Construction Spending Growth



*Data through February 2023.
Source: U.S. Census Bureau.

Research Development & Growth Projections

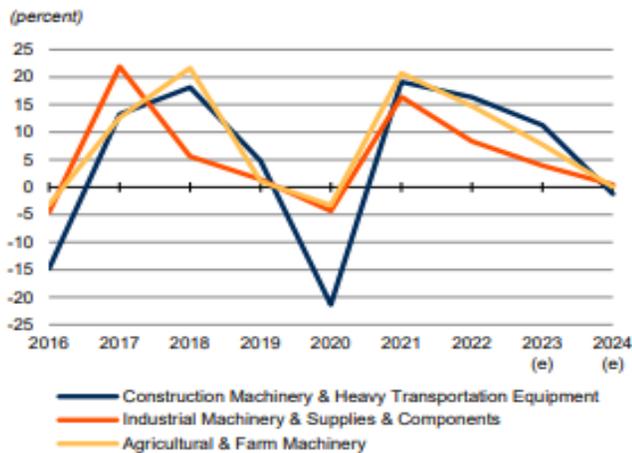
The U.S. Federal Infrastructure Stimulus was signed into law in November 2021, which consists of a \$1.2 trillion plan to target highways, bridges, broadband access, the power grid, and a few others. The stimulus plan will be focused on more sustainable methods to utilize machinery in order to fight against climate change, which will positively impact the environment and the industrial machinery demand.

With the recent integration of Artificial Intelligence (AI) into the world, there are many openings to utilize it within the industrial machinery industry. AI programs are being used to

gather machine data such as refuel times, possible warnings of breakdowns, estimates on job completion times, and a few others. These implementations can help improve efficiency and lower costs by solving problems before they occur.

The revenue growth for the industry is expected to slow down through the end of 2023 and into 2024 as the pricing volume growth from heavy trucks is offset by slow construction machinery demand. Additionally, there has been weak consumer spending which is causing the demand to slow down.

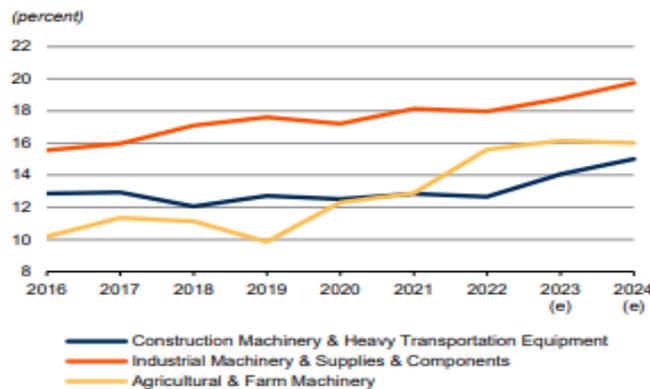
Revenue Growth



Source: CFRA, S&P Global Market Intelligence.

EBITDA margins are anticipated to remain robust through 2023 and 2024, driven by solid pricing outcomes and the implementation of cost-saving strategies adopted by numerous companies' post-pandemic. The effectiveness of strong pricing has been influential in counteracting inflation and fostering margin growth. However, there is a risk of margin compression stemming from persistent price inflation and an extended economic slowdown.

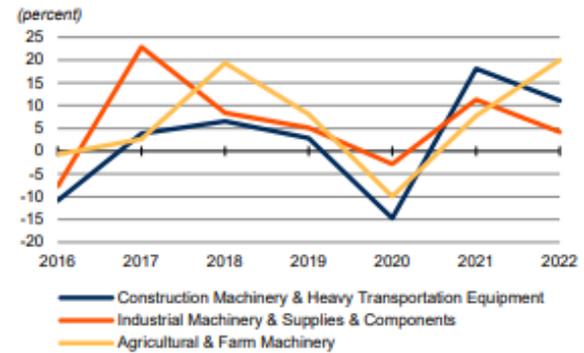
EBITDA Margin



Source: CFRA, S&P Global Market Intelligence.

The level of investment in research and development plays a crucial role in distinguishing one company from another within this industry. Following the pandemic, there has been a notable recovery in R&D spending in the industry, and we anticipate a moderate expenditure trend continuing into 2024 due to prevailing market uncertainty.

Research & Development Expenditure



Source: CFRA, S&P Global Market Intelligence.

Porter's Five Forces Analysis

Degree of Competition: High

As stated previously, it is crucial to have a strong focus in research and development in order to create a unique and innovative product in this industry to set one company apart from another. Furthermore, companies that effectively convey their products and services throughout the entire supply chain distinguish themselves from peers with less integrated offerings. The extent to which a company can capitalize on emerging benefits is also a key factor in setting it apart from its peers.

Bargaining Power of Suppliers: Medium

The bargaining power of suppliers is dependent on the scarcity of the product/material, the level of competition for that product/material, the size of the supplier, and the costs associated with switching to a new supplier. Currently, suppliers have more power than they normally would. In a typical market scenario, businesses can change suppliers when competition intensifies for a specific product. Yet, in the presence of supply chain challenges, companies have fewer alternatives in seeking new suppliers and are more inclined to accept increased prices.

Threat of Substitutes: Low/Medium

High capital demands pose a significant barrier to entry, making it difficult for new entrants to secure substantial market shares. Dominant industry players typically exhibit unique qualities, mitigating the potential of product substitution. In order to achieve market dominance involves an effective supply chain integration, leveraging innovative

technologies, launching new products ahead of competitors, and capitalizing on emerging markets before peers.

Bargaining Power of Customers: Low

Due to an imbalance between the number of machinery companies and number of customers in the industry, switching costs are high, particularly in large machinery transactions, due to the structure of many contracts. Switching costs are contingent on factors such as the customer's size, the availability of the product-producing companies, and the cost for the customer to switch providers.

Threat of New Entrants: Low

Acquiring the necessary capital for new entrants to establish themselves as key players in the industry is quite difficult. These new players would face various barriers, including absolute cost advantage, government regulations, access to suppliers and distribution channels, product differentiation, brand loyalty, patents and proprietary knowledge, and switching costs. Though, new entrants retain the opportunity to introduce new products and can also pressure larger firms with lower pricing strategies.

Industry Competition

Terex's main competitors in the construction machinery industry are Caterpillar, PACCAR, Cummins, Wabash National, Manitowoc, and Oshkosh, AGCO Corporation, and Manitex. Each company's market capitalization, sales, EBIT, and EBIT as a percentage of sales are as listed in the chart below:

| Ticker | Company | Mkt Cap (B) | Sales (M) | EBIT (M) | EBIT % |
|--------|------------------|-------------|-----------|----------|--------|
| CAT | Caterpillar | \$ 121.16 | \$ 59,427 | \$ 9,195 | 15.47% |
| PCAR | PACCAR Inc. | \$ 45.18 | \$ 28,820 | \$ 3,679 | 12.76% |
| CMI | Cummins | \$ 30.67 | \$ 28,074 | \$ 3,018 | 10.75% |
| AGCO | AGCO Corporation | \$ 8.57 | \$ 12,651 | \$ 1,120 | 8.85% |
| OSK | Oshkosh | \$ 5.98 | \$ 8,282 | \$ 329 | 3.97% |
| TEX | Terex | \$ 3.21 | \$ 4,418 | \$ 416 | 9.41% |
| WNC | Wabash National | \$ 0.95 | \$ 2,502 | \$ 167 | 6.67% |
| MTW | Manitowoc | \$ 0.48 | \$ 2,033 | \$ (89) | -4.36% |
| MNTX | Manitex | \$ 0.10 | \$ 274 | \$ 2 | 0.90% |

Source: Yahoo! Finance

Looking at EBIT as a % of sales can help paint a little color as to where Terex stands in size compared the other companies within the industry. While Terex is not leading the industry in EBIT, it is important to note that they are a smaller sized company that has the large potential for growth.

The following chart lists Terex and its competitors 2Q23 sales and sales growth from the previous year

| 2023 Second Quarter Sales Growth | | | |
|----------------------------------|------------------|-----------|----------------------|
| Ticker | Company | Sales (M) | Sales Growth % (YoY) |
| CMI | Cummins | \$ 8,638 | 31% |
| TEX | Terex | \$ 1,403 | 30% |
| AGCO | AGCO Corporation | \$ 3,823 | 30% |
| PCAR | PACCAR Inc. | \$ 8,441 | 24% |
| CAT | Caterpillar | \$ 17,318 | 22% |
| MTW | Manitowoc | \$ 603 | 21% |
| OSK | Oshkosh | \$ 2,413 | 17% |
| WNC | Wabash National | \$ 687 | 7% |
| MNTX | Manitex | \$ 74 | 6% |

Source: Each Company's 2023 2Q 10-Q

It is evident that Terex is performing at the high end of its competitors, from a percentage change standpoint. It is important to consider the year-over-year growth as a percentage because many of the companies within this industry are vastly different in size.

Further, we can see below that Terex operates quite profitably in comparison to its competitors. It is important to note that Terex's closest competitor in terms of size is Oshkosh, who exhibits lower profitability margins compared to Terex. Additionally, apart from Caterpillar, Terex closely competing with its peers performing at higher operating margins.

| 2023 Second Quarter Operating Profit Margin | | | |
|---|------------------|-----------|-------------------------|
| Ticker | Company | Sales | Operating Profit Margin |
| CAT | Caterpillar | \$ 17,318 | 21% |
| PCAR | PACCAR Inc. | \$ 8,441 | 16% |
| WNC | Wabash National | \$ 687 | 15% |
| TEX | Terex | \$ 1,403 | 15% |
| AGCO | AGCO Corporation | \$ 3,823 | 13% |
| CMI | Cummins | \$ 8,638 | 12% |
| OSK | Oshkosh | \$ 2,413 | 10% |
| MTW | Manitowoc | \$ 603 | 6% |
| MNTX | Manitex | \$ 74 | 5% |

Source: Each Company's 2Q 10-Q

Return on Invested Capital (ROIC) serves as an important metric in evaluating a company's effectiveness in utilizing its capital towards profitable investments. The chart below shows where Terex stands in comparison to its peers in terms of ROIC. It is evident that Terex is in a healthy position to provide a positive return on the capital invested into the company.

| ROIC as of 09/29/2023 | | |
|-----------------------|------------------|------|
| Ticker | Company | ROIC |
| WNC | Wabash National | 25% |
| TEX | Terex | 23% |
| CAT | Caterpillar | 21% |
| AGCO | AGCO Corporation | 19% |
| CMI | Cummins | 19% |
| PCAR | PACCAR Inc. | 16% |
| OSK | Oshkosh | 14% |
| MNTX | Manitex | 2% |
| MTW | Manitowoc | -10% |

Source: Factset

We believe Terex is at an advantage to its competitors for because they operate at a more efficient rate than their competitors, which can make a large difference in the future. With Terex being a smaller company, there is plenty of room to grow. In fact, smaller companies tend to grow at higher rates than larger and more established companies do.

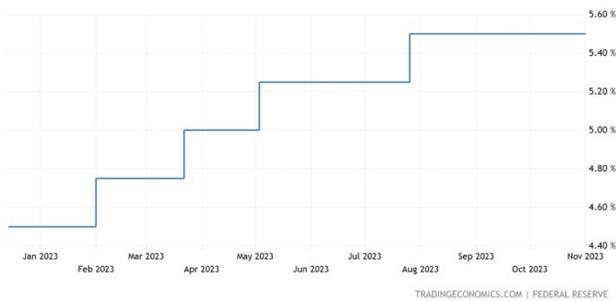
Economic Analysis

Economic Outlook: **Poor**

Over the last couple years, the overall economy has been experiencing relatively high inflationary environments. As consumer confidence continues to decrease and the economy continues to stay strong, we expect that the Federal Reserve will be forced to raise rates in order to slow down the economy. Disposable income for the average consumer will begin to diminish and the Real GDP will start to decrease.

Interest Rates

Rising interest rates affect the industrial machinery economy due to the difficulty in obtaining products and land. As interest rates increase, it is common to see factory demand decrease. Over the past two years, interest rates have been steadily increasing by 25-50 bps and we expect them to stay steady in the near future at 5.33%, with a decrease in the long-term following the minor recession. The graph below illustrates changes in interest rates during the last year.



Source: Federal Reserve

Terex, along with other companies in the heavy machinery industry of similar size suffer from rising interest rates as it affects their ability to grow. Since Terex operates with a small amount of cash flow, rising interest rates affect their ability to pay off their accounts payable, potentially restricting ability to invest in new projects.

Unemployment Rate

The unemployment rate represents the number of unemployed people as a percentage of the labor force. Currently the unemployment rate is sitting around 3.9%. For Terex, higher

unemployment rates can have a significant impact on their business, given that their company typically requires highly skilled workers. When Terex is forced to lay off employees, rehiring becomes challenging due to the specialized training required for many of their operations. The graph below illustrates unemployment rates from the past 20 years:



Source: Federal Bureau of Labor Statistics

Looking into the future, we expect the unemployment rate to slightly increase as a downturn in the economy is predicted. Through 2024, we expect the unemployment rate to stay the same. Moving into 2025 we expect the rate to increase to about 4.5%, and gradually lower through 2030. Fortunately, we expect construction spending to continue to increase, which means that manufacturing facilities will need to be in full effect resulting in minor setback for Terex.

Real GDP

The Real GDP (Gross Domestic Product) is an inflation-adjusted measure of the value of all goods and services produced in the economy. Quarter over quarter, Real GDP has grown 1.20%. In Q4, Real GDP is expected to increase by 0.9%. We believe that this is result of a economy that is slowly going into a downturn. In the Terex, a decrease in GDP is going to evidently be a negative sign for the company as the value of their goods are going to decrease. Ideally, the higher the GDP, the more money companies are making and can reinvest. Currently, the manufacturing industry contributes to 12% of all US GDP. The graph below illustrates Real GDP in dollar amounts over the last 20 years.



Source: FRED

Looking into the near future, we expect the Real GDP to record stable growth of 2% in 2024. Moving into 2025, we expect GDP to have -2% growth due to an imminent economic downturn. Through 2030 we expect a recovery and for the Real GDP to increase by 4% annually.

Consumer Confidence Index

The Consumer Confidence Index (CCI) indicates economic growth in which consumers are spending money, which indicates higher consumption. Currently the CCI is sitting around 98.1 which is a decrease from last quarter. For most companies, CCI affects them in the sense that if people are less confident about the economy, they will decrease their discretionary spending. In the case of Terex, if consumer confidence decreases, they may not sell as many products due to customers fearing they will not get a good return on their investment as a result of a poor economy. Below is a graph that represents the CCI for the past 9 years.



Source: OECD

Forward looking, we expect consumer confidence to decrease to end 2023 and continue to decrease into 2024. The main driving factor of this prediction is the uncertainty in the economy. Families are already currently struggling to make ends meet, and we do not predict that to ease up in the near future. However, moving into 2025, we predict consumer confidence to rise as even though the economy will not be in great shape, there will be forward looking “hope”. Through 2030 we also expect consumer confidence to increase.

CPI

The CPI (Consumer Price Index) is the price of a weighted average market basket of consumer goods and services purchased by households. As of September, CPI rose 3.7%. Considering target CPI is around 2%, this is still considering a relatively high inflationary period. For Terex, CPI has a large effect on their business. If CPI is high, then goods for manufacturing become more expensive, which directly eat into their cost of sales. Fortunately, if CPI hurts Terex, it also hurts competitors. Terex also tends to post higher margins when referring to their cost of sales, which means they do a

good job of managing their costs, even in high inflationary periods.

Below is graph that illustrates CPI values over the last 20 years.



Source: Bureau of Labor Statistics.

Forecasting out, we expect inflation (CPI) to rise to end out 2023, and to rise by 2% through 2024. Through 2025 we expect inflation to stay at a relatively high level, about 5%. Then through 2030 we expect inflation to slowly decrease and settle in the 2.5-2.75% in 2030.

Valuation Discussion

Revenue Decomposition:

We analyzed Terex’s revenue based on their various product segments. The Aerial Work Platforms forecasts are grounded in the expectation of a sluggish economy spanning from 2023 to 2024. Followed by an increase in spending from 2025 to 2027, under the assumption that the economy will have regained a relatively stable condition by then. Anticipating a complete restoration to a “normal” state of the economy in 2028, we project vigorous activity in construction and mining, with the AWP segment forecasted for a 5% growth surge. In 2029 and 2030, a moderation is anticipated compared to the prior year, with growth rates projected to decrease to 3.5% and 2.5%, respectively.

Regarding the Materials Processing projections, our assumptions are grounded in the idea that an increase in construction spending would cause a corresponding increase in the mining of metals. In the period from 2023 to 2025, we anticipate that growth levels will be offset by the challenges faced by the economy. Given the perceived slightly higher volatility of the MP segment compared to AWP, we forecast a 5% growth in 2026 and -2% growth in 2027, influenced by the anticipated economic downturn. In 2028, we anticipate the economy to normalize with construction and mining operating at full capacity, forecasting a 5% growth. Looking ahead to 2029 and 2030, we predict a decrease from the preceding year, projecting growth rates of 3.5% and 2.5%, respectively.

As we are unable to predict the growth of eliminations and corporate sales, or the operating profit, we assumed an average growth of 3.19% over the next 8 years.

Weighted Average Cost of Capital (WACC):

To determine the WACC, we used the weighted average of the cost of equity and the after-tax cost of debt.

In order to determine the cost of equity, the risk-free rate, beta, and equity risk premium are needed. We referenced a 10-year Treasury Bond from Damodaran for the risk-free rate at 4.87%. The beta is the average of 5-year weekly beta from Bloomberg (1.438). The equity risk premium is 5.17%, derived from the geometric average premium from 1928 to 2021. To calculate the cost of equity, the risk-free rate was added to the product of the beta and equity risk premium.

The pre-tax cost of debt was determined by a 2021 Terex press release stating their pricing of a private offering of \$600 million in bonds at 5% for 8 years. Utilizing the risk-free rate, and pre-tax cost of debt, the implied default premium is calculated to be 0.13%. The implied marginal tax rate is 19.87%, computed by averaging the sum of historical years US Statutory tax rate, State and Local tax rate, and Foreign Income tax rates. Finally, we were able to compute the after-tax cost of debt in order to bring us to the calculation of WACC of 9.28%.

DCF and EP Model:

For Terex’s discounted cash flow model, we assumed the growth of NOPLAT to be 5% based on the rate we think the economy, industry, and Terex can perform at over the next 8 years. The WACC and cost of equity values remain unchanged as mentioned previously. The ROIC of 2030 was calculated to be 16.55% based on NOPLAT and Invested Capital.

By taking the free cash flows and removing non-operating items, we determined the value of equity to be \$4,188.60. Then, we divided the value of equity by the shares outstanding of 67.5 to calculate the intrinsic value of the last fiscal year end to be \$62.05. Finally, we computed the implied price of today to be \$67.67.

Similarly, we forecasted the economic profit and discounted by the WACC, using the beginning invested capital and the difference between the ROIC and WACC for each forecasted year. After adjusting for non-operating items and solving for the intrinsic value of last fiscal year end, the economic model price as of today matches to the discounted cash flow model of \$67.67.

Dividend Discount Model (DDM):

We began our dividend discount model by projecting Terex’s earnings per share, which was estimated by dividing the forecasted net income by the weighted average of shares

outstanding. Then, we took the growth percentage of EPS from the last two forecasted years which came to 8.22%. One major assumption that we incorporated was the annual dividend increase of \$0.04, derived from the average amount that dividends have increase by historically. The DDM was solved by discounting the forecasted dividends to the present value and utilizing the cost of equity and future stock price, we calculated the implied price of the share today to be \$73.66.

Relative Valuation:

We chose to use the relative price to earnings valuation as the best estimate of share price when comparing to Terex’s competitors. We used each competitor’s share price, and earnings per share to calculate the estimate price to earnings for each company. Then we removed an outlier, Wabash National Corporation, that was offsetting the average when compared to Terex. We multiplied Terex’s EPS to the average price to earnings to calculate the forecasted share value of \$63.61 and \$61.60 for 2023 and 2024, respectively.

Sensitivity Analysis

We analyzed the impact in altering Beta compared to the equity risk premium to see how it will affect the intrinsic value of Terex, as both factors are critical in calculating the WACC. The Beta measures Terex’s volatility compared to the overall market. Since the range of Terex’s Beta is above one, it typically means their price is more volatile than the S&P 500. We do not expect to see Terex’s Beta increasing because we anticipate they will become an established company in the Heavy Machinery Industry. The equity risk premium tells us the additional return that investors require in order to take on more risk. The sensitivity table below analyzes the changes in these variables on the stock price of Terex.

| | | Beta | | | | | | | |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | 67.67 | 1.32 | 1.36 | 1.40 | 1.44 | 1.48 | 1.52 | 1.56 |
| ERP | 4.70% | 89.77 | 85.78 | 82.04 | 78.53 | 75.23 | 72.13 | 69.20 | |
| | 4.80% | 86.94 | 83.05 | 79.40 | 75.98 | 72.77 | 69.74 | 66.89 | |
| | 4.90% | 84.23 | 80.44 | 76.89 | 73.56 | 70.42 | 67.47 | 64.69 | |
| | 5.00% | 81.65 | 77.95 | 74.49 | 71.24 | 68.18 | 65.30 | 62.58 | |
| | 5.10% | 79.18 | 75.57 | 72.19 | 69.02 | 66.03 | 63.22 | 60.56 | |
| | 5.20% | 76.82 | 73.29 | 69.99 | 66.89 | 63.97 | 61.23 | 58.63 | |
| | 5.30% | 74.55 | 71.11 | 67.88 | 64.85 | 62.00 | 59.32 | 56.78 | |

We next examined the impact in adjusting the Risk-Free Rate compared to the CV Growth of NOPLAT. The Risk-Free Rate will be significantly contingent on the increase or decrease of the FED funds rate. Currently, we expect the FED funds rate to increase in the near future as the FED will have to find a way to slow down the economy. The CV Growth of NOPLAT is dependent on the growth of top line sales and potentially lowering costs. Considering we expect Terex to do well in the near future, it is reasonable to assume we will see an increase in the CV growth of NOPLAT. Below is a sensitivity analysis examining these variables.

| | | Risk Free Rate | | | | | | | |
|---------------------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|
| | | 67.67 | 4.72% | 4.77% | 4.82% | 4.87% | 4.92% | 4.97% | 5.02% |
| CV Growth of NOP1AT | 2.35% | 49.84 | 49.44 | 49.05 | 48.65 | 48.26 | 47.88 | 47.50 | |
| | 2.40% | 50.08 | 49.67 | 49.27 | 48.88 | 48.48 | 48.09 | 47.71 | |
| | 2.45% | 50.31 | 49.91 | 49.50 | 49.10 | 48.71 | 48.31 | 47.92 | |
| | 2.50% | 50.55 | 50.14 | 49.74 | 49.33 | 48.93 | 48.54 | 48.14 | |
| | 2.55% | 50.80 | 50.38 | 49.97 | 49.56 | 49.16 | 48.76 | 48.36 | |
| | 2.60% | 51.05 | 50.63 | 50.21 | 49.80 | 49.39 | 48.99 | 48.59 | |
| | 2.65% | 51.30 | 50.87 | 50.45 | 50.04 | 49.63 | 49.22 | 48.82 | |

| | | 1 Year Short-Term Yield (ROI) | | | | | | | |
|------|-------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|
| | | 67.67 | 5.13% | 5.23% | 5.33% | 5.43% | 5.53% | 5.63% | 5.73% |
| WACC | 8.90% | 77.55 | 77.56 | 77.57 | 77.58 | 77.58 | 77.59 | 77.60 | |
| | 9.00% | 74.74 | 74.75 | 74.76 | 74.76 | 74.77 | 74.78 | 74.79 | |
| | 9.10% | 72.07 | 72.07 | 72.08 | 72.09 | 72.10 | 72.11 | 72.12 | |
| | 9.20% | 69.52 | 69.53 | 69.54 | 69.55 | 69.55 | 69.56 | 69.57 | |
| | 9.30% | 67.10 | 67.11 | 67.11 | 67.12 | 67.13 | 67.14 | 67.15 | |
| | 9.40% | 64.79 | 64.79 | 64.80 | 64.81 | 64.82 | 64.83 | 64.84 | |
| | 9.50% | 62.58 | 62.59 | 62.59 | 62.60 | 62.61 | 62.62 | 62.63 | |

Following, we compared the impact of a change in the WACC compared to the increase or decrease of the Cost of Sales as a percentage of sales. While the WACC is composed of many factors, the main factor that would cause a change in the WACC is our CAPM calculation. This calculation required use of the Risk-Free Rate, which we expect to increase in the future. For Cost of Sales, we expect that value to decrease in the future due to Terex finding ways to cut costs in an efficient manner. Below is a sensitivity analysis that illustrates changes in the WACC compared to the Cost of Sales as a percentage of sales.

Lastly, we analyzed an increase or decrease in the Pre-Tax Cost of Debt with variations in Beta. For Pre-Tax Cost of Debt, we do not expect this variable to significantly change due to the fact that Terex does not usually issue public bonds. However, whenever they do issue bonds (usually private), the rate they issue them at is around 5%. For the Beta, we do not see the Beta for Terex increasing as we believe Terex will become an established company in the Heavy Machinery Industry, making their stock less volatile. The sensitivity table below compares these two variables.

| | | WACC | | | | | | | |
|-----------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| | | 67.67 | 8.87% | 8.97% | 9.07% | 9.17% | 9.27% | 9.37% | 9.47% |
| COGS % of Sales | 73.25% | 107.95 | 104.17 | 100.57 | 97.15 | 93.90 | 90.79 | 87.83 | |
| | 74.25% | 97.22 | 93.77 | 90.50 | 87.39 | 84.42 | 81.59 | 78.89 | |
| | 75.25% | 86.49 | 83.38 | 80.43 | 77.62 | 74.94 | 72.39 | 69.96 | |
| | 76.25% | 75.77 | 72.99 | 70.36 | 67.85 | 65.47 | 63.19 | 61.02 | |
| | 77.25% | 65.04 | 62.60 | 60.29 | 58.09 | 55.99 | 53.99 | 52.08 | |
| | 78.25% | 54.31 | 52.21 | 50.22 | 48.32 | 46.52 | 44.79 | 43.15 | |
| | 79.25% | 43.58 | 41.82 | 40.15 | 38.56 | 37.04 | 35.59 | 34.21 | |

| | | Pre-Tax Cost of Debt | | | | | | | |
|------|------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| | | 67.67 | 4.70% | 4.80% | 4.90% | 5.00% | 5.10% | 5.20% | 5.30% |
| Beta | 1.14 | 99.80 | 98.85 | 97.91 | 97.00 | 96.10 | 95.22 | 94.35 | |
| | 1.24 | 87.62 | 86.87 | 86.12 | 85.39 | 84.67 | 83.97 | 83.28 | |
| | 1.34 | 77.51 | 76.90 | 76.30 | 75.71 | 75.13 | 74.56 | 74.00 | |
| | 1.44 | 68.99 | 68.49 | 68.00 | 67.52 | 67.04 | 66.58 | 66.12 | |
| | 1.54 | 61.70 | 61.29 | 60.89 | 60.49 | 60.10 | 59.72 | 59.34 | |
| | 1.64 | 55.39 | 55.06 | 54.72 | 54.40 | 54.07 | 53.75 | 53.44 | |
| | 1.74 | 49.89 | 49.61 | 49.33 | 49.06 | 48.79 | 48.53 | 48.26 | |

Next, we contrasted the impact of adjusting the Cost of Equity compared to an increase or decrease in SG&A as a percentage of sales. Looking at the cost of equity and how it is calculated, we expect to see a rise in the future due to the rising Risk-Free Rate. Furthermore, during the anticipated economic downturn, investors are going to require a larger return on their equity. For SG&A, we also expect this figure to be risk averse, as we predict Terex will be investing more R&D dollars into AI related products, along with more efficient fueling processes. Below is a sensitivity table that compares these two variables.

| | | Cost of Equity | | | | | | |
|----------------|--------|----------------|--------|--------|--------|--------|--------|--------|
| | | 67.67 | 12.00% | 12.10% | 12.20% | 12.30% | 12.40% | 12.50% |
| SGA % of Sales | 7.63% | 84.29 | 84.36 | 84.42 | 84.49 | 84.55 | 84.62 | 84.62 |
| | 8.63% | 78.70 | 78.76 | 78.82 | 78.88 | 78.94 | 79.00 | 79.00 |
| | 9.63% | 73.11 | 73.16 | 73.22 | 73.28 | 73.33 | 73.39 | 73.39 |
| | 10.63% | 67.51 | 67.57 | 67.62 | 67.67 | 67.72 | 67.78 | 67.78 |
| | 11.63% | 61.92 | 61.97 | 62.02 | 62.07 | 62.11 | 62.16 | 62.16 |
| | 12.63% | 56.33 | 56.37 | 56.42 | 56.46 | 56.51 | 56.55 | 56.55 |
| | 13.63% | 50.74 | 50.78 | 50.82 | 50.86 | 50.90 | 50.94 | 50.94 |

Moving forward, we compared variations of the 1 Year Short-Term Yield (ROI) with the increase or decrease of the WACC. As stated previously, we expect the WACC to increase in the future due to higher CAPM calculations. As our economy enters a downturn, we project a decrease in the 1 Year Short-Term Yield (ROI) for Terex. This is attributed to the expectation that their short-term investments will yield a lower return on investment compared to subsequent years. Below is a sensitivity table that compares these two variables.

Important Disclaimer

This report was created by students enrolled in the Security Analysis (6F:112) class at the University of Iowa. The report was originally created to offer an internal investment recommendation for the University of Iowa Krause Fund and its advisory board. The report also provides potential employers and other interested parties an example of the students' skills, knowledge and abilities. Members of the Krause Fund are not registered investment advisors, brokers or officially licensed financial professionals. The investment advice contained in this report does not represent an offer or solicitation to buy or sell any of the securities mentioned. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Krause Fund may hold a financial interest in the companies mentioned in this report.

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Terex
Revenue Decomposition
(In Millions)



| Fiscal Years Ending Dec. | | | | | | | | | | | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 31 | 2020 | 2021 | 2022 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
| Sales | 3,076 | 3,887 | 4,418 | 5,130 | 5,248 | 5,074 | 5,328 | 5,221 | 5,481 | 5,672 | 5,813 |
| % Growth | -29.34% | 26.37% | 13.66% | 16.12% | 2.30% | -3.32% | 5.00% | -2.01% | 4.99% | 3.49% | 2.49% |
| Aerial Work Platforms | 1,783 | 2,179 | 2,484 | 2,919 | 2,979 | 2,869 | 3,012 | 2,952 | 3,100 | 3,208 | 3,289 |
| % Growth | -34.62% | 22.21% | 14.00% | 17.51% | 2.06% | -3.69% | 5.00% | -2.00% | 5.00% | 3.50% | 2.50% |
| Cranes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Growth | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Materials Processing | 1,257 | 1,692 | 1,942 | 2,220 | 2,279 | 2,211 | 2,321 | 2,275 | 2,388 | 2,472 | 2,534 |
| % Growth | -8.32% | 34.61% | 14.78% | 14.32% | 2.66% | -3.00% | 5.00% | -2.00% | 5.00% | 3.50% | 2.50% |
| Eliminations/Corporate | 37 | 16 | (8) | (9) | (10) | (6) | (6) | (6) | (7) | (8) | (9) |
| % Growth | -85.49% | -56.76% | -150.00% | 12.50% | 11.11% | -40.00% | 1.00% | 3.00% | 14.29% | 12.50% | 11.11% |
| Operating Income | 68 | 328 | 420 | 667 | 691 | 677 | | | | | |
| % Growth | -79.70% | 382.35% | 28.05% | 58.81% | 3.60% | -2.03% | | | | | |

Terex
Income Statement
(In Millions)



| Fiscal Years Ending Dec. 31 | 2020 | 2021 | 2022 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Net sales | 3076.4 | 3886.8 | 4417.7 | 5130.0 | 5248.0 | 5073.6 | 5327.6 | 5220.7 | 5481.2 | 5672.4 | 5813.5 |
| Cost of goods sold | 2487.4 | 3079.2 | 3499.3 | 3950.1 | 4077.7 | 3937.1 | 4131.5 | 4046.0 | 4247.9 | 4311.0 | 4418.2 |
| COGS % Sales | 80.9% | 79.2% | 79.2% | 77.0% | 77.7% | 77.6% | 77.6% | 77.5% | 77.5% | 76.0% | 76.0% |
| Gross profit | 539.3 | 757.4 | 871.2 | 1179.9 | 1170.3 | 1136.5 | 1196.0 | 1174.7 | 1233.3 | 1361.4 | 1395.2 |
| Depreciation | 47.9 | 48.0 | 44.6 | 62.1 | 71.8 | 74.3 | 76.5 | 78.6 | 80.4 | 82.0 | 83.5 |
| Amortization of Intangibles | 1.8 | 2.2 | 2.6 | 2.4 | 2.2 | 2.1 | 2.0 | 1.9 | 1.1 | 0.9 | 0.8 |
| Selling, general & administrative expenses | 470.9 | 429.4 | 451.2 | 545.3 | 557.9 | 539.4 | 566.3 | 555.0 | 582.7 | 603.0 | 618.0 |
| SG&A % of Sales | 15.3% | 11.1% | 10.2% | 13.6% | 13.5% | 13.4% | 10.6% | 10.6% | 10.6% | 10.6% | 10.6% |
| Income (loss) from operations | 68.4 | 328.0 | 420.0 | 570.1 | 538.4 | 520.8 | 551.2 | 539.2 | 569.1 | 675.5 | 693.0 |
| Interest income | 3.6 | 3.7 | 2.8 | 16.5 | 33.3 | 42.6 | 52.9 | 72.6 | 74.6 | 97.1 | 114.0 |
| Interest expense | 65.9 | 51.5 | 49.1 | 63.1 | 91.1 | 93.4 | 91.8 | 104.7 | 95.1 | 109.3 | 112.6 |
| Gain (loss) on early extinguishment of debt | - | -29.4 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Amortization of debt issuance costs | - | - | - | - | - | - | - | - | - | - | - |
| Other income (expense) - net | 4.9 | 13.0 | -6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Income (loss) from continuing operations before income taxes | 11.0 | 263.8 | 366.6 | 523.5 | 480.6 | 470.0 | 512.3 | 507.1 | 548.5 | 663.3 | 694.5 |
| Provision for (benefit from) income taxes | 2.0 | 46.3 | 66.4 | 104.0 | 95.5 | 93.4 | 101.8 | 100.7 | 109.0 | 131.8 | 138.0 |
| Income (loss) from continuing operations | 9.0 | 217.5 | 300.2 | 419.5 | 385.1 | 376.6 | 410.5 | 406.3 | 439.5 | 531.5 | 556.5 |
| Income (loss) from discontinued operations - net of tax | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gain (loss) on disposition of discontinued operations - net of tax | -19.2 | 3.4 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net income (loss) | -10.6 | 220.9 | 300.0 | 419.5 | 385.1 | 376.6 | 410.5 | 406.3 | 439.5 | 531.5 | 556.5 |
| Net income (loss) per share - basic | -0.2 | 3.2 | 4.4 | 6.4 | 6.1 | 6.3 | 7.1 | 7.4 | 8.3 | 10.4 | 11.2 |
| Weighted average shares outstanding - basic | 69.6 | 69.7 | 68.5 | 65.9 | 62.7 | 59.9 | 57.4 | 55.1 | 53.1 | 51.2 | 49.6 |
| Earnings Per Share | -0.2 | 3.2 | 4.4 | 6.4 | 6.1 | 6.3 | 7.1 | 7.4 | 8.3 | 10.4 | 11.2 |
| Dividends per common share | 0.1 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 |
| Total shares outstanding | 69.4 | 69.7 | 67.5 | 64.2 | 61.3 | 58.6 | 56.2 | 54.1 | 52.1 | 50.4 | 48.8 |
| Dividends paid | -8.4 | -33.5 | -35.6 | 36.9 | 37.6 | 38.4 | 39.0 | 39.7 | 40.3 | 41.0 | 41.6 |
| Divs Paid (real number) | -8400000 | -33500000 | -35600000 | 36882969.43 | 37649462.4 | 38363723.4 | 39041999 | 39697835.9 | 40342455.3 | 40985080.5 | 41633221.8 |
| Depreciation rate | | | | | | | | | | | |
| EBIT (% of sales) | 2.22% | 8.44% | 9.51% | 11.11% | 10.26% | 10.26% | 10.35% | 10.33% | 10.38% | 11.91% | 11.92% |
| Net Income (% of sales) | -0.34% | 5.68% | 6.79% | 8.18% | 7.34% | 7.42% | 7.71% | 7.78% | 8.02% | 9.37% | 9.57% |



| Fiscal Years Ending Dec. 31 | 2020 | 2021 | 2022 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Assets | | | | | | | | | | | |
| Current Assets | | | | | | | | | | | |
| Cash & cash equivalents | 665 | 266.9 | 304.1 | 613.5 | 784.9 | 974.3 | 1336.8 | 1373.3 | 1788.1 | 2100.3 | 2439.5 |
| Trade receivables, net of allowance) | 381.2 | 507.7 | 547.5 | 677.5 | 693.1 | 670.1 | 703.6 | 689.5 | 723.9 | 749.2 | 767.8 |
| Inventories | 610.4 | 813.5 | 988.4 | 1100.2 | 1125.5 | 1088.1 | 1142.6 | 1119.6 | 1175.5 | 1216.5 | 1246.8 |
| Prepaid and other current assets | 222 | 179.7 | 122 | 232.0 | 237.4 | 229.5 | 241.0 | 236.1 | 247.9 | 256.6 | 263.0 |
| Total current assets | 1878.6 | 1767.8 | 1962 | 2623.3 | 2840.9 | 2962.0 | 3423.9 | 3418.6 | 3935.4 | 4322.5 | 4717.0 |
| Non-current assets | | | | | | | | | | | |
| Property, plant & equipment - net | 406.6 | 429.6 | 465.6 | 538.5 | 557.2 | 574.1 | 589.4 | 603.6 | 614.9 | 626.4 | 640.6 |
| Goodwill | 275.4 | 280.1 | 284.4 | 284.4 | 284.4 | 284.4 | 284.4 | 284.4 | 284.4 | 284.4 | 284.4 |
| Intangible assets - net | 8.3 | 13.4 | 17.4 | 15.0 | 12.8 | 10.7 | 8.7 | 6.8 | 5.7 | 4.8 | 4.1 |
| Other assets | 462.9 | 372.6 | 388.7 | 409.8 | 432.1 | 455.5 | 480.3 | 506.3 | 533.8 | 562.8 | 593.4 |
| Total assets | 3031.8 | 2863.5 | 3118.1 | 3871.0 | 4127.4 | 4286.7 | 4786.7 | 4819.7 | 5374.3 | 5800.9 | 6239.5 |
| Liabilities and Stockholders' Equity | | | | | | | | | | | |
| Current Liabilities | | | | | | | | | | | |
| Notes payable & long-term debt (incl. cur portion) | 7.6 | 5.6 | 1.9 | 0.1 | 0.1 | 0.1 | 177 | 0 | 200 | 200 | 200 |
| Trade accounts payable | 369.9 | 537.7 | 624.6 | 616.1 | 630.3 | 609.3 | 639.8 | 627.0 | 658.3 | 681.3 | 698.2 |
| Accrued compensation & benefits | 85.8 | 108.5 | 103 | 147.9 | 151.3 | 146.3 | 153.6 | 150.5 | 158.0 | 163.5 | 167.6 |
| Accrued warranties & product liability | 48.3 | 39.2 | 0 | 45.4 | 46.4 | 44.9 | 47.1 | 46.2 | 48.5 | 50.2 | 51.4 |
| Customer advances | - | - | - | - | - | - | - | - | - | - | - |
| Income taxes payable | - | - | - | - | - | - | - | - | - | - | - |
| Other current liabilities | 211.7 | 218.9 | 269.1 | 282.6 | 296.7 | 311.6 | 327.2 | 343.5 | 360.7 | 378.8 | 397.7 |
| Total current liabilities | 723.3 | 909.9 | 998.6 | 1092.0 | 1124.8 | 1112.1 | 1344.7 | 1167.2 | 1425.5 | 1473.7 | 1514.9 |
| Non-current Liabilities | | | | | | | | | | | |
| Long-term debt, less current portion | 1166.2 | 668.5 | 773.6 | 1206.0 | 1237.4 | 1226.3 | 1277.2 | 1275.9 | 1327.7 | 1370.0 | 1406.8 |
| Retirement plans | - | - | - | - | - | - | - | - | - | - | - |
| Other non-current liabilities | 220.8 | 175.5 | 164.7 | 159.2 | 153.8 | 148.7 | 143.7 | 138.9 | 134.2 | 129.7 | 125.4 |
| Total liabilities | 2110.3 | 1753.9 | 1936.9 | 2457.2 | 2516.1 | 2487.1 | 2765.6 | 2582.0 | 2887.4 | 2973.5 | 3047.2 |
| Total Debt | 1543.7 | 1211.8 | 1400.1 | 1822.2 | 1867.8 | 1835.7 | 2094.1 | 1902.9 | 2186.0 | 2251.3 | 2305.0 |
| <i>% Cost of Debt</i> | <i>4.27%</i> | <i>4.25%</i> | <i>3.51%</i> | <i>3.46%</i> | <i>4.88%</i> | <i>5.09%</i> | <i>4.38%</i> | <i>5.50%</i> | <i>4.35%</i> | <i>4.85%</i> | <i>4.88%</i> |
| Commitments and contingencies | | | | | | | | | | | |
| Redeemable noncontrolling interest | - | - | - | - | - | - | - | - | - | - | - |
| Stockholders' equity: | | | | | | | | | | | |
| Common Equity | 838.8 | 860.9 | 882.5 | 882.5 | 882.5 | 882.5 | 882.5 | 882.5 | 882.5 | 882.5 | 882.5 |
| Retained earnings (accumulated deficit) | 750.3 | 936.9 | 1200.6 | 1583.2 | 1930.7 | 2269.0 | 2640.5 | 3007.1 | 3406.3 | 3896.8 | 4411.7 |
| Accumulated other comprehensive income (loss) | -208.4 | -228.5 | -341.6 | -341.6 | -341.6 | -341.6 | -341.6 | -341.6 | -341.6 | -341.6 | -341.6 |
| Less cost of shares of common stock in treasury | 459.2 | 459.7 | 560.3 | 710.3 | 860.3 | 1010.3 | 1160.3 | 1310.3 | 1460.3 | 1610.3 | 1760.3 |
| Total Terex Corporation stockholders' equity (deficit) | 921.5 | 1109.6 | 1181.2 | 1,413.8 | 1,611.3 | 1,799.6 | 2,021.1 | 2,237.7 | 2,486.9 | 2,827.4 | 3,192.3 |
| Noncontrolling interest | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total stockholders' equity | 921.5 | 1109.6 | 1181.2 | 1413.8 | 1611.3 | 1799.6 | 2021.1 | 2237.7 | 2486.9 | 2827.4 | 3192.3 |
| Total liabilities and stockholders' equity | 3031.8 | 2863.5 | 3118.1 | 3871.0 | 4127.4 | 4286.7 | 4786.7 | 4819.7 | 5374.3 | 5800.9 | 6239.5 |
| Property, plant & equipment - gross | 764.9 | 816.8 | 848.7 | 984 | 1074 | 1165 | 1257 | 1350 | 1442 | 1535 | 1633 |
| Less: accumulated depreciation | 358.3 | 387.2 | 383.1 | 445.2 | 516.9 | 591.2 | 667.7 | 746.3 | 826.7 | 908.7 | 992.1 |
| Total Investments | 665 | 266.9 | 304.1 | | | | | | | | |
| Total debt | 1173.8 | 674.1 | 775.5 | 1206.1 | 1237.5 | 1226.4 | 1454.2 | 1275.9 | 1527.7 | 1570.0 | 1606.8 |
| Non-Cash TOTAL Assets | 2366.8 | 2596.6 | 2814.0 | 3257.5 | 3342.5 | 3312.4 | 3449.9 | 3446.4 | 3586.2 | 3700.7 | 3800.0 |

Terex

Historical Cash Flow Statement



| Fiscal Years Ending Dec. 31 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|--------------|---------------|---------------|
| Operating Activities | | | | | | | | | | | |
| Net Income (loss) | 103.6 | 220.9 | 319.5 | 149 | -175.5 | 128.7 | 113.7 | 54.4 | -10.6 | 220.9 | 300 |
| Discontinued Operations: | | | | | | | | | | | |
| Depreciation & Amortization | 153 | 152.3 | 155.7 | 128.2 | 96.7 | 66.5 | 59.7 | 49.6 | 49.7 | 50.2 | 47.2 |
| Deferred Taxes | -25.20 | -2.30 | -17.80 | -2.60 | -137.60 | 37.60 | -9.10 | -17.60 | 5.60 | 1.20 | - |
| Loss (gain) on Sale of Assets | -5.9 | 4.3 | 16.6 | -1 | -5.8 | -58 | -1.9 | -9.8 | -0.4 | -7.4 | - |
| Loss on Early Extinguishment of Debt | 99 | 5.2 | 2.6 | 0.1 | - | 52.6 | 0.7 | - | - | 29.4 | - |
| Stock-Based Compensation Expense | 29.1 | 43.9 | 46.5 | 38.5 | 37.8 | 38.5 | 36.7 | 43.1 | 23.8 | 33.1 | 30.3 |
| Other Non-Cash Charges | 70.1 | 53.1 | 32.3 | 72.9 | - | - | - | - | - | - | - |
| Trade Receivables | 122.5 | -153.1 | -4.2 | 74.1 | 33 | -0.5 | -107.9 | 176.1 | 16.1 | -139 | -54.7 |
| Inventories | -55 | -70.4 | -27.1 | -90.6 | 97.3 | -33.5 | -284.2 | 20.3 | 261.6 | -229.5 | -206.1 |
| Trade Accounts Payable | -126.3 | 86.9 | 85.8 | 41.7 | -21 | 25 | 213.2 | -220.1 | -156.9 | 173 | 96.3 |
| Income Taxes Payable/ Receivable | -108.7 | -80.7 | -68.3 | 16.1 | 16.9 | -14.7 | - | - | - | - | - |
| Customer Advances | 97.1 | -16.5 | -75.2 | -47.1 | - | - | - | - | - | - | - |
| Other Assets & Liabilities | -67.7 | -46.4 | -17.4 | -181.5 | 165.6 | -29.8 | -25.1 | -57 | 8.8 | 140.7 | 37.5 |
| Other Operating Activities, net | 8.9 | -8.7 | 20.3 | 18.5 | - | - | - | - | - | - | - |
| Net Cash Flows From Operating Activities | 292.3 | 188.5 | 410.7 | 212.9 | 367 | 153 | 94.2 | 173.4 | 225.4 | 293.4 | 261.2 |
| Investing Activities | | | | | | | | | | | |
| Capital Expenditures | -82.5 | -82.8 | -81.5 | -103.8 | -73 | -43.5 | -103.8 | -108.9 | -64.5 | -59.7 | -109.6 |
| Acquisitions, net of Cash Acquired | -3.4 | - | - | -71.2 | -7 | - | -6.9 | - | - | - | - |
| Other Investments | -24.1 | - | -20 | - | - | - | - | - | - | - | - |
| Proceeds (payments) from Disposition of Discontinued Operations | 3.5 | - | 162.2 | -0.2 | 3.5 | 775.7 | 2.5 | 177.7 | 15.8 | - | - |
| Other Investing Activities, net | -4.4 | -0.7 | -9 | -0.6 | -2.5 | - | 0.2 | - | - | - | 5.6 |
| Net Cash Flows from Investing Activities | -76.3 | -37.4 | 95 | -172.7 | -11.8 | 1535.6 | -85.9 | 103.8 | -38.5 | -102.2 | -154.1 |
| Financing Activities | | | | | | | | | | | |
| Repayments of Debt | -1533 | -571.8 | -1801.8 | -1397.8 | -1286.3 | -1594.1 | -1150.1 | -1660.5 | -176 | -1103.5 | -224.4 |
| Proceeds from Issuance of Debt | 1234.3 | 425.2 | 1684.2 | 1462.8 | 1097.7 | 1010.7 | 1382.3 | 1616.6 | 170 | 600.1 | 320.9 |
| Payment of Debt Issuance Costs | -20.7 | - | - | - | - | - | - | - | - | - | - |
| Purchase of Noncontrolling Interest, net | -4.9 | -18.5 | - | -0.3 | - | - | - | - | - | - | - |
| Distributions to Noncontrolling Interest | -3.5 | -228.1 | -80.3 | -1.2 | - | - | - | - | - | - | - |
| Share Repurchases | - | -31.4 | -171.2 | -50.8 | -82.7 | -924.9 | -427.5 | -7.4 | -56 | -3 | -101.3 |
| Dividends Paid | - | -5.5 | -21.8 | -25.8 | -30 | -29.5 | -30 | -31.4 | -8.4 | -33.5 | -35.6 |
| Other Financing Activities, net | 4.5 | 10 | -5.8 | -1.3 | -1.7 | -32.3 | -19.1 | -21 | -12.4 | -23.3 | -14.5 |
| Net Cash Flows from Financing Activities | -323.3 | -420.1 | -396.7 | -14.4 | -300.1 | -1606.5 | -244.9 | -103.7 | -82.8 | -580.1 | -54.9 |
| Effect of Exchange Rate Changes on Cash & Cash Equivalents | 11.2 | -0.9 | -38.9 | -37.5 | -19.7 | 46.1 | -21.4 | -5.5 | 25.9 | -14.3 | -15 |
| Net Increase (decrease) in Cash & Cash Equivalents | -96.1 | -269.9 | 70.1 | -11.7 | 35.4 | 128.2 | -258 | 168 | 130 | -403.2 | 37.2 |
| Cash & Cash Equivalents at Beginning of Year | 774.1 | 678 | 408.1 | 478.2 | 466.5 | 501.9 | 630.1 | 372.1 | 540.1 | 670.1 | 266.9 |
| Cash & Cash Equivalents at End of Year | 678 | 408.1 | 478.2 | 466.5 | 501.9 | 630.1 | 372.1 | 540.1 | 670.1 | 266.9 | 304.1 |

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Forecasted Cash Flow Statement



| Fiscal Years Ending Dec. 31 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating Activities | | | | | | | | |
| Net income (loss) | 419.5 | 385.1 | 376.6 | 410.5 | 406.3 | 439.5 | 531.5 | 556.5 |
| Depreciation and Amortization | 64.5 | 74.0 | 76.4 | 78.5 | 80.5 | 81.5 | 82.8 | 84.2 |
| Change in Trade receivables, net of allowance | -130.0 | -15.6 | 23.0 | -33.5 | 14.1 | -34.4 | -25.3 | -18.6 |
| Change in Inventories | -111.8 | -25.3 | 37.4 | -54.5 | 22.9 | -55.9 | -41.0 | -30.3 |
| Change in Prepaid and other current assets | -110.0 | -5.3 | 7.9 | -11.5 | 4.8 | -11.8 | -8.6 | -6.4 |
| Change in Trade Accounts Payable | -8.5 | 14.2 | -20.9 | 30.5 | -12.8 | 31.3 | 23.0 | 16.9 |
| Change in Accrued compensation & benefits | 44.9 | 3.4 | -5.0 | 7.3 | -3.1 | 7.5 | 5.5 | 4.1 |
| Change in Accrued warranties & product liability | 45.4 | 1.0 | -1.5 | 2.2 | -0.9 | 2.3 | 1.7 | 1.2 |
| Change in Income taxes payable | - | - | - | - | - | - | - | - |
| Change in other current liabilities | 13.5 | 14.1 | 14.9 | 15.6 | 16.4 | 17.2 | 18.1 | 19.0 |
| Change in other non-current liabilities | -5.5 | -5.3 | -5.2 | -5.0 | -4.8 | -4.7 | -4.5 | -4.3 |
| Change in Accumulated other comprehensive income (loss) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net cash flows from operating activities | 221.8 | 440.3 | 503.5 | 440.2 | 523.4 | 472.6 | 583.2 | 622.3 |
| Investing Activities | | | | | | | | |
| Capital expenditures | -135.0 | -90.4 | -91.1 | -91.8 | -92.7 | -91.8 | -93.4 | -97.7 |
| Change in other Assets | -21.1 | -22.3 | -23.5 | -24.7 | -26.1 | -27.5 | -29.0 | -30.6 |
| Change in Retirement plans | - | - | - | - | - | - | - | - |
| Net cash flows from investing activities | -156.1 | -112.7 | -114.6 | -116.6 | -118.8 | -119.3 | -122.4 | -128.3 |
| Financing Activities | | | | | | | | |
| Change in notes payable & long-term debt | -1.8 | 0.0 | 0.0 | 176.9 | -177.0 | 200.0 | 0.0 | 0.0 |
| Change in Common Equity | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Change in Goodwill | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Change in Long-term debt, less current portion | 432.4 | 31.4 | -11.1 | 50.9 | -1.3 | 51.8 | 42.4 | 36.8 |
| Change in Total Dividends | -36.9 | -37.6 | -38.4 | -39.0 | -39.7 | -40.3 | -41.0 | -41.6 |
| Change in Less cost of shares of common stock in treasury | -150.0 | -150.0 | -150.0 | -150.0 | -150.0 | -150.0 | -150.0 | -150.0 |
| Net cash flows from financing activities | 243.7 | -156.2 | -199.5 | 38.8 | -368.0 | 61.4 | -148.6 | -154.9 |
| Effect of exchange rate changes on cash & cash equivalents | | | | | | | | |
| Net increase (decrease) in cash & cash equivalents | 309.4 | 171.4 | 189.4 | 362.4 | 36.6 | 414.8 | 312.2 | 339.2 |
| Cash & cash equivalents at beginning of year | 304.1 | 613.5 | 784.9 | 974.3 | 1336.8 | 1373.3 | 1788.1 | 2100.3 |
| Cash & cash equivalents at end of year | 613.5 | 784.9 | 974.3 | 1336.8 | 1373.3 | 1788.1 | 2100.3 | 2439.5 |

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Common Size Income Statement



| Fiscal Years Ending Dec. 31 | 2020 | 2021 | 2022 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Net sales | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Cost of goods sold | 80.85% | 79.22% | 79.21% | 77.00% | 77.70% | 77.60% | 77.55% | 77.50% | 77.50% | 76.00% | 76.00% |
| Gross profit | 17.53% | 19.49% | 19.72% | 23.00% | 22.30% | 22.40% | 22.45% | 22.50% | 22.50% | 24.00% | 24.00% |
| Depreciation & amortization | 1.56% | 1.23% | 1.01% | 1.21% | 1.37% | 1.46% | 1.44% | 1.50% | 1.47% | 1.44% | 1.44% |
| Selling, general & administrative expenses | 15.31% | 11.05% | 10.21% | 10.63% | 10.63% | 10.63% | 10.63% | 10.63% | 10.63% | 10.63% | 10.63% |
| Income (loss) from operations | 2.22% | 8.44% | 9.51% | 11.11% | 10.26% | 10.26% | 10.35% | 10.33% | 10.38% | 11.91% | 11.92% |
| Interest income | 0.12% | 0.10% | 0.06% | 0.32% | 0.63% | 0.84% | 0.99% | 1.39% | 1.36% | 1.71% | 1.96% |
| Interest expense | 2.14% | 1.32% | 1.11% | 1.23% | 1.74% | 1.84% | 1.72% | 2.01% | 1.74% | 1.93% | 1.94% |
| Gain (loss) on early extinguishment of debt | 0.00% | -0.76% | -0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Amortization of debt issuance costs | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other income (expense) - net | 0.16% | 0.33% | -0.15% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Income (loss) from continuing operations before income taxes | 0.36% | 6.79% | 8.30% | 10.21% | 9.16% | 9.26% | 9.62% | 9.71% | 10.01% | 11.69% | 11.95% |
| Provision for (benefit from) income taxes | 0.07% | 1.19% | 1.50% | 2.03% | 1.82% | 1.84% | 1.91% | 1.93% | 1.99% | 2.32% | 2.37% |
| Income (loss) from continuing operations | 0.29% | 5.60% | 6.80% | 8.18% | 7.34% | 7.42% | 7.71% | 7.78% | 8.02% | 9.37% | 9.57% |
| Income (loss) from discontinued operations - net of tax | -0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Gain (loss) on disposition of discontinued operations - net of tax | -0.62% | 0.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Net income (loss) | -0.34% | 5.68% | 6.79% | 8.18% | 7.34% | 7.42% | 7.71% | 7.78% | 8.02% | 9.37% | 9.57% |



| Fiscal Years Ending Dec. 31 | 2020 | 2021 | 2022 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| Assets | | | | | | | | | | | |
| Current Assets | | | | | | | | | | | |
| Cash & cash equivalents | 21.62% | 6.87% | 6.88% | 11.96% | 14.96% | 19.20% | 25.09% | 26.31% | 32.62% | 37.03% | 41.96% |
| Trade receivables, net of allowance) | 12.39% | 13.06% | 12.39% | 13.21% | 13.21% | 13.21% | 13.21% | 13.21% | 13.21% | 13.21% | 13.21% |
| Inventories | 19.84% | 20.93% | 22.37% | 21.45% | 21.45% | 21.45% | 21.45% | 21.45% | 21.45% | 21.45% | 21.45% |
| Prepaid and other current assets | 7.22% | 4.62% | 2.76% | 4.52% | 4.52% | 4.52% | 4.52% | 4.52% | 4.52% | 4.52% | 4.52% |
| Total current assets | 61.06% | 45.48% | 44.41% | 51.14% | 54.13% | 58.38% | 64.27% | 65.48% | 71.80% | 76.20% | 81.14% |
| Non-current assets | | | | | | | | | | | |
| Property, plant & equipment - net | 13.22% | 11.05% | 10.54% | 10.50% | 10.62% | 11.31% | 11.06% | 11.56% | 11.22% | 11.04% | 11.02% |
| Goodwill | 8.95% | 7.21% | 6.44% | 5.54% | 5.42% | 5.61% | 5.34% | 5.45% | 5.19% | 5.01% | 4.89% |
| Intangible assets - net | 0.27% | 0.34% | 0.39% | 0.29% | 0.24% | 0.21% | 0.16% | 0.13% | 0.10% | 0.09% | 0.07% |
| Other assets | 15.05% | 9.59% | 8.80% | 7.99% | 8.23% | 8.98% | 9.01% | 9.70% | 9.74% | 9.92% | 10.21% |
| Total assets | 98.55% | 73.67% | 70.58% | 75.46% | 78.65% | 84.49% | 89.85% | 92.32% | 98.05% | 102.27% | 107.33% |
| Liabilities and Stockholders' Equity | | | | | | | | | | | |
| Current Liabilities | | | | | | | | | | | |
| Notes payable & long-term debt (incl. cur portion) | 0.25% | 0.14% | 0.04% | 0.00% | 0.00% | 0.00% | 3.32% | 0.00% | 3.65% | 3.53% | 3.44% |
| Trade accounts payable | 12.02% | 13.83% | 14.14% | 12.01% | 12.01% | 12.01% | 12.01% | 12.01% | 12.01% | 12.01% | 12.01% |
| Accrued compensation & benefits | 2.79% | 2.79% | 2.33% | 2.88% | 2.88% | 2.88% | 2.88% | 2.88% | 2.88% | 2.88% | 2.88% |
| Accrued warranties & product liability | 1.57% | 1.01% | 0.00% | 0.88% | 0.88% | 0.88% | 0.88% | 0.88% | 0.88% | 0.88% | 0.88% |
| Customer advances | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Income taxes payable | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other current liabilities | 6.88% | 5.63% | 6.09% | 5.51% | 5.65% | 6.14% | 6.14% | 6.58% | 6.58% | 6.68% | 6.84% |
| Total current liabilities | 23.51% | 23.41% | 22.60% | 21.29% | 21.43% | 21.92% | 25.24% | 22.36% | 26.01% | 25.98% | 26.06% |
| Non-current Liabilities | | | | | | | | | | | |
| Long-term debt, less current portion | 37.91% | 17.20% | 17.51% | 23.51% | 23.58% | 24.17% | 23.97% | 24.44% | 24.22% | 24.15% | 24.20% |
| Retirement plans | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other non-current liabilities | 7.18% | 4.52% | 3.73% | 3.10% | 2.93% | 2.93% | 2.70% | 2.66% | 2.45% | 2.29% | 2.16% |
| Total liabilities | 68.60% | 45.12% | 43.84% | 47.90% | 47.94% | 49.02% | 51.91% | 49.46% | 52.68% | 52.42% | 52.42% |
| Total Debt | 50.18% | 31.18% | 31.69% | 35.52% | 35.59% | 36.18% | 39.31% | 36.45% | 39.88% | 39.69% | 39.65% |
| <i>% Cost of Debt</i> | | | | | | | | | | | |
| Commitments and contingencies | | | | | | | | | | | |
| Redeemable noncontrolling interest | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Stockholders' equity: | | | | | | | | | | | |
| Common Equity | 27.27% | 22.15% | 19.98% | 17.20% | 16.82% | 17.39% | 16.56% | 16.90% | 16.10% | 15.56% | 15.18% |
| Retained earnings (accumulated deficit) | 24.39% | 24.10% | 27.18% | 30.86% | 36.79% | 44.72% | 49.56% | 57.60% | 62.15% | 68.70% | 75.89% |
| Accumulated other comprehensive income (loss) | -6.78% | -5.88% | -7.73% | -6.66% | -6.51% | -6.73% | -6.41% | -6.54% | -6.23% | -6.02% | -5.88% |
| Less cost of shares of common stock in treasury | 14.93% | 11.83% | 12.68% | 13.85% | 16.39% | 19.91% | 21.78% | 25.10% | 26.64% | 28.39% | 30.28% |
| Total Terex Corporation stockholders' equity (deficit) | 29.96% | 28.55% | 26.74% | 27.56% | 30.70% | 35.47% | 37.94% | 42.86% | 45.37% | 49.85% | 54.91% |
| Noncontrolling interest | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Total stockholders' equity | 29.96% | 28.55% | 26.74% | 27.56% | 30.70% | 35.47% | 37.94% | 42.86% | 45.37% | 49.85% | 54.91% |
| Total liabilities and stockholders' equity | 98.56% | 73.67% | 70.58% | 75.46% | 78.65% | 84.49% | 89.85% | 92.32% | 98.05% | 102.27% | 107.33% |
| Less: Accumulated depreciation | 11.65% | 9.96% | 8.67% | 8.68% | 9.85% | 11.65% | 12.53% | 14.29% | 15.08% | 16.02% | 17.07% |
| Total Investments | 21.62% | 6.87% | 6.88% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Total debt | 50.19% | 31.18% | 31.69% | 35.52% | 35.59% | 36.18% | 39.31% | 36.45% | 39.88% | 39.69% | 39.65% |
| Non-Cash TOTAL Assets | 76.94% | 66.80% | 63.69% | 63.50% | 63.69% | 65.29% | 64.76% | 66.01% | 65.43% | 65.24% | 65.37% |



| Fiscal Years Ending Dec. 31 | 2020 | 2021 | 2022 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NOPLAT: | | | | | | | | | | | |
| Operating Revenues | 3076.40 | 3886.80 | 4417.70 | 5130.00 | 5248.00 | 5073.63 | 5327.55 | 5220.70 | 5481.15 | 5672.35 | 5813.47 |
| - COGS | 2487.40 | 3079.20 | 3499.30 | 3950.10 | 4077.70 | 3937.14 | 4131.52 | 4046.04 | 4247.89 | 4310.99 | 4418.24 |
| - SG&A | 470.90 | 429.40 | 451.20 | 545.35 | 557.89 | 539.35 | 566.35 | 554.99 | 582.68 | 603.00 | 618.00 |
| - Depreciation | 47.90 | 48.00 | 44.60 | 62.05 | 71.77 | 74.26 | 76.51 | 78.55 | 80.44 | 81.96 | 83.48 |
| - Amortization of Non-Goodwill Intangibles | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| - R&D Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| - Other Operating Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| + Implied Interest on Operating Leases | 1.31 | 0.00 | 0.00 | 0.05 | 0.10 | 0.16 | 0.21 | 0.26 | 0.31 | 0.36 | 0.42 |
| EBITA | 71.51 | 330.20 | 422.60 | 572.55 | 540.74 | 523.03 | 553.39 | 541.37 | 570.45 | 676.77 | 694.16 |
| Adjusted Taxes: | | | | | | | | | | | |
| Income Tax Provision | 2.00 | 46.30 | 66.40 | 104.01 | 95.49 | 93.38 | 101.78 | 100.75 | 108.98 | 131.78 | 137.98 |
| + Tax Shield on Interest Expense | -32.95 | 9.00 | 9.27 | 12.53 | 18.10 | 18.55 | 18.24 | 20.80 | 18.90 | 21.72 | 22.36 |
| - Tax on Interest (or Investment) Income | -1.80 | 0.65 | 0.53 | 3.28 | 6.62 | 8.47 | 10.51 | 14.42 | 14.82 | 19.29 | 22.66 |
| + Tax Shield on Amortized Goodwill | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| - Tax on Non-Operating Income | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| + Tax Shield on Non-Operating Losses | -0.65 | 0.00 | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 |
| - Total Adjusted Taxes | -29.80 | 54.65 | 75.14 | 113.28 | 107.00 | 103.50 | 109.55 | 107.18 | 113.13 | 134.28 | 137.77 |
| + Change in Deferred Taxes | 5.60 | 1.20 | 0.00 |
| NOPLAT | 106.91 | 276.75 | 347.46 | 459.28 | 433.75 | 419.53 | 443.84 | 434.19 | 457.33 | 542.49 | 556.40 |
| Invested Capital (IC): | | | | | | | | | | | |
| Operating Working Capital | | | | | | | | | | | |
| Normal Cash | 665.00 | 266.90 | 304.10 | 613.52 | 784.95 | 974.34 | 1336.77 | 1373.32 | 1788.09 | 2100.27 | 2439.46 |
| + Accounts Receivable | 381.20 | 507.70 | 547.50 | 677.52 | 693.11 | 670.08 | 703.61 | 689.50 | 723.90 | 749.15 | 767.79 |
| + Inventories | 610.40 | 813.50 | 988.40 | 1100.19 | 1125.50 | 1088.11 | 1142.56 | 1119.65 | 1175.50 | 1216.51 | 1246.77 |
| + Prepaid Expenses and Other Current Assets | 222.00 | 179.70 | 122.00 | 232.04 | 237.37 | 229.49 | 240.97 | 236.14 | 247.92 | 256.57 | 262.95 |
| - Accounts Payable | 369.90 | 537.70 | 624.60 | 616.11 | 630.29 | 609.34 | 639.84 | 627.01 | 658.29 | 681.25 | 698.20 |
| - Accrued Expenses | 85.80 | 108.50 | 103.00 | 147.89 | 151.30 | 146.27 | 153.59 | 150.51 | 158.02 | 163.53 | 167.60 |
| - Income Taxes Payable | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Operating Working Capital | 1422.90 | 1121.60 | 1234.40 | 1859.26 | 2059.35 | 2206.40 | 2630.48 | 2641.09 | 3119.11 | 3477.72 | 3851.18 |
| + Net PPE | 406.60 | 429.60 | 465.60 | 538.55 | 557.21 | 574.08 | 589.41 | 603.60 | 614.94 | 626.38 | 640.61 |
| Other Long-Term Operating Assets: | | | | | | | | | | | |
| Net Intangible Assets | 8.30 | 13.40 | 17.40 | 15.00 | 12.80 | 10.70 | 8.70 | 6.80 | 5.74 | 4.85 | 4.09 |
| PV of Operating Leases | 26.10 | 0.00 | 0.00 | 1.04 | 2.08 | 3.12 | 4.17 | 5.21 | 6.25 | 7.29 | 8.33 |
| Accrued Warranty & Product Liabilities | 48.30 | 39.20 | 0.00 | 45.36 | 46.40 | 44.86 | 47.10 | 46.16 | 48.46 | 50.15 | 51.40 |
| Other Assets | 462.90 | 372.60 | 388.70 | 409.81 | 432.06 | 455.52 | 480.25 | 506.33 | 533.83 | 562.81 | 593.37 |
| + Total Other Long-Term Operating Assets | 545.60 | 425.20 | 406.10 | 471.20 | 493.34 | 514.20 | 540.22 | 564.50 | 594.28 | 625.10 | 657.20 |
| Other Long-Term Operating Liabilities: | | | | | | | | | | | |
| Other Non-Current Liabilities | 220.80 | 175.50 | 164.70 | 159.18 | 153.85 | 148.69 | 143.71 | 138.90 | 134.24 | 129.74 | 125.40 |
| - Total Other Long-Term Operating Liabilities | 1277.60 | 1012.50 | 959.50 | 1085.55 | 1125.65 | 1163.27 | 1211.29 | 1255.89 | 1310.81 | 1367.81 | 1427.37 |
| Invested Capital | 1097.50 | 963.90 | 1146.60 | 1783.47 | 1984.25 | 2131.41 | 2548.83 | 2553.30 | 3017.51 | 3361.40 | 3721.62 |
| Beginning IC | 1064.30 | 1097.50 | 963.90 | 1146.60 | 1783.47 | 1984.25 | 2131.41 | 2548.83 | 2553.30 | 3017.51 | 3361.40 |
| Free Cash Flow (FCF): | | | | | | | | | | | |
| NOPLAT | 106.91 | 276.75 | 347.46 | 459.28 | 433.75 | 419.53 | 443.84 | 434.19 | 457.33 | 542.49 | 556.40 |
| Change in IC | 33.20 | -133.60 | 182.70 | 636.87 | 200.79 | 147.15 | 417.42 | 4.47 | 464.21 | 343.88 | 360.22 |
| FCF | 73.71 | 410.35 | 164.76 | -177.59 | 232.96 | 272.38 | 26.42 | 429.72 | -6.89 | 198.61 | 196.18 |
| Return on Invested Capital (ROIC): | | | | | | | | | | | |
| NOPLAT (t) | 106.91 | 276.75 | 347.46 | 459.28 | 433.75 | 419.53 | 443.84 | 434.19 | 457.33 | 542.49 | 556.40 |
| Beginning IC (t-1) | 1064.30 | 1097.50 | 963.90 | 1146.60 | 1783.47 | 1984.25 | 2131.41 | 2548.83 | 2553.30 | 3017.51 | 3361.40 |
| ROIC | 10.04% | 25.22% | 36.05% | 40.06% | 24.32% | 21.14% | 20.82% | 17.03% | 17.91% | 17.98% | 16.55% |
| Economic Profit (EP): | | | | | | | | | | | |
| Beginning IC | 1064.30 | 1097.50 | 963.90 | 1146.60 | 1783.47 | 1984.25 | 2131.41 | 2548.83 | 2553.30 | 3017.51 | 3361.40 |
| x (ROIC - WACC) | 0.77% | 15.94% | 26.77% | 30.78% | 15.04% | 11.87% | 11.55% | 7.76% | 8.63% | 8.70% | 7.28% |
| EP | 8.17 | 174.93 | 258.04 | 352.91 | 268.29 | 235.46 | 246.11 | 197.74 | 220.46 | 262.56 | 244.56 |



Cost of Equity:

| | |
|-----------------------|---------------|
| Risk-Free Rate | 4.87% |
| Beta | 1.438 |
| Equity Risk Premium | 5.17% |
| Cost of Equity | 12.30% |

ASSUMPTIONS:

10-year Treasury Bond
Average of 5 year weekly beta (from Bloomberg)
1928-2021 Geometric Average Premium

Cost of Debt:

| | |
|-------------------------------|--------------|
| Risk-Free Rate | 4.87% |
| Implied Default Premium | 0.13% |
| Pre-Tax Cost of Debt | 5.00% |
| Marginal Tax Rate | 20% |
| After-Tax Cost of Debt | 4.01% |

10-year Treasury Bond

in 2021, private 8 year bonds at 5%, worth \$600m,

Market Value of Common Equity:

| | |
|--------------------------|-----------------|
| | in millions |
| Total Shares Outstanding | 67.5 |
| Current Stock Price | \$45.80 |
| MV of Equity | 3,091.50 |

MV Weights

63.54%

Market Value of Debt:

| | |
|-------------------------|-----------------|
| Short-Term Debt | 998.6 |
| Current Portion of LTD | 1.9 |
| Long-Term Debt | 773.6 |
| PV of Operating Leases | 0.00 |
| MV of Total Debt | 1,774.10 |

36.46%

Market Value of the Firm

4,865.60

100.00%

Estimated WACC

9.28%

Terex

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key Inputs:

| | |
|---------------------|--------|
| CV Growth of NOPLAT | 5.00% |
| CV Year ROIC | 16.55% |
| WACC | 9.28% |
| Cost of Equity | 12.30% |



| Fiscal Years Ending Dec. 31 | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|

DCF Model:

| | | | | | | | | |
|-----------------------|--------|-------|-------|------|-------|------|-------|--------|
| Free Cash Flow (FCF) | -177.6 | 233.0 | 272.4 | 26.4 | 429.7 | -6.9 | 198.6 | 196.2 |
| Continuing Value (CV) | | | | | | | | 9079.5 |
| PV of FCF | -162.5 | 195.1 | 208.7 | 18.5 | 275.8 | -4.0 | 106.7 | 4879.3 |

| | |
|----------------------------------|-----------------|
| Value of Operating Assets: | 5517.6 |
| Non-Operating Adjustments | |
| - PV of Operating Leases | 0.0 |
| - LT Debt, less current portion | -773.6 |
| - Notes Payable and LT Debt | -1.9 |
| - Goodwill | -284.4 |
| - Other Current Liabilities | -269.1 |
| Value of Equity | 4188.6 |
| Shares Outstanding | 67.5 |
| Intrinsic Value of Last FYE | \$ 62.05 |
| Implied Price as of Today | \$ 67.67 |

EP Model:

| | | | | | | | | |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|--------|
| Economic Profit (EP) | 352.9 | 268.3 | 235.5 | 246.1 | 197.7 | 220.5 | 262.6 | 244.6 |
| Continuing Value (CV) | | | | | | | | 5718.1 |
| PV of EP | 322.9 | 224.7 | 180.4 | 172.6 | 126.9 | 129.5 | 141.1 | 3072.9 |

| | |
|----------------------------------|-----------------|
| Total PV of EP | 4371.0 |
| Invested Capital (last FYE) | 1146.6 |
| Value of Operating Assets: | 5517.6 |
| Non-Operating Adjustments | |
| - PV of Operating Leases | 0.0 |
| - LT Debt, less current portion | -773.6 |
| - Notes Payable and LT Debt | -1.9 |
| - Goodwill | -284.4 |
| - Other Current Liabilities | -269.1 |
| Value of Equity | 4188.6 |
| Shares Outstanding | 67.5 |
| Intrinsic Value of Last FYE | \$ 62.05 |
| Implied Price as of Today | \$ 67.67 |

Terex

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model



TEREX®

Fiscal Years Ending Dec. 31 **2023E** **2024E** **2025E** **2026E** **2027E** **2028E** **2029E** **2030E**

EPS \$ 6.37 \$ 6.14 \$ 6.28 \$ 7.15 \$ 7.37 \$ 8.28 \$ 10.37 \$ 11.23

Key Assumptions

CV growth of EPS 8.22%
CV Year ROE 17.43%
Cost of Equity 12.30%

Future Cash Flows

P/E Multiple (CV Year) 12.95
EPS (CV Year) \$ 11.23
Future Stock Price \$ 145.42
Dividends Per Share 0.56 0.6 0.64 0.68 0.72 0.76 0.8 0.84
Discounted Cash Flows 0.50 0.48 0.45 0.43 0.40 0.38 0.36 64.55

Intrinsic Value as of Last FYE \$ 67.54

Implied Price as of Today **\$ 73.66**

Terex

Relative Valuation Models



TEREX[®]

| Ticker | Company | Price | EPS | | P/E 23 | P/E 24 |
|--------------------------------|-----------------------|-----------------|---------|---------|-------------|--------------|
| | | | 2023E | 2024E | | |
| OSK | Oshkosh | \$86.33 | \$9.02 | \$9.85 | 9.57 | 8.76 |
| WNC | Wabash National Corpo | \$20.63 | \$4.65 | \$3.11 | | |
| ASTE | Astec Industries | \$39.08 | \$3.27 | \$3.38 | 12.40 | 11.10 |
| MTW | Manitowoc | \$12.32 | \$1.56 | \$1.49 | 7.90 | 8.27 |
| AGCO | AGCO Corporation | \$110.64 | \$15.32 | \$14.82 | 7.22 | 7.47 |
| PCAR | PACCAR Inc. | \$83.29 | \$8.90 | \$7.35 | 9.36 | 11.33 |
| MNTX | Manitex | \$4.00 | \$0.36 | \$0.37 | 11.11 | 10.81 |
| CMI | Cummins | \$217.49 | \$19.86 | \$19.42 | 10.95 | 11.20 |
| CAT | Caterpillar | \$234.82 | \$20.62 | \$20.70 | 11.39 | 11.34 |
| Average | | | | | 9.99 | 10.04 |
| TEX | Terex | \$45.80 | \$6.37 | \$6.14 | 7.19 | 7.46 |
| Implied Relative Value: | | | | | | |
| P/E (EPS23) | | \$ 63.61 | | | | |
| P/E (EPS24) | | \$ 61.60 | | | | |

| Terex Key Management Ratios | |  | | | | | | | | | | |
|---|--|--|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Fiscal Years Ending Dec. 31 | | 2020 | 2021 | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
| Liquidity Ratios: | | | | | | | | | | | | |
| Current Ratio: Current Assets/Current Liabilities | | 2.60 | 1.94 | 1.96 | 2.40 | 2.53 | 2.66 | 2.55 | 2.93 | 2.76 | 2.93 | 3.11 |
| Quick Ratio: Current Assets - Inventory/Current Liabilities | | 1.75 | 1.05 | 0.97 | 1.39 | 1.53 | 1.68 | 1.70 | 1.97 | 1.94 | 2.11 | 2.29 |
| Cash Ratio: Cash + Mkt Securities/Current Liabilities | | 0.92 | 0.29 | 0.30 | 0.56 | 0.70 | 0.88 | 0.99 | 1.18 | 1.25 | 1.43 | 1.61 |
| Asset-Management Ratios: | | | | | | | | | | | | |
| Inventory Turnover: COGS/ Ave Inventory | | 4.69 | 3.49 | 3.42 | 3.35 | 3.55 | 3.68 | 3.53 | 3.65 | 3.53 | 3.55 | 3.50 |
| Total Asset Turnover: Sales/ Average Assets | | 0.99 | 1.32 | 1.48 | 1.47 | 1.31 | 1.21 | 1.17 | 1.09 | 1.08 | 1.02 | 0.97 |
| Inventory Period: Ave Inventory/Annual COGS/365 | | 106.98 | 84.39 | 93.98 | 96.50 | 99.61 | 102.61 | 98.53 | 102.04 | 98.61 | 101.26 | 101.75 |
| Financial Leverage Ratios: | | | | | | | | | | | | |
| Debt Ratio: Total Debt/Total Assets | | 0.39 | 0.24 | 0.25 | 0.31 | 0.30 | 0.29 | 0.30 | 0.26 | 0.28 | 0.27 | 0.26 |
| Debt-to-Equity Ratio: Total Debt/Total Equity | | 1.27 | 0.61 | 0.66 | 0.85 | 0.77 | 0.68 | 0.72 | 0.57 | 0.61 | 0.56 | 0.50 |
| Interest Coverage: EBIT/Interest charges | | 1.04 | 6.37 | 8.55 | 9.04 | 5.91 | 5.58 | 6.00 | 5.15 | 5.98 | 6.18 | 6.16 |
| Profitability Ratios: | | | | | | | | | | | | |
| Return on Equity (NI/Beg TSE) | | -1.15% | 19.91% | 25.40% | 29.67% | 23.90% | 20.93% | 20.31% | 18.16% | 17.67% | 18.80% | 17.43% |
| Return on Assets: NI/Total Assets | | -0.35% | 7.71% | 9.62% | 10.84% | 9.33% | 8.79% | 8.58% | 8.43% | 8.18% | 9.16% | 8.92% |
| Gross Profit Margin: total sales-COGS/total sales | | 19.15% | 20.78% | 20.79% | 23.00% | 22.30% | 22.40% | 22.45% | 22.50% | 22.50% | 24.00% | 24.00% |
| Payout Policy Ratios: | | | | | | | | | | | | |
| Dividend Payout Ratio (Dividend/EPS) | | -80.00% | 15.14% | 11.87% | 8.79% | 9.78% | 10.19% | 9.51% | 9.77% | 9.18% | 7.71% | 7.48% |
| Total Payout Ratio ((Divs. + Repurchases)/NI) | | -449.06% | -13.81% | 21.90% | -26.96% | -29.17% | -29.64% | -27.03% | -27.14% | -24.95% | -20.51% | -19.47% |
| Rention Ratio: 1-DPR | | 180.00% | 84.86% | 88.13% | 91.21% | 90.22% | 89.81% | 90.49% | 90.23% | 90.82% | 92.29% | 92.52% |

Terex
Sensitivity Tables

| | | Beta | | | | | | |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| ERP | 67.67 | 1.32 | 1.36 | 1.40 | 1.44 | 1.48 | 1.52 | 1.56 |
| | 4.70% | 89.77 | 85.78 | 82.04 | 78.53 | 75.23 | 72.13 | 69.20 |
| | 4.80% | 86.94 | 83.05 | 79.40 | 75.98 | 72.77 | 69.74 | 66.89 |
| | 4.90% | 84.23 | 80.44 | 76.89 | 73.56 | 70.42 | 67.47 | 64.69 |
| | 5.00% | 81.65 | 77.95 | 74.49 | 71.24 | 68.18 | 65.30 | 62.58 |
| | 5.10% | 79.18 | 75.57 | 72.19 | 69.02 | 66.03 | 63.22 | 60.56 |
| | 5.20% | 76.82 | 73.29 | 69.99 | 66.89 | 63.97 | 61.23 | 58.63 |
| | 5.30% | 74.55 | 71.11 | 67.88 | 64.85 | 62.00 | 59.32 | 56.78 |

| | | Cost of Equity | | | | | | |
|----------------|--------|----------------|--------|--------|--------|--------|--------|--------|
| SGA % of Sales | 67.67 | 12.00% | 12.10% | 12.20% | 12.30% | 12.40% | 12.50% | 12.50% |
| | 7.63% | 84.29 | 84.36 | 84.42 | 84.49 | 84.55 | 84.62 | 84.62 |
| | 8.63% | 78.70 | 78.76 | 78.82 | 78.88 | 78.94 | 79.00 | 79.00 |
| | 9.63% | 73.11 | 73.16 | 73.22 | 73.28 | 73.33 | 73.39 | 73.39 |
| | 10.63% | 67.51 | 67.57 | 67.62 | 67.67 | 67.72 | 67.78 | 67.78 |
| | 11.63% | 61.92 | 61.97 | 62.02 | 62.07 | 62.11 | 62.16 | 62.16 |
| | 12.63% | 56.33 | 56.37 | 56.42 | 56.46 | 56.51 | 56.55 | 56.55 |
| | 13.63% | 50.74 | 50.78 | 50.82 | 50.86 | 50.90 | 50.94 | 50.94 |

| | | Risk Free Rate | | | | | | |
|---------------------|-------|----------------|-------|-------|-------|-------|-------|-------|
| CV Growth of NOPLAT | 67.67 | 4.72% | 4.77% | 4.82% | 4.87% | 4.92% | 4.97% | 5.02% |
| | 2.35% | 49.84 | 49.44 | 49.05 | 48.65 | 48.26 | 47.88 | 47.50 |
| | 2.40% | 50.08 | 49.67 | 49.27 | 48.88 | 48.48 | 48.09 | 47.71 |
| | 2.45% | 50.31 | 49.91 | 49.50 | 49.10 | 48.71 | 48.31 | 47.92 |
| | 2.50% | 50.55 | 50.14 | 49.74 | 49.33 | 48.93 | 48.54 | 48.14 |
| | 2.55% | 50.80 | 50.38 | 49.97 | 49.56 | 49.16 | 48.76 | 48.36 |
| | 2.60% | 51.05 | 50.63 | 50.21 | 49.80 | 49.39 | 48.99 | 48.59 |
| | 2.65% | 51.30 | 50.87 | 50.45 | 50.04 | 49.63 | 49.22 | 48.82 |

| | | 1 Year Short-Term Yield (ROI) | | | | | | |
|------|-------|-------------------------------|-------|-------|-------|-------|-------|-------|
| WACC | 67.67 | 5.13% | 5.23% | 5.33% | 5.43% | 5.53% | 5.63% | 5.73% |
| | 8.90% | 77.55 | 77.56 | 77.57 | 77.58 | 77.58 | 77.59 | 77.60 |
| | 9.00% | 74.74 | 74.75 | 74.76 | 74.76 | 74.77 | 74.78 | 74.79 |
| | 9.10% | 72.07 | 72.07 | 72.08 | 72.09 | 72.10 | 72.11 | 72.12 |
| | 9.20% | 69.52 | 69.53 | 69.54 | 69.55 | 69.55 | 69.56 | 69.57 |
| | 9.30% | 67.10 | 67.11 | 67.11 | 67.12 | 67.13 | 67.14 | 67.15 |
| | 9.40% | 64.79 | 64.79 | 64.80 | 64.81 | 64.82 | 64.83 | 64.84 |
| | 9.50% | 62.58 | 62.59 | 62.59 | 62.60 | 62.61 | 62.62 | 62.63 |

| | | WACC | | | | | | |
|-----------------|--------|--------|--------|--------|-------|-------|-------|-------|
| COGS % of Sales | 67.67 | 8.87% | 8.97% | 9.07% | 9.17% | 9.27% | 9.37% | 9.47% |
| | 73.25% | 107.95 | 104.17 | 100.57 | 97.15 | 93.90 | 90.79 | 87.83 |
| | 74.25% | 97.22 | 93.77 | 90.50 | 87.39 | 84.42 | 81.59 | 78.89 |
| | 75.25% | 86.49 | 83.38 | 80.43 | 77.62 | 74.94 | 72.39 | 69.96 |
| | 76.25% | 75.77 | 72.99 | 70.36 | 67.85 | 65.47 | 63.19 | 61.02 |
| | 77.25% | 65.04 | 62.60 | 60.29 | 58.09 | 55.99 | 53.99 | 52.08 |
| | 78.25% | 54.31 | 52.21 | 50.22 | 48.32 | 46.52 | 44.79 | 43.15 |
| | 79.25% | 43.58 | 41.82 | 40.15 | 38.56 | 37.04 | 35.59 | 34.21 |

| | | Pre-Tax Cost of Debt | | | | | | |
|------|-------|----------------------|-------|-------|-------|-------|-------|-------|
| Beta | 67.67 | 4.70% | 4.80% | 4.90% | 5.00% | 5.10% | 5.20% | 5.30% |
| | 1.14 | 99.80 | 98.85 | 97.91 | 97.00 | 96.10 | 95.22 | 94.35 |
| | 1.24 | 87.62 | 86.87 | 86.12 | 85.39 | 84.67 | 83.97 | 83.28 |
| | 1.34 | 77.51 | 76.90 | 76.30 | 75.71 | 75.13 | 74.56 | 74.00 |
| | 1.44 | 68.99 | 68.49 | 68.00 | 67.52 | 67.04 | 66.58 | 66.12 |
| | 1.54 | 61.70 | 61.29 | 60.89 | 60.49 | 60.10 | 59.72 | 59.34 |
| | 1.64 | 55.39 | 55.06 | 54.72 | 54.40 | 54.07 | 53.75 | 53.44 |
| | 1.74 | 49.89 | 49.61 | 49.33 | 49.06 | 48.79 | 48.53 | 48.26 |