

## Trane Technologies PLC

## 4Q23; Commercial HVAC delivers; overall orders above expectations

Reiterate Rating: NEUTRAL | PO: 282.00 USD | Price: 270.74 USD

## Operational beat, CHVAC driving growth

TT's 4Q23 ops and bookings came in above expectations in 4Q23. Despite investor (and our) concerns the overall organic orders accelerated to +12% with growth across all regions, albeit off relatively easy comps in 4Q22. Commercial HVAC (65% of the business) organic bookings were up mid-teens in the Americas and EMEA and up low-single digits in APAC. APAC results stood in sharp contrast to JCI's weakness. Resi HVAC (20% of revenue) saw bookings up high-single digits, but revenue down high-teens. TT noted resi down worse than anticipated in the Q. Destocking is now expected to continue beyond '23. Resi bookings were up, which was not expected even with the easy comps. The company's backlog ended the year flat sequentially at \$6.9bn. In addition to the elevated backlog, the composition of the backlog has shifted to be 90% commercial HVAC. We reiterate our Neutral as it balances the company's outperformance of peers and risk from potential resi destocking and light commercial slowdown. We raise our PO to \$282 from \$265 still reflecting 17x 2025 EV/EBITDA.

## Adj EPS of \$2.17 beats BofA \$2.12 and consensus \$2.13

TT's 4Q23 reported adj. EPS of \$2.17 came above our estimate of \$2.12 and consensus of \$2.13. Americas was a \$0.18/sh beat on margins 140bps higher than our models. EMEA was a \$0.02/sh beat on strong topline (organic growth of +8% vs BofA 2.5%) and higher margin. Asia Pacific was a \$(0.03)/sh miss on weaker topline and weaker margin.

## Raising 2024E adjusted EPS to \$10.21

During TT's 4Q23 earnings management introduced 2024 EPS guidance of \$10.00 - \$10.30. We raise our EPS estimate to \$10.21 in line with guidance. Guide assumes that Americas and EMEA CHVAC is up high single digits, Americas transport is down mid-single digits, resi HVAC and EMEA transport is flat, and APAC grows mid-single digits.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	7.38	9.04	10.21	11.07	11.94
GAAP EPS	7.58	8.85	10.21	11.07	11.94
EPS Change (YoY)	21.2%	22.5%	12.9%	8.4%	7.9%
Consensus EPS (Bloomberg)			10.05	11.16	12.25
DPS	2.68	3.00	3.20	3.36	3.36
Valuation (Dec)					
P/E	36.7x	29.9x	26.5x	24.5x	22.7x
GAAP P/E	35.7x	30.6x	26.5x	24.5x	22.7x
Dividend Yield	1.0%	1.1%	1.2%	1.2%	1.2%
EV / EBITDA*	26.8x	22.6x	20.7x	19.2x	18.2x
Free Cash Flow Yield*	2.1%	3.2%	3.4%	3.7%	3.9%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 11.

01 February 2024

## Equity

## Key Changes

(US\$)	Previous	Current
Price Obj.	265.00	282.00
2024E Rev (m)	18,624.2	18,934.0
2025E Rev (m)	19,504.7	19,920.9
2026E Rev (m)	20,373.7	20,807.8
2024E EPS	9.94	10.21
2025E EPS	10.79	11.07
2026E EPS	11.64	11.94

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## Stock Data

Price	270.74 USD
Price Objective	282.00 USD
Date Established	1-Feb-2024
Investment Opinion	B-2-7
52-Week Range	162.04 USD - 272.07 USD
Mrkt Val (mn) / Shares Out (mn)	67,062 USD / 247.7
Free Float	99.7%
Average Daily Value (mn)	257.85 USD
BofA Ticker / Exchange	TT / NYS
Bloomberg / Reuters	TT US / TT.N
ROE (2024E)	31.4%
Net Dbt to Eqty (Dec-2023A)	52.5%
ESGMeter™	High

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Timestamp: 01 February 2024 07:43PM EST

HVAC: Heating, ventilation, and air conditioning

# iQprofile<sup>SM</sup> Trane Technologies PLC

## iQmethod<sup>SM</sup> – Bus Performance\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	14.2%	16.8%	17.7%	18.1%	18.2%
Return on Equity	28.0%	31.8%	31.4%	30.3%	29.4%
Operating Margin	14.9%	16.3%	16.7%	17.3%	17.6%
Free Cash Flow	1,407	2,126	2,297	2,462	2,635

## iQmethod<sup>SM</sup> – Quality of Earnings\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.0x	1.2x	1.1x	1.1x	1.1x
Asset Replacement Ratio	0.9x	1.0x	1.0x	1.0x	1.1x
Tax Rate	18.6%	19.6%	20.0%	21.5%	21.5%
Net Debt-to-Equity Ratio	59.2%	52.5%	36.9%	24.2%	13.4%
Interest Cover	10.8x	12.3x	13.4x	14.8x	15.8x

## Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	15,992	17,678	18,934	19,921	20,808
% Change	13.1%	10.5%	7.1%	5.2%	4.5%
Gross Profit	4,950	5,867	6,397	6,877	7,250
% Change	10.1%	18.5%	9.0%	7.5%	5.4%
EBITDA	2,694	3,196	3,495	3,765	3,981
% Change	14.0%	18.6%	9.3%	7.7%	5.7%
Net Interest & Other Income	(228)	(275)	(257)	(251)	(251)
<b>Net Income (Adjusted)</b>	<b>1,733</b>	<b>2,084</b>	<b>2,330</b>	<b>2,505</b>	<b>2,678</b>
<b>% Change</b>	<b>17.5%</b>	<b>20.3%</b>	<b>11.8%</b>	<b>7.5%</b>	<b>6.9%</b>

## Free Cash Flow Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	1,751	2,102	2,330	2,505	2,678
Depreciation & Amortization	315	308	325	323	319
Change in Working Capital	(550)	10	(56)	(45)	(26)
Deferred Taxation Charge	0	0	0	0	0
Other Adjustments, Net	183	7	20	18	19
Capital Expenditure	(292)	(301)	(322)	(339)	(354)
<b>Free Cash Flow</b>	<b>1,407</b>	<b>2,126</b>	<b>2,297</b>	<b>2,462</b>	<b>2,635</b>
<b>% Change</b>	<b>2.6%</b>	<b>51.1%</b>	<b>8.0%</b>	<b>7.2%</b>	<b>7.0%</b>
Share / Issue Repurchase	(1,200)	(669)	(785)	(916)	(1,066)
Cost of Dividends Paid	(620)	(684)	(723)	(752)	(745)
Change in Debt	(10)	(57)	(499)	0	0

## Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	1,221	1,095	1,386	2,180	3,004
Trade Receivables	2,780	2,957	3,128	3,250	3,352
Other Current Assets	2,379	2,818	2,832	2,844	2,857
Property, Plant & Equipment	1,536	1,772	1,749	1,747	1,763
Other Non-Current Assets	10,166	10,750	10,770	10,790	10,810
<b>Total Assets</b>	<b>18,082</b>	<b>19,392</b>	<b>19,865</b>	<b>20,811</b>	<b>21,785</b>
Short-Term Debt	1,048	802	8	8	8
Other Current Liabilities	4,639	5,252	5,375	5,459	5,543
Long-Term Debt	3,788	3,978	4,274	4,274	4,274
Other Non-Current Liabilities	2,501	2,344	2,369	2,394	2,419
<b>Total Liabilities</b>	<b>11,976</b>	<b>12,375</b>	<b>12,025</b>	<b>12,134</b>	<b>12,242</b>
<b>Total Equity</b>	<b>6,105</b>	<b>7,017</b>	<b>7,840</b>	<b>8,677</b>	<b>9,543</b>
<b>Total Equity &amp; Liabilities</b>	<b>18,082</b>	<b>19,392</b>	<b>19,865</b>	<b>20,811</b>	<b>21,785</b>

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 11.

## Company Sector

Industrials/Multi-Industry

## Company Description

Trane Technologies (TT) is a global, diversified industrial manufacturer of refrigeration and commercial/residential HVAC equipment. Products include well-recognized brands such as: Trane, Thermo King, and American Standard.

## Investment Rationale

We rate Trane Technologies Neutral as it should benefit from US infrastructure stimulus funds towards the K-12 education vertical and continues to outperform peers on revenue, adj. EPS, and FCF conversion. However, we see risks from potential resi destocking and light commercial slowdown.

## Stock Data

Average Daily Volume

952,378

## Quarterly Earnings Estimates

	2023	2024
Q1	1.41A	1.64E
Q2	2.68A	2.98E
Q3	2.79A	3.15E
Q4	2.17A	2.45E

**Exhibit 1: 4Q23 earnings variance**

4Q23 adj. EPS of \$2.17 beats BofA \$2.12

	Actual	Reported		BofA Estimate		Variation Versus BofA Est.			
(in US\$ mn, except per share data)	4Q:22A	4Q:23A	YOY % Chg.	4Q:23E	YOY % Chg.	Dollar	Percentage / b.p.	EPS	
<b>Segment Sales</b>									
Americas	3,140	3,390	8.0%	3,367	7.2%	24	1%		
EMEA	559	655	17.2%	659	18.0%	(4)	-1%		
Asia Pacific	<u>376</u>	<u>379</u>	<u>1.0%</u>	<u>404</u>	<u>7.7%</u>	<u>(25)</u>	-6%		
<b>Total Sales</b>	<b>4,074</b>	<b>4,424</b>	<b>8.6%</b>	<b># 4,430</b>	<b>8.7%</b>	<b>(6)</b>	<b>0%</b>		
<b>Segment Operating Profit</b>									
Americas	459	563	22.6%	512	11.6%	50	10%	\$	0.18
EMEA	86	112	29.4%	106	23.3%	5	5%	\$	0.02
Asia Pacific	77	85	11.0%	95	23.6%	(10)	-10%	\$	(0.03)
Corp. Allocations	<u>(64)</u>	<u>(71)</u>	<u>11.3%</u>	<u>(63)</u>	<u>NM</u>	<u>(8)</u>	<u>12%</u>	\$	<u>(0.03)</u>
<b>Total Operating Profit</b>	<b>558</b>	<b>688</b>	<b>23.3%</b>	<b>650</b>	<b>16.5%</b>	<b>38</b>	<b>6%</b>	<b>\$</b>	<b>0.14</b>
<b>Operating Margin</b>									
Americas	14.6%	16.6%	200 bp	15.2%	60 bp	140 bp			
EMEA	15.5%	17.1%	160 bp	16.1%	70 bp	90 bp			
Asia Pacific	<u>20.4%</u>	<u>22.4%</u>	<u>200 bp</u>	<u>23.4%</u>	<u>300 bp</u>	<u>(100 bp)</u>			
<b>Total Operating Margin</b>	<b>13.7%</b>	<b>15.6%</b>	<b>190 bp</b>	<b>14.7%</b>	100 bp	90 bp			
Net Sales	4,074	4,424	8.6%	4,430	8.7%	(6)	0%		
COGS	<u>2,849</u>	<u>2,958</u>	<u>3.8%</u>	<u>3,032</u>	<u>6.5%</u>	<u>(75)</u>	<u>-2%</u>		
<b>Gross Profit</b>	<b>1,225</b>	<b>1,466</b>	<b>19.7%</b>	<b>1,397</b>	<b>14.1%</b>	<b>69</b>	<b>5%</b>	<b>\$</b>	<b>0.25</b>
SG&A and general	<u>667</u>	<u>778</u>	<u>16.6%</u>	<u>748</u>	<u>12.1%</u>	<u>30</u>	<u>4%</u>	\$	(0.11)
<b>Operating Income</b>	<b>558</b>	<b>688</b>	<b>23.3%</b>	<b>650</b>	<b>16.5%</b>	<b>38</b>	<b>6%</b>	<b>\$</b>	<b>0.14</b>
Other (Income) / Expense	56	16	-72.1%	5	-90.7%	10	200%	\$	(0.04)
Interest Expense, net	<u>2</u>	<u>57</u>	<u>2391.3%</u>	<u>58</u>	<u>2421.7%</u>	<u>(1)</u>	<u>-1%</u>	\$	<u>0.00</u>
<b>Pretax Income</b>	<b>500</b>	<b>616</b>	<b>23.1%</b>	<b>587</b>	<b>17.4%</b>	<b>29</b>	<b>5%</b>	<b>\$</b>	<b>0.10</b>
Taxes	71	114	59.8%	104	46.3%	10	9.3%		
Tax Rate	14.3%	18.5%	430 bp	17.8%	350 bp	70 bp	--	\$	(0.02)
Other, Non-controlling Interest	<u>(5)</u>	<u>(3)</u>		=		<u>(3)</u>		\$	<u>(0.01)</u>
<b>Operating Net Income (Cont. Earnings)</b>	<b>424</b>	<b>498</b>	<b>17.6%</b>	<b>482</b>	<b>13.9%</b>	<b>16</b>	<b>3%</b>	<b>\$</b>	<b>0.07</b>
Discontinued Operations	<u>(5)</u>	<u>(9)</u>	<u>NM</u>	=	<u>NM</u>	<u>(9)</u>	<u>NM</u>		
<b>Operating Net Income, incl. Discont.</b>	<b>419</b>	<b>489</b>	<b>16.8%</b>	<b>482</b>	<b>15.2%</b>	<b>7</b>	<b>1%</b>		
<b>"First Call" EPS Estimate</b>	<b>\$1.82</b>	<b>\$2.17</b>	<b>18.9%</b>	<b>\$2.12</b>	<b>16.4%</b>	<b>\$0.05</b>	<b>2.2%</b>	-	
Diluted Shares Outstanding	232	230	-1.1%	227	-2.2%	2.50	1.1%	\$	(0.02)
	<b>Actual</b>	<b>Reported</b>		<b>Reported</b>		<b>Variation (b.p.)</b>			
<b>Margin Analysis</b>	<b>4Q:22A</b>	<b>4Q:23A</b>		<b>4Q:23A</b>		<b>BofA est.</b>	<b>4Q:22A</b>		
COGS	69.9%	66.9%		68.5%		(160 bp)	(310 bp)		
Gross Margin	30.1%	33.1%		31.5%		160 bp	310 bp		
SG&A	16.4%	17.6%		16.9%		70 bp	120 bp		
Operating Margin	13.7%	15.6%		14.7%		90 bp	190 bp		
Incremental Margin	22.0%	37.2%		25.8%		1140 bp	1520 bp		
Pretax Margin	12.3%	13.9%		13.2%		70 bp	160 bp		
Net Margin	10.4%	11.3%		10.9%		40 bp	90 bp		

Source: BofA Global Research estimates, company reports

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## 4Q23 earnings review

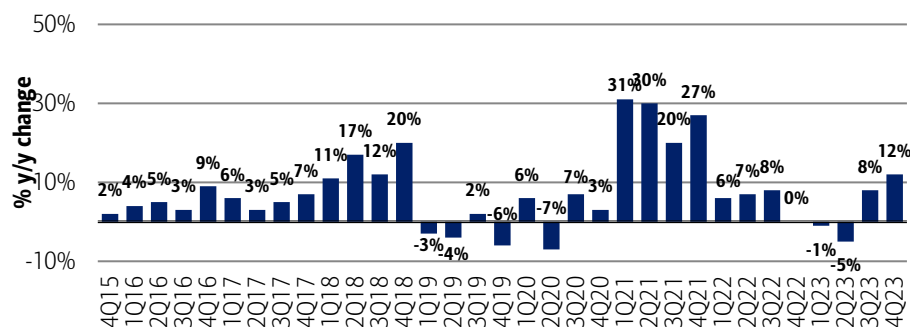
Total company organic bookings improved to 12%/y. Organic revenue was up 6%.

Backlog is ~\$6.9bn.



**Exhibit 2: Total company organic bookings were up 12% y/y in 4Q**

Total company quarterly organic bookings



Source: BofA Global Research, company report

Note: Company order rates exclude effects from M&amp;A and FX

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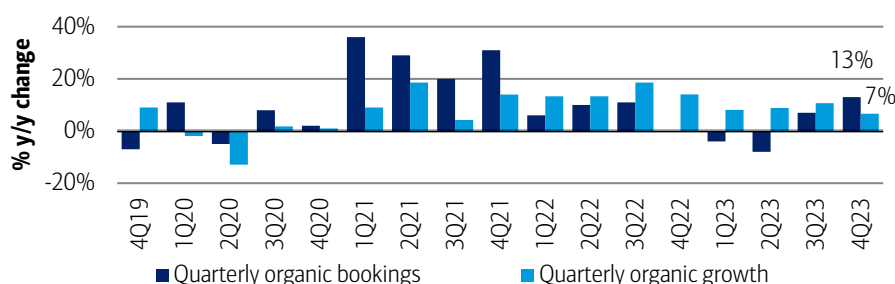
**Americas: bookings up in resi and commercial**

Americas organic revenue grew +7% y/y and organic bookings were up 13% y/y.

- **Residential HVAC** bookings were up high-single digits y/y. Revenue was down high teens. Management noted the quarter was impacted by normalization of channel inventory. It expects the resi normalization process to continue in the near term.
- **Commercial HVAC** bookings were up mid-teens y/y. Revenue was up mid-twenties, with equipment up ~30% and services up mid-teens. Management specifically called out strength in data centers, education, healthcare, and high-tech industrials.
- **Transport** bookings were up low-teens with revenue down ~20%. The company noted

**Exhibit 3: Americas 4Q organic revenue +7% y/y, bookings +13% y/y**

Americas quarterly organic revenue and bookings



Source: BofA Global Research, company filings

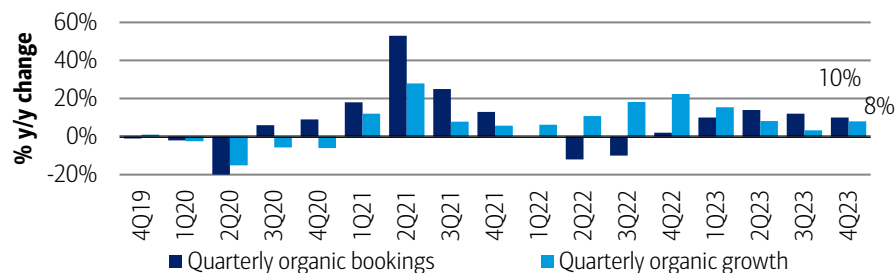
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**EMEA: organic bookings and rev positive, but bookings decline q/q**

EMEA organic revenue grew 8% y/y. Organic bookings were up +10% y/y. Commercial bookings were up mid-teens, and Transport bookings were flat y/y. Commercial HVAC revenue were up high-single digits.

**Exhibit 4: EMEA 4Q organic revenue up +8% y/y, bookings up +10% y/y**

EMEA quarterly organic revenue and bookings



Source: BofA Global Research, company filings

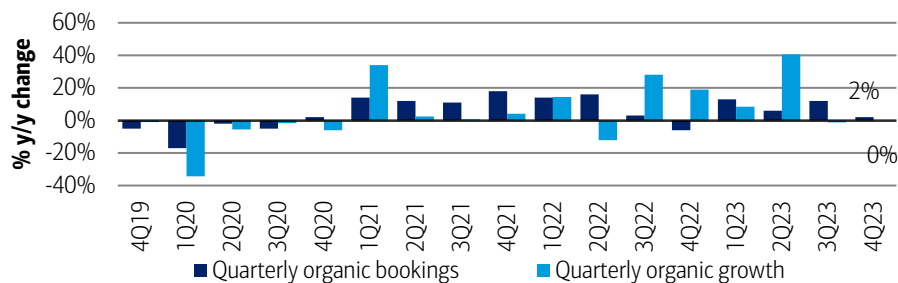
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**Asia Pacific: revs flat against tough comps**

Asia Pacific organic revenue was flat y/y. Organic bookings were up 2% y/y. Commercial HVAC bookings were up low single digits with revenue flat y/y on tough comps. Transport revenue was up, but bookings were down. 4Q saw China's revenue down mid-single digit and bookings low single digit.

**Exhibit 5: Asia Pacific 4Q organic revenue flat y/y, bookings up 2% y/y**

Asia Pacific quarterly organic revenue and bookings



Source: BofA Global Research, company filings

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## Key Federal stimulus policy impacting HVAC

**Inflation Reduction Act (IRA)**, most of the benefits are mainly impacting the commercial HVAC business rather than the residential. TT highlighted the 179d tax credits helping commercial HVAC. Other than 179d, another benefit to TT's commercial offering, specifically its Thermal Management System (TMS) product is the Investment Tax Credit (ITC) that finalized this November. TT has not given up on the IRA benefiting resi demand and continues marketing it to consumers. We note that as of 1/23 only four states have applied for the funds relating to the High Efficiency Electric Homes Rebate and HOMES rebate, so the resi benefit may be delayed.

- **179d:** The IRA modifies the 179D tax credit to provide higher maximum tax deduction, raising it from \$1.87/square foot to \$5.00/square foot. To qualify, the building must reduce energy and power by 25%, lower than the previous 50% requirement. This impacts TT's commercial HVAC offerings.
- **HOMES rebate:** The HOMES rebate is estimated to be ~\$4.3bn in funding for achieving modeled energy efficiency increases for single- and multi-family homes. This impacts TT's resi offerings.
- **High Efficiency Electric Homes Rebate:** The High Efficiency Electric Homes Rebate is being funded by the federal government at ~4.3bn for ten years, but the rebates will be delivered by the state. Those whose income is lower than 80% of the median area income will get a 100% tax credit on the project. Those with moderate income, households with incomes between 81% and 150% of the area's median income, will qualify for 50% of the credit. This credit can be maxed at \$8,000 for a heat pump (HVAC). This impacts TT's resi offerings.
- **ITC:** Under the IRA the ITC was raised from a 10% credit to a 30% credit. The ITC is available for both combined heat and power system property and energy storage technology projects and ground and groundwater heating and cooling equipment. This impacts TT's commercial HVAC offerings.

For the 2025 refrigerant transition, TT is not anticipating the pricing benefit from the new product until 2025, which is why it guided prices up 1%. TT's K-12 has been a beneficiary of the Elementary and Secondary School Relief Fund (ESSER). Given headline around ESSER III funding having to be spent by September 2024 there were concern for how this would impact TT's commercial HVAC segment. TT noted that only the orders have to be placed before September 30, 2024, in order to qualify, schools can still spend the money into 2025.

- **ESSER:** ESSER has had three iterations - ESSER I (passed Mar 2020) appropriated \$13.2bn, ESSER II (passed Dec 2020) proved an additional \$54.3bn, and ESSER III (passed Mar 2021) provided \$122bn. This impacts TT's commercial HVAC offerings.

## Revenue growth ahead of peer average in 4Q23

The exhibit below compares quarterly earnings metrics from the last six quarters across the major HVAC manufacturers. We look at reported revenue y/y growth, incremental margins, adjusted EPS growth, organic revenue growth, and EBITDA y/y growth. TT's revenue growth came ahead of peers and results were broadly consistent with strength in HVAC. We note that we use our estimate for CARR as it has not yet reported.

**Exhibit 6: Trane's 4Q revenue growth outpaced peers**

Quarterly earnings metrics for HVAC OEM peers

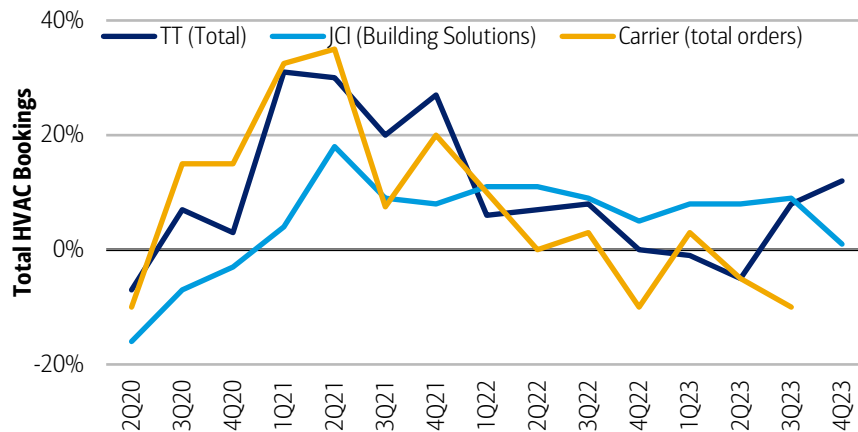
	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23
<b><u>Revenue growth</u></b>								
Carrier	-1%	-4%	2%	-1%	13%	15%	5%	1%
Trane Technologies	11%	9%	18%	14%	9%	12%	12%	9%
Lennox	9%	10%	18%	13%	4%	-2%	4%	6%
Johnson Controls	9%	4%	5%	4%	10%	8%	6%	0%
<b><u>Organic Revenue Growth</u></b>								
Carrier	10%	7%	8%	5%	4%	6%	3%	3%
Trane Technologies	12%	11%	19%	16%	9%	11%	9%	6%
Lennox	9%	11%	17%	13%	2%	3%	10%	6%
Johnson Controls	9%	7%	9%	8%	12%	9%	4%	-1%
<b><u>EBITDA Growth</u></b>								
Carrier	3%	1%	-1%	0%	4%	14%	20%	16%
Trane Technologies	6%	7%	21%	21%	18%	18%	18%	19%
Lennox	3%	4%	14%	27%	18%	22%	33%	30%
Johnson Controls	9%	17%	7%	11%	13%	-3%	9%	-9%
<b><u>Incremental margins</u></b>								
Carrier	-104%	-16%	-4%	18%	-2%	13%	65%	110%
Trane Technologies	5%	14%	20%	22%	28%	27%	29%	37%
Lennox	-2%	4%	13%	23%	77%	-206%	113%	88%
Johnson Controls	14%	-14%	27%	50%	18%	33%	22%	-400%
<b><u>Adj. EPS growth</u></b>								
Carrier	14%	9%	-2%	-10%	-5%	13%	28%	26%
Trane Technologies	11%	12%	26%	34%	26%	24%	23%	19%
Lennox	4%	9%	21%	11%	20%	23%	31%	38%
Johnson Controls	21%	3%	13%	25%	20%	20%	11%	-24%

Source: Company filings

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**Exhibit 7: TT vs other OEMs who disclose orders**

TT orders were up 12% in 4Q23



Source: Company filings

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**Thermo King forecasted to be down in 2024, but outperform market**

The overall Americas transport market is forecasted to be down (10)% in 2024.

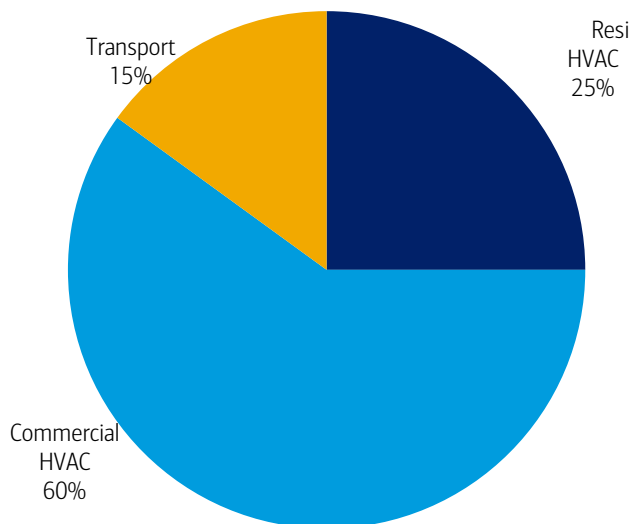
However, Trane anticipates it will outperform the market and will be down mid-single digits. TT has historically outperformed the market, outperforming in Americas by low-single digits in 2023. In EMEA, the market is forecasted to be down low single digits, with TT anticipating being flat in 2024. In 2023, in EMEA TK outperformed by high single digits.

## Our estimate of TT's segments by end markets

Based on previous commentary from TT we estimate the size of TT's end market by segment.

### Exhibit 8: Americas segment estimated end market break out

We estimate that Commercial HVAC is ~60% of Americas revenue

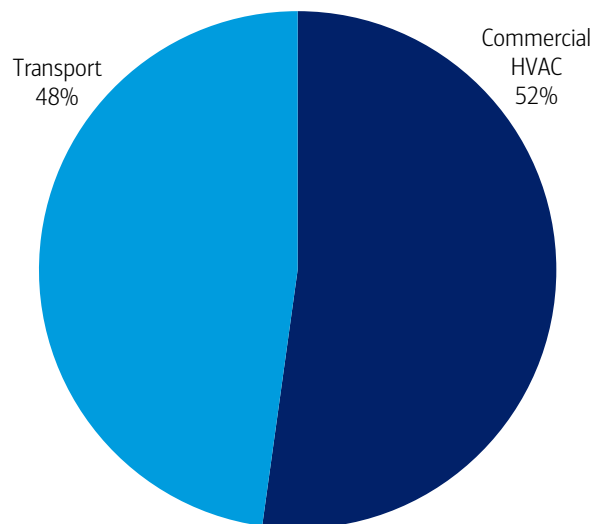


Source: BofA Global Research, company commentary

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### Exhibit 9: EMEA segment estimated end market break out

We estimate that CHVAC comprises more of EMEA's revenue than transport

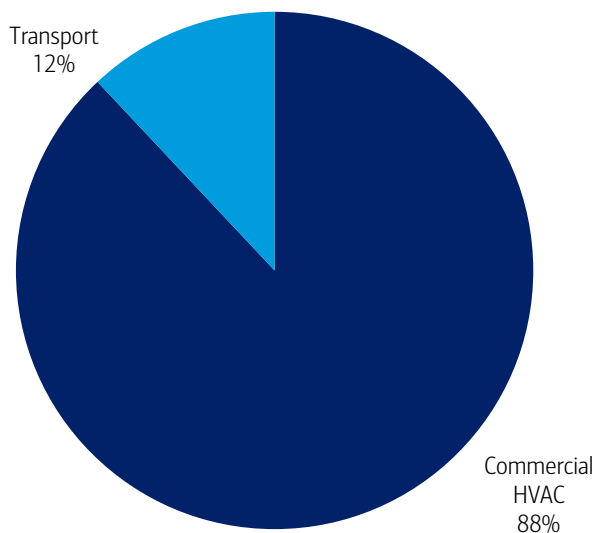


Source: BofA Global Research, company commentary

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### Exhibit 10: APAC segment estimated end market breakout

We estimate that most of APAC revenues stem from CHVAC



Source: BofA Global Research, company commentary

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## Raising 2024E adj. EPS to \$10.21

During TT's 4Q23 earnings management introduced 2024 EPS guidance of \$10.00 - \$10.30. We raise our EPS estimate to \$10.21 in line with guidance. Guidance includes the acquisition of MTA, Nuvolo, Helmer Scientific, and Diversified Laboratory Repair. Guidance assumes that Americas and EMEA CHVAC is up high single digits, Americas



transport is down mid-single digits, resi HVAC and EMEA transport is flat, and APAC grows mid-single digits.

### Exhibit 11: Raising 2024 adj. EPS to \$10.21

BofA old versus new 2024 estimates and company guidance

(\$mn, except per share numbers)	TT 2023 guidance	BofA 2024 estimates		BofA 2025 estimates	
	As of 4Q22	Old	New	Old	New
Organic revenue					
<b>Total organic revenue %y/y</b>	<b>6% to 7%</b>	<b>4.9%</b>	<b>6.2%</b>	<b>4.7%</b>	<b>5.2%</b>
<b>Total revenue %y/y</b>	<b>7% to 8%</b>	<b>5.3%</b>	<b>7.1%</b>	<b>4.7%</b>	<b>5.2%</b>
<b>Revenue</b>		<b>\$18,624</b>	<b>\$18,934</b>	<b>\$19,505</b>	<b>\$19,921</b>
<b>Adjusted operating income</b>		<b>\$3,100</b>	<b>\$3,170</b>	<b>\$3,349</b>	<b>\$3,442</b>
Segment adj. operating margin		16.6%	16.7%	17.2%	17.3%
Operating leverage	25%	26.6%	22.4%	28.2%	27.5%
Unallocated corporate costs	\$275	\$240	\$275	\$243	\$279
Interest expense	\$237	\$237	\$237	\$233	\$233
Tax rate	~20%	20.5%	20.0%	21.5%	21.5%
Shares outstanding	~228	227.4	228.3	225.4	226.3
<b>Adjusted EPS</b>	<b>\$10.00 - \$10.30</b>	<b>\$9.94</b>	<b>\$10.21</b>	<b>\$10.79</b>	<b>\$11.07</b>

Source: BofA Global Research estimates, company reports

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## Valuation

We base our \$282 price objective on 17x EV/EBITDA of our 2025E estimates. Our 17x target multiple is above the peer group average trading at 13x on 2024 estimates. We think the premium is warranted given above average performance.

### Exhibit 12: TT comparable valuation analysis

Our \$282 price objective is based on 17x EV/EBITDA of 2025E

Company	Stock Price 2/1/2024	P/E		EV/EBITDA		EBITDA Margin		EPS Growth		P/FCF	
		2024E	2025E	2024E	2025E	2024E	2025E	2024E	2025E	2024E	2025E
ATCOA SS*	SEK169.05	27.8x	26.1x	17.9x	16.7x	26.2%	26.4%	2.4%	6.4%	26.9x	26.1x
EMR	\$93.46	20.1x	24.1x	14.3x	N/A	26.8%	N/A	10.3%	-16.6%	22.5x	N/A
HON	\$195.89	19.4x	17.4x	13.3x	12.4x	26.7%	27.1%	9.9%	11.2%	21.1x	18.6x
JCI	\$53.91	13.9x	11.8x	10.0x	9.1x	15.8%	16.5%	9.8%	17.4%	16.2x	13.1x
LII*	\$425.33	21.4x	19.1x	15.4x	13.4x	20.1%	20.6%	11.3%	12.0%	26.5x	20.8x
CARR	\$54.97	18.5x	17.1x	12.9x	11.8x	17.4%	18.4%	10.0%	8.4%	20.0x	20.6x
DKILF	JPY 23,345.00	22.4x	20.6x	10.9x	9.9x	14.2%	14.3%	15.2%	8.8%	27.1x	21.9x
AYI*	\$238.81	16.1x	15.4x	11.3x	10.6x	16.9%	16.7%	5.6%	4.3%	15.3x	N/A
<b>Average</b>		<b>19.9x</b>	<b>19.0x</b>	<b>13.2x</b>	<b>12.0x</b>	<b>20.5%</b>	<b>20.0%</b>	<b>9.3%</b>	<b>6.5%</b>	<b>22.0x</b>	<b>20.2x</b>
<b>TT</b>	<b>\$268.71</b>	26.3x	24.3x	18.4x	16.9x	18.5%	18.9%	12.9%	8.4%	26.7x	24.7x
<b>TT at PO</b>	<b>\$282.00</b>	27.6x	25.5x	19.3x	17.5x	18.5%	18.9%	12.9%	8.4%	28.0x	25.9x

Source: BofA Global Research estimates, Bloomberg, company reports

\*Estimates per Bloomberg consensus

Note: Estimates calendarized for December 31st year end

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## Price objective basis & risk

### Trane Technologies PLC (TT)

We base our \$282 price objective on 17x 2025E EV/EBITDA . Our 17x target multiple is above the peer group average trading at 13x on 2024 estimates. We believe the premium is warranted given above-average performance.

Downside risks are 1) slower-than-expected macro recovery, 2) lower-than-expected productivity improvement and cost synergies, 3) loss of market share to competitors. Upside risks are 1) continued solid execution in 2024, 2) non-residential markets take longer to crack than our thesis, and 3) price increases offset impact of destocking cycle.

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I, Andrew Obin, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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	AspenTech	AZPN	AZPN US	Andrew Obin
	Atmus Filtration	ATMU	ATMU US	Andrew Obin
	Dover Corp	DOV	DOV US	Andrew Obin
	Eaton Corp PLC	ETN	ETN US	Andrew Obin
	Emerson Electric Co	EMR	EMR US	Andrew Obin
	Flowserve	FLS	FLS US	Andrew Obin
	General Electric Company	GE	GE US	Andrew Obin
	Honeywell International Inc.	HON	HON US	Andrew Obin
	ITT Inc.	ITT	ITT US	Andrew Obin
	Montrose Environmental Group, Inc.	MEG	MEG US	Andrew Obin
	Parker Hannifin Corporation	PH	PH US	Andrew Obin
	PTC Inc.	PTC	PTC US	Andrew Obin
	Rush	RUSHA	RUSHA US	Andrew Obin
	Vertiv	VRT	VRT US	Andrew Obin
	Vontier	VNT	VNT US	Andrew Obin
<b>NEUTRAL</b>				
	3M Company	MMM	MMM US	Andrew Obin
	AMETEK Inc	AME	AME US	Andrew Obin
	Fortive Corporation	FTV	FTV US	Andrew Obin
	Johnson Controls International PLC	JCI	JCI US	Andrew Obin
	Pentair plc	PNR	PNR US	Andrew Obin
	Rockwell	ROK	ROK US	Andrew Obin
	Trane Technologies PLC	TT	TT US	Andrew Obin
<b>UNDERPERFORM</b>				
	Allegion	ALLE	ALLE US	Andrew Obin
	Carrier Global Corp.	CARR	CARR US	Andrew Obin
	Core & Main	CNM	CNM US	Andrew Obin
	Illinois Tool Works	ITW	ITW US	Andrew Obin
	John Bean Technologies	JBT	JBT US	Andrew Obin
	Keysight	KEYS	KEYS US	David Ridley-Lane, CFA

## iQmethod<sup>SM</sup> Measures Definitions

### Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

### Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

### Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization

Shareholders' Equity

Sales

N/A

N/A

### Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

### Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash &amp; Equivalents

EBIT

### Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

### Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

### Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

### Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

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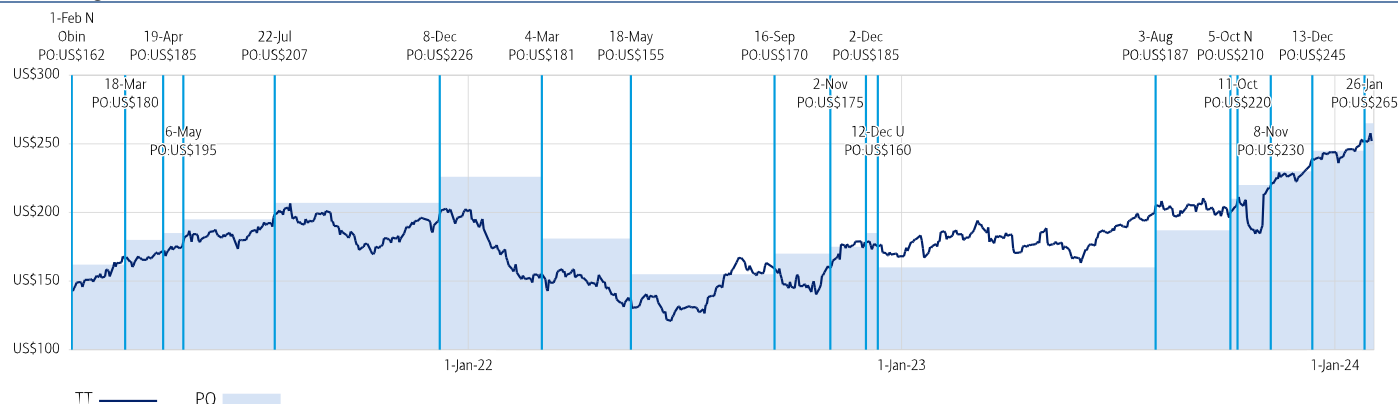
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B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	45	50.56%	Buy	25	55.56%
Hold	26	29.21%	Hold	13	50.00%
Sell	18	20.22%	Sell	7	38.89%

### Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Underperform	N/A	≥ 20%

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