Voyant Europe

Comprehensive Analysis

Kion Group AG (KGX.DE – €98.28)

December 28, 2021*

Kion Group AG (KGX.DE) develops and markets industrial trucks and integrated automation technology and software. The Company operates in two segments: Industrial Trucks & Services (ITS) and Supply Chain Solutions (SCS). The ITS segment manufactures forklift and warehouse trucks and provides related services. The SCS segment develops intelligent supply chain and automation technology to improve the flow of materials and information within factories, warehouses, and distribution centers. The Company sells its products globally in more than 100 countries. The Company was founded in 2006 and is headquartered in Frankfurt, Germany. Its fiscal year ends on 12/31.

Thesis Summary

We are concerned Chinese competitors' industrial truck improvements and developed market expansion focus may have reduced Kion's industrial truck advantage and increased competitive pressure. We believe Kion's historically depressed industrial truck market share may have been driven by persistent EMEA market share loss and suggests the industrial truck competitive environment may have structurally changed and make Kion's ITS mid-term revenue growth target difficult to achieve. Our concerns are heightened given guidance for a market shift towards more competitive, lower ASP warehouse trucks to persist. We believe elevated inventory levels may portend overbuilt inventory and margin pressure. In our view, a contract asset level increase to a multi-year high suggests revenue recognition may have been accelerated as revenue was increasingly recognized ahead of billings. Further, we are concerned a contract liability decline suggests the Company may have offered certain customer concessions to win new orders and revenue quality may have deteriorated. Our earnings sustainability concerns are heightened given significantly increased working capital cash consumption.

Catalysts and Timing

- Weaker-than-expected Q4 21 results and/or FY 22 guidance
- Competition intensifies & pressures market share
- Mid-term guidance is reduced

Company Data

Country/Exchange	Germany/XETRA
Reporting Currency	Euro
Accounting Standard	IFRS
Shares Outstanding (mil)	131.2
Float (mil)	71.7
Average Volume (mil)	€14.7
52 Week Range	€68.70 – €103.70
Dividend Yield	0.4%
Market Cap (bil)	€12.9
Net Debt (bil)	€2.2
Enterprise Value (bil)	€15.1
FY 20 Rev (mil)/Rev Growth	€8,341.6 / (5.3%)
FY 20 Adj. EBIT (mil)	€546.9
FY 20 GM %/Change	24.5% / (200 bps)
FY 20 Adj. EBIT Margin %/Change	6.6% / (310 bps)

Historical EPS

	Actual	Expected	Surprise
Q3 21	€1.04	€0.99	4.6%
Q2 21	€1.17	€1.14	2.5%
Q1 21	€1.04	€0.87	20.0%

Estimate Drift

	EST	1M Ago	6M Ago	1YR Ago
Q4 21 Rev	€2,537.1	€2,537.1	€2,554.5	--
FY 21 Rev	€10,081.8	€10,127.3	€9,724.7.7	€9,193.2
FY 21 Rev	€11,036.6	€11,036.6	€10,568.4	€9,818.5
Q4 21 EPS	€0.90	€0.90	€1.00	--
FY 21 EPS	€4.25	€4.33	€3.85	€3.75
FY 22 EPS	€5.32	€5.32	€4.99	€4.56

Peers Mentioned In This Report

N/A

*** All research is completed as of 4:00PM – 4:15PM Eastern Time unless otherwise noted.**
Please refer to the end of this report for an updated version of *The Short List*.

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Background and Bull Story

Company Background

Company description: Kion Group AG (KGX.DE) develops and markets industrial trucks and integrated automation technology and software. The Company operates in two segments: Industrial Trucks & Services (ITS) and Supply Chain Solutions (SCS). The ITS segment manufactures forklift and warehouse trucks and provides related services. The SCS segment develops intelligent supply chain and automation technology to improve the flow of materials and information within factories, warehouses, and distribution centers. The Company sells its products globally in more than 100 countries. The Company was founded in 2006 and is headquartered in Frankfurt, Germany. Its fiscal year ends on 12/31.

Results by segments: In FY 20, the Industrial Trucks & Services segment accounted for 68.5% (75.6%) of revenue (EBITDA), while the Supply Chain Solutions segment accounted for 31.5% (24.4%). The Industrial Trucks & Services (ITS) segment manufactures forklift and warehouse trucks and provides related services. The Supply Chain Solutions (SCS) segment develops intelligent supply chain and automation technology to improve the flow of materials and information within factories, warehouses, and distribution centers.

FY 20 Segment Analysis	As % of Segment Revenue	As % of Adjusted Segment Gross Profit	As % of Adjusted Segment EBITDA
Industrial Trucks & Services	68.5%	71.3%	75.6%
Supply Chain Solutions	31.5%	28.7%	24.4%
Total	100.0%	100.0%	100.0%

- **Industrial Trucks & Services:** In FY 20, new business accounted for 48.0% of ITS segment revenue, aftersales accounted for 26.8%, rental business accounted for 16.0%, used trucks accounted for 6.4%, and other accounted for 2.8%. New business includes the sale of new industrial trucks through outright sales and financing leases under the Linde, STILL, Baoli, Fenwick, and OM brands. Aftersales includes spare part supply, repairs and maintenance, and full-service contracts. Rental business includes operating leases, short-term rentals, and fleet management. Used trucks includes the sale of used industrial trucks.

FY 20 ITS Segment Analysis	As % of ITS Revenue
New business	48.0%
Aftersales	26.8%
Rental business	16.0%
Used trucks	6.4%
Other	2.8%
Service	52.0%
Total	100.0%

- **Supply Chain Solutions:** In FY 20, business solutions accounted for 75.4% of SCS revenue, while services accounted for 24.6%. Business solutions includes the Company’s project business which covers every phase of a new supply chain solution installation (e.g. palletizers, storage and picking equipment, sorters, conveyors, etc.) including customer needs analyses, technical planning and design, and control technology implementation and integration. Services includes modernizations, upgrades, and service contracts which generally cover the installed system lifetime and spare parts supply. The Company's SCS segment markets its SCS products and services under the Dematic brand.

FY 20 SCS Segment Analysis	As % of SCS Revenue
Business solutions	75.4%
Services	24.6%
Total	100.0%

Revenue by geography: In FY 20, the Europe, Middle East, and Africa (EMEA) accounted for 66.7% of revenue, the Americas accounted for 22.1%, and Asia Pacific accounted (APAC) for 11.2%. In its FY 20 Annual Report, the Company disclosed it sold its products in more than 100 countries.

FY 20 Revenue By Geography Analysis	As % of Revenue
Western Europe	58.8%
Eastern Europe	6.9%
Middle East & Africa	0.9%
EMEA	66.7%
North America	20.2%
Central & South America	1.9%
Americas	22.1%
China	6.3%
Rest of APAC	4.9%
APAC	11.2%
Total	100.0%

Competition: Kion's ITS segment primarily competes with Toyota, Mitsubishi Logisnext, Jungheinrich, Crown, and Hyster-Yale. Kion's SCS segment primarily competes with SSI Schafer, Toyota, Daifuku, Honeywell, and Knapp.[1]

Bull Story: Market Leadership, Warehouse Automation, & Pent-Up Demand

Market leadership position guided to drive material revenue growth over the mid-term: In its FY 20 Annual Report, the Company disclosed it was the largest European industrial truck manufacturer and leading warehouse automation provider. On its Investor Day Conference Call on 11/03/21, the Company guided to leverage its leading market positions to increase revenue to €12,000.0 million by FY 23, a compound annual growth rate (CAGR) of 12.9% from FY 20 to FY 23.

> The KION Group, which is included in the MDAX, is the largest manufacturer of industrial trucks in Europe in terms of units sold in 2020. It is also the leading provider of warehouse automation, as measured by revenue in 2019. (FY 20 Annual Report)

[1] Toyota Industries Corporation (6201.T), Mitsubishi Logisnext Co Ltd (7105.T), Jungheinrich AG (JUNG_p.DE), Crown Equipment Corporation (private), and Hyster-Yale Materials Handling (HY.N), SSI Schafer (private), Daifuku Co., LTD. (6383.T), Honeywell International Inc. (HON), and Knapp (private)

Revenue Analysis (€ in millions)	FY 23 (Guidance)	FY 20	FY 19	FY 18	FY 17
ITS	€7,500.0	€5,694.2	€6,403.7	€5,916.3	€5,568.2
SCS	€4,500.0	€2,619.4	€2,376.1	€2,052.1	€2,005.1
Total revenue	€12,000.0	€8,313.6	€8,779.8	€7,968.4	€7,573.3
Change (FY 20 to FY 23 CAGR)	*12.9%*	*(11.1%)*	*8.2%*	*6.3%*	--

Warehouse automation mega-trends guided to drive significant SCS revenue growth: On its Q3 21 Conference Call, the Company represented it believed warehouse automation was in the early innings of a mega-trend due to the non-availability of labor and e-commerce growth. On its Investor Day Conference Call on 11/03/21, the Company indicated the COVID-19 pandemic accelerated demand for warehouse automation solutions as e-commerce penetration increased materially. In addition, the Company guided for the warehouse automation market to increase at a 13.0% (double-digit) CAGR from FY 20 to FY 23 (FY 27).

ITS pent-up demand guided to support strong order & revenue trends in the near-term: On its Q2 21 Conference Call on 07/29/21, the Company disclosed it had ITS segment pent-up demand from FY 20 as customers paused purchasing amidst significant uncertainty due to the pandemic. In the twelve-months ended Q3 21, ITS unit order intake (euro order intake) increased 44.3% (27.2%) year-over-year to 279,400 units (€7,438.2 million). On its Q3 21 Conference Call on 10/26/21, the Company guided for FY 21 order intake to be at the high-end of its previously guided range due to stronger-than-expected order trends.

ITS Order Intake Analysis	12M Ended Q3 21	12M Ended Q2 21	12M Ended Q1 21	12M Ended Q4 20	12M Ended Q3 20
ITS unit order intake (in thousands)	279.4	264.9	220.1	198.4	193.6
Year-over-year change	*44.3%*	*36.9%*	*6.8%*	*(7.1%)*	*(9.9%)*
ITS euro order intake (€ in millions)	€7,438.2	€7,154.5	€6,198.6	€5,796.9	€5,849.4
Year-over-year change	*27.2%*	*20.9%*	*(0.4%)*	*(8.5%)*	*(7.2%)*

Valuation: On 10/25/21, the Company reported Q3 21 revenue (earnings) of €2,565.8 million (€1.04), 1.5% (4.6%) above the consensus estimate. As of the date of this publication, the Company's shares traded at 18.5x forward earnings, towards the higher end of its valuation range over the past three years and 14.2% above its prior five-year average.

NTM P/E Valuation Analysis	Publication Date	One Year Ago	Three Years Ago	Five Year Average
Kion Group AG (KGX.DE)	18.5x	19.5x	10.1x	16.2x

Voyant's Earnings Risk Assessment

We are concerned Chinese competitors' industrial truck improvements and developed market expansion focus may have reduced Kion's industrial truck advantage and increased competitive pressure. We believe Kion's historically depressed industrial truck market share may have been driven by persistent EMEA market share loss and suggests the industrial truck competitive environment may have structurally changed and make Kion's ITS mid-term revenue growth target difficult to achieve. Our concerns are heightened given guidance for a market shift towards more competitive, lower ASP warehouse trucks to persist. We believe elevated inventory levels may portend overbuilt inventory and margin pressure. In our view, a contract asset level increase to a multi-year high suggests revenue recognition may have been accelerated as revenue was increasingly recognized ahead of billings. Further, we are concerned a contract liability decline suggests the Company may have offered certain customer concessions to win new orders and revenue quality may have deteriorated. Our earnings sustainability concerns are heightened given significantly increased working capital cash consumption.

ITS Market Competition May Drive Share Loss & Pressure Revenue Growth, In Our View

Background on ITS segment: In FY 20, ITS revenue declined 11.1% to €5,694.2 million and accounted for 68.5% of revenue. ITS accounted for approximately 70.0% of revenue over the past four years. The ITS segment manufactures forklift and warehouse trucks and provides related services. New business includes the sale of new industrial trucks through outright sales and financing leases. Aftersales includes spare part supply, repairs and maintenance, and full-service contracts. Rental business includes operating leases, short-term rentals, and fleet management. Used trucks includes the sale of used industrial trucks.

ITS Revenue Analysis (€ in millions)	FY 20	FY 19	FY 18	FY 17	FY 16
New business	€2,734.5	€3,345.6	€3,009.1	€2,828.8	--
Aftersales	€1,523.2	€1,600.9	€1,513.9	€1,429.5	--
Rental business	€911.1	€926.2	€900.1	€855.2	--
Used trucks	€364.0	€361.1	€327.8	€306.6	--
Other	€161.4	€169.9	€165.4	€148.3	--
Service	€2,959.7	€3,058.2	€2,907.2	€2,739.5	--
Total ITS	€5,694.2	€6,403.7	€5,916.3	€5,568.2	--
Year-over-year change	*(11.1%)*	*8.2%*	*6.3%*	--	--
ITS revenue as % of total revenue	68.5%	72.9%	74.2%	73.5%	--

Chinese competitors' product improvement may have driven Kion product advantage deterioration: In its FY 19 Annual Report, Kion represented emerging market, specifically Chinese, competitors attempted to expand their market share beyond their local markets but developed market expansion was difficult for "many" competitors as higher quality expectations and service needs of developed market customers provided a competitive barrier. However, on its Q2 20 Conference Call, Kion represented Chinese competitor product improvements enabled them to compete more effectively. In addition, in its FY 20 Annual Report, Kion disclosed emerging market competitors "markedly stepped up their efforts" to expand outside their local markets and developed market customer expectations and needs only presented a barrier to growth (discussed above) for "some" emerging market competitors. **We believe the commentary and disclosure change (i.e. from "many" to "some" competitors facing growth barriers) suggest Chinese competitors' product improvements and developed market expansion focus may have driven Kion product advantage deterioration and increased competitive pressure (discussed next).**

Building on their local competitive strength, manufacturers in emerging markets, especially China, are also looking for opportunities to expand. As developments in the competitive landscape during the course of the year showed, **the high quality expectations and the services needs of customers in developed markets still present a barrier to growth for <u>many</u> of these manufacturers** but the bar is getting lower. This situation is likely to intensify competitive pressures in future. (FY 19 Annual Report) [emphasis added]

Building on their local competitive strength, **manufacturers in emerging markets are also markedly stepping up their efforts to find opportunities for expansion in regions outside their local markets**. Competition has increased significantly, especially form manufacturers in China. This can be seen from the changes in the competitive situation last year. **Customers in developed markets have sophisticated service needs and high expectations in terms of quality. This still presents a barrier to growth for <u>some</u> of these manufacturers**, but the bar is getting lower. Competitive pressures are likely to continue to intensify in the future. (FY 20 Annual Report) [emphasis added]

FY 20 industrial truck market share loss highlights an intensifying competitive environment, in our view: In FY 20, Kion's global industrial truck market share declined 210 basis points to 12.1%, <u>the lowest level in at least eight years</u>. In its FY 20 Annual Report, the Company attributed the market share deterioration to increased Chinese competition. In our view, the industrial truck market share loss highlights an intensifying competitive environment.

Kion Industrial Truck Market Share Analysis	FY 20	FY 19	FY 18	FY 17	FY 16
Global Kion industrial truck orders (in thousands)	198.4	213.6	216.7	201.7	177.9
Global industrial truck orders (in thousands)	1,639.3	1,509.3	1,540.9	1,397.6	1,184.9
Kion industrial truck market share	12.1%	14.2%	14.1%	14.4%	15.0%
Year-over-year change	*(210 bps)*	*10 bps*	*(30 bps)*	*(60 bps)*	*(10 bps)*

<u>We have the following observations about competition and Kion market share:</u>

1. **Persistent European market underperformance suggests Chinese competitors may be viable threat:** As mentioned, Kion represented Chinese competitor product improvements enabled them to compete more effectively. On its Q3 20 Conference Call, the Company represented Chinese competitors made the EMEA region a priority. In Q3 21, Kion Western Europe (Eastern Europe) order growth increased 25.2% (53.5%), 1,240 basis points (390 basis points) slower than Western European (Eastern European) market order growth. In our view, the European market underperformance highlights persistent European market share loss. Given European market underperformance in five consecutive periods, we believe Chinese competitors may be a viable competitive threat and European market share loss may persist. Our concerns are heightened given Europe accounts for a significant portion of revenue (i.e. accounted for approximately 67.0% of revenue over the last three years).

European Market Share Analysis (year-over-year change)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Kion Western Europe order growth	25.2%	107.9%	35.5%	2.0%	(9.8%)
Western Europe industrial truck market order growth	37.6%	116.6%	40.0%	10.5%	(0.5%)
Difference	*(1,240 bps)*	*(870 bps)*	*(450 bps)*	*(850 bps)*	*(930 bps)*
Kion Eastern Europe order growth	53.5%	82.2%	44.4%	9.3%	(9.6%)
Eastern Europe industrial truck market order growth	57.4%	133.9%	49.6%	14.6%	7.7%
Difference	*(390 bps)*	*(5,170 bps)*	*(520 bps)*	*(530 bps)*	*(1,730 bps)*

2. **China & North America outperformance may have been driven by product launches & be unsustainable:** In Q3 21, Kion China (North America) industrial truck orders increased 25.8% (102.5%) year-over-year, 2,950

basis points (3,480 basis points) faster than the market order growth. On its Q3 21 Conference Call, the Company attributed recent Kion China and North America outperformance, in part, to new product additions. To the extent product line expansion and not product improvements drove China and North America outperformance, we would be concerned China and North America may face difficult comparable periods as the Company annualizes the new product launches and recent China and North American outperformance may be unsustainable.

China & North America Market Share Analysis (year-over-year change)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Kion China order growth	25.8%	82.6%	110.5%	39.2%	46.0%
China industrial truck market order growth	(3.7%)	36.0%	131.3%	56.8%	76.3%
Difference	*2,950 bps*	*4,660 bps*	*(2,080 bps)*	*(1,760 bps)*	*(3,030 bps)*
Kion North America order growth	102.5%	324.5%	133.9%	11.8%	(4.4%)
North America industrial truck market order growth	67.7%	98.9%	71.7%	9.3%	(1.1%)
Difference	*3,480 bps*	*22,560 bps*	*6,220 bps*	*250 bps*	*(330 bps)*

3. **Historically depressed market share suggests competitive environment may have structurally changed:** In the nine-months ended Q3 21, Kion's global industrial truck market share increased 40 basis points year-over-year to 12.4%, from a depressed base (declined 210 basis points in Q3 20). While Kion may have gained share in the nine-months ended Q3 21, Kion's market share remained 170 basis points below the prior nine-year average. In our view, historically depressed global market share may have been driven by persistent EMEA market share loss. **Given we believe China and Americas outperformance may be unsustainable, significantly increased industrial truck market competition, and a market shift towards more competitive warehouse trucks (discussed next), we believe the industrial truck competitive environment may have structurally changed and Kion market share may remain depressed.**

Kion Industrial Truck Market Share Analysis	9M Ended Q3 21	9M Ended Q3 20	9M Ended Q3 19	9M Ended Q3 18	9M Ended Q3 17
Global Kion industrial truck orders (in thousands)	218.6	137.6	157.6	159.5	147.7
Global industrial truck orders (in thousands)	1,768.2	1,147.6	1,115.1	1,165.9	1,026.6
Kion industrial truck market share	12.4%	12.0%	14.1%	13.7%	14.4%
Year-over-year change	*40 bps*	*(210 bps)*	*40 bps*	*(70 bps)*	*(40 bps)*

4. **Guidance for shift towards more competitive warehouse trucks to persist heightens our concerns:** From FY 14 to FY 20, global industrial truck market warehouse truck mix (i.e. global market warehouse truck unit order intake as a percent of total global industrial truck market order intake) increased 1,000 basis points to 49.0%. In its FY 20 Annual Report, the Company disclosed a significant portion of new industrial truck volume growth was driven by a market shift from manual hand pallet trucks to entry-level electric warehouse trucks with "considerably lower" average selling prices than counterbalance trucks (i.e. forklifts). In addition, the Company disclosed industrial truck market competition was particularly intense for entry-level warehouse trucks. In its Investor Day Presentation on 11/03/21, the Company guided for the substantial shift to smaller load electric and warehouse trucks to persist. **In our view, the market shift to more competitive entry-level warehouse trucks may have exacerbated recent market share pressure. Given guidance for the market shift to persist, our concerns about increased competitive pressure and market share loss are heightened.**

> Much of the additional volume in the market for new industrial trucks is attributable to the electrification of manual hand pallet trucks, which are being replaced by entry-level electric trucks in the lower weight categories. It should be noted that the per-unit price for warehouse technology is considerably lower than for counterbalance trucks. (FY 20 Annual Report)

Warehouse Truck Mix Analysis (as % of global market unit order intake)	Warehouse Truck Mix
FY 20 warehouse truck mix	49.0%
FY 14 warehouse truck mix	39.0%
Change	*1,000 bps*

5. **Intensifying competition may drive pricing & margin pressure, in our view:** In Q3 21, ITS order intake unit price declined 7.7% year-over-year to €27,100, the lowest seasonal level in at least four years. In our view, the average unit price deterioration highlights an elevated competitive environment and/or a market shift towards lower-cost warehouse trucks. Given our concerns about a structural change to the competitive environment and guidance for the market shift towards entry-level warehouse trucks to persist, we believe ITS unit prices may remain depressed and revenue and/or margins may be pressured.

Order Intake Unit Price Analysis	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
ITS order intake value (in millions)	€1,710.0	€2,220.7	€1,800.4	€1,707.1	€1,426.3
ITS order intake units (in thousands)	63.1	87.9	67.6	60.8	48.6
ITS order intake unit price	€27,100	€25,264	€26,633	€28,077	€29,348
Year-over-year change	*(7.7%)*	*(13.9%)*	*(12.6%)*	*(10.6%)*	*(4.7%)*

Intensifying industrial truck competition may make mid-term guidance difficult to achieve, in our view: On its Investor Day Conference Call on 11/03/21, the Company guided for ITS segment revenue to increase at a 9.6% CAGR from FY 20 to FY 23. However, the Company guided for the industrial truck market to increase at a 9.0% CAGR over the same period. Accordingly, the Company implicitly guided to outgrow the market from FY 20 to FY 23. Given intensifying competition, EMEA market share losses, challenging China/North America comparable periods, and potential pricing pressure, we believe it may be difficult for the Company to achieve its mid-term outsized ITS revenue growth guidance.

Kion ITS Growth Guidance Analysis	CAGR From FY 20 To FY 23
ITS segment guidance	9.6%
Industrial truck market growth guidance	9.0%
Difference	*60 bps*

Inventory Level Increase May Portend Margin Pressure, In Our View

DSI increase primarily attributed to ITS segment inventory build: In Q3 21, days sales in inventory (DSI) increased 0.5% year-over-year to 71.4 days, the highest seasonal level in at least four years. On its Q3 21 Conference Call, the Company highlighted significantly higher ITS inventory and material input cost inflation. In our view, the commentary suggests the inventory build primarily related to the ITS segment.

Inventory Analysis	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Days sales in inventory (DSI)	71.4 days	62.7 days	62.5 days	56.6 days	71.0 days
Year-over-year change	*0.5%*	*(14.6%)*	--	*(4.3%)*	*3.3%*

Inventory level increase from an elevated base highlights margin pressure, in our view: In Q3 21, inventory increased 25.5% year-over-year to €1,496.0 million, while ITS revenue increased 15.7% to €1,628.0 million. Accordingly, inventory-to-ITS revenue increased 8.5% to 0.919, the second highest level since the Company adopted IFRS 15. On its Q3 21 Conference Call, the Company represented certain ITS component shortages negatively impacted its ability to deliver trucks and recognize ITS revenue. However, the Company indicated it was difficult to assess if it had overbuilt inventory relative to demand. While the Company represented ITS segment revenue was negatively impacted by certain component shortages, we believe the material ITS inventory increase suggests the Company may have overbuilt inventory. Given intensifying competition, we believe the Company may be compelled to reduce pricing to normalize inventory levels and margins may be pressured.

Inventory Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Inventory	€1,496.0	€1,338.4	€1,222.8	€1,101.0	€1,191.7
ITS revenue	€1,628.0	€1,598.3	€1,516.1	€1,576.6	€1,406.7
Inventory-to-ITS revenue	0.919	0.837	0.807	0.698	0.847
Year-over-year change	*8.5%*	*(11.3%)*	--	*5.9%*	*12.1%*

Inventory level increase relative to ITS order intake heightens our concerns: In Q3 21, inventory-to-ITS order intake increased 4.7% year-over-year to 0.875, the second highest level since the Company adopted IFRS 15. While inventory does not exclusively relate to the ITS segment, the inventory increase relative to ITS order intake heightens our concerns about overbuilt inventory.

Inventory Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Inventory	€1,496.0	€1,338.4	€1,222.8	€1,101.0	€1,191.7
ITS order intake	€1,710.0	€2,220.7	€1,800.4	€1,707.1	€1,426.3
Inventory-to-ITS order intake	0.875	0.603	0.679	0.645	0.836
Year-over-year change	*4.7%*	*(36.2%)*	--	*4.6%*	*6.4%*

Elevated Contract Asset Levels Highlight Aggressive Revenue Recognition, In Our View

Background on accounts receivables & contract assets: In its Interim and Annual Reports, the Company discloses trade receivables and contract assets. In its FY 20 Annual Report, the Company disclosed contract assets primarily related to the project business in the SCS segment (i.e. business solutions revenue) as contract assets were recognized when incurred contract costs plus the profit and loss recognized exceeded progress billings under the percentage of completion method. Accordingly, we analyzed total receivables as trade receivables plus contract assets relative to revenue and contract assets relative to SCS revenue and business solutions revenue.

Receivable levels increase to multi-year high: In Q3 21, total receivables increased 38.4% year-over-year to €1,799.0 million, while revenue increased 23.8% to €2,565.8 million. Accordingly, total receivables-to-revenue increased 11.8% to 0.701 (DSOs of 64.5 days), the highest level since the Company adopted IFRS 15 in Q1 18. In our view, the total receivable build was primarily driven by contract assets and highlights potentially aggressive revenue recognition (discussed next).

Receivables Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Accounts receivable	€1,362.6	€1,233.2	€1,258.8	€1,172.7	€1,093.0
Contract assets	€436.4	€330.6	€192.9	€172.1	€206.5
Total receivables	€1,799.0	€1,563.8	€1,451.7	€1,344.8	€1,299.5
Revenue	€2,565.8	€2,592.8	€2,375.1	€2,341.4	€2,072.9
Total receivables-to-revenue	0.701	0.603	0.611	0.574	0.627
Year-over-year change	*11.8%*	*(7.3%)*	--	*7.1%*	*5.4%*
Days sales outstanding	64.5 days	54.9 days	55.0 days	52.8 days	57.7 days

Contract asset level increase to multi-year high suggests revenue recognition may have been accelerated: As mentioned, contract assets primarily relate to the project business in the SCS segment (i.e. business solutions revenue). In Q3 21, contract assets-to-SCS revenue (contract assets-to-business solutions revenue) surged 49.8% (38.3%) to 0.467 (0.598), <u>the highest level since the Company adopted IFRS 15</u>. On its Q3 21 Conference Call, the Company attributed the contract asset build to project milestone delays driven by supply chain constraints. While supply chain disruptions may have delayed certain billing milestones, we believe the contract asset level surge suggests revenue recognition may have been accelerated as revenue was increasingly recognized ahead of billings.

Contract Assets Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Contract assets-to-SCS revenue	0.467	0.333	0.225	0.232	0.312
Year-over-year change	*49.8%*	*18.5%*	--	*(12.7%)*	*2.5%*
Contract assets-to-business solutions revenue	0.598	0.411	0.281	0.278	0.433
Year-over-year change	*38.3%*	*9.9%*	--	*(23.5%)*	*4.3%*

Significant inflation may increase risk of project cost underestimation & accelerated revenue recognition: As mentioned, contract assets are recognized when incurred contract costs plus the profit and loss recognized exceed progress billings under the percentage of completion method. The percentage of completion method compares the proportion of contract costs incurred up to the reporting date to the total estimated contract costs as of the reporting date to determine the amount of revenue to be recognized on each contract. In our view, labor shortages, supply chain disruption, and significant cost inflation may have increased the risk of total project cost underestimation. To the extent the Company did not update total project cost estimates to reflect an elevated inflationary environment, our concerns about elevated contract assets and accelerated revenue recognition would be heightened given revenue is recognized based on the proportion of actual costs incurred relative to total expected project costs (i.e. a higher percent of total contract revenue is recognized when the total expected project costs are underestimated).

Contract Liability Level Decline Heightens Our Revenue Growth Pressure Concerns

Background on contract liabilities: In its FY 20 Annual Report, the Company disclosed contract liabilities represented its obligation to transfer goods or services to a customer for which the Company received consideration. In addition, the Company disclosed a large proportion of contract liabilities related to the project business in the SCS segment (i.e. business solutions revenue). Accordingly, we analyzed contract liabilities relative to SCS revenue and business solutions revenue.

Contract liability level decline highlights customer concessions, in our view: In Q3 21, contract liabilities increased 26.3% year-over-year to €566.4 million, while SCS revenue increased 41.0% to €934.4 million. Accordingly, contract liabilities-to-SCS revenue declined 10.4% to 0.606, <u>the lowest seasonal level since the Company adopted IFRS 15</u>. On its Q3 21 Conference Call, the Company represented it generally received a down payment before it started working on an order. In our view, the contract liability deterioration suggests the Company may have offered certain customer concessions (e.g. reduced upfront payments) to win new SCS contracts and revenue quality may have deteriorated. Accordingly, our revenue growth pressure concerns are heightened.

Contract Liabilities Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Contract liabilities	€566.4	€562.0	€664.3	€550.8	€448.4
SCS revenue	€934.4	€992.5	€856.5	€743.4	€662.5
Contract liabilities-to-SCS revenue	0.606	0.566	0.776	0.741	0.677
Year-over-year change	*(10.4%)*	*(32.6%)*	--	*(16.9%)*	*6.6%*

Contract liability level decline relative to SCS order intake heightens our concerns: In Q3 21, contract liabilities-to-SCS order intake declined 19.8% to 0.405, the second lowest level since the Company adopted IFRS 15. The contract liability decline relative to SCS order intake heightens our concerns about customer concessions.

Contract Liabilities Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Contract liabilities	€566.4	€562.0	€664.3	€550.8	€448.4
SCS order intake	€1,398.7	€1,038.9	€829.8	€1,022.9	€887.6
Contract liabilities-to-SCS order intake	0.405	0.541	0.801	0.538	0.505
Year-over-year change	*(19.8%)*	*7.6%*	--	*(12.2%)*	*11.2%*

Contract liability level decline relative to business solutions revenue heightens our concerns: As mentioned, contract assets primarily relate to the project business in the SCS segment (i.e. business solutions revenue). In Q3 21, contract liabilities-to-business solutions revenue declined 17.3% to 0.777, the lowest seasonal level since the Company adopted IFRS 15. Given the contract liability decline relative to business solutions revenue, our revenue quality concerns are heightened.

Contract Liabilities Analysis (€ in millions)	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20
Contract liabilities	€566.4	€562.0	€664.3	€550.8	€448.4
Business solutions revenue	€729.3	€804.3	€685.7	€618.8	€477.3
Contract liabilities-to-business solutions revenue	0.777	0.699	0.969	0.890	0.939
Year-over-year change	*(17.3%)*	*(37.5%)*	--	*(27.1%)*	*8.4%*

Increased Working Capital Intensity Highlights Elevated Earnings Sustainability Risk

In the twelve-months ended Q3 21, working capital consumed €321.2 million of cash, the most cash consumed by working capital in last three years. On its Q3 21 Conference Call, the Company disclosed Q3 21 free cash flow was negative €167.0 million due to higher working capital needs. In our view, a significant working capital cash consumption increase highlights elevated earnings sustainability risk.

Working Capital Cash Impact Analysis (€ in millions)	12M Ended Q3 21	12M Ended Q2 21	12M Ended Q1 21	12M Ended Q4 20	12M Ended Q3 20
Cash provided (consumed) by inventory	(€276.6)	(€123.9)	€44.0	(€35.1)	(€206.0)
Cash provided (consumed) by receivables & payables	€99.2	€262.8	€12.4	(€133.1)	(€0.4)
Cash provided (consumed) by contract assets & liabilities	(€143.8)	(€145.4)	€16.3	€18.0	(€217.4)
Cash provided (consumed) by working capital	(€321.2)	(€6.5)	€72.7	(€150.2)	€46.9

Other Observations: CEO Turnover

In its Q3 21 Interim Report, the Company disclosed Kion's Supervisory Board appointed Dr. Rob Smith as CEO, effective 01/01/22. The Company disclosed Dr. Smith would succeed Mr. Gordon Riske, who was stepping down six months prior to his original contract end and the standard retirement age of 65 after serving as the Company's CEO for 14 years. Mr. Gordon Riske will continue to serve the Company in an advisory capacity until the end of his original contract (i.e. 06/30/22).

Risk to Our Thesis and Conclusion

Risks to our thesis: The following developments could present challenges to our thesis:

- Cross-selling enables Kion to gain industrial truck market share.
- APAC and Americas ITS market share gains persist.
- Global industrial truck market demand is stronger-than-anticipated.
- Outsized SCS order & revenue growth offset ITS market share losses.

Conclusion: We are concerned Chinese competitors' industrial truck improvements and developed market expansion focus may have reduced Kion's industrial truck advantage and increased competitive pressure. We believe Kion's historically depressed industrial truck market share may have been driven by persistent EMEA market share loss and suggests the industrial truck competitive environment may have structurally changed and make Kion's ITS mid-term revenue growth target difficult to achieve. Our concerns are heightened given guidance for a market shift towards more competitive, lower ASP warehouse trucks to persist. We believe elevated inventory levels may portend overbuilt inventory and margin pressure. In our view, a contract asset level increase to a multi-year high suggests revenue recognition may have been accelerated as revenue was increasingly recognized ahead of billings. Further, we are concerned a contract liability decline suggests the Company may have offered certain customer concessions to win new orders and revenue quality may have deteriorated. Our earnings sustainability concerns are heightened given significantly increased working capital cash consumption.

Coverage Universe & The Short List

AKAM, ANGI, AVYA, BLDP, EKTAb.ST, INSTAL.ST, OPEN, PGNY

The Short List is intended to communicate our most timely, highest-conviction ideas. It represents a subset of companies from our active coverage universe that we believe are at the highest risk of underperformance.

Companies on *The Short List*

Americas Short List	Europe Short List
Akamai Technologies, Inc. (AKAM)	Elekta AB (EKTAb.ST)
Angi, Inc. (ANGI)	Instalco AB (INSTAL.ST)
Avaya Holdings Corporation (AVYA)	
Ballard Power Systems Inc. (BLDP)	
Opendoor Technologies Inc. (OPEN)	
Progyny, Inc. (PGNY)	

Full Active Coverage Universe

Americas: AKAM, AMBA, AMRC, ANGI, ANSS, AVYA, BLDP, CELH, EVH, GBX, HPE, HELE, MASI, OLED, OM, OPEN, PGNY, PSN, ROL, WDFC

Europe: CMPFV.PQ, EKTAb.ST, ESSITYb.ST, HFGG.DE, INSTAL.ST, KGX.DE, NESN.S, NETCG.CO, NOLAb.ST, VWS.CO, ZALG.DE

Disclaimer and Disclosure

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