Elevators & Escalators

Connections Series

The Credit Suisse Connections Series leverages our exceptional breadth of macro and micro research to deliver incisive cross-sector and cross-border thematic insights for our clients.

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E&E market structure & outlook

Special sections on China and India

Directory of 14 listed E&E players

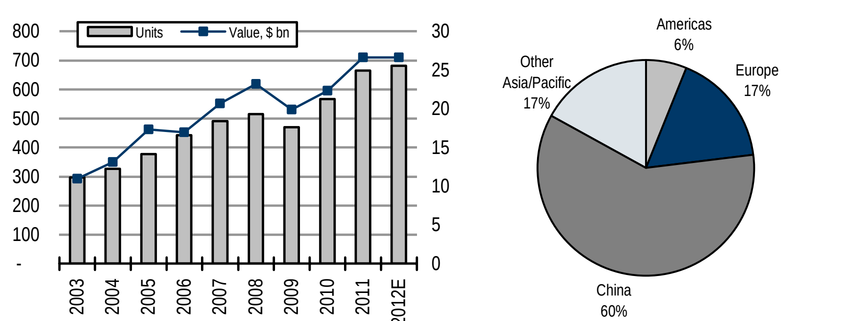
Upgrade Schindler to Outperform

Long-term attractions vs Near-term risks

We continue our annual series of detailed studies of the global Elevators & Escalators (E&E) market, including a complete overview of data provided by various industry participants and an examination of the major industry trends. This report also includes a directory of 14 listed E&E players globally and special sections on Chinese and Indian E&E markets. **In this report, we upgrade Schindler to Outperform and raise TP to CHF 120 (from CHF 110).**

- **Long-term attractions intact...** We believe the E&E market continues to offer a number of attractive features such as structural long-term growth (driven by urbanisation, population growth and aging, safety, replacement demand and by an 'ever-growing' installed base), improving profitability (all the Big Four have improved margins over the past five years and three have higher targets), high cash conversion (Kone and Schindler average over 100%) and record returns (ROIC and ROE among best in class).
- **...but with some near-term risks.** However, in the near term, we see a risk of disappointment vs current expectations from the China construction market (60% of total NI market in 2011) and potentially from growth in the maintenance market (c60% of installed base additions being in China where conversion rates are low). We also see potential risk from a substantial change in mix in China with an expected slowdown in the high-end segment and growth coming from the social housing segment, which is more open to local competition. **We forecast global market growth of 2-3% for 2012, increasing to 5% in 2013.**
- **Looking for stock-specific ideas.** We upgrade Schindler to O/P due to its margin improvement potential and favourable geographic exposure. We are cautious on Kone (U/P, TP €37) because of risks primarily related to China. We continue to see the E&E business of Thyssen as a key driver of value for the group.

Figure 1: **Global E&E New Installations market evolution and current geo mix**



Source: Schindler, Credit Suisse research

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The author of this report wishes to acknowledge the contribution made by Rishabh Pahuja, an employee of CRISIL Global Research and Analytics, a business division of CRISIL Limited, a third-party provider of research services to Credit Suisse.

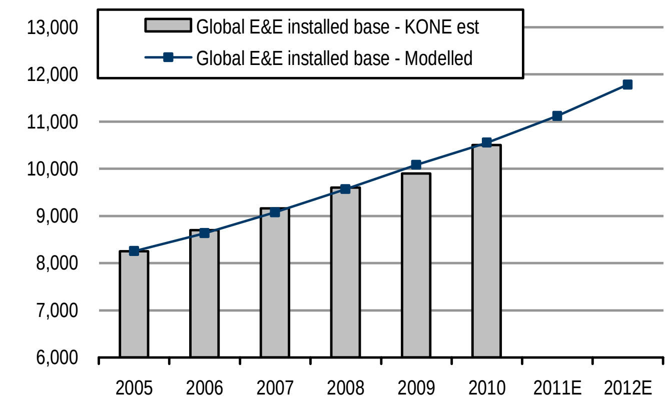
Summary

Market structure and outlook

Figure 2: **Market structure and near-term outlook**

	Size			Growth	Mix
	2010	2011	2012E	2012E	2012E
New equipment*	**567,000**	**665,000**	**668,205**	**0.5%**	
China	319,000	400,000	392,000	-2%	59%
Other Asia Pac	94,910	112,050	123,255	10%	18%
Europe	113,400	113,050	113,050	0%	17%
North America	39,690	39,900	39,900	0%	6%
Modernisation	**c€6.5bn**	**c€6.5bn**	**c€6.7bn**	**3%**	
Maintenance**	**10.6**	**11.1**	**11.8**	**6%**	

Figure 3: **Credit Suisse global E&E installed base model**



** In units / ** In million units. Source: Company data and estimates, Credit Suisse estimates*

Longer term outlook. Thyssen Krupp forecasts the overall E&E market to grow at 4.2% CAGR during 2010-15 in terms of value while Freedonia forecasts a 6.4% market CAGR for the same period. We expect a mid-single digit market growth over next five years.

Key listed international and local players

Figure 4: **Summary key listed E&E players**

Share prices are in local currencies, EV, Market Capitalisation, Sales, EBITDA & EBIT figures are in €m

Name	Ticker	Currency	Country	Current Price	Price change 12M, %	Price change 1M, %	EV €m	Mkt Cap €m	Sales 2010 €m	Sales 2011 €m	Sales 2012E €m	EBITDA 2010 €m	EBITDA 2011 €m	EBIT 2010 €m	EBIT 2011 €m
Major International players															
KONE	KNEBV FH	EUR	Finland	41	2	-7	9,759	10,583	4,987	5,225	5,971	762	791	697	725
SCHINDLER HOLDING	SCHN SW	CHF	Switzerland	108	-1	-2	9,127	10,865	6,823	6,545	6,872	923	870	813	771
THYSSENKRUPP	TKA GR	EUR	Germany	17	-1	-14	19,818	9,031	36,720	43,356	44,550	2,666	3,385	1,274	1,752
THYSSEN E&E DIVISION			Germany						5,188	5,253		727	920	646	641
UNITED TECHNOLOGIES	UTX US	USD	USA	80	9	-7	58,861	55,571	41,565	42,682	44,468	7,005	7,035	5,968	6,005
OTIS (UTX E&E DIVISION)			USA						8,907	9,567		2,207	2,401	2,045	2,222
Other key listed players															
CANNY ELEVATOR	002367 CH	CNY	China	9.1	-1	-2	293	422	132	194	243	17	22	14	18
SJEC	601313 CH	CNY	China	11	0	-6	263	291	184	202	248		22	22	19
SAVARIA	SIS CN	CAD	Canada	1.36	-14	-13	30	24	50	50	0	4	4	3	3
MONTI ASCENSORI	MSA IM	EUR	Italy	-	0	0									
YUNGTAY ENGINEERING	1507 TT	TWD	Taiwan	48	6	0	485	518	97	99	100	17	17	15	16
SYMAX LIFT HOLDING	SYL CN	CAD	China	0.13	-26	-10	10.6	3.1	15.3			1.1		0.6	
FUJITEC	6406 JT	JPY	Japan	495	3	-13	297	439	1,004	965	983	72	71	50	49
HYUNDAI ELEVATOR	017800 KS	KRW	S. Korea	107,500	-18	-21	992	790	572	602		36	23	29	18
KLEEMANN HELLAS	KLEM GA	EUR	Germany	0.81	1	1	42	19	91	91		9	6	7	4
ZARDOYA OTIS	ZOT SM	EUR	Spain	9.3	-13	-4	3,355	3,394	863	819	815	305	289	290	274

NB. Monti Ascensori filed for bankruptcy and there share price is therefore not available. Source: Company data, Credit Suisse estimates

Figure 5: **Summary of key international players E&E businesses mix**

Revenue mix	NI	Service	EMEA	Americas	Asia
Kone	46%	54%	55%	18%	27%
OTIS	42%	58%	43%	25%	32%
Schindler	39%	61%	50%	28%	22%
Thyssen (E&E)	45%	55%	44%	38%	18%

Source: Company data, Credit Suisse estimates

Market outlook

In this section, we provide a summary of near- and long-term E&E market growth forecasts by key players and independent providers and offer our views on the near-term outlook.

Near terms forecasts 2012–2013

Credit Suisse estimates

For 2012, we make the following forecasts for each market segment:

- New installations – We forecast the overall market to remain broadly flat in 2012. We see a risk of a flat or even declining market in China this year driven by the expected slowdown in housing starts (Credit Suisse Basic Materials team forecast -20%). We do not anticipate a meaningful recovery in construction and hence E&E market in Europe and the US (we believe there is a scope for a recovery in the US housing but this is not a driver of E&E demand).
- Modernisation – We expect the global market to increase slightly.
- Maintenance – We forecast a growth rate of c4% based on the global installed base increasing c6.3% in 2011 in unit terms but with an expected 1) lower average conversion rate (driven by China), 2) negative mix (towards the lower-end part of the market) and 3) potential pricing pressure.

Therefore, we expect the overall market to grow by c2-3% in 2012.

For 2013, we anticipate market growth to improve to c5% based on our expectations for: 1) an improvement in China new installations and a recovery in the developed markets; 2) continuing growth in modernisation (driven by economic activity and energy prices); and 3) 5–6% growth in maintenance.

Kone 2012 market outlook

- From Kone's outlook statement: New installations – Asia Pacific is "expected to continue to grow but at a clearly slower rate" than in 2011. Central and North Europe is expected to be stable or to decline slightly while South Europe is expected to decline further. North America is expected to recover gradually.
- Modernisation – is expected to be flat.
- Maintenance – expected "to develop well".

Schindler 2012 market outlook

- Developed world – Expect an upward trend in North America while Europe remains challenging.
- Emerging markets – Expect continuing "good growth, particularly in China and India".

Otis – comments on China in 2012

In March 2012, Otis presented a new equipment forecast for China for 2012, expecting the market to grow by c4% to around 395k units, driven by the social housing segment (double-digit) and commercial (mid-single digit), with residential flat-lining. This compares to Kone's current expectations of mid- to high-single digit growth for the China new equipment market.

Long-term outlook

Over the longer term, the market participants and independent commentators are constructive on the outlook for E&E industry driven by a number of megatrends such as 1) urbanisation of developing economies, 2) an aging population in the developed world, 3) rising safety standards and 4) rising environmental standards:

- **Thyssen Krupp** forecasts the overall Elevator market to increase from €39bn in 2010 to €48bn in 2015 implying a **CAGR of 4.2%** (from December 2011 CMD).
- **Freedonia** in its 'World Elevators' report published in January 2012, forecasts the global overall market to grow at **6.4% CAGR** to reach $90bn in 2015. New equipment sales are expected to grow at 7.5% per annum to 920,000 units in 2015.
- **Kone** has not provided explicit long-term forecasts but has highlighted the structural drivers for all segments of the market as shown in Figure 6.

Figure 6: **Growth trends and drivers for E&E market**

	Past trends	Growth drivers
New equipment	Market has been growing at a somewhat faster rate than GDP, clearly faster in developing countries	• Population growth • Urbanization • Changing demographics • Enviornmental aspects
Modernization	Flactuation - pre-recession growth approx. 10% p.a., thereafter market has remained relatively stable	• Aging equipment • Aging population • Safety and legislation • Environmental aspects
Maintenance	Market growth approx. 5-7% p.a.	• Conversion from new equipment deliveries • Safety and legislation

Source: KONE Capital Markets Day (May 2011)

Credit Suisse view. On the whole, we agree with the positive long-term outlook for the E&E industry. We find particularly attractive the following features of this market:

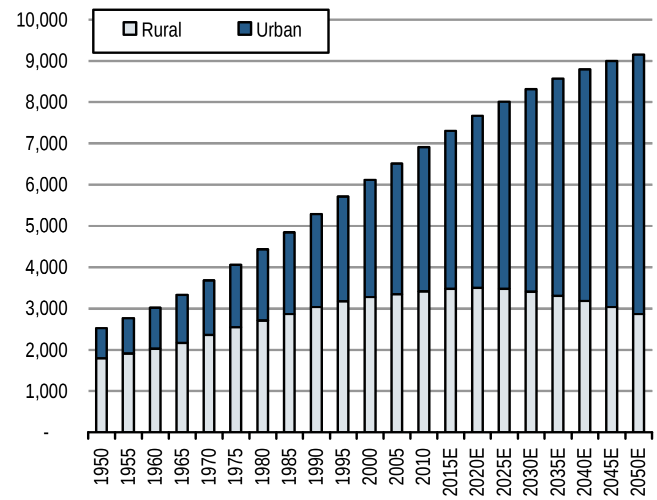
- 'Ever-growing' installed base (as discussed in the 'Maintenance' section) resulting in consistent and cycle risk-free growth of the most profitable segment of the E&E market.
- Replacement demand driven by 1) old installed base in Europe and the US and 2) fast-rate and low-quality construction in emerging markets providing scope for growth in NI and Modernisation over and above the one driven by population growth.
- Rising safety standards, especially in emerging markets resulting in rising demand for more comprehensive and higher quality maintenance solutions.
- Continuing 'vertical growth' trend, rising average height of cities globally driven by space constraints and a push for easier infrastructure access and for lower transportation requirements.

However, we also highlight the risks we see from 1) lower conversion rates in China to the global maintenance market growth and 2) potential for a slowdown in the actual rate of urbanisation as seen in 2005-2010 vs 2000-2005.

Urbanisation – it is the rate that drives equipment demand

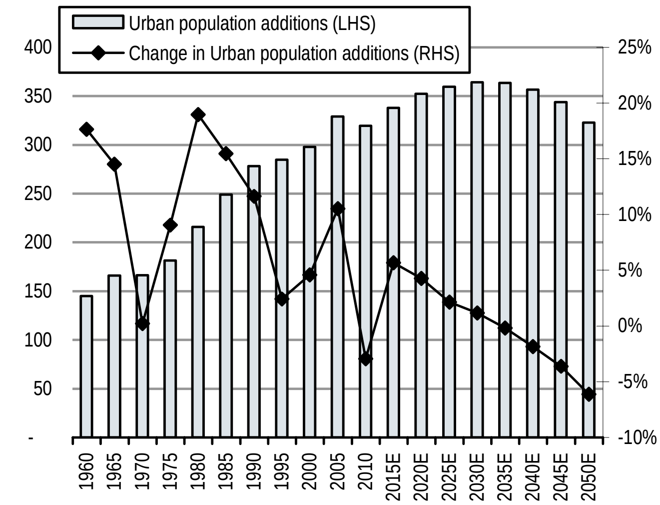
Urbanisation is often cited as a key driver of market growth for E&E with impressive large numbers of expected future increases in urban population presented. The United Nations' current forecast is for the urban population to grow by 1.4bn people over the next 20 years (Figure 7).

Figure 7: Urban and Rural population history and forecasts, in million people



Source: United Nations Secretariat, Credit Suisse research

Figure 8: Urban population: Columns – absolute additions (LHS), Line – growth in the additions (RHS)



Source: United Nations Secretariat, Credit Suisse research

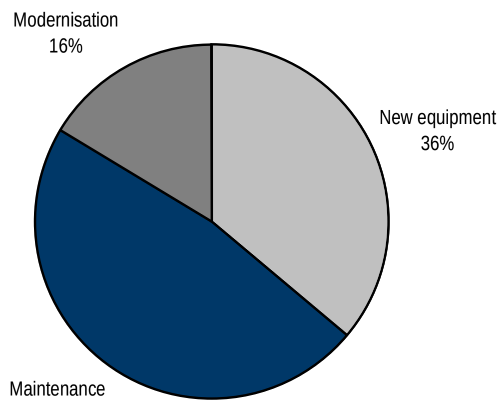
We highlight that as a driver of new equipment demand (excluding the resulting maintenance business and the future modernisation opportunity), it is the absolute additions to urban population that drive demand for housing and hence vertical transportation.

According to the UN data, the urban population increased by 320m people from 2005 to 2010 vs an increase of 329m from 2000 to 2005 (Figure 8). The UN forecasts a 338m people increase in the global urban population between 2010 and 2015 (67.5m per annum on average) and a further 352m increase between 2015 and 2020 (70.4m per annum on average), suggesting a 6% increase in average annual additions between 2010 and 2015 (vs 2005-10) and a 4% increase in the subsequent five years. According to the UN data, the urban population increased by 65.2m in 2010, suggesting a 3.6% upside to the UN expected 2010-2015 average and a 4.3% upside to the 2015-2020 average.

Market structure

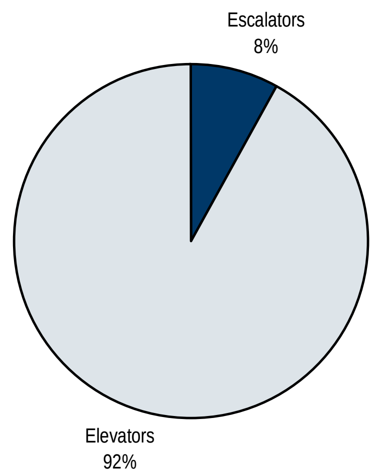
We estimate the overall E&E market value, including new installations, maintenance and modernisation, at c€53bn in 2011, based on our forecasts and company data provided by the major players and forecasters. Figure 9 and Figure 10 show our estimates for the overall market split by sub-segment in 2011.

Figure 9: E&E market split by value (2011)



Source: Credit Suisse estimates

Figure 10: Elevators vs Escalators (units, 2011)

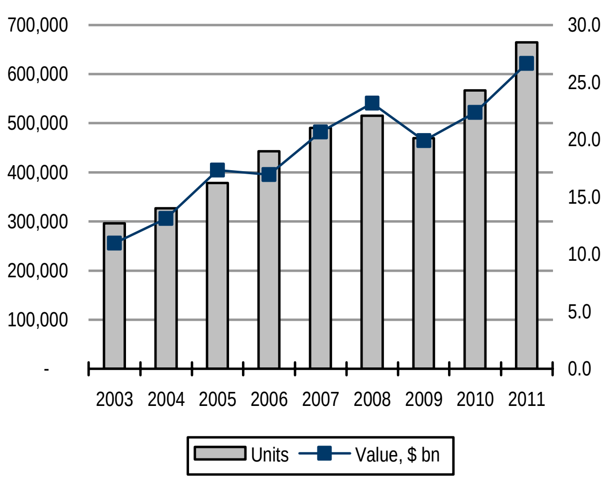


Source: Credit Suisse estimates

New Installations

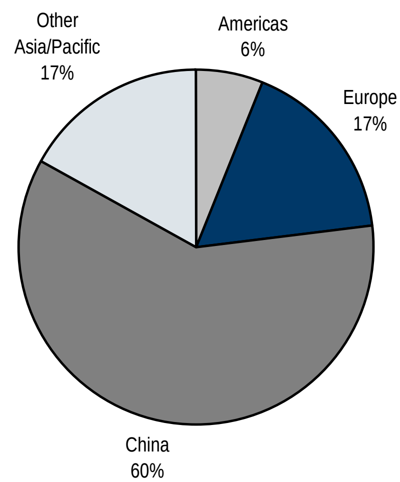
According to Schindler, the new installations (NI) market was 665,000 units and US$26.6bn in value in 2011, reaching a new historical peak level.

Figure 11: E&E market evolution



Source: Schindler, Credit Suisse research

Figure 12: E&E market split by geography, 2011 (units)

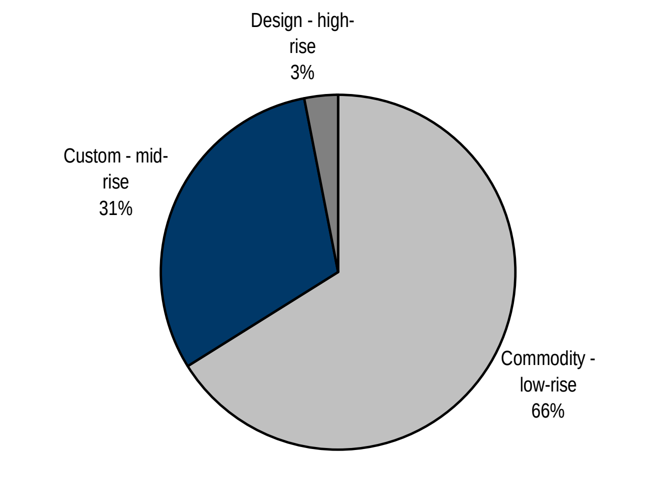


Source: Schindler, Credit Suisse research

Geographically, China accounted for 60% of the global NI market in 2011 (Figure 12), compared with one-third around five years ago. The developed world currently accounts for merely c25% of the global NI market.

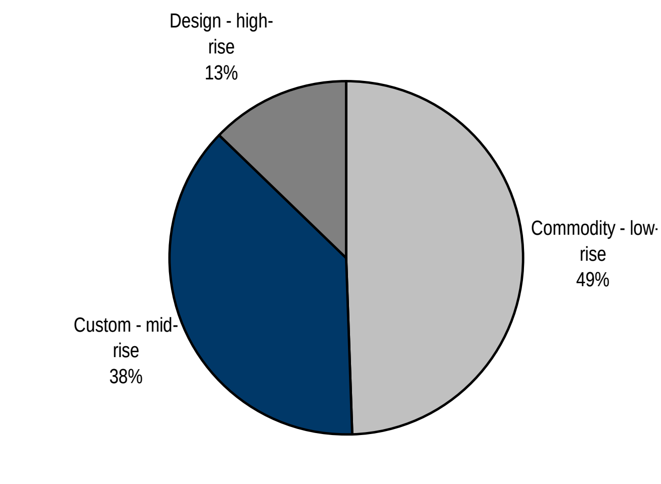
Figure 13 and Figure 14 show the NI market split between the low-rise (commodity), high-rise (premium) and mid-rise (custom) segments by units and value.

Figure 13: E&E market, in units 2010



Source: Schindler, Credit Suisse research

Figure 14: E&E market, by value 2010

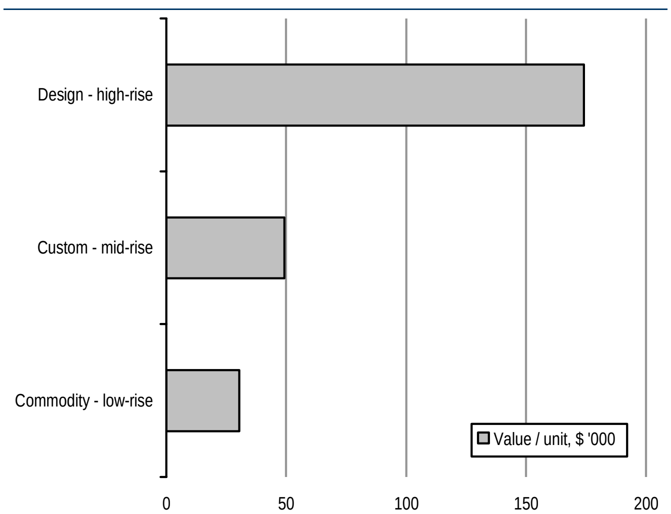


Source: Schindler, Credit Suisse research

The difference in per unit value varies significantly by segment (Figure 15), with a high-rise lift c5.5–6x more expensive than a commodity product on average.

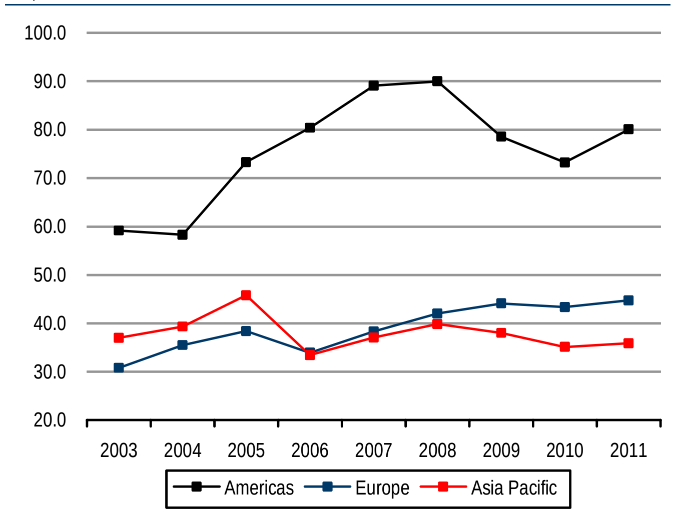
It is also interesting to note the divergence in the average unit value (across the high-, low- and mid-rise sub-segments) by geography and its evolution over the past eight years (Figure 16 – derived from the data provided by Schindler for market size in units and value by geography). The Americas appears to have been a premium market compared with Europe and Asia Pacific. The average unit value in the Americas appears to have been cyclical historically, while the rest of the world did not see a significant average unit value deterioration during the downturn. It is encouraging to see a generally positive trend in unit value across the geographies in 2011, which we believe was driven by primarily by pricing.

Figure 15: Average value per unit by sub-segment



Source: Schindler, Credit Suisse research

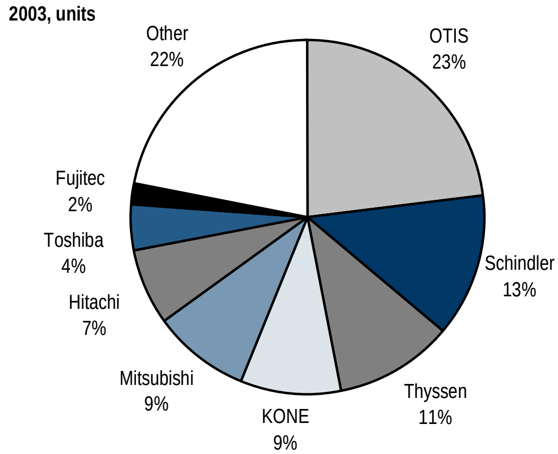
Figure 16: E&E average unit value evolution by geography
in $ '000



Source: Schindler, Credit Suisse research

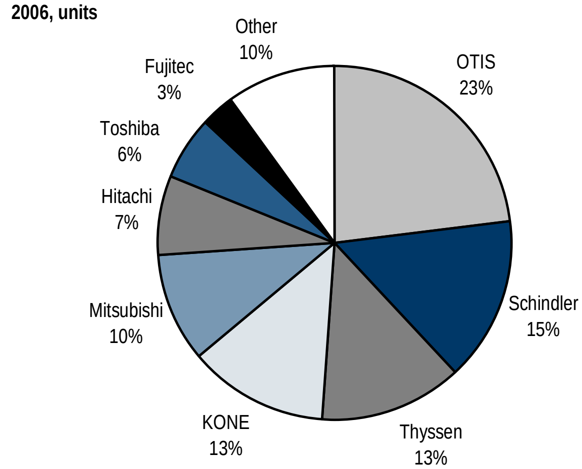
In Figure 17 to Figure 20, we show the market share evolution over the past two years in terms of value (taking the companies' new equipment reported or estimated sales vs Schindler's total market size estimates by value) and from 2003 to 2006 in terms of units.

Figure 17: E&E NI global market shares, 2003 (units)



Source: Kone, Otis, Schindler, Thyssen, Credit Suisse research

Figure 18: E&E NI global market shares, 2006 (units)



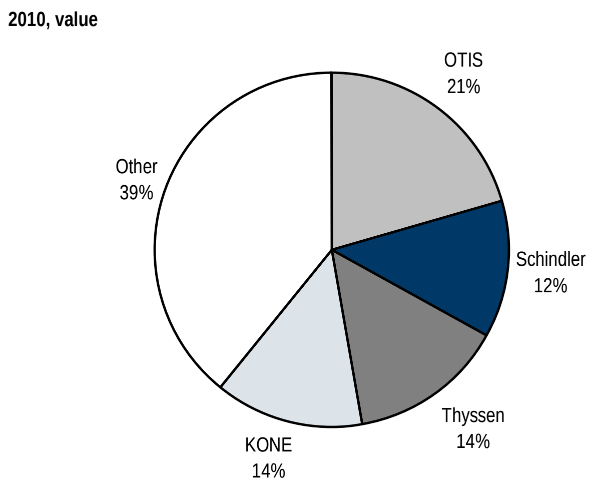
Source: Kone, Otis, Schindler, Thyssen, Credit Suisse research

Over 2003-2006, in terms of units, Otis maintained its already very high market share, while other major players expanded their shares by up to 400bps at the expense of smaller players ('Other'). Over 2010 and 2011, in terms of value, Otis' share appears to have declined slightly while the other three large players have remained broadly constant.

We believe the loss in the market share momentum of the four large players in recent years is primarily attributable to the substantial change in geographical mix with:

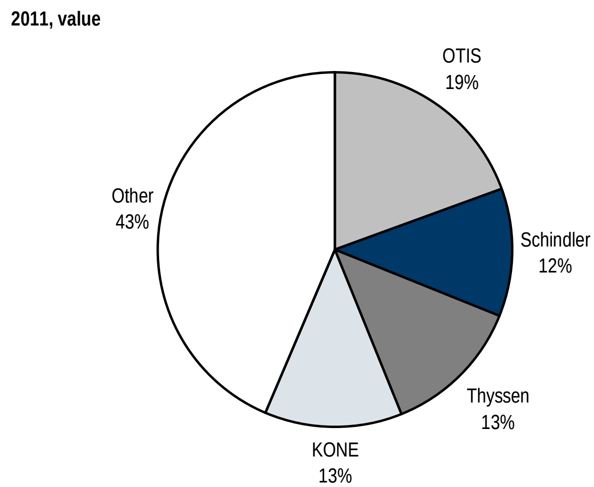
- Tough market conditions in the new installation market in Europe and the US where they have dominant positions.
- Combined with fast growth in emerging economies and in particular in China, where these players have lower market shares and where we have seen a significant ramp up of local competitors.

Figure 19: E&E NI global market shares, 2010 (value)



** Kone market share estimate does not include GiantKONE;*
Source: Kone, Otis, Schindler, Thyssen, Credit Suisse research

Figure 20: E&E NI global market shares, 2011 (value)



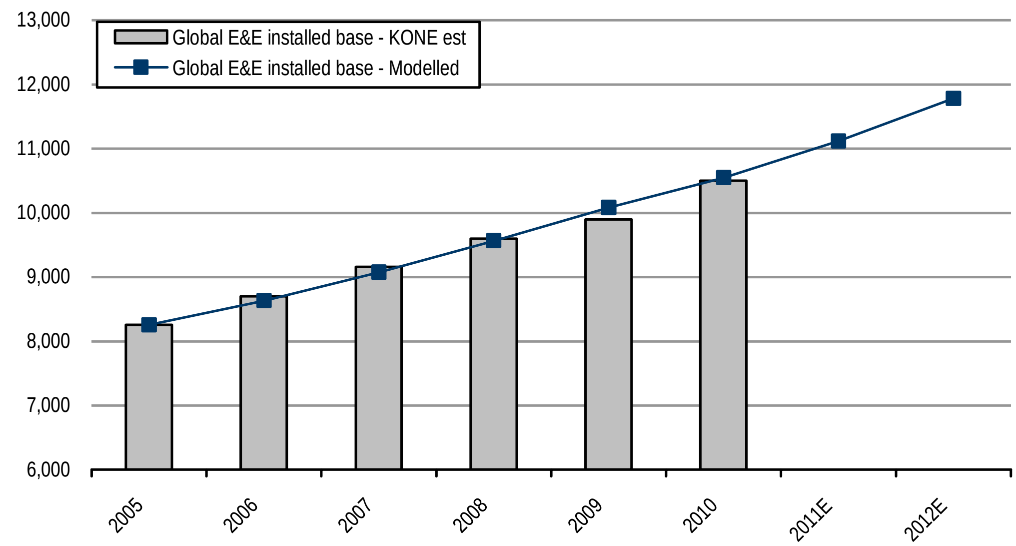
** Kone market share estimate does not include GiantKONE, which accounted for c1.5% of global NI market in 2011;*
Source: Kone, Otis, Schindler, Thyssen, Credit Suisse research

Maintenance

'Ever-growing' installed base

According to Kone, the global installed base of lifts and escalators exceeded 10m units in 2010 (Figure 21). Since 2005, the global installed base has increased at a CAGR of 5%, including 3% growth in 2009.

Figure 21: Global E&E installed base (actual vs modelled)



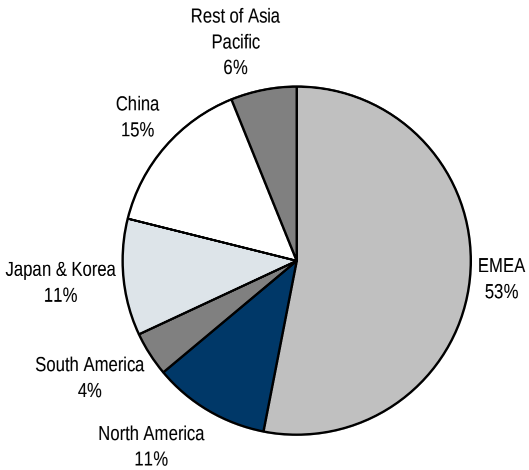
Source: KONE, Credit Suisse estimates

We see the 'ever-growing' installed base as one of the most attractive features of the global E&E market. This continuous growth reflects the very limited outright retirement of lifts or escalators without a replacement. In Figure 21, we show a blue line representing a model of the installed base derived by simply adding the new installations to the previous year's installed base. Comparing this with Kone estimates suggests retirements of only c2.5% of the installed base over the past five years while new installations tend to add c5% pa. Using the same model and assuming no retirements, we estimate the installed base has reached 11m in 2011 given the 567k new units installed globally in 2011 (according to Schindler).

In Figure 22, we show the composition of the installed base (2010) by geography. Europe remains the largest elevator and escalator maintenance market representing over ½ of all units installed globally. North America represents only just above 10% of the global market because of limited use of elevators there in the residential segment. However, we believe North America represents a larger part of the global market by value because of a higher proportion of high rise installations (as reflected in the much higher average value per unit installed in this geography versus the rest of the world – Figure 16). China accounted for c15% of all the elevators installed in 2010, rising from just 8% in 2005.

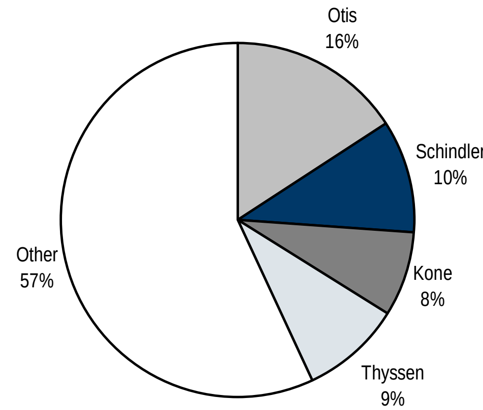
In Figure 23, we show our estimates of the market shares of the key players in maintenance based on their disclosure of the individual maintenance base. Compared with the new installation segment, maintenance appears significantly more fragmented, suggesting scope for consolidation.

Figure 22: Maintenance base by geography, 2010



Source: KONE, Credit Suisse estimates

Figure 23: Maintenance base by key players (2010)



Source: Company data, Credit Suisse estimates

Maintenance value per unit per annum

We calculate an average annual maintenance, spares and repairs revenue of around €2,200 per annum for a single elevator or escalator based on Kone's disclosure of proportion of sales coming from service (54% of group sales coming from maintenance and modernisation with modernisation accounting for c17% of group sales and therefore service accounting for 37%) and from the company's installed base estimate of "over 850m units" (we assumed 860m for our calculation).

Interestingly, Schindler appears to have a higher annual revenue per unit in its service base. The company communications suggest around ½ of sales comes from maintenance and another ½ from new equipment and modernisation (implying c€3.2bn of sales in maintenance at 50% of group total in 2011). Given Schindler's service base passed the 1m units mark two to three years ago, we estimate it at around 1.15m units in 2011. This implies Schindler generates c€2.8k annual revenue per unit. We believe this is explained by the company's limited presence in China generally and in the country's residential market segment in particular.

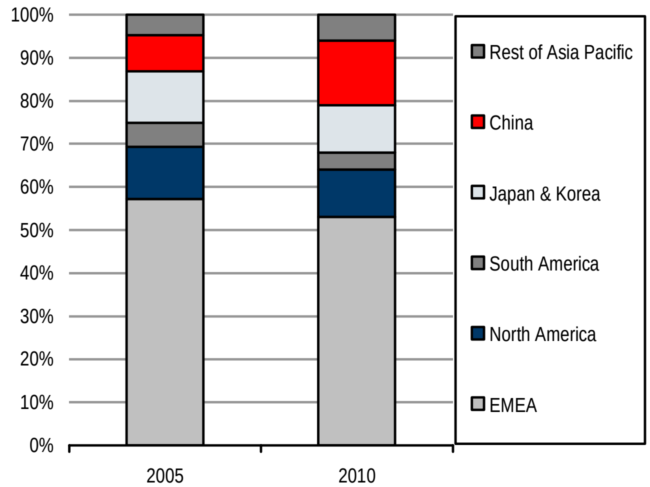
Applying a €2.2k per annum per unit value to the estimates of the installed bases of other players would imply 44% of Otis sales come from maintenance versus 39% for Thyssen.

Implications of rising importance of China

In Figure 24, we show the global E&E installed base split by major geographies. Although the majority of the market opportunity is still in Europe and the US, we highlight the rising importance of the Chinese service market, which now accounts for 15% of the global installed base (nearly doubling in the past five years).

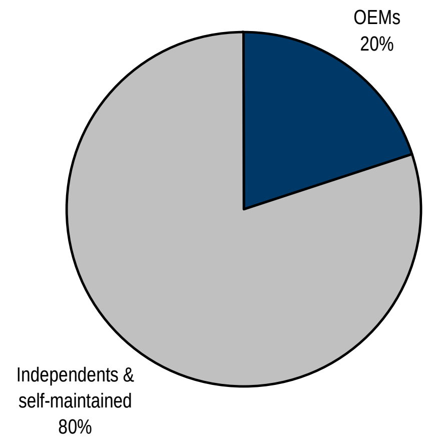
We forecast China may account for well over 20% of the global installed base in 2015 (with over 3m units) owing to the strong NI growth in the country driven by the social housing segment and continuing investment in infrastructure.

Figure 24: **Global E&E installed base evolution by geography**



Source: KONE, Credit Suisse research

Figure 25: **China E&E installed base by type of maintenance provider**



Source: Otis

We believe this structural shift in the global installed base will have some interesting implications for the key market players:

Lower conversion rates resulting in slower maintenance business growth?

The conversion rate from new equipment installation to receiving a maintenance contract is c85% in mature markets while according to industry players (Kone, Otis), it is <50% in China on average. This is because 1) the lifts are often sold through agents who then secure the maintenance contact and 2) because lifts are often self-maintained by the owners (current market status according to Otis shown in Figure 25). Given that the service revenue growth is driven by additions to the service base and given that China accounts for over ½ of the global NI market, we question whether this poses a risk of slower growth in the service segment revenues of the four large international players over the next ten years compared to what has been seen over the previous ten years.

As an illustration, we present the following simple exercise. Assume 1,000 units in the current service base and 50 units in annual new installations remaining constant over the next ten years. With an assumed conversion rate of 85% across the 50 units pa, it would result in a 3.6% CAGR in the service base. However, should we assume that ½ of the additions have a conversion rate of 50% (and the rest remaining at 85%), the CAGR of the service base would fall to 3% (a 16% reduction in the growth rate). Clearly, should the low conversion segment outgrow the higher conversion one, it would result in a greater impact.

Potential reputation risk?

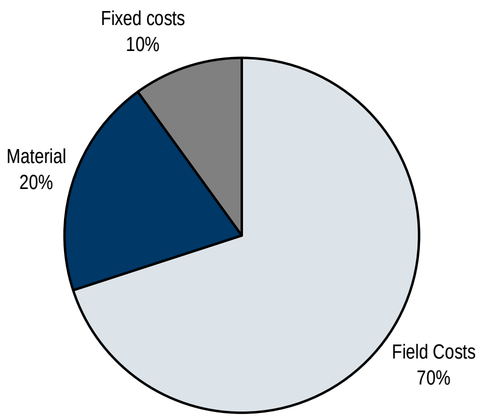
The lower conversion rate in China results from the proliferation of small independent service companies and self-maintenance. As a result, the original equipment manufacturer (OEM) loses control of the maintenance standard on the supplied equipment. We therefore question whether this increases the scope for reputational risk to reside with the OEMs as their products may result in failures and accidents due to poor or lack of maintenance (even in the cases when the liability is proven to be not with the OEM).

The recent examples of this type of issue are the Schindler elevator incident in Tokyo in 2006 and the Otis escalator incident in Beijing in 2011.

Cost structure of a maintenance business

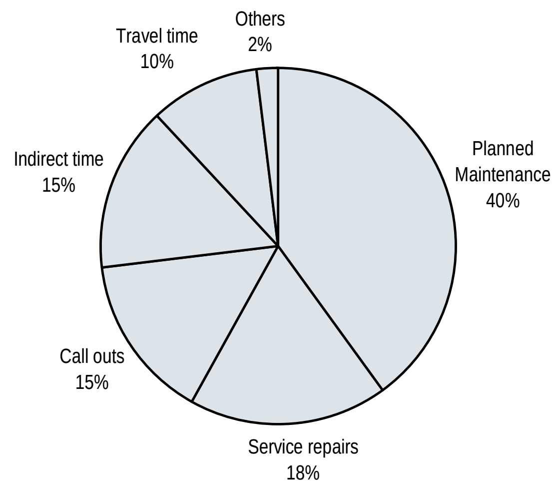
At its 2011 Capital Market Day, Kone provided some interesting information on structure and key drivers of cost of a maintenance business. Figure 24 shows a rough cost structure of an E&E maintenance business.

Figure 26: Cost structure of a maintenance business



Source: KONE

Figure 27: Time utilisation of service technicians (by total hours per year) – a key driver of Field costs



Source: KONE

Field costs are the largest segment and are driven by:

- Service technician labour costs
- Vehicle costs – leasing and fuel
- Sub-contracting costs – material and labour
- Density

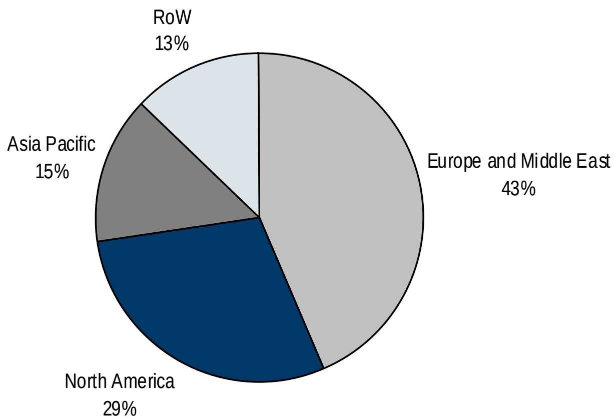
Figure 25 shows a split of time utilisation of service technicians in a maintenance business by total working hours per year. The key aspirations in order to improve a maintenance business efficiency and hence profitability are:

- Move to planned from unplanned work – reduce number of unscheduled call-outs and repairs
- Shift work from un-billable to billable – reducing indirect time and travel time through better planning, root optimisation and higher density.

Modernisation

We estimate modernisation is a c€6.5bn–6.7bn market (based on Kone's previous estimates and recent commentary from industry participants) concentrated primarily in EMEA and the US.

Figure 28: Modernisation market by geography, 2010



Source: Kone

The market grew at c10% per annum prior to the downturn, driven by the old installed base in Europe and the US and by regulation (SNEL in Europe). During the downturn, the market remained stable, supported by the above drivers. In 2010, the market benefitted from Phase 1 of the Safety norms for Existing Lifts agreement in France that was achieved by the end of the year. However, because of a pull-forward of demand resulting from this deadline, the market saw a small decline in 2011.

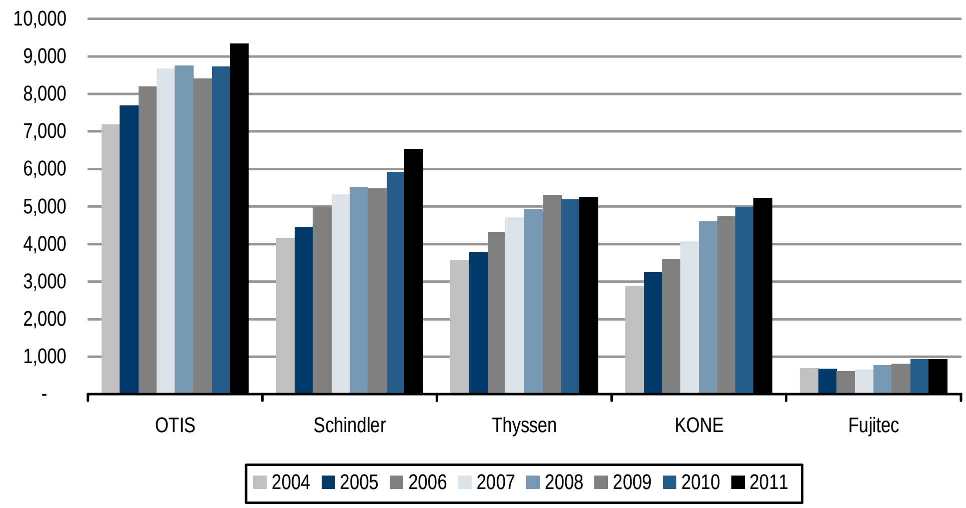
Over the longer term, we see a positive outlook for modernisation, given:

- Over half of the 6.5m of elevators and escalators installed in Europe and the US are over 20 years old; and
- Replacing a 20-year-old lift with a modern product can lead to energy savings of 70–90% (source: Kone).

Key players benchmarking

Figure 29 shows the key players' overall revenue profile over the past seven years in a comparable currency (€m).

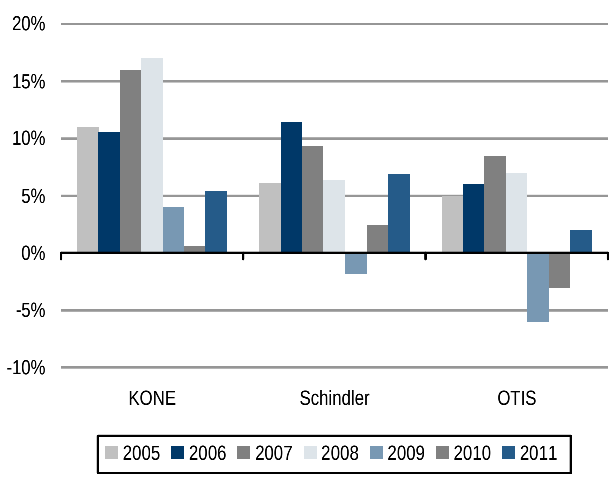
Figure 29: E&E key player's revenues (2004-2011)
in € millions, unless otherwise stated



Source: Company data

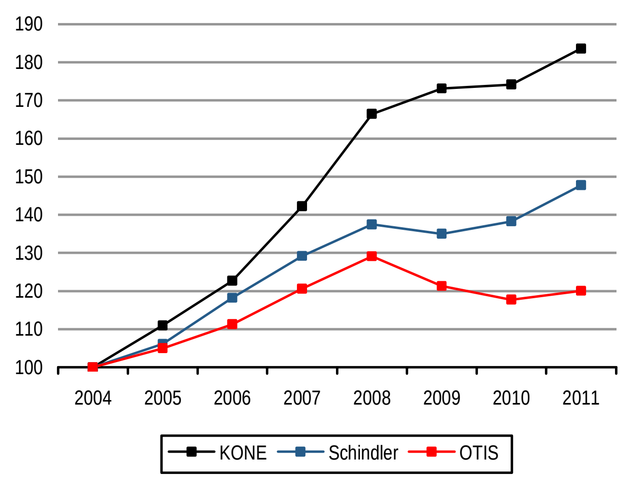
Figure 30 shows organic growth for Kone, Schindler and Otis since 2005. In Figure 31, we present organic sales indices for the three players based on the organic growth they delivered over 2005–2011. The indices suggest Kone grew sales organically over that period by more than 70% versus Schindler by 40% and Otis by just under 20%.

Figure 30: E&E players organic growth track record



Source: Companies data, Credit Suisse research

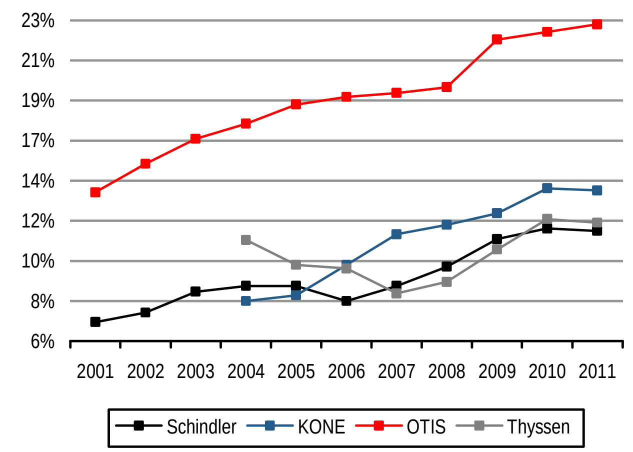
Figure 31: E&E players organic sales index (2004=100)



Source: Companies data, Credit Suisse research

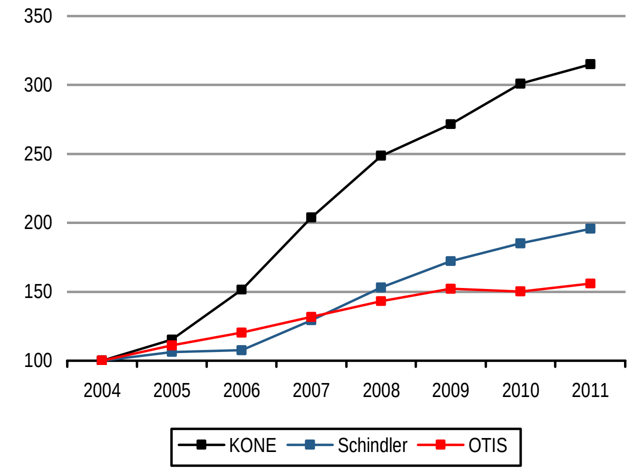
Figure 32 shows the underlying operating margin evolution of Otis, Kone, Schindler and Thyssen over the past ten years. Otis has consistently been 'best-in-class' in terms of profitability, expanding its operating margin from 12% in 2000 to close to 23% in 2011. Kone and Schindler have also expanded margins over the past five years, but much less aggressively and from a lower base. Going forward, Kone, Thyssen and Schindler target operating margins of 16%, 15% and 14%, respectively, while Otis targets margin to remain at 20%+.

Figure 32: E&E players – ten-year margin development



Source: Companies data, Credit Suisse research

Figure 33: E&E players – organic EBIT index (2004=100)



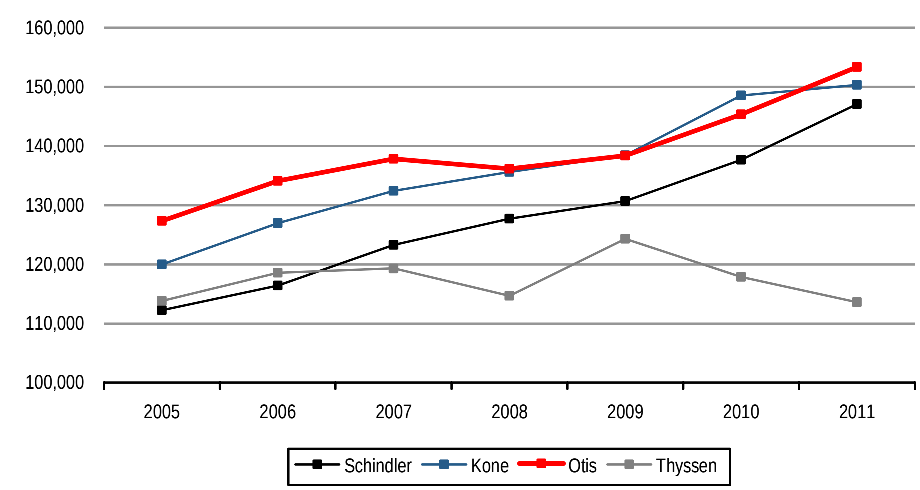
Source: Companies data, Credit Suisse research

Figure 33 shows organic EBIT indices for Otis, Kone and Schindler based on the organic sales index and the operating margin presented above.

Looking for further insight into the substantial margin difference between Otis and the other key players, we show the companies' business mix in Figure 35. Compared to Kone and Thyssen, Otis appears more focused on the higher-margin maintenance and modernisation segments, which we believe explains some of the difference. We estimate the new installation businesses have margins of c3–5% on average, while margins in maintenance are 25–30% (modernisation depends on the scope of the work being performed, varying around 7–10% on average). We believe these figures are higher for Otis owing to better overheads leverage (due to size—Otis is c40% large than Schindler and c80% larger than Kone) and better installed base density.

Figure 34 shows the development of revenue per employee for the four companies over the past 7–10 years but Otis does not stand out vs Kone and Schindler on this metric. Rather, Otis' exceptional profitability is a result of continued reduction in overhead costs (c22.5% of sales in 2000 and c18% of sales in 2010) and a significant improvement in production costs; for example, the next generation product (Gen2) has >60% cost advantage versus 2000.

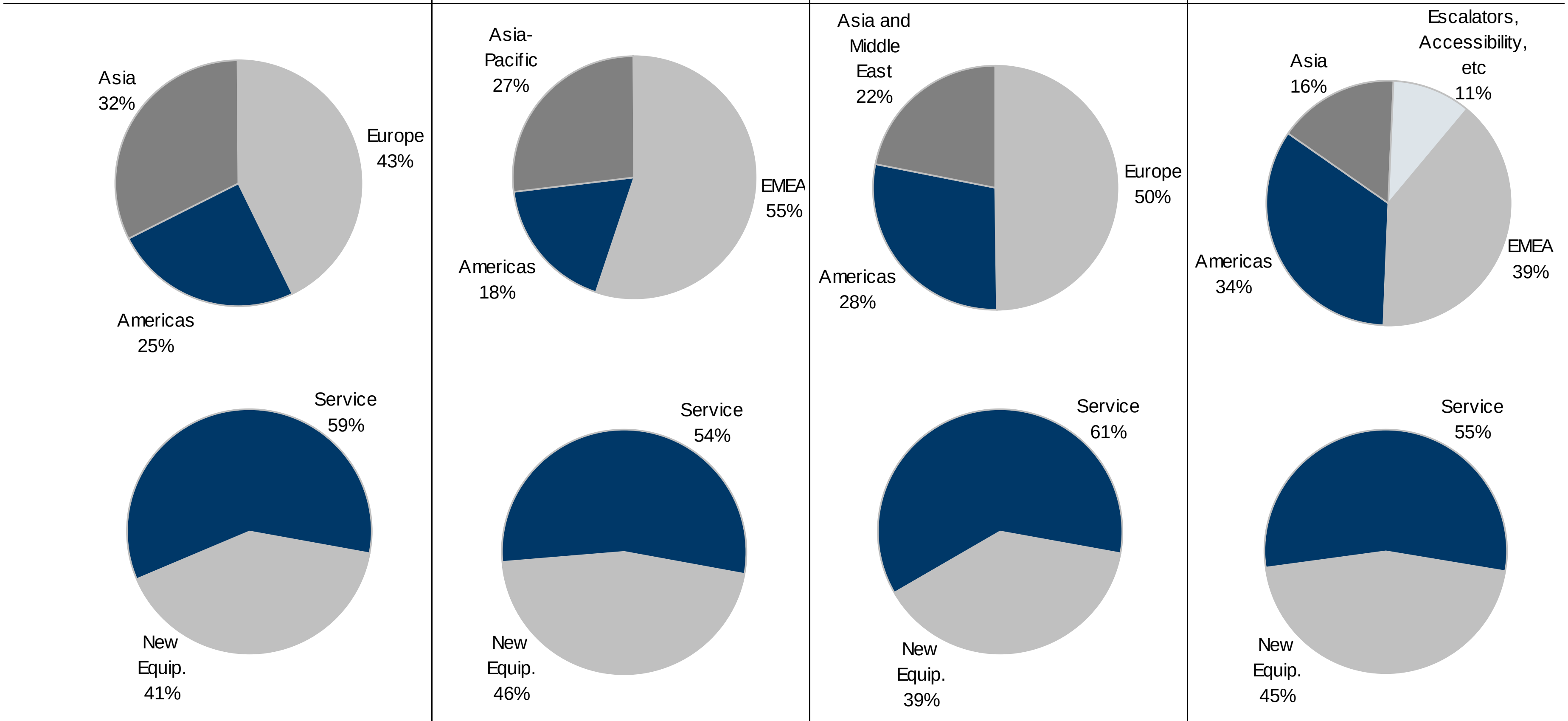
Figure 34: E&E players' revenue per employee, €m



Source: Company data, Credit Suisse research

Figure 35: **Summary of key international players profiles (2011 data)**

OTIS	KONE	Schindler	Thyssen Elevator



	OTIS	KONE	Schindler	Thyssen Elevator
Revenue ($bn, 2011)	**9,351**	**5,225**	**6,529**	**5,253**
Op margin (%, 2011)	**22.6%**	**13.9%**	**11.8%**	**12.2%**
% of Parent sales from E&E	**22%**	**100%**	**100%**	**13%**
% of Parent EBIT from E&E	**36%**	**100%**	**100%**	**37%**

Source: Company data, Credit Suisse estimates

E&E in Global Cap Goods context

In this section, we look at how the E&E market compares with the global Capital Goods sector and its sub-segments. Figure 36 shows E&E companies' aggregate top line performance and our forecasts compared with other specific end-markets where the companies in the sector have exposure. Key thoughts:

- In 2011, the E&E segment delivered growth just below the construction (Buildings) segment (4% vs 5%) and substantially below the overall end-market average of 8%.
- For 2012, we forecast a 7% growth for the E&E segment, slightly above the overall average end-markets average and substantially above the construction segment.

Figure 36: **Global Capital Goods Vendor Database by end-market segment**

End Market	Organic Growth 11	Organic Growth 12E	2012 E Growth by Region U.S.	2012 E Growth by Region Europe	2012 E Growth by Region APAC	Scope to Surprise	Key Themes
Wind Power Generation	4%	16%	20 to 30%	(2) to 0%	5 to 10%		Europe is ok, China weak, US picking up
Biz Jet	11%	16%	15 to 25%	5 to 15%	25 to 35%	-	A discretionary big ticket corp capex item
Oil & Gas Equipment	14%	13%	10 to 14%	10 to 14%	10 to 14%		Oil price volatility suggests some projects may be delayed
Civil Aero OE	8%	12%	3 to 5%	7 to 9%	25 to 30%		Build rates accelerate on existing and ramp up on new models
Civil Aero AM	7%	10%	8 to 10%	8 to 10%	8 to 10%		Traffic growth is decelerating, capacity cuts coming through in US
Auto components	20%	9%	10 to 15%	0 to -5%	12 to 15%		US SAAR is holding up well; Japan disruption now behind us
Aerospace Engines	6%	9%	3 to 5%	7 to 9%	10 to 12%		Strong new product pipeline in OE, although AM decelerating
Thermal Power Generation	-2%	7%	4 to 6%	0 to 2%	10 to 12%		Overall orders to decelerate; Gas offers upside scope
Process Automation	10%	7%	6 to 8%	2 to 4%	11 to 13%	+	Downstream O&G picking up; Food & Bev strong
Elevators / Escalators	**4%**	**7%**	**4 to 6%**	**Flat**	**7 to 9%**		**US and N Europe sluggish; China likely to decelerate**
Factory Automation	16%	5%	4 to 6%	0 to 2%	5 to 10%	+	IT-related markets in Asia are soft; rest is holding up
Low Voltage	8%	5%	4 to 6%	1 to 3%	8 to 10%	-	Weak demand given construction markets
Test & Measurement	10%	4%	2 to 6%	0 to 2%	8 to 11%		Demand strong but offset by NT pauses in Global IP
Power Grid Equipment	3%	4%	5 to 7%	1 to 3%	5 to 6%	+	US picking up but China remains fairly soft
Rail Loco's + Signalling	8%	4%	3 to 5%	(1) to 1%	10 to 15%		Growth mostly in Asia - market dominated by local players
Compressors	12%	7%	2 to 4%	0 to 2%	10 to 15%		Decelerating, but so far growth rates are holding up
Lighting	6%	3%	3 to 4%	0 to 2%	8 to 10%		Energy efficiency theme drives moderate growth
HVAC	8%	3%	2 to 5%	2 to 5%	10 to 12%		China likely to decelerate; R-22 mix in US stable; Transport softens
Fire & Security	4%	3%	1 to 3%	0 to (2%)	5 to 7%		Retrofit demand driving moderate growth
Factory Tools	22%	3%	1 to 3%	1 to 3%	10 to 15%	+	Decelerating, but so far growth rates are holding up
Healthcare	5%	2%	2 to 3%	(4%) to (6%)	7 to 9%		Europe is weakening; US is still ok, China still strong
Appliances	0%	1%	0 to 2%	0 to (2%)	8 to 10%		Sluggish demand, tough pricing pressure
Helicopters	6%	2%	(1) to 1%	(1) to 1%	(1) to 1%		Civil orders recover slowly; US defense risk of cuts
Network Power	9%	3%	0 to 2%	0 to 2%	6 to 8%		Some push-outs in US datacenter, servers; soft Telecom capex
Defense	1%	0%	0 to (2%)	0 to (2%)	2 to 4%	-	Defense budgets at risk, newsflow to remain negative
Buildings	5%	4%	3%	1%	9%		
Energy	5%	10%	12%	4%	9%		
Industry	14%	5%	4%	2%	11%		
Transport	10%	9%	8%	5%	15%		
Others	5%	2%	1%	-2%	6%		
	8%	6%	6%	2%	11%		

Source: Company data, Credit Suisse estimates

Methodology

- 'Organic growth': A function of the aggregated forecasts, which, given the number of different analysts and companies covered, we think offers a good proxy for 'consensus' expectations.
- Scope to surprise': our view of whether the figures in the 'organic growth' column look overly optimistic or overly pessimistic

In Figure 37 and Figure 38, we show the quarterly sales and orders trend by segment.

Figure 37: Global Capital Goods average sales change (yoy) by End Market

Sector	End Market	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11
Buildings	Appliances	7%	6%	1%	3%	3%	-1%	-4%	-1%
	Elevators / Escalators	**-1%**	**1%**	**4%**	**2%**	**5%**	**5%**	**5%**	**8%**
	Fire & Security	-3%	1%	1%	3%	4%	4%	4%	2%
	HVAC	10%	21%	9%	14%	13%	12%	7%	-1%
	Lighting	14%	21%	16%	15%	9%	7%	7%	8%
	Low Voltage	-4%	6%	10%	9%	13%	8%	4%	5%
Energy	Oil & Gas Equipment	-8%	-6%	3%	5%	14%	20%	24%	19%
	Power Grid Equipment	-12%	-9%	-4%	2%	7%	10%	16%	10%
	Thermal Power Generation	-8%	-4%	-11%	-3%	-7%	2%	7%	4%
	Wind Power Generation	-2%	-3%	15%	56%	16%	13%	6%	-18%
Industry	Compressors	-2%	20%	22%	25%	23%	21%	16%	11%
	Factory Automation	16%	41%	42%	32%	23%	20%	12%	5%
	Factory Tools	18%	33%	36%	34%	25%	25%	18%	5%
	Process Automation	-5%	3%	12%	18%	19%	15%	17%	13%
	Test & Measurement	15%	22%	25%	22%	19%	19%	16%	6%
Transport	Automotive	42%	43%	31%	25%	27%	21%	20%	13%
	Aerospace Engines	-9%	0%	5%	4%	5%	5%	7%	3%
	BizJet	0%	-21%	-11%	11%	0%	2%	4%	15%
	Helicopters	-9%	14%	17%	13%	13%	5%	6%	0%
	Rail Loco's + Signalling	-6%	-11%	-4%	13%	4%	19%	12%	4%
Others	Healthcare	5%	5%	6%	6%	9%	6%	8%	6%
	Network Power	3%	10%	16%	15%	18%	9%	3%	3%
Buildings		4%	9%	7%	8%	8%	6%	4%	4%
Energy		-7%	-5%	1%	15%	8%	11%	13%	4%
Industry		8%	24%	28%	26%	22%	20%	16%	8%
Transport		3%	5%	7%	13%	10%	10%	10%	7%
Others		4%	8%	11%	11%	13%	8%	5%	5%
Overall Average		3%	9%	11%	15%	12%	11%	10%	5%

Source: Company data, Credit Suisse estimates

Figure 38: Global Capital Goods average orders change (yoy) by End Market

Sector	End Market	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11
Buildings	**Elevators / Escalators**	**3%**	**11%**	**7%**	**9%**	**12%**	**9%**	**13%**	**7%**
	HVAC	-4%	16%	7%	16%	19%	5%	-1%	6%
	Low Voltage	2%	10%	31%	9%	12%	14%	1%	8%
Energy	Oil & Gas Equipment	16%	26%	22%	34%	21%	19%	14%	17%
	Power Grid Equipment	-17%	2%	4%	11%	16%	0%	27%	7%
	Thermal Power Generation	-11%	-9%	22%	32%	30%	36%	9%	0%
	Wind Power Generation	-66%	94%	51%	36%	184%	-17%	33%	34%
Industry	Compressors	16%	38%	37%	23%	30%	25%	14%	14%
	Factory Automation	99%	91%	60%	35%	28%	19%	8%	1%
	Factory Tools	50%	40%	29%	18%	30%	24%	21%	11%
	Process Automation	2%	19%	24%	19%	23%	25%	18%	4%
Transport	Aerospace Engines	-15%	1%	23%	38%	23%	30%	9%	6%
	Rail Loco's + Signalling	13%	22%	34%	26%	5%	86%	13%	-10%
Others	Healthcare	7%	8%	7%	3%	6%	2%	2%	2%
	Network Power	0%	1%	10%	5%	7%	10%	-1%	-6%
Buildings		0%	12%	15%	11%	14%	9%	4%	7%
Energy		-20%	28%	25%	28%	63%	9%	21%	14%
Industry		42%	47%	37%	24%	28%	24%	15%	7%
Transport		-1%	11%	28%	32%	14%	58%	11%	-2%
Others		4%	5%	8%	4%	6%	6%	0%	-2%
Overall Average		6%	24%	24%	21%	29%	20%	11%	6%

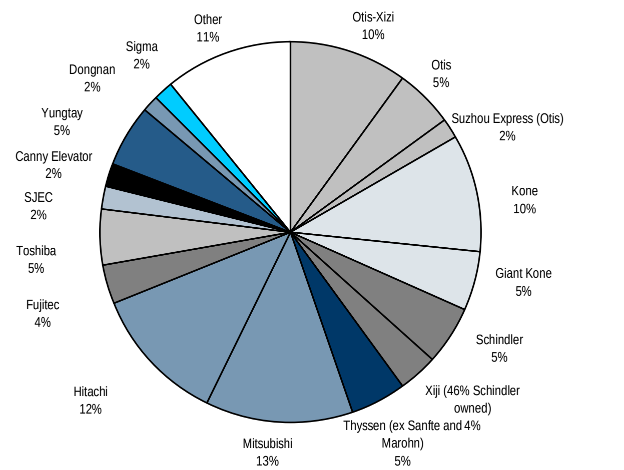
Source: Company data, Credit Suisse estimates

China Elevator Market

Market structure

The Chinese elevator and escalator (E&E) market has more than doubled in size over the past five years reaching c400,000 units in 2011 (from c300k in 2010). The 2011 market size estimate is slightly above Otis' recently provided c380k units. The market is controlled by four key groups of suppliers: Otis, European, Japanese and National / Local.

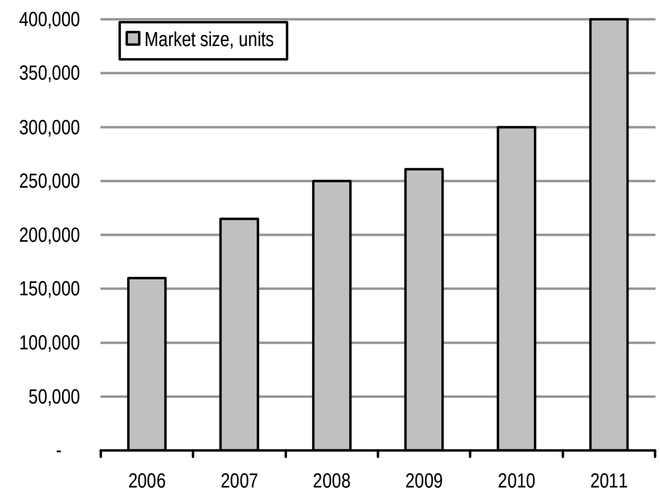
Figure 39: Chinese E&E market shares (based on units)



Source: Credit Suisse research

NB. Xiji market share above is based on Schindler's press release stating the business produces c14k elevators & escalators pa.

Figure 40: Chinese E&E market size and history



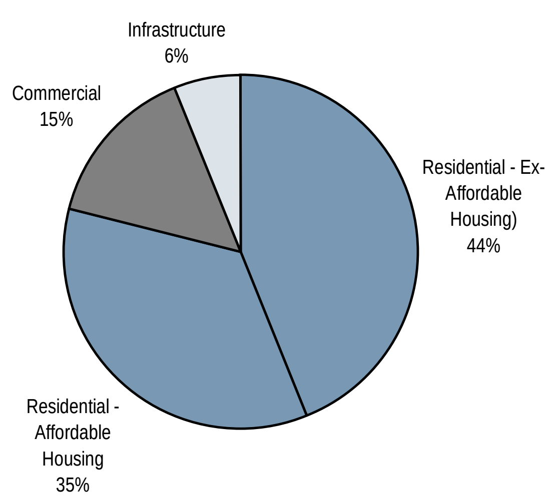
Source: Credit Suisse research

NB. Xiji market share above is based on Schindler's press release stating the business produces c14k elevators & escalators pa.

The above market share data is broadly consistent with information gained from our consultations with local industry experts in March 2011. Otis market share above sums up to 17% vs c25% before, which is a result of not including a number of its smaller JVs.

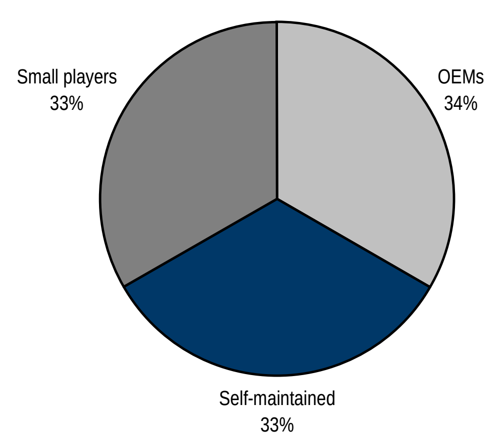
In Figure 41 and Figure 42, we show NI and maintenance market compositions:

Figure 41: Chinese E&E: NI market by type



Source: Industry experts, Credit Suisse research

Figure 42: Chinese E&E: Maintenance market by provider



Source: Industry experts, Credit Suisse research

- **New installations.** The residential segment accounts for c80% of the domestic E&E market in China (ie >300k units), of which social housing was around 44% (c140k units). In non-residential, the commercial segment accounts for c13% while infrastructure and other account for c7%. Within the commercial segment, Retail and Office occupy c 6-7% each and the rest is accounted for by Industrial. Within the infrastructure segment, Hospitals occupy the largest part, at around 3%.

- **Service market.** This is currently at a very undeveloped stage and the Chinese customer has not yet appeared willing to pay a premium for superior service / maintenance (although there is some push for this from the government). Service accounts for c10% of the lift players sales on average (although t a >30% RoS). Currently, c1/3 of China installed base is maintained by OEMs, 1/3 is self-maintained and 1/3 is maintained by small "mom & pop shops". Japanese players choose not to make particularly high margins in their service businesses and instead use high quality maintenance and resultant superior reliability and safety as a marketing tool for NI sales.

- **Market profitability.** At operating profit level, the overall new installations market margins are seen at around 10-15%. Overall, there has not been evidence of margin deterioration over the past 5 years (with raw materials price inflation being passed on through pricing). Profitability is seen as unlikely to deteriorate in the near term driven by players giving up OE margin in order to secure a sale and a resultant service contract. However, some concerns were expressed over the social housing market segment (current only slightly below market average) where competition may heat up because of 1) potential lack of growth elsewhere and 2) this market segment's openness given low technology and brand barriers.

Market outlook

Do not rule out a negative development in 2012. Although the long-term market attractions remain clear, the near-term market outlook has been changing substantially since the start of the year. The industry consensus is changing from "continuing growth, flat in worst case" to a more bearish stance with rising risk of negative volume development in 2012. However, they stressed this is a fast-moving market and conditions can change rapidly either way.

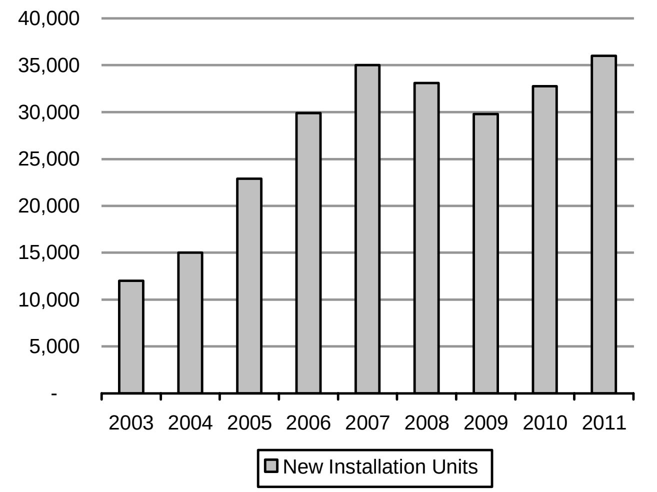
Otis – c4% in 2012. In March 2012, Otis presented a new equipment forecast for China for 2012 expecting the market to grow by c4% to around 395k units, driven by the social housing segment (double-digit) and commercial (mid-single digit) with residential flat-lining. This compares to Kone’s current expectations of mid- to high-single digit growth for China new equipment market.

Kone – high single-digit growth in 2012. Kone currently expects a high single digit growth (up to 10%) in China E&E market in 2012.

India Elevator Market

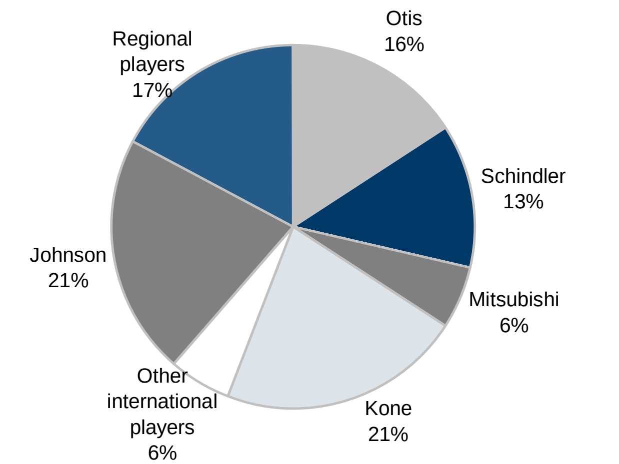
The Indian Elevator and Escalator market has trebled in size since 2003 to c36,000 new installation units in 2011. The market is dominated by the large global players such as Otis, Schindler and Kone. Johnson Lifts is the only local player with significant market share.

Figure 43: **India E&E: NI market evolution**



Source: Credit Suisse research

Figure 44: **India E&E: NI market shares in units terms (2011)**



Source: Credit Suisse research

Key international players profiles

- **Otis –** Has been in India for more than 100 years. Previously it had a market share of 50-60% in 1990s with high profitability in new installations (did not focus on after-sales). Market share declined to 7-8% in 2005-06 but has improved since with the success of the machine-room less product.
- **Kone –** Kone's positioning improved significantly in 2010-11 and market share rose to c20%. It acquired Tiger elevator and is growing steadily, with strength in the in machine-room-less segment.
- **Schindler –** Good presence in high rise. Schindler is currently strengthening its presence in the market significantly. It supplies products that are technologically difficult for others to provide service on.

Key local player – Johnson

Johnson Lifts Pvt Ltd is one of the major players in the industry, manufacturing escalators and elevators. It was incorporated in 1981 and is based in Chennai with offices in India, Sri Lanka, Male and Nepal. According to Johnson, it sold c6,000 elevators/escalators in 2009 with revenue of over Rs. 6bn. It has a maintenance base of c21,000 units.

Johnson has a Joint Venture with SJEC, a Chinese player specializing in escalators and won a major infrastructure project to supply and maintain (through to 2020) in total over 400 elevators and escalators for Chennai Metro Rail. Johnson is the only company in India with an escalator factory in the country.

The company stopped booking new orders in December 2011 as the order book had exceeded capacity. The company has a low cost advantage compared to international peers because its products are all manufactured locally.

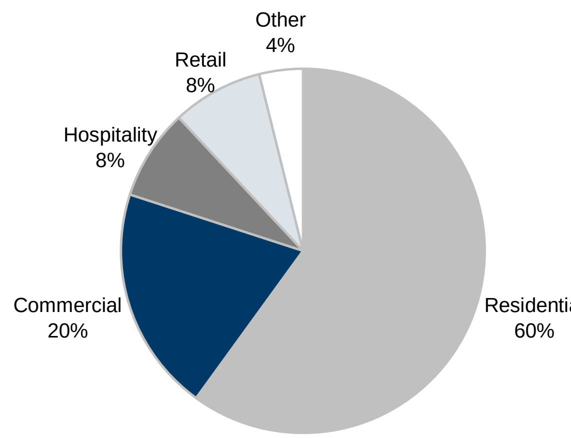
Other key players

Other players include Mitsubishi, Hitachi, Hyundai, Fujitec and several local players. Mitsubishi and Hitachi do not have manufacturing facilities in India. They largely focus in the high-end market segment supplying products imported from their nearby facilities.

Market by application

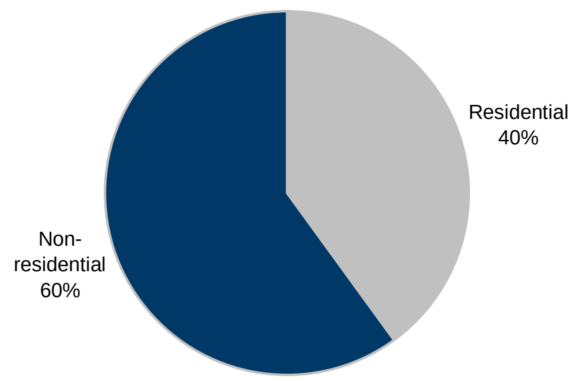
The Indian E&E market is following the global pattern where the commercial segment contributes approximately 40% in unit terms and c60% in value terms.

Figure 45: **India E&E: Market by type (Units)**



Source: Credit Suisse research

Figure 46 **India E&E: Market by type (Value)**



Source: Credit Suisse research

Industrial set-up

All the major players except Schindler have established manufacturing facilities in India. Schindler has an assembly plant in Nagpur and an R&D facility in Pune. The other small players import components/product from China, Japan, Korea, Thailand and Singapore, to assemble them locally.

Figure 47: **India E&E: Industrial set-up summary**

Manufacturer	Low-end	Mid-market	High-end	Escalators
Otis	Own factory + local outsourcing	Own factory + China	China / Japan	China / Korea
Kone	Own factory + local outsourcing	Own factory	India (some China & Europe)	China (some from Europe / US)
ThyssenKrupp	Own factory	Own factory / Korea / China	Korea / China	Korea / China
Schindler	Local outsourcing	China	China (some Europe)	China (some Europe)
Mitsubishi	NA	Thailand	Thailand / Japan	Japan
Fujitec	NA	Singapore	Japan	Japan
Hitachi	NA	Singapore	Japan	Japan
Johnson	Own factory	Own factory (+ imported components)	Own factory (+imported components)	China
Others	Local outsourcing + components from China / Korea / Europe / US			China

Source: Credit Suisse research

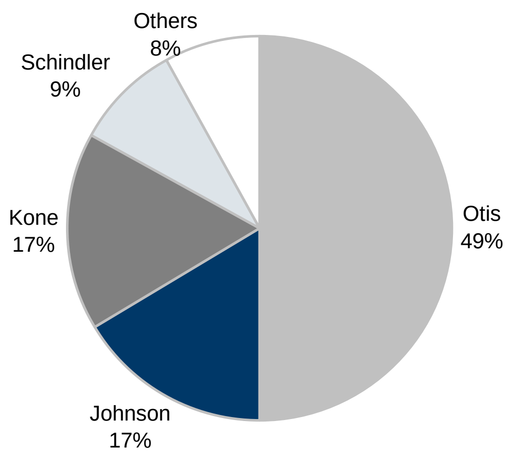
Maintenance

Maintenance is a very lucrative market segment in India. Broadly, there are three types of maintenance contracts:

- **Comprehensive maintenance contract –** Supplier receives an annual fee in advance and provides regular inspection and service including planned maintenance, lubrication checks, repairs, replacement of parts, risk assessment reports and breakdown call-outs. Almost all the commercial establishments in India use comprehensive contracts.
- **Service contract –** or 'maintenance only contract' involves regular inspection and planned maintenance but does not cover repair and component replacement costs.
- **Lubrication only –** the most basic type of contract, where the customer only needs lubrication of equipment. These type of contracts are generally provided by local players.

The majority of the customers in India choose a comprehensive maintenance contract, which has an annual cost of around 4-5% of the original equipment price. The gross margin for maintenance business can be as high as 60-70% with an average margin of around 50%. Our research shows the maintenance base in India is currently at around 200,000 units with Otis having the largest share followed by Kone and Johnson.

Figure 48: Maintenance (based on value)



Source: Credit Suisse research

Pricing and cost drivers

Over the last five years, prices for NI generally have dropped by 5-10% on the back of tough competition, organised infrastructure development and emergence of local players. Real estate companies like DLF, Unitech, Omaxe invite bids for large contracts and select suppliers often based on lowest bid, leading to lower prices. However, pricing in the high-end segment (eg. five star hotels) has been stable because technical specifications play a more important role there.

Maintenance contracts pricing has not been significantly affected by competition and OEMs are increasing prices further despite high profitability. For example, Otis is currently looking to increase prices by c5% on service contracts.

The cost structure of a typical order for elevators for a 10-12 storey building is 70% sourced and manufactured components and 30% is the cost of installation. In India, it currently takes 80-90 days for an average installation and therefore the profitability on new installations is low (low single digit and below). Installation time could potentially be reduced to 40-45 days by working more closely with the customer and by gaining customer trust to be able to deliver 'just in time'. **On an installation time of 40-45 days, the NI profitability could potentially increase to 10-12%.**

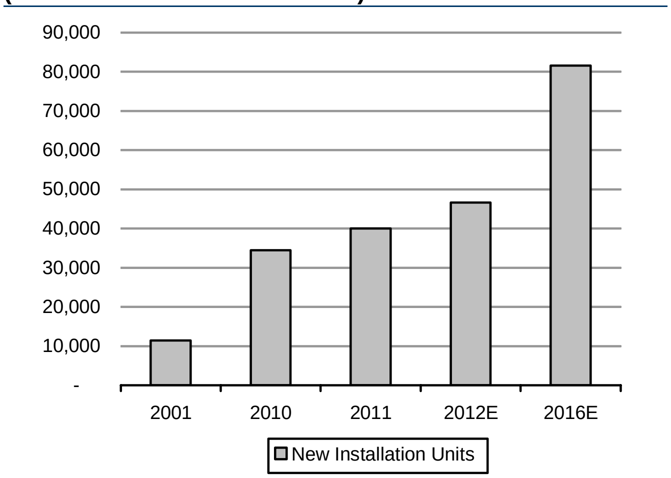
Generally the elevator companies target an overall margin of c20% on a contract and we believe therefore at times companies may sell new equipment even at loss in order to gain the highly profitable maintenance contract.

Market outlook

The Indian E&E market has substantial growth potential given the ongoing and rising urbanisation trend, infrastructure investment and growing population. Growth of 10-15% per annum could be achievable over the long term in India. The main reason for expecting (and not witnessing recently) stronger growth in the market (like the c30% seen in China) is administration issues, such as procurement of land for real estate projects and delays in getting permissions from various departments.

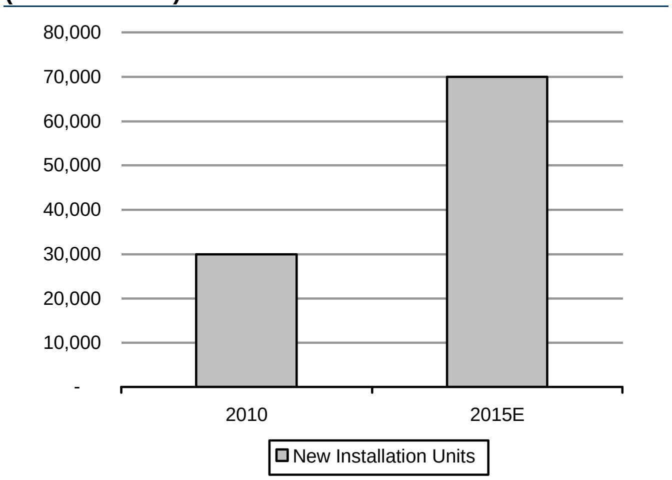
Otis has a more bullish outlook for the Indian E&E market, expecting a c18% CAGR during 2010 to 2015 (Figure 50), according to an interview by Gunyan Trivedi on the website CIO.IN. with Otis' Head if India in September 2011. *Elevator World India* recently published forecasts for the market in the Q1 2012 edition, expecting a CAGR of 19% from 2011 to 2015 (Figure 45).

Figure 49: India E&E: Market outlook (Elevator World India forecasts)



Source: Elevator World India Q1 2012

Figure 50 India E&E: Market outlook (Otis forecasts)



Source: Otis (September 2011)

E&E Companies Directory

In this section, we offer a directory of key global listed elevator and escalator manufacturers. The directory includes investment cases, summaries of financials and company descriptions of the four largest international players (Otis, Kone, Schindler and Thyssen) that are covered by Credit Suisse Equity Research department globally. We also include profiles of ten smaller listed E&E players from around the world.

Four major global players:

- KONE
- OTIS
- Schindler
- Thyssen

Other key listed players:

- Canny
- Fujitec
- Hyundai
- Kleemann
- Monti Ascensori
- Savaria
- Symax
- SJEC
- Yungtay
- Zardoya Otis

Europe / Finland
Engineering & Construction

Kone Corporation (KNEBV.HE)

Rating	**UNDERPERFORM***
Price (13 Apr 12, Eu)	40.95
Target price (Eu)	37.00[1]
Market cap. (Eu m)	10,582.58
Enterprise value (Eu m)	9,522.3

**Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.*
[1]Target price is for 12 months.

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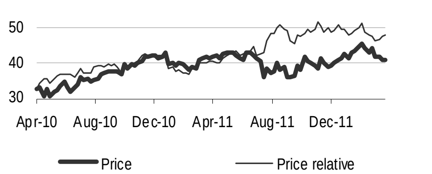
Is China risk fully in the price?

- **Maintain Underperform.** After 5% of underperformance relative to the sector over the past three months, we continue to believe that the market is underestimating the negative volume risk from China for Kone where we estimate the company derives c20% of group sales and operating profit.
- **Risk of China turning from positive to negative?** Over the past three years, China has been one of the key drivers behind the premium rating Kone has commanded and behind the impressive earnings growth. We believe China is one of the most profitable new equipment markets for Kone globally. Our Chinese Basic Materials research team believe there has been an overbuild in the residential property sector in China with floor space started exceeding the floor space sold by almost 2x in 2011 (highest ever). They expect housing starts to fall by over 20% in 2012E. Although so far Kone has not seen an evidence of a sharp slowdown, should the above forecast prove correct, we see risk to Kone group order intake in the coming quarters as orders for elevators are normally placed at early stages of building construction. Kone currently expects a high single-digit growth in China in 2012, which we believe is in line with market consensus. We therefore do not see the above risk discounted in the market expectations.
- **Catalysts.** Q1 2012 results Tue 24 April. Further end-markets updates.
- **Valuation demanding.** Kone is trading on a c18% premium to the Pan-European Capital Goods sector on 2012E EV/EBIT and on a c22% premium on 2012E P/E. The stock is trading on a 2012E EV/Sales multiple of 1.60x, which we find demanding relative to the company margin target of 16% and relative to the 14% margin delivered in 2010 and 2011.

Share price performance



The price relative chart measures performance against the HEX25 INDEX. which closed at 2027.51 on 13/04/12
On 13/04/12 the spot exchange rate was Eu .77 /US$1

Performance Over	1M	3M	12M
Absolute (%)	-7.4	-3.4	-1.5
Relative (%)	-3.6	-4.1	3.2

Financial and valuation metrics

Year	12/11A	12/12E	12/13E	12/14E
Revenue (Eu m)	5,225.0	5,970.9	6,212.6	6,555.6
EBITDA (Eu m)	790.80	927.14	1,004.03	1,076.26
Net Income (Eu m)	581.2	647.7	709.8	771.3
CS adj. EPS (Eu)	2.27	2.52	2.77	3.01
Prev. EPS (Eu)	—	—	—	—
ROIC (%)	54.21	48.08	49.20	52.27
P/E (adj., x)	18.08	16.22	14.80	13.62
P/E rel. (%)	126.0	120.2	126.7	126.8
EV/EBITDA	12.3	10.3	9.1	8.1

Dividend (12/12E, Eu)	1.01	IC (12/12E, Eu m)	1,360.41
Dividend yield (%)	2.5	EV/IC	7.0
Net debt (12/12E, Eu m)	-1,060.3	Current WACC	9.0
Net debt/equity (12/12E, %)	-43.8	Free float (%)	75.0
BV/share (12/12E, Eu)	9.3	Number of shares (m)	258.43

Source: FTI, Company data, Thomson Reuters, Credit Suisse Securities (EUROPE) LTD. Estimates.

Financials summary

Figure 51: KONE: P&L history and forecasts

€ in millions, unless otherwise stated

ORDERS	2002	2003	2004 PF	2005 PF	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Orders received	**2,129**	**2,021**	**2,136**	**2,639**	**3,116**	**3,675**	**3,948**	**3,432**	**3,809**	**4,465**	**4,733**	**4,922**	**5,119**
Change yoy, %	*1.4%*	*-5.1%*	*5.7%*	*23.5%*	*18.1%*	*17.9%*	*7.4%*	*-13.1%*	*11.0%*	*17.2%*	*6.0%*	*4.0%*	*4.0%*
Change yoy ex-FX, %						*21.0%*	*12.0%*	*-13.0%*	*6.0%*	*17.8%*	*4.0%*	*4.0%*	*4.0%*
Order book	**1,792**	**1,640**	**1,796**	**2,327**	**2,762**	**3,282**	**3,577**	**3,309**	**3,598**	**4,348**	**-**	**-**	**-**
Change yoy, %	*-4.7%*	*-8.5%*	*9.5%*	*29.6%*	*18.7%*	*18.8%*	*9.0%*	*-7.5%*	*8.7%*	*20.9%*	*0.0%*	*0.0%*	*0.0%*
Change yoy ex-FX, %						*16.0%*	*17.0%*	*-8.0%*	*0.6%*	*19.3%*	*0.0%*	*0.0%*	*0.0%*

PROFIT & LOSS	2002	2003	2004PF	2005PF	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
REVENUE													
New Equipment	1,277	1,163	1,130	1,301	1,491	1,821	2,190	2,211	2,305	2,395	2,915	2,973	3,121
Change yoy, %	*8.0%*	*-8.9%*	*-2.8%*	*15.1%*	*14.6%*	*22.1%*	*20.3%*	*1.0%*	*4.3%*	*3.9%*	*21.7%*	*2.0%*	*5.0%*
Maintenance & Modernisation	1,693	1,693	1,765	1,942	2,110	2,258	2,413	2,533	2,682	2,830	3,056	3,240	3,434
Change yoy, %	*3.6%*	*0.0%*	*4.2%*	*10.0%*	*8.7%*	*7.0%*	*6.9%*	*5.0%*	*5.9%*	*5.5%*	*8.0%*	*6.0%*	*6.0%*
Cargotec	676	1,356	SOLD	-	-	-	-	-	-	-	-	-	-
Others & eliminations	695	1,198	SOLD	-	-	-	-	-	-	-	-	-	-
Revenue	**4,342**	**5,410**	**2,895**	**3,242**	**3,601**	**4,079**	**4,603**	**4,744**	**4,987**	**5,225**	**5,971**	**6,213**	**6,556**
Change yoy, %	*54.2%*	*24.6%*	*-46.5%*	*12.0%*	*11.1%*	*13.3%*	*12.8%*	*3.1%*	*5.1%*	*4.8%*	*14.3%*	*4.0%*	*5.5%*
Direct Material Costs	(1,614)	(2,366)	*nm*	*nm*	(1,309)	(1,579)	(1,889)	(1,777)	(1,797)	(1,918)	(2,329)	(2,423)	(2,557)
Wages	(1,280)	(1,170)	*nm*	*nm*	(948)	(1,003)	(1,076)	(1,096)	(1,152)	(1,571)	(1,666)	(1,716)	(1,767)
Other Statutory employer costs	-	(324)	*nm*	*nm*	(344)	(349)	(377)	(375)	(384)	-	-	-	-
Pension Cost	(159)	(102)	*nm*	*nm*	(84)	(86)	(85)	(100)	(102)	(105)	(105)	(105)	(105)
Other	(874)	(928)	*nm*	*nm*	(494)	(507)	(553)	(732)	(790)	(841)	(943)	(982)	(1,036)
Depreciation & Amortisation	(141)	(108)	(58)	(59)	(61)	(70)	(65)	(64)	(66)	(66)	(103)	(97)	(93)
EC and Austrian Cartel fine	-	-	-	-	-	(165)	-	(34)	-	-	(2)	16	(15)
Total Cost	**(4,067)**	**(4,998)**	**(2,660)**	**(3,059)**	**(3,241)**	**(3,759)**	**(4,044)**	**(4,177)**	**(4,290)**	**(4,500)**	**(5,147)**	**(5,306)**	**(5,572)**
Reported EBIT	275	437	235	183	360	320	558	567	697	725	824	907	983
Reported EBIT margin, %	*6.3%*	*8.1%*	*8.1%*	*5.6%*	*10.0%*	*7.9%*	*12.1%*	*12.0%*	*14.0%*	*13.9%*	*13.8%*	*14.6%*	*15.0%*
Exceptionals / one-offs	(65)	25	-	(89)	-	(152)	-	(34)	-	-	-	-	-
Operating profit	**340**	**412**	**235**	**272**	**360**	**473**	**558**	**601**	**697**	**725**	**824**	**907**	**983**
Operating profit margin, %	*7.8%*	*7.6%*	*8.1%*	*8.4%*	*10.0%*	*11.6%*	*12.1%*	*12.7%*	*14.0%*	*13.9%*	*13.8%*	*14.6%*	*15.0%*
Depreciation & Amortisation	(141)	(108)	(58)	(59)	(61)	(70)	(65)	(64)	(66)	(66)	(103)	(97)	(93)
EBITDA	**416**	**520**	**293**	**331**	**421**	**543**	**623**	**665**	**762**	**791**	**927**	**1,004**	**1,076**
EBITDA margin, %	*9.6%*	*9.6%*	*10.1%*	*10.2%*	*11.7%*	*13.3%*	*13.5%*	*14.0%*	*15.3%*	*15.1%*	*15.5%*	*16.2%*	*16.4%*
Shares in Earnings of Associates	6	7	1	2	(0)	2	3	8	12	10	11	12	14
Net interest income / (expense)	(25)	(28)	(3)	(6)	(4)	(9)	3	20	6	18	28	33	38
Rate, %	*3.7%*	*6.0%*	*nm*	*nm*	*4.1%*	*6.3%*	*7.3%*	*6.3%*	*7.3%*	*7.0%*	*7.0%*	*7.0%*	*7.0%*
Profit Before Tax	256	416	233	178	356	314	564	595	715	816	864	953	1,035
Underlying PBT	**321**	**391**	**233**	**267**	**356**	**466**	**564**	**629**	**715**	**753**	**864**	**953**	**1,035**
Tax	(96)	(113)	(69)	(69)	(122)	(134)	(146)	(128)	(179)	(172)	(216)	(243)	(264)
Effective rate, %	*29.7%*	*29.0%*	*nm*	*nm*	*34.2%*	*19.5%*	*25.8%*	*24.6%*	*25.0%*	*22.9%*	*25.0%*	*25.5%*	*25.5%*
Minority interest	4	3	0	(1)	(0)	0	1	1	1	1	1	1	1
Operating Net Income	**226**	**278**	**164**	**198**	**234**	**332**	**418**	**500**	**536**	**581**	**648**	**710**	**771**
Net income margin, %	*5.2%*	*5.1%*	*5.7%*	*6.1%*	*6.5%*	*8.1%*	*9.1%*	*10.5%*	*10.8%*	*11.1%*	*10.8%*	*11.4%*	*11.8%*
CS operating EPS, €	**0.9**	**1.1**	**0.7**	**0.8**	**0.9**	**1.3**	**1.6**	**2.0**	**2.1**	**2.3**	**2.5**	**2.8**	**3.0**
EPS growth, %	*18.0%*	*20.8%*	*-39.6%*	*16.0%*	*19.4%*	*41.5%*	*26.3%*	*19.4%*	*6.2%*	*8.3%*	*11.4%*	*9.6%*	*8.7%*
DPS, €	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.6**	**1.3**	**0.9**	**0.9**	**1.0**	**1.1**	**1.2**
DPS growth, %	*105.1%*	*33.4%*	*0.0%*	*-0.6%*	*0.6%*	*27.4%*	*2.1%*	*100.1%*	*-30.7%*	*0.7%*	*11.4%*	*9.6%*	*8.7%*
Dividend Cover (X)	*2.4*	*2.2*	*1.3*	*1.6*	*1.8*	*2.1*	*2.5*	*1.5*	*2.3*	*2.5*	*2.5*	*2.5*	*2.5*
Shares in issue	247	252	246	256	254	255	254	254	256	257	257	257	257

Source: Company data, Credit Suisse estimates

Figure 52: Kone: Balance-sheet summary
€ in millions, unless otherwise stated

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
PPE and intangibles	1,747	1,464	687	769	833	831	885	907	1,065	1,397	1,419	1,452	1,489
Other fixed assets	365	433	333	340	269	252	294	310	359	353	353	353	353
Fixed assets	**2,111**	**1,897**	**1,020**	**1,110**	**1,102**	**1,083**	**1,178**	**1,218**	**1,423**	**1,750**	**1,772**	**1,805**	**1,842**
Inventories (net of advances)	530	477	130	121	117	79	80	(48)	(137)	(167)	(136)	(143)	(150)
Trade and other receivables	1,030	1,037	658	707	805	925	1,047	1,056	1,141	1,262	1,472	1,532	1,616
Trade and other payables	1,104	1,118	790	830	948	999	1,120	1,137	1,302	1,359	1,472	1,532	1,616
Other current liabilities	247	152	125	112	72	87	50	100	99	89	89	89	89
Working capital	**209**	**244**	**(126)**	**(115)**	**(98)**	**(83)**	**(43)**	**(229)**	**(397)**	**(353)**	**(225)**	**(232)**	**(239)**
Working capital days	*18*	*16*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*
WC as % of sales	*4.8*	*4.5*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*	*nm*
Cash	488	414	256	207	268	274	352	626	817	920	1,157	1,555	1,985
Short-term debt	654	505	133	216	298	191	123	96	41	76	68	68	68
Long-term debt	1,078	724	139	144	100	176	172	27	29	21	29	29	29
Net debt / (cash)	**1,244**	**815**	**16**	**152**	**130**	**93**	**(56)**	**(503)**	**(748)**	**(824)**	**(1,060)**	**(1,458)**	**(1,888)**
Pension deficit	-	186	141	149	145	132	116	111	113	105	105	105	105
Other liabilities	50	26	11	25	30	26	40	42	61	82	82	82	82
Net assets	**1,027**	**1,115**	**727**	**669**	**699**	**749**	**1,036**	**1,339**	**1,601**	**2,034**	**2,421**	**2,844**	**3,305**

Source: Company data, Credit Suisse estimates

Figure 53: Kone: Cash flow summary
€ in millions, unless otherwise stated

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Net Income	**161**	**303**	**164**	**110**	**235**	**180**	**418**	**500**	**697**	**725**	**824**	**907**	**983**
Depreciation & amortisation	141	108	58	59	61	70	65	64	66	66	103	97	93
Gross cash flow	**301**	**386**	**222**	**169**	**296**	**251**	**483**	**565**	**762**	**791**	**927**	**1,004**	**1,076**
Change in receivables	70	42	-	-	(102)	(101)	(131)	11	(11)	-	-	-	-
Change in payables	98	(64)	-	-	71	59	71	33	28	-	-	-	-
Change in inventory	28	72	-	-	2	38	5	127	79	-	-	-	-
Working capital change	196	50	11	(3)	(30)	(5)	(55)	171	95	29	(128)	7	7
Operating cash flows	**497**	**435**	**234**	**166**	**266**	**246**	**428**	**735**	**683**	**603**	**623**	**814**	**871**
Operating cash conversion	1.5	1.1	1.0	0.6	0.7	0.5	0.8	1.2	1.0	0.8	0.8	0.9	0.9
Exceptionals	-	-	(58)	33	-	(152)	-	(34)	-	-	-	-	-
Net capex	**(215)**	**(84)**	**(47)**	**(58)**	**(62)**	**(23)**	**(66)**	**(42)**	**(46)**	**(92)**	**(75)**	**(80)**	**(80)**
% of sales	*4.9%*	*1.6%*	*1.6%*	*1.8%*	*1.7%*	*0.6%*	*1.4%*	*0.9%*	*0.9%*	*1.8%*	*1.3%*	*1.3%*	*1.2%*
Free cash flow	**282**	**351**	**187**	**108**	**204**	**223**	**362**	**660**	**637**	**511**	**548**	**734**	**791**
FCF / net income	1.3	1.3	1.1	0.5	0.9	0.7	0.9	1.3	1.2	0.9	0.8	1.0	1.0
Acquisitions	(1,280)	(89)	(79)	(125)	(44)	(71)	(62)	(48)	(114)	(226)	(50)	(50)	(50)
Disposals	-	365	-	-	9	-	-	-	-	-	-	-	-
Loans raised / paid back	2,551	(573)	*nm*	*nm*	24	18	(145)	(402)	(237)	(80)	-	-	-
Shares issue / purchase	158	-	5	5	(68)	2	4	10	6	(24)	-	-	-
Dividends paid	(42)	(94)	125	127	(127)	(125)	(163)	(164)	(333)	(230)	(261)	(286)	(311)
Other	(1,637)	27	-	-	-	-	-	-	17	-	-	-	-
Net cash flow	**32**	**(13)**	***nm***	***nm***	**(1)**	**46**	**(6)**	**55**	**(24)**	**(49)**	**237**	**398**	**431**

Source: Company data, Credit Suisse estimates, Net income used here is net operating profit before tax.

Company description

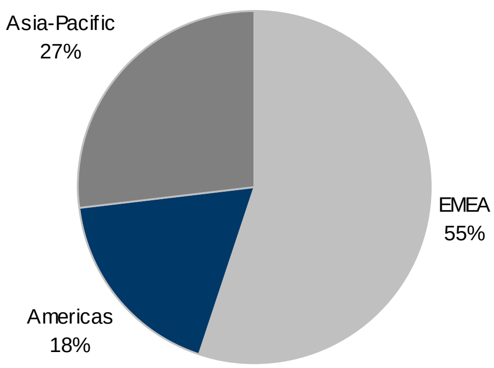
KONE is one of the global leaders in the elevator and escalator industry providing industry-leading elevators, escalators and automatic building doors as well as solutions for modernization and maintenance. The group is headquartered in Finland. In 2011, KONE had annual net sales of €5.2bn and approximately 38,000 employees.

According to the company, the group has close to 400,000 customers spread across 50 countries. The group has 7 production units and 7 R&D centres worldwide.

KONE's key customers are construction companies, developers, building owners and facility managers. Architects and consultants also play a key role in decisions regarding elevators and escalators. The market can be broken down into residential, office and retail, public transportation and airports segments. KONE also supplies to hospitals, leisure centres, hotels and industrial properties. In 2011 Kone had revenues of €2.4bn for New Equipments and €2.8bn for Services (Maintenance and Modernisation)

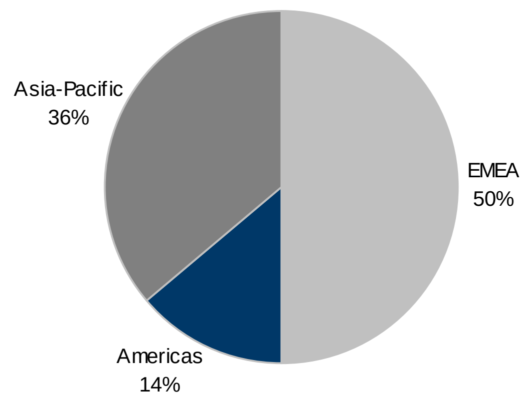
Figure 54 shows sales by geography and Figure 55 shows employees by geography. The geographical distribution of employees and sales is proportionate except for Asia.

Figure 54: KONE: Revenue by geography, 2011



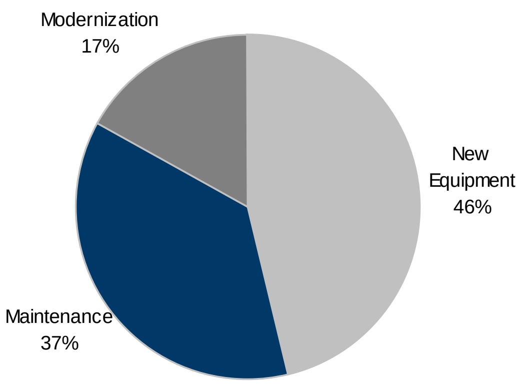
Source: Company data

Figure 55: KONE: Employees by geography, 2011



Source: Company data

Figure 56: KONE: New Equipment vs Services 2011



Source: Company data

Figure 57: Management

Chairman	Antti Herlin
CEO	Matti Alahuhta
CFO	Henrik Ehrnrooth
Investor Relations	Karla Lindahl
	Tel: +358 204 754 441
	karla.lindahl@kone.com
	investors@kone.com

Source: Company data

CREDIT SUISSE

17 April 2012

Europe / Switzerland
Engineering & Construction

Schindler-Holding AG (SCHP.S)

Upgrade to Outperform

Rating (from Neutral)	**OUTPERFORM***
Price (13 Apr 12, SFr)	109.20
Target price (SFr)	120.00[1]
Market cap. (SFr m)	13,038.50
Enterprise value (SFr m)	10,785.9

**Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.*
[1]Target price is for 12 months.

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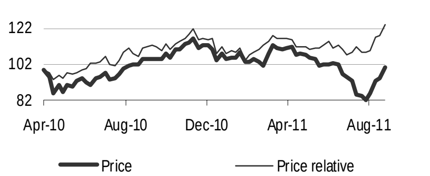
- **Upgrade to Outperform, TP to CHF 120.** We favour the company's margin improvement potential over the next two years driven by restructuring and new product launches, its exposure to North America, which is displaying signs of a recovery, and its favourable emerging markets exposure. We find valuation attractive and increase our TP to CHF 120.
- **1) Margin potential.** We believe Schindler can achieve its 14% E&E margin target and beyond over the next two years driven by restructuring (CHF 100m saving targeted, 1,000 employees leaving the company) and new products lifecycle. Schindler is currently launching 5500 mid-size market products as well as 3600 and 3100 simplified versions of 3300 for mass market and 7030 (simplified 7000 for high rise). These products have higher embedded profitability than Schindler's current margin, which we expect to start appearing in performance as the company advances further on the learning curve. We believe Schindler offers a better margin upside over the next two years than its peers because it is at a much earlier stage of its products lifecycle. **2) Exposure to North America** (we estimate c20% of group sales) that offers a good scope for recovery (NI market is c50% off the peak in the US). **3) Favourable emerging market exposure.** Schindler currently has relatively small exposure to China (where we see some volume risk this year) but increased its share in 2011 and we believe is in a position to gain more with the new Schindler 3600 product. Also, Schindler has a solid position in India (where it is investing further) and a very strong position in Latin America, the markets that we believe offer the best growth potential.
- **Valuation.** Schindler is trading on a 2012E P/E of 17.9x (net cash c15% of market capitalisation), EV/EBIT of 10.7x and EV/Sales of 1.32x. The stock is trading on a small premium to Pan-Euro Capital Goods sector on 2012E and 2013E EV/EBIT but at a 10% discount to Kone. Our reverse-DCF suggests the shares are currently discounting a mid-cycle margin for Elevators & Escalators of c12% vs the targeted 14%.
- **Catalysts.** Q1 results 19 April. Further acquisitions in emerging markets.

Share price performance



The price relative chart measures performance against the SMI PRICE which closed at 6079.43 on 13/04/12
On 13/04/12 the spot exchange rate was SFr1.2/Eu 1. - Eu .77/US$1

Performance Over	1M	3M	12M
Absolute (%)	-1.4	-0.6	-0.7
Relative (%)	10.1	2.3	21.1

Financial and valuation metrics

Year	12/11A	12/12E	12/13E	12/14E
Revenue (SFr m)	7,854.0	8,246.7	8,659.0	9,092.0
EBITDA (SFr m)	1,044.00	1,168.28	1,301.53	1,402.86
Net Income (SFr m)	688.0	724.1	799.0	868.5
CS adj. EPS (SFr)	5.80	6.11	6.74	7.33
Prev. EPS (SFr)	—	—	—	—
ROIC (%)	88.65	68.94	64.94	66.20
P/E (adj., x)	18.82	17.88	16.20	14.90
P/E rel. (%)	134.7	142.0	142.5	142.1
EV/EBITDA	10.5	9.2	8.0	7.0

Dividend (12/12E, SFr)	2.26	IC (12/12E, SFr m)	1,188.83
Dividend yield (%)	2.1	EV/IC	9.1
Net debt (12/12E, SFr m)	-2,109.7	Current WACC	9.0
Net debt/equity (12/12E, %)	-64.0	Free float (%)	60.0
BV/share (12/12E, SFr)	26.9	Number of shares (m)	120.39

Source: FTI, Company data, Thomson Reuters, Credit Suisse Securities (EUROPE) LTD. Estimates.

Valuation

DCF

We use a Discounted Cash Flow (DCF) valuation as our primary tool for determining Schindler's fair value. Our DCF model is based on Schindler's core business (Elevators and Escalators) and we add the value of ALSO stake at the current market price.

We use a three-stage DCF with the following method:

- *Stage 1*—Years 1 to 3. We use our explicit model forecasts for free cash flow for the first three years.
- *Stage 2*—Years 4 to 10. We use broader assumptions for the next seven years (Figure 58).
- *Stage 3*—Terminal value. We base our terminal value on a year-ten cash flow, a terminal growth rate of 2% and an invested capital growth rate of 2%.

Figure 58: **Schindler: Key DCF assumptions**

Growth (years 4 to 10)	4.0%
EBIT margin (years 4+)	13.5%
NOPAT margin	9.6%
Invested capital	1,846
Invested capital growth (years 4+)	2.0%
Terminal growth rate	2.0%
10-year average FCF yield	9.1%

Source: Credit Suisse estimates

Our base-case DCF valuation for Schindler is **CHF 120** per share based on a 13.5% through-cycle margin assumption discounting the E&E business profitability improving to c14% from the current 12%, less central function costs. We find this valuation is quite sensitive to the long-term (year-four onwards) operating profit margin and mid-term (years four to ten) growth rate assumptions. We therefore believe a useful application of this model is to show the DCF value sensitivity to these parameters.

In Figure 59, we show our DCF valuation sensitivity to the operating profit (EBIT) and mid-term growth rate assumptions.

Figure 59: **Schindler: DCF sensitivity to EBIT margin and mid-term growth assumptions**
SFr, unless otherwise stated

EBITA margin	NOPAT margin	Growth rate												
		1.5%	**2.0%**	**2.5%**	**3.0%**	**3.5%**	**4.0%**	**4.5%**	**5.0%**	**5.5%**	**6.0%**	**6.5%**	**7.0%**	**7.5%**
11.5%	**8.2%**	95	97	99	101	104	106	108	110	113	115	118	120	123
12.0%	**8.5%**	98	100	103	105	107	109	112	114	116	119	122	124	127
12.5%	**8.9%**	101	104	106	108	110	113	115	118	120	123	126	128	131
13.0%	**9.2%**	104	107	109	111	114	116	119	121	124	127	130	132	135
13.5%	**9.6%**	107	110	112	114	117	**120**	122	125	128	131	133	137	140
14.0%	**9.9%**	110	113	115	118	120	123	126	129	131	134	137	141	144
14.5%	**10.3%**	113	116	118	121	124	126	129	132	135	138	141	145	148
15.0%	**10.7%**	116	119	121	124	127	130	133	136	139	142	145	149	152
15.5%	**11.0%**	119	122	125	127	130	133	136	139	143	146	149	153	156
16.0%	**11.4%**	122	125	128	131	134	137	140	143	146	150	153	157	160

Source: Credit Suisse estimates

Multiples valuation

In Figure 60, we show our calculation of enterprise value (EV) for Schindler Group.

Figure 60: Schindler: Enterprise value calculation

CHF in millions, unless otherwise stated

EV calculation	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Share price (CHF)	24.3	27.0	26.9	39.8	48.1	65.2	77.1	68.0	64.2	96.0	103.2	110.2	110.2	110.2
Number of shares (m)	131	127	124	124	124	124	122	120	119	120	119	119	119	119
Market capitalisation	**3,181**	**3,430**	**3,342**	**4,928**	**5,962**	**8,053**	**9,450**	**8,136**	**7,646**	**11,471**	**12,236**	**13,063**	**13,063**	**13,063**
Net debt	197	(404)	(645)	(428)	(425)	(222)	(530)	(1,036)	(1,757)	(2,158)	(1,874)	(2,110)	(2,528)	(3,060)
Minority interest	119	123	126	119	136	117	125	111	109	104	(35)	(5)	28	63
Pension deficit									198	198	198	198	198	198
Value of ALSO stake*											(213)	(143)	(143)	(143)
Schindler Group EV	**3,497**	**3,149**	**2,823**	**4,619**	**5,673**	**7,948**	**9,045**	**7,211**	**6,197**	**9,615**	**10,312**	**11,003**	**10,618**	**10,121**

NB. The net debt values in the table above may not match the databox because of difference in calculation methodology

Source: Company data, Credit Suisse estimates

Multiples

In Figure 61, we show historical and forward-looking valuation multiples for Schindler.

Figure 61: Schindler: Valuation multiples history and forecast

CHF, unless otherwise stated

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Average/Current	24.3	27.0	26.9	39.8	48.1	65.2	77.1	68.0	64.2	96.0	103.2	109.2	109.2	109.2
High	27.6	31.6	34.5	47.5	53.0	76.0	84.5	86.8	78.5	116.8	113.6			
Low	19.7	22.8	17.6	34.3	42.5	52.0	67.0	45.4	47.1	77.7	81.0			
Year end	23.5	26.0	34.3	47.5	52.0	76.0	73.0	47.1	78.4	111.9	109.1			
P/E average	8.3	8.9	10.2	12.6	15.7	18.9	17.3	13.2	11.8	16.9	17.8	17.9	16.2	14.9
P/E high	9.5	10.5	13.1	15.1	17.3	22.1	18.9	16.9	14.5	20.6	19.6			
P/E low	6.8	7.5	6.7	10.9	13.9	15.1	15.0	8.8	8.7	13.7	14.0			
EV:sales average	0.46	0.44	0.41	0.60	0.67	0.74	0.67	0.53	0.49	1.17	1.31	1.32	1.21	1.10
EV:sales high	0.47	0.47	0.49	0.68	0.71	0.84	0.72	0.67	0.61	1.45	1.47			
EV:sales low	0.35	0.33	0.22	0.48	0.56	0.57	0.56	0.32	0.31	0.88	0.98			
Group operating margin	*5.9%*	*6.3%*	*7.1%*	*7.3%*	*7.2%*	*6.0%*	*6.0%*	*6.3%*	*7.8%*	*11.9%*	*11.8%*	*12.4%*	*13.1%*	*13.6%*
EV:EBITDA average	5.6	4.8	4.4	6.6	7.9	10.5	9.7	7.3	5.4	8.7	9.9	9.3	8.1	7.1
EV:EBITDA high	5.8	5.2	5.3	7.4	8.3	11.8	10.4	9.3	6.7	10.8	11.1			
EV:EBITDA low	4.2	3.6	2.4	5.2	6.6	8.0	8.1	4.4	3.5	6.5	7.4			
EV:EBIT average	7.8	6.9	5.7	8.2	9.3	12.4	11.2	8.3	6.2	9.9	11.1	10.7	9.3	8.1
EV:EBIT high	8.1	7.5	6.9	9.2	9.9	14.0	12.0	10.6	7.7	12.2	12.5			
EV:EBIT low	6.0	5.3	3.0	6.5	7.8	9.5	9.4	5.1	4.0	7.4	8.3			
FCF yield average	17.6%	13.6%	11.8%	7.5%	4.6%	5.4%	5.5%	11.7%	12.1%	8.0%	4.6%	3.9%	5.6%	6.6%
FCF yield high	15.4%	11.6%	9.2%	6.3%	4.2%	4.6%	5.0%	9.1%	9.9%	6.5%	4.2%			
FCF yield low	21.6%	16.0%	18.0%	8.7%	5.2%	6.8%	6.3%	17.4%	16.4%	9.8%	5.8%			
Dividend yield average	2.1%	0.0%	2.2%	1.8%	1.9%	2.0%	2.1%	2.9%	3.1%	3.1%	1.9%	2.1%	2.3%	2.5%
Dividend yield high	1.8%	0.0%	1.7%	1.5%	1.7%	1.7%	1.9%	2.3%	2.5%	2.6%	1.8%			
Dividend yield low	2.5%	0.0%	3.4%	2.0%	2.1%	2.5%	2.4%	4.4%	4.3%	3.9%	2.5%			
EV/IC average	1.5	2.0	2.0	2.6	2.5	2.8	3.6	3.9	3.5	6.9	5.2	5.0	4.6	4.3
P/BV average	2.20	2.88	2.59	3.30	3.16	3.70	4.54	4.03	3.03	4.07	4.34	3.92	3.38	2.94
ROIC	*17.7%*	*8.0%*	*20.4%*	*21.4%*	*18.5%*	*16.2%*	*18.3%*	*33.8%*	*40.7%*	*50.9%*	*33.9%*	*33.9%*	*35.8%*	*38.0%*
ROE	*30.2%*	*11.5%*	*25.0%*	*27.6%*	*23.7%*	*21.9%*	*22.8%*	*31.8%*	*28.5%*	*25.0%*	*23.9%*	*22.3%*	*21.1%*	*19.9%*
ROCE	*26.6%*	*17.4%*	*50.0%*	*38.6%*	*30.6%*	*24.4%*	*30.6%*	*65.4%*	*94.0%*	*106.8%*	*71.5%*	*61.8%*	*62.1%*	*65.1%*

NB. EV-based multiples in this figure may not match the databoxes, which use a simple EV calculation (market capitalisation + current net debt). ROIC may not match the databox because different methodology used in calculation of IC. Source: Company data, Credit Suisse estimates

Financial summary

Figure 62: Schindler: P& L summary
CHF in millions, unless otherwise stated

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Revenue	**7,888**	**7,725**	**8,254**	**8,870**	**11,106**	**13,835**	**14,027**	**8,281**	**8,187**	**7,854**	**8,247**	**8,659**	**9,092**
Growth	*-5.3%*	*-2.1%*	*6.8%*	*7.5%*	*25.2%*	*24.6%*	*1.4%*	*-41.0%*	*-1.1%*	*-4.1%*	*5.0%*	*5.0%*	*5.0%*
Material cost	(3,123)	(3,052)	(3,492)	(3,836)	(5,481)	(7,564)	(7,641)	(2,250)	(2,302)	(2,329)	(2,309)	(2,425)	(2,546)
Personnel cost	(2,925)	(2,837)	(2,814)	(2,920)	(3,268)	(3,512)	(3,522)	(3,295)	(3,162)	(2,965)	(3,134)	(3,204)	(3,364)
Other operating cost	(1,305)	(1,264)	(1,314)	(1,391)	(1,519)	(1,816)	(1,876)	(1,664)	(1,629)	(1,570)	(1,555)	(1,648)	(1,698)
Depreciation & amortisation	(227)	(160)	(148)	(117)	(122)	(128)	(129)	(120)	(132)	(119)	(148)	(171)	(168)
Change of provisions	(186)	(6)	35	28	10	15	30	(18)	(12)	(81)	(81)	(81)	(81)
Antitrust fine	-	-	-	-	-	(293)	-	-	-	-	-	-	-
Total cost	(7,766)	(7,319)	(7,733)	(8,236)	(10,380)	(13,298)	(13,138)	(7,347)	(7,237)	(7,064)	(7,226)	(7,528)	(7,857)
Reported EBIT	122	406	521	634	726	537	889	934	950	790	1,021	1,131	1,235
Reported EBIT margin	*1.5%*	*5.3%*	*6.3%*	*7.1%*	*6.5%*	*3.9%*	*6.3%*	*11.3%*	*11.6%*	*10.1%*	*12.4%*	*13.1%*	*13.6%*
Exceptionals / one-offs	(376)	(144)	(83)	(3)	63	(293)	-	(6)	(25)	(135)	-	-	-
Operating profit	**498**	**550**	**604**	**637**	**663**	**830**	**889**	**940**	**975**	**925**	**1,021**	**1,131**	**1,235**
Operating profit margin	*6.3%*	*7.1%*	*7.3%*	*7.2%*	*6.0%*	*6.0%*	*6.3%*	*11.4%*	*11.9%*	*11.8%*	*12.4%*	*13.1%*	*13.6%*
Depreciation & amortisation	(227)	(160)	(148)	(117)	(122)	(128)	(129)	(120)	(132)	(119)	(148)	(171)	(168)
EBITDA	**725**	**710**	**752**	**754**	**785**	**958**	**1,018**	**1,060**	**1,107**	**1,044**	**1,168**	**1,302**	**1,403**
EBITDA margin	*9.2%*	*9.2%*	*9.1%*	*8.5%*	*7.1%*	*6.9%*	*7.3%*	*12.8%*	*13.5%*	*13.3%*	*14.2%*	*15.0%*	*15.4%*
Net interest	(60)	(62)	(39)	(62)	(15)	(51)	(11)	(50)	(12)	-	13	19	25
Profit before tax	62	344	482	572	711	486	878	884	938	790	1,033	1,150	1,260
Underlying PBT	**438**	**488**	**565**	**575**	**648**	**779**	**878**	**890**	**963**	**925**	**1,033**	**1,150**	**1,260**
Tax	(45)	(142)	(153)	(171)	(200)	(208)	(244)	(248)	(259)	(214)	(289)	(328)	(365)
Effective rate	*72.6%*	*41.3%*	*31.7%*	*29.9%*	*28.1%*	*42.8%*	*27.8%*	*28.1%*	*27.6%*	*27.1%*	*28.0%*	*28.5%*	*29.0%*
Reported profit after tax	17	202	329	401	511	278	634	636	679	576	744	822	894
Minority interest	9	18	21	24	23	24	19	23	25	23	30	33	36
Reported net income	8	184	308	377	488	254	615	625	677	588	724	799	869
Operating net income	**384**	**328**	**391**	**380**	**425**	**547**	**615**	**631**	**702**	**688**	**724**	**799**	**869**
Net income margin	*4.9%*	*4.2%*	*4.7%*	*4.3%*	*3.8%*	*4.0%*	*4.4%*	*7.6%*	*8.6%*	*8.8%*	*8.8%*	*9.2%*	*9.6%*
CS operating EPS (CHF)	**3.0**	**2.6**	**3.2**	**3.1**	**3.4**	**4.5**	**5.1**	**5.3**	**5.9**	**5.8**	**6.1**	**6.7**	**7.3**
EPS growth	*3.3%*	*-12.7%*	*19.8%*	*-2.9%*	*12.2%*	*29.9%*	*15.1%*	*3.1%*	*11.3%*	*2.1%*	*5.3%*	*10.3%*	*8.7%*
DPS (CHF)	**-**	**0.6**	**0.7**	**0.9**	**1.3**	**1.6**	**2.0**	**2.0**	**3.0**	**2.0**	**2.3**	**2.5**	**2.7**
DPS growth	*-100.0%*	*na*	*16.7%*	*28.6%*	*44.4%*	*23.1%*	*25.0%*	*0.0%*	*50.0%*	*-33.3%*	*13.1%*	*10.3%*	*8.7%*
Dividend cover (x)	*na*	*4.4*	*4.5*	*3.4*	*2.6*	*2.8*	*2.6*	*2.6*	*2.0*	*2.9*	*2.7*	*2.7*	*2.7*
Shares & BPC in issue (m)	129	129	125	125	125	125	122	120	120	120	120	120	120

Source: Company data, Credit Suisse estimates

Figure 63: Schindler: Balance sheet summary

CHF in millions, unless otherwise stated

BALANCE SHEET	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
PPE and Intangibles	1,144	1,119	1,008	1,268	1,500	1,476	1,272	1,335	1,224	1,325	1,391	1,407	1,369
Other fixed assets	380	367	733	872	859	738	561	642	804	1221	1251	1281	1311
Fixed assets	**1,524**	**1,486**	**1,741**	**2,140**	**2,359**	**2,214**	**1,833**	**1,977**	**2,028**	**2,546**	**2,642**	**2,688**	**2,680**
Inventories	341	337	341	435	810	789	605	595	359	407	429	474	498
Production orders in progress	1,177	1,239	1,178	1,495	1,798	2,169	1,955	1,822	1,721	1,857	1,920	2,016	2,117
Customer Advances	(1,196)	(1,117)	(1,011)	(1,386)	(1,716)	(2,146)	(2,052)	(2,126)	(2,157)	(2,283)	(2,259)	(2,372)	(2,491)
Trade and other receivables	1,454	1,358	1,435	1,724	2,262	2,187	1,947	1,871	1,463	1,552	1,582	1,661	1,744
Trade and other payables	(1,598)	(1,721)	(1,753)	(1,994)	(2,569)	(2,616)	(2,387)	(2,374)	(2,027)	(2,087)	(2,146)	(2,206)	(2,242)
Working capital	**178**	**96**	**190**	**274**	**585**	**383**	**68**	**(212)**	**(641)**	**(554)**	**(474)**	**(427)**	**(374)**
Working capital days	*8*	*5*	*8*	*11*	*19*	*10*	*2*	*(9)*	*(29)*	*(26)*	*(21)*	*(18)*	*(15)*
WC as % of sales	*2.3%*	*1.2%*	*2.3%*	*3.1%*	*5.3%*	*2.8%*	*0.5%*	*-2.6%*	*-7.8%*	*-7.1%*	*-5.8%*	*-4.9%*	*-4.1%*
Cash and cash equivalents	1,412	1,580	1,350	1,220	1,220	1,286	1,819	2,176	2,435	2,662	2,898	3,316	3,848
Short-term debt	(252)	(132)	(224)	(360)	(428)	(375)	(526)	(174)	(145)	(169)	(315)	(315)	(315)
Long-term debt	(756)	(803)	(698)	(435)	(570)	(381)	(257)	(245)	(132)	(619)	(473)	(473)	(473)
Net debt / (cash)	**(404)**	**(645)**	**(428)**	**(425)**	**(222)**	**(530)**	**(1,036)**	**(1,757)**	**(2,158)**	**(1,874)**	**(2,110)**	**(2,528)**	**(3,060)**
Provisions	(849)	(851)	(795)	(790)	(783)	(825)	(737)	(803)	(788)	(875)	(805)	(785)	(785)
Other liabilities	(67)	(85)	(103)	(164)	(212)	(225)	(200)	(199)	(164)	(183)	(183)	(183)	(183)
Other assets	-	-	34	-	6	5	18	1	736	9	9	9	9
Net assets	**1,190**	**1,291**	**1,495**	**1,885**	**2,177**	**2,082**	**2,018**	**2,521**	**3,329**	**2,817**	**3,298**	**3,830**	**4,407**

Source: Company data, Credit Suisse estimates

Figure 64: Schindler: Cash flow summary

CHF in millions, unless otherwise stated

CASH FLOW	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Operating net income	**384**	**328**	**391**	**380**	**425**	**547**	**615**	**619**	**679**	**688**	**724**	**799**	**869**
Minority interest	9	18	21	24	23	24	19	28	34	23	30	33	36
Exceptional costs	(376)	(144)	(83)	(3)	63	(293)	-	(6)	(25)	(100)	-	-	-
Depreciation & amort.	227	160	148	117	122	128	129	150	139	119	148	171	168
Change of provisions	186	6	(35)	(28)	(10)	(15)	(30)	10	11	81	(70)	(20)	-
Other non cash items	(4)	51	52	43	(5)	38	80	20	34	4	-	-	-
Contributions to pension fund	-	-	(20)	(71)	(22)	(37)	(34)	(26)	(23)	(47)	(30)	(30)	(30)
Gross cash flow	**426**	**419**	**474**	**462**	**596**	**392**	**779**	**795**	**849**	**768**	**802**	**952**	**1,042**
Working capital change	128	36	(41)	(115)	(120)	210	283	245	242	(78)	(80)	(47)	(53)
Operating cash flows	**554**	**455**	**433**	**347**	**476**	**602**	**1,062**	**1,040**	**1,091**	**690**	**722**	**905**	**989**
Operating cash conversion	*1.1*	*0.8*	*0.7*	*0.5*	*0.7*	*0.7*	*1.2*	*1.1*	*1.1*	*0.7*	*0.7*	*0.8*	*0.8*
Net capex	(89)	(62)	(65)	(71)	(40)	(82)	(114)	(130)	(179)	(131)	(214)	(186)	(130)
Free Cash Flow	**465**	**393**	**368**	**276**	**436**	**520**	**948**	**910**	**912**	**559**	**508**	**719**	**859**
FCF / Net income	*1.2*	*1.2*	*0.9*	*0.7*	*1.0*	*1.0*	*1.5*	*1.5*	*1.3*	*0.8*	*0.7*	*0.9*	*1.0*
Acquisitions/disposals	(14)	(41)	(45)	(108)	(311)	(1)	(103)	(17)	(167)	(277)	-	-	-
Loans raised / paid back	(243)	(71)	(40)	(185)	(136)	(170)	129	(362)	(13)	509	-	-	-
Shares issue / purchase	14	(73)	4	(11)	(52)	(167)	(182)	1	(59)	(233)	-	-	-
Dividends Paid	(130)	(14)	(87)	(100)	(131)	(174)	(211)	(263)	(267)	(378)	(272)	(301)	(327)
Investments	76	111	(619)	190	63	72	(308)	362	(15)	(56)	-	-	-
Net Cash Flow	**168**	**305**	**(419)**	**62**	**(131)**	**80**	**273**	**631**	**391**	**124**	**236**	**418**	**532**

Source: Company data, Credit Suisse estimates

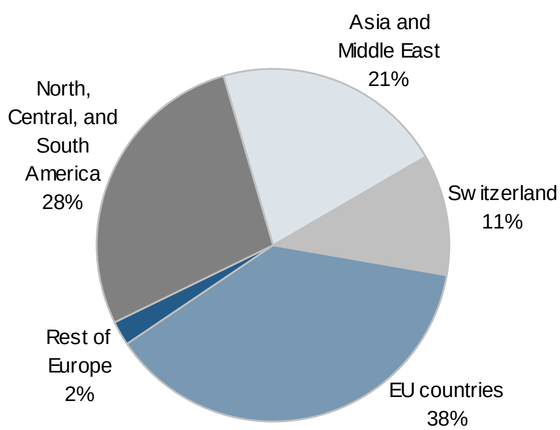
Company description

Schindler is one of the leading global makers and service providers of elevators, escalators and moving walkways. In recent years, Schindler has focused on becoming a customer-focused rather than purely technology-focused company. The company has also worked on standardising its product lines across geographies and moving away from very customer-specific tailored products in order to improve efficiency.

Schindler was founded in Switzerland in 1874. Schindler Group has total 13 production facilities of which 6 are based in Europe, 4 in Asia/Australia and 3 in America. The group employs 44,387 people in 1,000 branches across 140 countries. The group's production is heavily outsourced and only 8% of employees are involved in production, which mainly involves assembly. According to Schindler, around 30% of its installation teams are outsourced

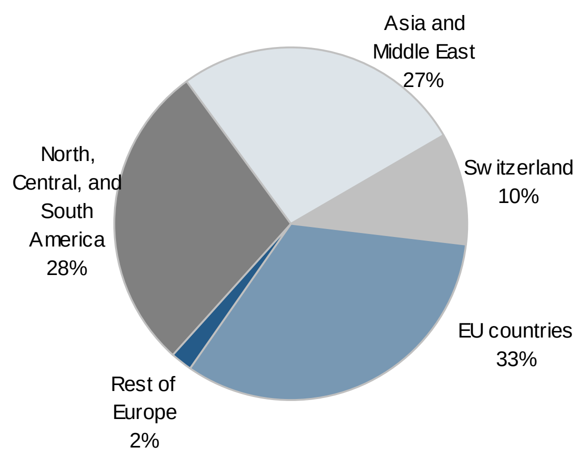
In 2011, the group reported consolidated net revenue of SFr 7.8bn and EBIT of SFr 963mn. Schindler generates c50% of its sales in Europe, of which 11% came from Switzerland. North, Central and South America together contributed 28% of sales, while Asia, Australia and Africa accounted for the remaining 21%.

Figure 65: **Schindler: Elevators & Escalators revenue by geography, 2011**



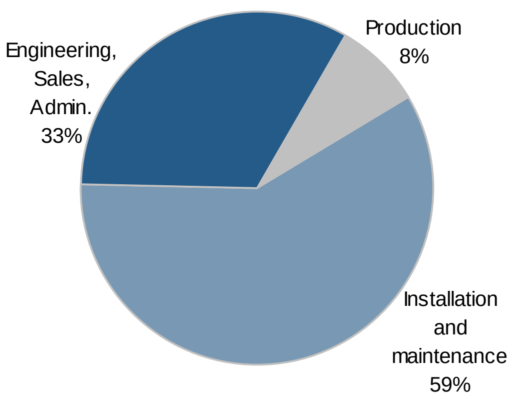
Source: Company data

Figure 66: **Schindler: Elevators & Escalators employees by geography, 2011**



Source: Company data

Figure 67: **Schindler: Employee by type, 2011**



Source: Company data

Figure 68: **Management**

Chairman	Alfred N. Schindler
CEO	Jurgen Tinggren
CFO	Erich Ammann
Investor Relations	Barbara Zach
	Tel: +41 41 445 3061
	barbara.zaech@ch.schindler.com

Source: Company data

Europe / Germany
Steel

Thyssen Krupp AG (TKAG.F)

Rating	**OUTPERFORM***
Price (13 Apr 12, Eu)	17.55
Target price (Eu)	35.00[1]
Market cap. (Eu m)	9,030.83
Enterprise value (Eu m)	21,743.4

**Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.*
[1]Target price is for 12 months.

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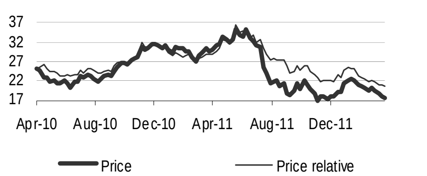
Steel Americas key to unlocking value

- **Investment Case:** Thyssen is likely to be a slow burner in the short term given limited earnings momentum (Q2 drag is steel Europe). ***Risk is TK's Q2 numbers are weaker than market expects (we estimate EBIT €99m)*** but come Q3 earnings should pick up significantly on a run rate basis.. Americas ramp up and optimisation is on track but likely to remain in loss next year. Ultimate revisiting of the strategy of 2000 (Steel partial IPO) remains likely in our view over the longer term. We think the focus and determination of the management team should not be underestimated regarding the long term value creation potential.
- **Catalysts:** Coke battery C already lit, ramps in April. Final ramp up of CSA through 2012, cost and mix optimisation next, then mix improvement. Waupaca sale on track. EC clearance of Outo deal could leave notional net debt below €3bn. Sale of Americas possible next year in our view if return targets unlikely. Ultimate break up of group to transfer capital from materials to technologies the end game in our view.
- **Valuation:** With Cap Goods now so material, a segmented view of valuation seems rational, and a break-up would likely realise the SOTP at long last. Our SOTP suggests steel is trading almost for 'free', versus a c50% EV/IC trough of pure play peers. Our SOTP is €35/share; in a scenario where we assume future growth and restructuring a long term value of €50/share is plausible on a 2-3 year timeframe, in our view.

Share price performance



The price relative chart measures performance against the GERMAN SE XETRA DAX INDEX which closed at 6629.33 on 13/04/12
On 13/04/12 the spot exchange rate was Eu .77 /US$1

Performance Over	1M	3M	12M
Absolute (%)	-14.0	-13.7	-41.0
Relative (%)	-10.3	-14.5	-36.3

Financial and valuation metrics

Year	09/11A	09/12E	09/13E	09/14E
Revenue (Eu m)	43,356.0	46,076.0	49,754.7	51,131.9
EBITDA (Eu m)	3,385.00	2,620.61	3,875.88	4,586.45
Net Income (Eu m)	1,451.0	592.5	1,072.1	1,607.2
CS adj. EPS (Eu)	3.04	1.15	2.08	3.12
Prev. EPS (Eu)	—	—	2.09	—
ROIC (%)	10.23	5.82	9.92	12.23
P/E (adj., x)	5.77	15.24	8.42	5.62
P/E rel. (%)	49.5	140.5	87.0	63.0
EV/EBITDA	5.9	8.3	5.5	4.6

Dividend (09/12E, Eu)	0.50	IC (09/12E, Eu m)	16,064.80
Dividend yield (%)	2.8	EV/IC	1.4
Net debt (09/12E, Eu m)	5,548.8	Current WACC	10.0
Net debt/equity (09/12E, %)	52.8	Free float (%)	75.0
BV/share (09/12E, Eu)	18.2	Number of shares (m)	514.49

Source: FTI, Company data, Thomson Reuters, Credit Suisse Securities (EUROPE) LTD. Estimates.

Company description

Historically a steel focused company with an industrials business, Thyssen has now evolved into a far more technology and innovation focused diversified industrial, the latter lead by the elevator business. Thyssen has eight divisions: Steel – Europe, Steel – Americas, Material Services, Elevators, Plant Technology, Components Technology, Marine Systems and Automotive (now components).

Thyssen has recently sold its underperforming Stainless Steel division to Outokompu of Finland. In 2011 Thyssen appointed a new management team (CEO/CFO) from outside the industry and the new management team is mid way through a cultural change programme at the company that we expect to result in significant valuation upside. As a conglomerate Thyssen has traded at a discount to its sum of parts valuation based on peer trading multiples but this is now at historical lows.

Figure 69: Revenue by geography, 2011

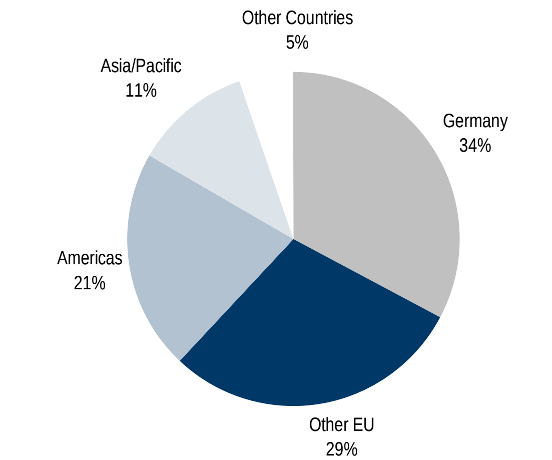


Figure 70: Employees by geography, 2011

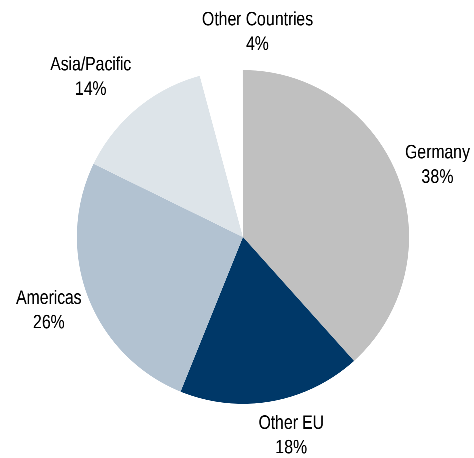


Figure 71: Employee by type, 2011

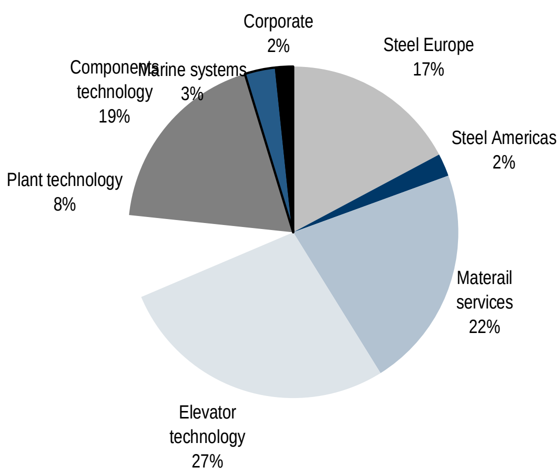


Figure 72: Management

Dr.-Ing. Heinrich Hiesinger
Chairman of the Executive Board

Dr. Olaf Berlien
Division Technologies
Business Area Elevator Technology

Dr. Claus Ehrenbeck
ThyssenKrupp AG
Corporate Investor Relations
P.O. Box, 45063 Essen
Phone: +49 201 844-536464
Fax: +49 201 844-536467
claus.ehrenbeck@thyssenkrupp.com

Source: Company data

Americas / United States
Aerospace & Defense

United Technologies Corp (UTX)

Rating	RESTRICTED*
Price (13 Apr 12, US$)	79.80
Target price (US$)	
52-week price range	91.39 - 67.44
Market cap. (US$ m)	72,630.95
Enterprise value (US$ m)	78,148.93

**Stock ratings are relative to the relevant country benchmark.*

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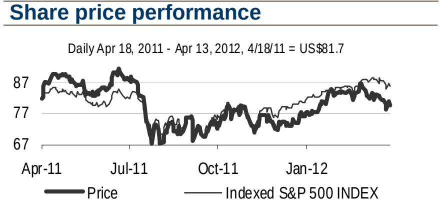
Slow start to the year, but momentum likely to build

- **Slow start to the year for Otis:** UTX guidance is for Otis to see $50-75m of EBIT growth in 2012, off mid-single-digit sales growth. The company highlighted a soft start to the year in China at its analyst day in March, and investor expectations around a China re-acceleration in the 2H, or a developed market recovery, appear very muted. Given these cautious assumptions, we think Otis should meet company guidance this year. Its position as the E&E market leader theoretically renders it vulnerable, but Otis' strong position in all major emerging markets implies that its global market share will remain well ahead, regardless of regional growth nuances.
- **Industry-high margins:** Buyside expectations are that Otis operating margins are at a peak. We note though that 20%+ margins (the long-term target for Otis) are not unprecedented among industrial companies (particularly those with a high service content), and we think 20-25% incremental margins are sustainable. China remains a potential drag for at least the rest of this year, but we estimate that it represents only 15% of Otis' global profits (given the disparity between aftermarket and OE margins). The most likely source of downwards risk to margins is an OE boom in developed economies but we think investor sentiment towards Otis is unlikely to deteriorate should this occur.
- **Other businesses:** Investors are concerned in particular about the CCS (55% of forecasted segment profit growth this year) outlook given weak (US) HVAC markets and the F&S earnings downgrades of 2011. Earnings could be down double-digit y-o-y in Q1, but we think that HVAC will revive as we move into the summer selling season, and divestments in F&S will cause reported margins to increase. In Pratt, commercial aero spares demand we think started the year softly, but should accelerate slightly as the y-o-y comps become easier. One potential catalyst relates to the value that UTX can create from the divestment of the industrial businesses out of HS, particularly given rising industrial M&A activity.

Share price performance



On 04/13/12 the S&P 500 INDEX closed at 1370.26

Quarterly EPS	Q1	Q2	Q3	Q4
2011A	1.06	1.41	1.42	1.41
2012E	1.20	1.39	1.43	1.55
2013E	—	—	—	—

Financial and valuation metrics

Year	12/11A	12/12E	12/13E	12/14E
EPS (CS adj.) (US$)	5.30	5.57	6.44	6.93
Prev. EPS (US$)	—	—	—	—
P/E (x)	15.1	14.3	12.4	11.5
P/E rel. (%)	103.9	107.3	104.5	108.2
Revenue (US$ m)	55,786.0	58,119.1	61,872.0	64,459.0
EBITDA (US$ m)	9,195.0	9,622.2	10,728.4	11,268.9
OCFPS (US$)	6.76	4.75	8.07	8.61
P/OCF (x)	10.8	16.8	9.9	9.3
EV/EBITDA (current)	8.4	8.0	7.2	6.8
Net debt (US$ m)	4,300	5,518	1,194	-3,489
ROIC (%)	20.01	21.25	21.24	22.55

Number of shares (m)	910.16	IC (current, US$ m)	27,120.00
BV/share (Next Qtr., US$)	25.5	EV/IC (x)	2.8
Net debt (Next Qtr., US$ m)	3,736.6	Dividend (Next Qtr., US$)	—
Net debt/tot cap (Next Qtr., %)	15.8	Dividend yield (%)	—

Source: Company data, Credit Suisse estimates.

Other key listed players

Figure 73: Summary of other key players (Not Covered By Credit Suisse) (priced as of 16 April 2012)

Share prices are in local currencies, EV, Market Capitalisation, Sales, EBITDA & EBIT figures are in €m

Name	Ticker	Currency	Country	Current Price	Price change 12M, %	Price change 1M, %	EV €m	Mkt Cap €m	Sales 2010 €m	Sales 2011 €m	Sales 2012E €m	EBITDA 2010 €m	EBITDA 2011 €m	EBIT 2010 €m	EBIT 2011 €m
CANNY ELEVATOR	002367 CH	CNY	China	9.1	-1	-2	293	422	132	194	243	17	22	14	18
SJEC	601313 CH	CNY	China	11	0	-6	263	291	184	202	248		22	22	19
SAVARIA	SIS CN	CAD	Canada	1.36	-14	-13	30	24	50	50	0	4	4	3	3
MONTI ASCENSORI	MSA IM	EUR	Italy	-	0	0									
YUNGTAY ENGINEERING	1507 TT	TWD	Taiwan	48	6	0	485	518	97	99	100	17	17	15	16
SYMAX LIFT HOLDING	SYL CN	CAD	China	0.13	-26	-10	10.6	3.1	15.3			1.1		0.6	
FUJITEC	6406 JT	JPY	Japan	495	3	-13	297	439	1,004	965	983	72	71	50	49
HYUNDAI ELEVATOR	017800 KS	KRW	S. Korea	107,500	-18	-21	992	790	572	602		36	23	29	18
KLEEMANN HELLAS	KLEM GA	EUR	Germany	0.81	1	1	42	19	91	91		9	6	7	4
ZARDOYA OTIS	ZOT SM	EUR	Spain	9.3	-13	-4	3,355	3,394	863	819	815	305	289	290	274

NB. Monti Ascensori filed for bankruptcy and there share price is therefore not available

Source: Company data, the BLOOMBERG PROFESSIONAL™ service

Canny Elevator (China)

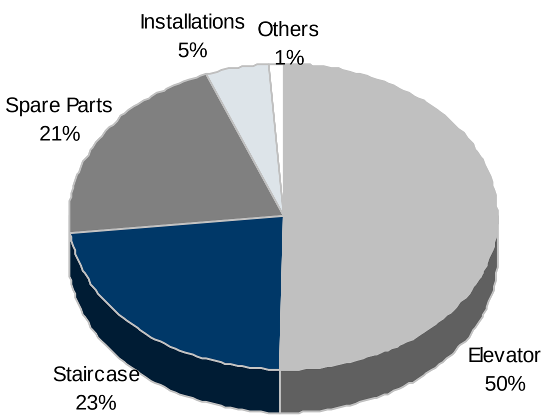
002367 CH – Mkt cap €422m – 12-month share price performance: -1%

Canny Elevator, the biggest elevator manufacturer with self-owned brands in China, is focused on the production, sales, installation and maintenance and repairing of elevator, escalator and key parts. The company provides various kinds of elevators as well as escalators. Canny also offers elevator parts and components, including up and down drive assemblies and escalator subsystems. The Company distributes its products in domestic markets and to overseas markets.

Escalator, among its four main businesses, has enjoyed competitive advantage in domestic elevator brands. In 2009 this business had an order backlog of 1,279 sets valued at RMB 322m. Of these orders RMB 201m (or 281 sets) were medium and high-rise escalators.

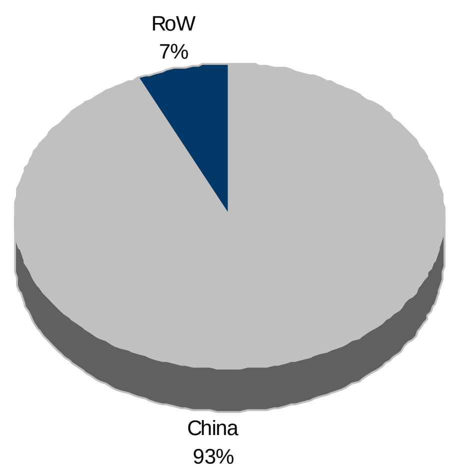
The orders for Elevators have also progressed reaching RMB 698m, 4,019 sets in total, of which medium and high-speed elevators registered 2,833 sets valued at RMB 551m.

Figure 74: **Canny Elevator (2011)**



Source: Company data

Figure 75: **Canny Elevator (2011)**



Source: Company data

Figure 76: **Canny Elevator Financials**

	2008	2009	2010	2011
Chinese Yuan mn				
Revenue	687	818	1084	1595
yoy growth		*19.1%*	*32.4%*	*47.2%*
EBITDA	69	116	136	178
margin	*10.1%*	*14.2%*	*12.6%*	*11.1%*
EBIT	57	98	116	149
margin	*8.3%*	*11.9%*	*10.7%*	*9.4%*

Source: Company data, Credit Suisse research

Figure 77: **Canny Elevator**

Major Customers

Thyssen Elevators
GY Century Golden Resources Real Estate
Anhui Shiji Jinyuan Real Estate
Guangzhou Otis Elevator
Shanghai Fujitec Escalator
Suzhour Jiangnan Express Elevator
Russian PELK
G&P Lift

Source: Company data

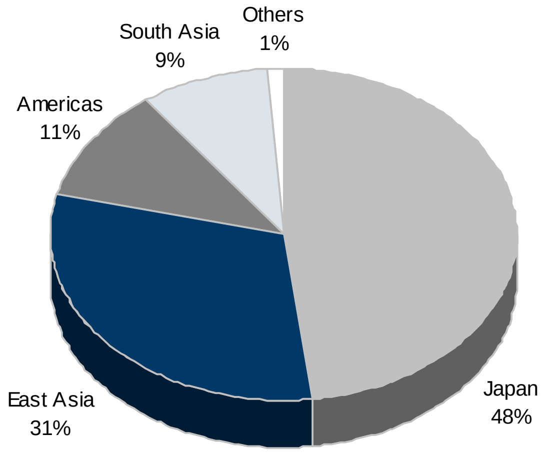
Fujitec (Japan)

6406 JT – Mkt cap €439m – 1-year share price performance: +3%

Fujitec is a company mainly engaged in the manufacture and sale of transportation systems. The Company is involved in the research, development, manufacture, sale, installation and maintenance of elevators, escalators, moving walks, vertical parking equipments and other products. The Company distributes its products in the domestic market and to the overseas markets including the United States, Canada, Argentina, Singapore, Malaysia, India, China, Hong Kong, Taiwan, Korea, Europe, as well as Middle and Near East. As of March 31, 2011, the Company had 17 consolidated subsidiaries.

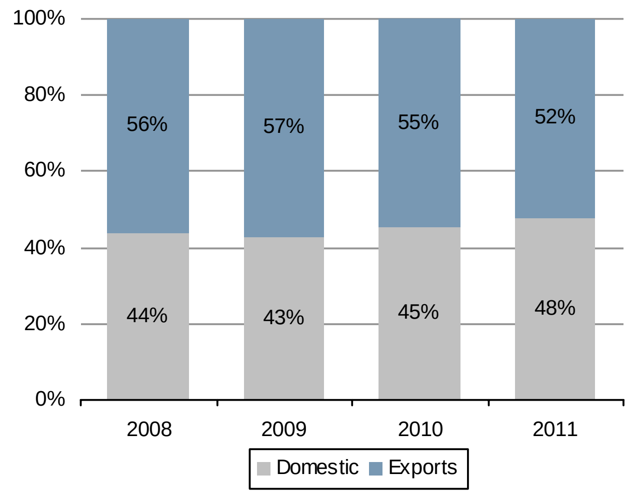
On April 1, 2011, Fujitec relocated their "Global business headquarters" which supervises the Group from Japan to Shanghai with objective to expand market share and increase profits by strengthening the presence in global markets.

Figure 78: **Fujitec geographical exposure(2011)**



Source: Company data

Figure 79: **Fujitec revenue segment**



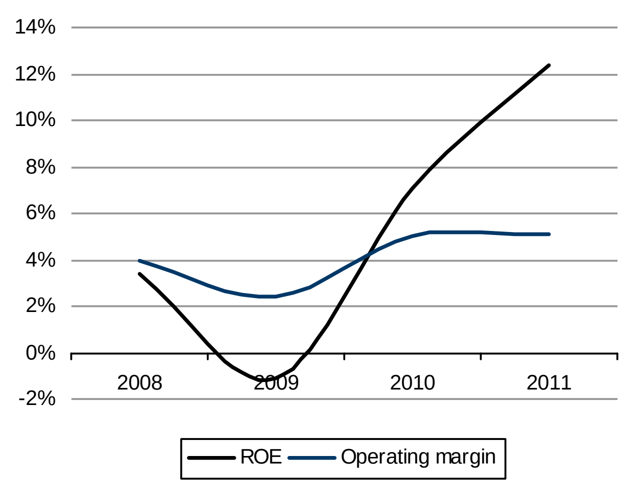
Source: Company data

Figure 80: **Financials**

	2008	2009	2010	2011
Yen mn				
Revenues	110,632	107,609	106,137	102,053
yoy growth		*-2.7%*	*-1.4%*	*-3.8%*
EBITDA	6,800	5,170	7,650	7,470
margin	*6.1%*	*4.8%*	*7.2%*	*7.3%*
EBIT	4,428	2,569	5,288	5,221
margin	*4.0%*	*2.4%*	*5.0%*	*5.1%*

Source: Company data

Figure 81: **Fujitec profitability**



Source: Company data

Hyundai Elevators (Korea)

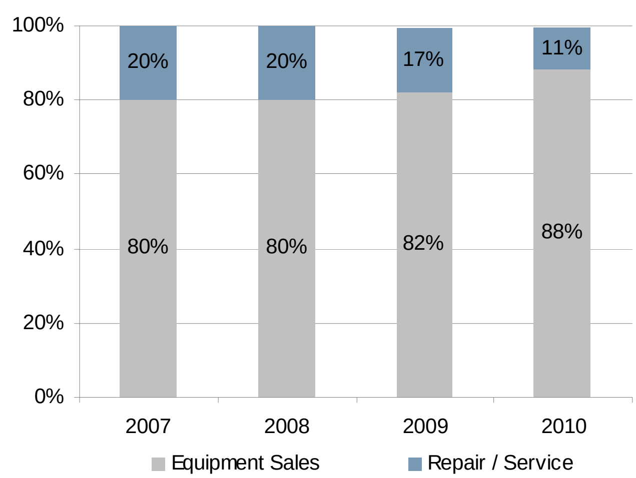
017800 KS – Mkt cap €790m – 1-year share price performance: -18.0%

Hyundai Elevator Co. Ltd. was established in 1984 as a Joint Venture between Hyundai and Westinghouse (USA) to manufacture various kinds of elevators. Today, the company provides a full line of moving systems bringing together some of the most advanced technology and designs in the industry.

The company is specialized in the provision of vertical and horizontal transportation systems. The Company's products include elevators for passengers, observation, hospital beds, automobiles, freights and marine applications; escalators, including millennium escalators, modular escalators, H series escalators and moving walkways; material handling systems, including stacker cranes, automatic guided vehicles (AGVs) and robotic transfer vehicles (RTVs); auto parking systems, including elevator parking systems, vertical rotating systems, puzzle parking systems and cart parking systems, and platform screen doors (PSDs), used in subway and light rail transit (LRT) to cut off platform from the railway. The Company also provides maintenance services.

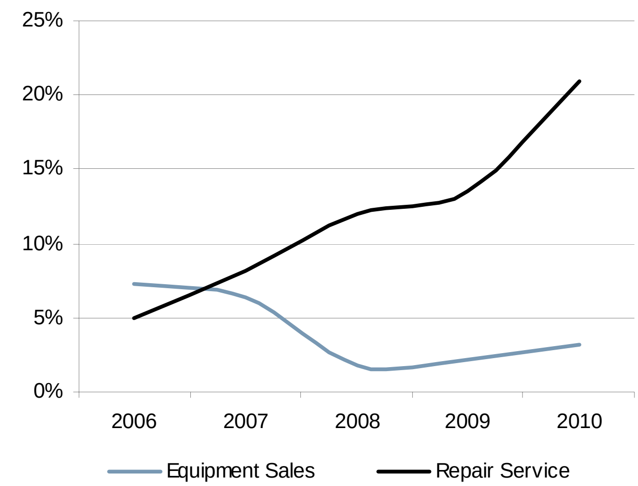
Hyundai Elevator became market leader in its domestic market with launch of YZER (elevator without machine room) in 2006-07 which took >50% of Korea's machine-room-less elevator market. YZER was the industry's top seller for 4th consecutive year in 2010 with 48% share in its market. Hyundai commands 42.4% share in domestic E&E market.

Figure 82: **Hyundai revenue segment**



Source: Company data

Figure 83: **Hyundai equipment and service margins**



Source: Company data

Figure 84: **Financials**

	2008	2009	2010	2011
SKW bn				
Revenue	682	824	835	879
yoy growth		*20.8%*	*1.4%*	*5.2%*
EBITDA	32	43	61	35
margin	*4.6%*	*5.2%*	*7.3%*	*4.0%*
EBIT	27	36	56	29
margin	*4.0%*	*4.4%*	*6.7%*	*3.2%*

Source: Company data

Figure 85: **Other details**

Incorporated	23 May 1984
Employees	1,201 (2010)
CEO	Margin S H Han
IR	Hong Sun Min ebiz@hyundaielevator.co.kr

Source: Company data

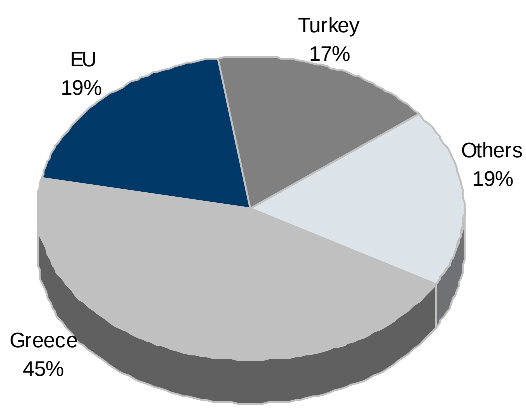
Kleemann Hellas (Greece)

KLEM GA – Mkt cap €19m – 1-year share price performance: +1%

Kleemann Hellas SA is a Greece-based company that is engaged in the manufacture and trade of complete elevator systems. Its range of products includes hydraulic and mechanical suspension components like pistons, power units, car frames and traction machines, cabins, electronic panels, compact service and home prefabricated elevators. Other products include automatic elevator doors, guide rails, wire ropes, cables, buffers and car operation panels. The Company has a 50% stake in Klefer SA, an elevator manufacturer that offers automatic doors. It holds the majority stake in Kleemann Asansor SA, a trading company that is active in the Turkish market, Kleemann Liftovi Ro SRL in Romania, Kleemann Liftovi d.o.o in Serbia, Moda Lift SA in Greece and Honk Kong Elevator Systems Limited, which are engaged in elevator trading and manufacturing.

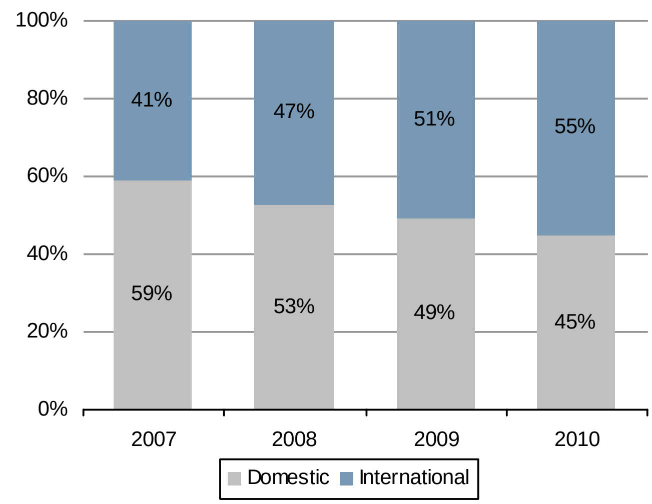
Kleemann is one of the largest lift manufacturers in the European & Global market (c.12,000 installed systems/year or **c.3% market share of new installations worldwide**). In Greece it has market share of c.69% in installed systems and c.47% in value). It exports to 65 countries with UK, Ireland, Germany, Belgium, Serbia, Turkey, Cyprus, Australia and Middle East countries to be its main markets.

Figure 86: **Kleemann geographical exposure (2010)**



Source: Company data

Figure 87: **Kleemann sales exposure**



Source: Company data

Figure 88: **Financials**

	2008	2009	2010	2011
Eu. mn				
Revenues	117.5	95.85	90.94	91.2
yoy growth	*10.3%*	*-18.4%*	*-5.1%*	*0.3%*
EBITDA	20.06	12.89	8.94	6.05
margin	*17.1%*	*13.4%*	*9.8%*	*6.6%*
EBIT	18.09	10.87	6.84	3.764
margin	*15.4%*	*11.3%*	*7.5%*	*4.1%*

Source: Company data

Figure 89: **Other details**

Incorporated	1983
Employees	875 (2010)
Managing Dir	Menelaos K. Koukountzos
IR	Michael Vidiadakis invrel@kleemann.gr

Source: Company data

Monti Ascensori SpA (Italy)

MSA IM – filed for bankruptcy

Monti Ascensori SpA is an Italy-based service company that operates and specializes in the maintenance, repairs, modernization and installation of freight and passengers lifts, escalators, and moving walkways. The Company installs and maintains a range of elevators and escalators, mainly throughout Italy. At December 31, 2010 it maintained about 26,150 elevator systems with 24-hours repair services. It also produces and installs new elevators and their components. It has a client base comprising private companies and public organizations. Its business model is based on either outsourcing to local companies or using a direct regional branch. The Company subsidiaries are: Sealift SA and Sealift Cote d'Azur Sarl. On December 21 2011 the Company announced that the Court of Bologna, following a filed petition, confirmed the bankruptcy of Monti Ascensori SpA.

For the six months ended 30 June 2011, Monti Ascensori SpA's total revenue decreased 1% to EUR22.4M. Net loss totalled EUR13.6M, vs. a profit of EUR270K in H110. The fall in revenue was attributed to deteriorating demand while the net loss for 1H11 was primarily due to a significant decrease in operating margins caused by higher operational expenses and personnel costs, as well as an increase in writedowns.

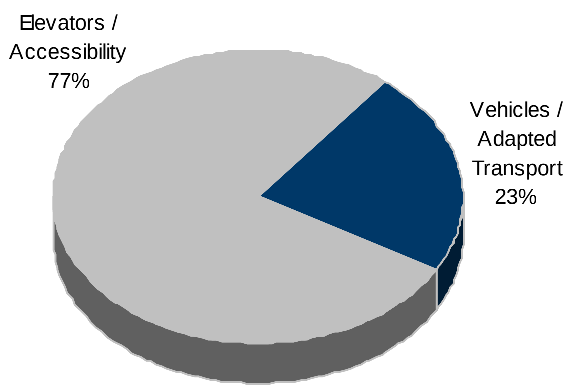
Savaria Corp (Canada)

SIS CN – Mkt cap €24m – 1-year share price performance: -14.0%

Savaria Corp is Canada-based company principally engaged in providing accessibility equipment. The Company operates in two segments: **Elevators & accessibility**, and **Adapted transportation**. The business in the elevators and accessibility segment is conducted through the subsidiary Savaria Concord Lifts, which designs, manufactures and distributes products meeting the needs of people with mobility problems, primarily stairlifts, vertical and inclined platform lifts and elevators for residential and commercial use. In the adapted transportation segment business is conducted through the subsidiary Van-Action Inc. (Van-Action), which converts and adapts automotive vehicles, primarily lowered-floor mini-vans, also for people with mobility problems. In February 2010, it acquired Concord Elevator (London) Ltd. In August 2010, it acquired Freedom Motors Inc. and Liberty Motor Co. Inc.

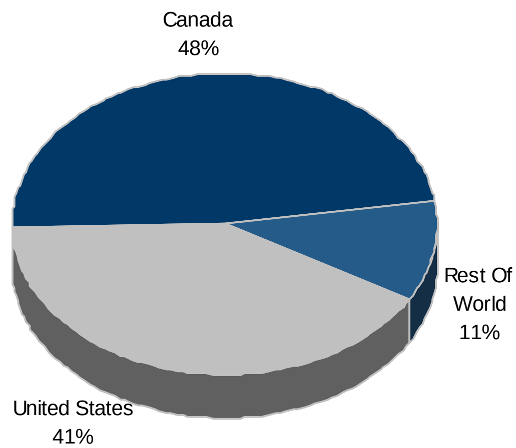
In China Savaria has established a subsidiary - Savaria Huizhou in Huizhou area which specialises in manufacturing accessibility products.

Figure 90: **Savaria Corporation (2011)**



Source: Company data

Figure 91: **Savaria Corporation (2011)**



Source: Company data

Figure 92: **Savaria Corporation Financials**

	2008	2009	2010	2011
CAD mn				
Revenue	56	55	65	65
yoy growth	*-3.5%*	*-0.6%*	*18.3%*	*0.0%*
EBITDA	2.0	4.2	4.4	4.9
margin	*3.6%*	*7.5%*	*6.7%*	*7.4%*
EBIT	1.2	3.3	4.4	3.4
margin	*2.1%*	*6.0%*	*6.7%*	*5.2%*

Source: Company data

Figure 93: **Other details**

Founded	1979
Employees	400
Chairman & CEO	Marcel Bourassa
CFO	Jean-Marie Bourassa
	info@savaria.com

Source: Company data

SJEC Corp (China)

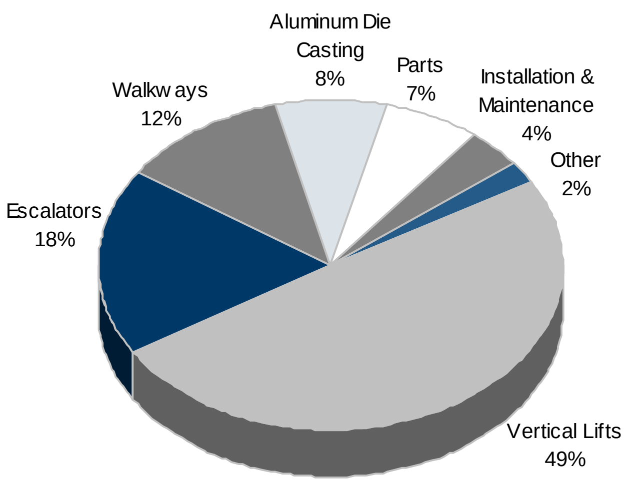
601313 CH – Mkt cap €291m – 1-month share price performance: -6.0%

SJEC Corporation is engaged in the research, development, production and sale of elevators, escalators and moving sidewalks, as well as the installation, transforming and repairing of related products. The Company's products are mainly used in high buildings for purposes of passenger delivery, sightseeing and cargo carrying, as well as commercial supermarkets and public traffic facilities, among others. The Company distributes its products in domestic markets and overseas markets, including Europe, the rest of Asia, the Americas and Australia. The Company's major clients include Carrefour, Wal-Mart, Auchan, Tesco, Metro, B&Q, Suning Appliance Chains, Vanguard, Ikea and Lotus Supercenter, among others.

In the last 2 years SJEC received the recognition by supplying products for the 2008 Olympic Games, the Shanghai World Expo 2010, the 2011 Asia Games and Metro projects world wide.

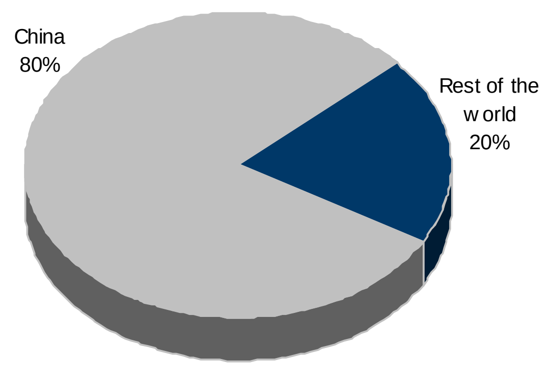
SJEC products had accorded with the European Directive 98/37/EC, 95/16/EC and Code of DIN EN115/EN81, with CE & EMC certificates issued by TUV, and in Germany it has a steel structure welding certificate DIN18800-7issued by SLV Duisburg Germany and a PUBEE certificate from Russian Mine & Industry Technology Supervision Bureau. As a result it has been able to sell its products in 70 countries around the world.

Figure 94: SJEC Elevator (2011)



Source: Company data

Figure 95: SJEC Elevator (2011)



Source: Company data

Figure 96: SJEC Elevator Financials

	2008	2009	2010	2011
Chinese Yuan mn				
Revenue	950	1,300	1,513	1,660
		36.8%	*16.4%*	*9.7%*
EBITDA	85	138	188	182
margin	*8.9%*	*10.6%*	*12.4%*	*11.0%*
EBIT	70	123	171	159
margin	*7.4%*	*9.4%*	*11.3%*	*9.6%*

Source: Company data

Figure 97: SJEC history

Founded	1992
Total Capital	RMB 490 mn
Company area	107000 m^2
Construction area	89000 m^2

Source: Company data

Symax (China)

SYL CN – Mkt cap €3.1m – 1-year share price performance: -10.0%

Symax Lift (Holding) Co. Ltd. is in the business of developing, manufacturing, and sales of elevators, as well as the provision of after-sales services in China and worldwide. Symax's products and services are classified into two separate offerings: standardized products, and customized elevator products, including passenger elevators, goods/freight elevators, villa elevators, panorama elevators, hospital elevators, residential and commercial escalators and moving walkways. During the year ended December 31, 2010, Symax completed the construction of a new 83,000 square-foot storage and transportation center. Symax also started to offer repair and maintenance services for elevators it had installed. During 2010, the Company disposed its subsidiary, Sanyo Elevator (Wuxi) Installation Co., Ltd.

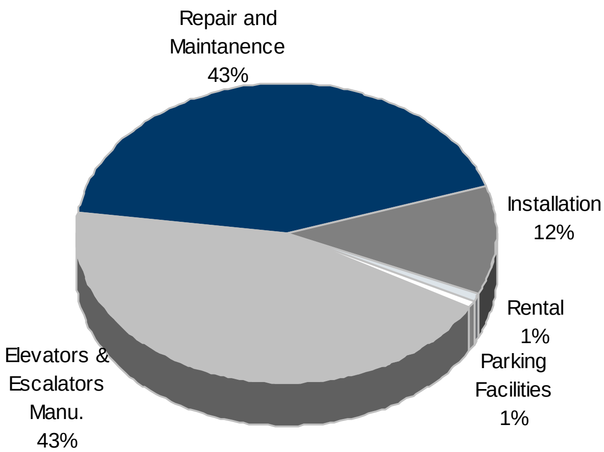
Symax witnessed strong growth in 2010 primarily driven by the continued benefit of a standardized elevator model which is especially suited to Chinese government-funded housing development projects, and Chinese tier 2 and 3 city development projects, as well as sales increases from overseas markets and elevator components. This growth in sales illustrates the continuing opportunities in government-sponsored housing development projects in China and in Chinese tier 2 and 3 city development projects.

Yungtay Engineering (Taiwan)

1507 TT – Mkt cap €518m – 1-year share price performance: +6.0%

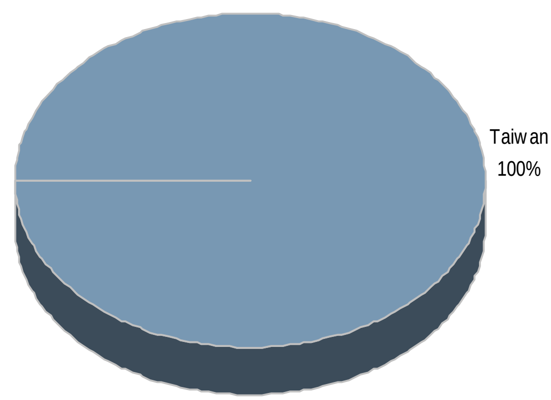
Yungtay Engineering Co., Ltd. is principally engaged in the design, manufacture, distribution, installation and maintenance of escalators, elevators and other equipment. The company provides passenger elevators, cargo elevators and patient-used elevators which are applied for transportation in buildings, as well as building facilities which are applied for vertical automobile parking. The Company also involves in the provision of property leasing services. During the year ended December 31, 2010, Yungtay obtained approximately 97.9% of its total revenue from elevator business and 100% of its revenues from Taiwan.

Figure 98: Yungtay (2010)



Source: Company data

Figure 99: Yungtay (2010)



Source: Company data

Figure 100: Financials

	2008	2009	2010	2011
Taiwan Dollar mn				
Revenues	4108	3623	3732	3798
yoy growth		*-11.8%*	*3.0%*	*1.8%*
EBITDA	617	566	636	665
margin	*15.0%*	*15.6%*	*17.0%*	*17.5%*
Operating Profit	551	503	573	613
margin	*13.4%*	*13.9%*	*15.3%*	*16.1%*

Source: Company data

Figure 101: Other details

Incorporated	9 July 1966
Employees	3,980 (2010)
Present	Lin Chin-Tsai
IR	Cai Fengjie brightfc@yungtay.com.tw

Source: Company data

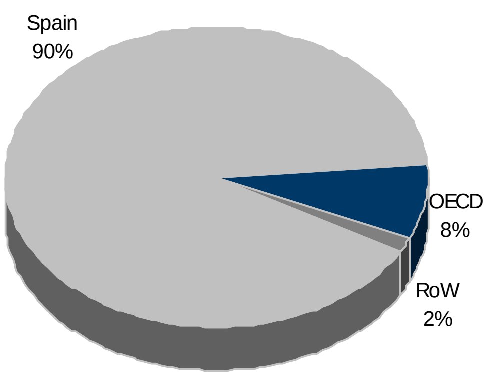
Zardoya Otis (Spain)

ZOT SM – Mkt cap €3,394m – 1-year share price performance: -13.0%

Zardoya Otis SA is a Spanish company that is primarily engaged in the manufacture and installation of elevators and the provision of related maintenance services. Its product range includes elevators, escalators, moving walks, shuttles and other horizontal transportation systems. Zardoya Otis SA has factories in Madrid and San Sebastian, and a modernization centre in Munguia.

Zardoya Otis SA is a parent of Grupo Zardoya Otis, a group which comprises a number of controlled entities with established operations in Spain, Portugal and Morocco. Its products are distributed in more than 200 countries and territories. The Company's majority shareholder is United Technologies Holdings SA with 50.01%.

Figure 102: **Zardoya geographical exposure (2011)**



Source: Company data

Figure 103: **Financials**

	2008	2009	2010	2011
Eur mn				
Revenues	937	885	863	819
EBITDA	297	299	305	289
margin	*31.7%*	*33.8%*	*35.4%*	*35.3%*
EBIT	281	285	290	274
margin	*30.0%*	*32.2%*	*33.6%*	*33.5%*

Source: Company data

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Companies Mentioned *(Price as of 13 Apr 12)*
Hitachi (6501, ¥503, NEUTRAL, TP ¥420, MARKET WEIGHT)
Kone Corporation (KNEBV.HE, Eu40.95, UNDERPERFORM, TP Eu37.00)
Mitsubishi Electric (6503, ¥669, OUTPERFORM, TP ¥950, MARKET WEIGHT)
Schindler-Holding AG (SCHP.S, SFr109.20, OUTPERFORM, TP SFr120.00)
Thyssen Krupp AG (TKAG.F, Eu17.55, OUTPERFORM, TP Eu35.00)
Toshiba (6502, ¥333, NEUTRAL, TP ¥350, MARKET WEIGHT)
United Technologies Corp (UTX, $79.80, RESTRICTED)

Disclosure Appendix

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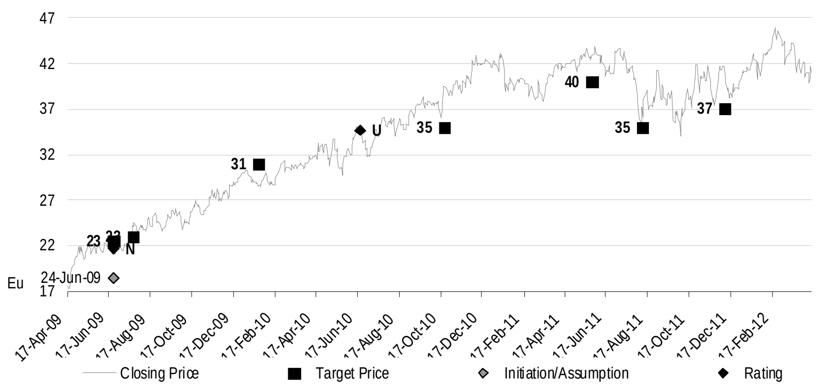
3-Year Price, Target Price and Rating Change History Chart for KNEBV.HE

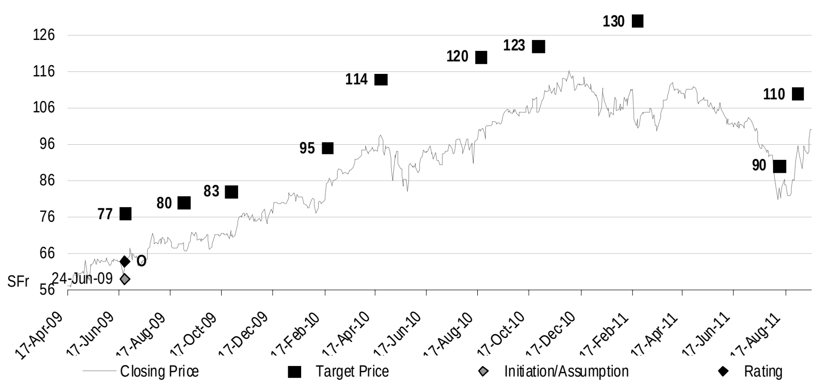
KNEBV.HE Date	Closing Price (Eu)	Target Price (Eu)	Rating	Initiation/ Assumption
24-Jun-09	21.65	22.5	N	X
22-Jul-09	24.22	23		
22-Jan-10	28.59	31		
21-Jun-10	34.67		U	
22-Oct-10	39.55	35		
27-May-11	42.86	40		
09-Aug-11	37.28	35		
08-Dec-11	40.49	37		



O=Outperform; N=Neutral; U=Underperform; R=Restricted; NR=Not Rated; NC=Not Covered

3-Year Price, Target Price and Rating Change History Chart for SCHP.S

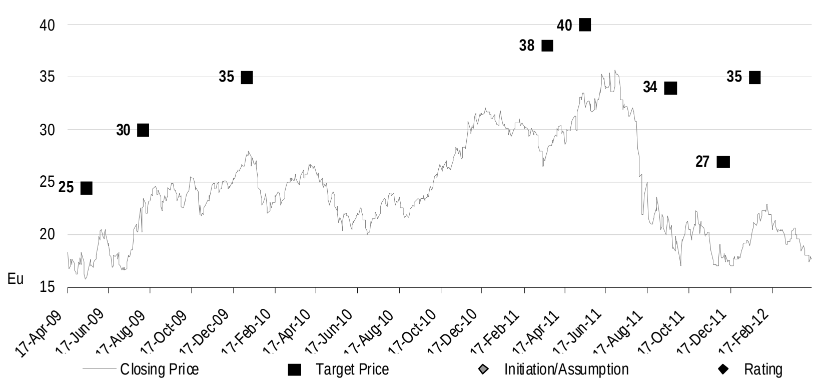
SCHP.S Date	Closing Price (SFr)	Target Price (SFr)	Rating	Initiation/ Assumption
24-Jun-09	63.8	77	O	X
02-Sep-09	67.05	80		
28-Oct-09	70.9	83		
19-Feb-10	85.45	95		
23-Apr-10	98.75	114		
20-Aug-10	99.6	120		
27-Oct-10	105	123		
22-Feb-11	103.1	130		
09-Aug-11	84	90		
31-Aug-11	95.75	110		
22-Sep-11	57.15	100	N	
08-Dec-11	57.15	110		



O=Outperform; N=Neutral; U=Underperform; R=Restricted; NR=Not Rated; NC=Not Covered

3-Year Price, Target Price and Rating Change History Chart for TKAG.F

TKAG.F Date	Closing Price (Eu)	Target Price (Eu)	Rating	Initiation/ Assumption
14-May-09	15.89	24.5		
06-Aug-09	22.75	30		
05-Jan-10	27.745	35		
22-Mar-11	27.93	38		
16-May-11	33.47	40		
19-Sep-11	20.455	34		
05-Dec-11	17.815	27		
20-Jan-12	21.129	35		



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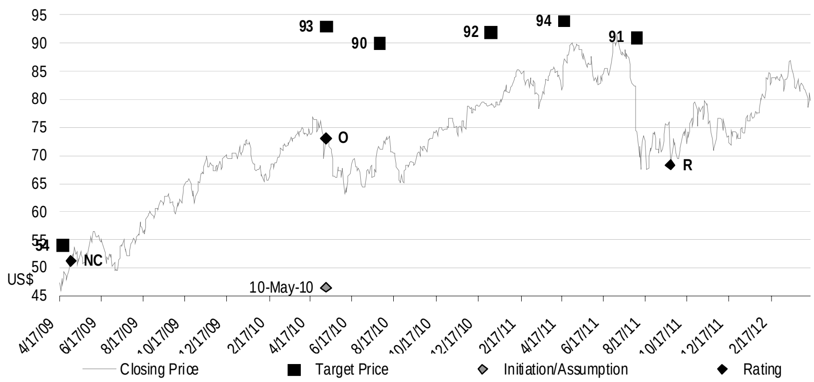
3-Year Price, Target Price and Rating Change History Chart for UTX

UTX Date	Closing Price (US$)	Target Price (US$)	Rating	Initiation/ Assumption
4/21/09	47.99	54		
5/4/09	51.18		NC	
5/10/10	73.04	93	O	X
7/26/10	71.59	90		
1/4/11	79.12	92		
4/20/11	85.9	94		
8/4/11	74.37	91		
9/22/11	68.31		R	



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***An analyst's coverage universe consists of all companies covered by the analyst within the relevant sector.*

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Market Weight: Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months.

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Price Target: (12 months) for (KNEBV.HE)

Method: Our TP is based on a a probability weighted target price that looks at implied prices from mutiple in previous relevent periods of Low Growth, Recession and recovery scenarios. The weightings assigned to these scenarios is 60% low growth, 30% recession and 10% recovery.

Risks: Longer and deeper than currently expected down-cycle and a slowdown in Kone's end markets. Risk of a larger-than-expected customer advances outflow. Execution on the restructuring programme. Potential pressure on margins resulting from competitors price changes and continued commodity price strength, particularly in steel.

Price Target: (12 months) for (SCHP.S)

Method: Our TP is based on a DCF discounting a mid-cycle margin of 13.5%, mid-term growth of 4%, a WACC of 9% and a terminal growth of 2%. Our TP is backed by the company EV/EBIT and P/E multiples relative to peers and its own history as well as by EV/Sales multiples vs the company expected through-cycle profitability.

Risks: Longer and deeper than currently expected down-cycle in developed world and a possible slowdown in Chinese social housing construction. There is a risk to margins based on exposure to raw materials, especially steel, exposure to FX rates and the ongoing restructuring programme. Finally there is the risk of a larger-than-expected customer advances outflow and pricing pressure derived from competitor action within Schindler's targeted end markets.

Price Target: (12 months) for (TKAG.F)

Method: Our Target Price is calculated inline with our sum of the parts valuation methodology using a set of peer companies to value each division of TK.

Risks: Outlook for global industrial growth, raw materials movements, steel prices, pricing dynamics in the elevators business, Risks to pricing and volumes in the services business (given the volatility of the distributor inventory cycle). The technologies business is based around long-term contracts, where there are risks of cost over-runs. Failure to either ramp up and/or sell the Brazil project.

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