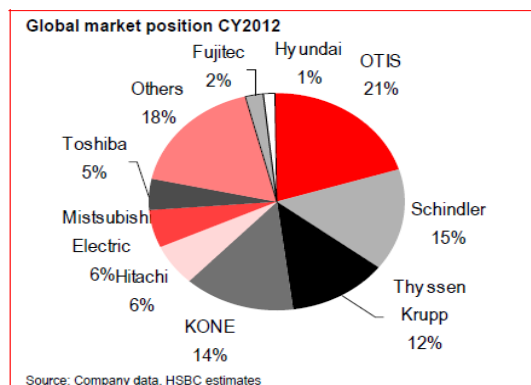


## Sky is the Limit for a Franchise Gem

The business model of an elevator company fits our definition of a franchise so well that, this type of company defines what a franchise means in our investment process.

Take a look at the global market share breakdown, 4 players, (1) Otis (2) Kone (3) Thyssen-Krupp and (4) Schindler, control two-thirds of the global market. If we include the Japanese manufacturers, it would be over 80% of the global market in the hands of 8 brandnames. It is not a regulated market, in other words, 'anyone' is free to enter the industry, and yet, it has evolved into an *oligopolistic landscape* looking at the major players' market share dominance, and price and standard setting ability.



We like oligopolistic operators for obvious reasons, captive markets, and their 'moat' or competitive advantage; the barrier of entry has become so high, given that economies of scale has been achieved in the past decades by these companies, that there is *unlikely to see new players in foreseeable future*, perpetuating its competitive advantage qualities and deepening its moat.

As it is a result of natural development, rather than being a government stipulated license-based oligopoly, there is no price restriction on the pricing of its lifts, giving these elevator makers *strong pricing power* over its products, as long as none of the players start a price war. This is an important characteristic for a franchise, as this allows the operators to increase price to combat higher raw material cost, primarily steel in this case, to preserve its profit margin.

Not only are lifts going higher and higher, so are the growth outlook for elevator companies. Global demand for new lifts has risen from 300,000 a decade ago to an estimated 700,000 this year. *China* in particular, where two-thirds of new units are installed, accounts for the bulk of the growth.

Lifts are becoming more popular because people are living more vertically than ever before as vacant land in urban areas are becoming scarce. In China in particular, the Affordable Housing Scheme and the trend towards urbanization, are the key growth drivers behind the strong demand for lifts. The growth of indoor malls, where 10's of lifts

and escalators can be required in one giant mall/tower are also mushrooming in not only 1<sup>st</sup> and 2<sup>nd</sup>, but also 3<sup>rd</sup> and 4<sup>th</sup> liner cities in China as people continue to move from rural to urban areas.

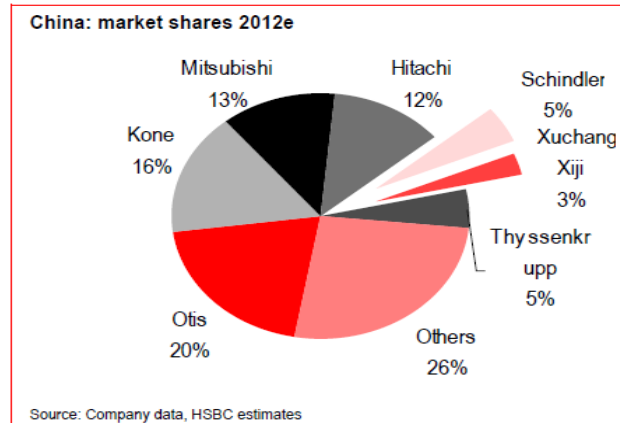
According to Wikipedia, as at the end of 2012, China had a total urban population of 712 million or 52.6% of the total population, rising from 26% in 1990. In the long term, China faces increasing urbanization. According to forecasts from academic institutions, nearly 70% of the population will live in urban areas by 2035. There is also an estimation that over the next two decades China will build up to 50,000 new skyscrapers.

In 2010, affordable housing was officially included in the Twelfth Five-Year Plan as a critical component of social welfare and public service system. A ***national goal of 36 million units of affordable housing*** construction was set up for the first time as the goal to be achieved by 2015. In other words, approximately 6-7 million housing units are being constructed annually just to meet this target and the target has been met in the past two years. 36m sets of low-income housing would require approximately 200,000 elevators. Not without challenges in the implementation stage, this target is nevertheless a big number of potential units that require lifts, benefitting a handful of elevator manufacturers. Bear in mind that this 30,000+ lift per year demand is only from the Affordable Housing Scheme next few years, which represents no more than 25% of total demand, with the rest coming from private sector residential demand, approx. 42%, as well as non-residential use, approx. 33%.

Director Ren of the China Elevator Association noted that at present, China has become the largest production base for elevators. Data showed that in 2010, China produced 365,000 lifts, more than half of global elevator output, with the entire industry generated sales income of nearly Rmb70bn, and a value of nearly Rmb100bn. At the same time, China is also the world's most populous country running elevators; there are at present nearly 1.63m elevators in operation. Currently we are looking at a global average of 700 people per elevator, while a developed country averages around 100-200 people per elevator. China at present averages roughly 800 people per elevator, still short of global average and far short of the ratio reached by developed economies.

Where the size of the market is relatively small compares with other sectors, the auto sector for instance, but safety is a paramount issue in the making and use of an elevator, the Chinese government has chosen this industry to be one of the first to be opened up to foreign investments to ensure high safety standards. As a result, foreign players now occupy over 70% market share, but they have also introduced advanced technology and management methods, that helped drive the Chinese elevator industry rapid development, and promoted the rapid progress of national brands. Did the government think about the enviable profitability profile, and strong recurrent nature of revenue of this elevator business model when it first decided to open up this industry to foreigners? Now, it seems too late for the trend to be reversed, as the global names has already taken a strong foothold in domestic market and many have already taken majority control of the dominant local elevator makers.

Schindler for instance, has a joint venture with Xuchang Xiji Elevator, XJ Schindler, which commands a market share of approximately 3%, giving Schindler a foothold in the lower end of the affordable housing market. Schindler has an option to buy out the remaining 54% stake however, making it a 100% foreign owned enterprise. Our guess is, the option will be exercised.



According to the Chinese elevator association statistics in 2008, the national brand market share was only 1/5 in 2010, rising to 1/4, and by the first half of 2012, the share had expanded to close to 1/3. There is still a big gap in R & D capability and service capability between national and foreign brands. Foreign brand dominance is likely to remain in China elevator market.

From the P&L and profitability angle, interestingly, organic growth of elevator sale is almost a side show in the business model of an elevator company. Many established elevator firms make more than half of their profits from services, often by securing maintenance contracts at the time of installation. A newcomer, if any, would need a network of technicians to get started, and this further raises the entry barrier to the industry. The training cost of technicians and the steep learning curve of installation process not only raise the bar for new players but also depress margins for new products due to R&D and training expenses. The service and maintenance contracts oftentimes require nothing more than a quick look-over or a drop of grease every few months, but this side of business brings in a couple US thousand dollar worth of annual fee per elevator. This **low cost recurrent income base** continues to grow and remain sticky with the elevator company as long as the elevator is being run and **is the most attractive part of an elevator maker's business franchise**. Elevator companies usually present close to 30% gross margin, and without the service/maintenance fee, the margin is likely to be just around mid-teens.

The growth of this lucrative part of business however, builds up slowly, contingent upon a growing portfolio of lifts, and comes with a big lag, particularly for emerging economies. In China for instance, lift owners prefer to maintain the machines themselves or not at all! There are some reports of the servicemen leaving the company to set up its own free-lance maintenance business, while this is likely to be an ongoing phenomenon, it is not going to derail the growing contribution from the servicing segment of lift

manufacturers' P&L. We therefore expect lift makers in China to see gradual lift in margin as servicing/maintenance side of business continue to gain traction.

As far as the user is concerned, one could say that not much has changed in the last 150 years since elevators first appeared; we press the button and the lift takes us to the selected floor. From the manufacturers' perspective, this means limited R&D expenses to maintain the operations of its business, unlike those R&D intensive electronic machinery companies. ***Low recurring R&D expense*** is another franchise quality we like to see in our portfolio of stocks.

The drumbeat is increasing however for more eco-friendly elevators that addresses environmental issues such as pollution and industrial waste in its manufacturing process. This seems to explain why we are seeing higher expenses and bigger margin dip in the global players as new and more environmental friendly elevators are featured in their product pipelines. Outside of the manufacturing process, we also welcome the trend of more eco-efficient elevators appearing on designers' drawing boards.

Reflecting our preference for sustainable enterprises that embrace a 'cradle-to-cradle' rather than a 'cradle-to-grave' business model sooner rather than later, an elevator can be a prime candidate to be transformed into a sustainable product. An elevator can often outlast its building that will be torn down or due for a major facelift for instance, where the lift itself, esp. its steel structure, can actually be disassembled, serviced, and moved to a new location, and the motor re-used. This would enable the lift sector to become a service based industry, allowing the lifts to be 'recycled' and reused, and the entire industry to excel in its role of corporate citizenship. Who would be the first to recycle a used elevator?

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