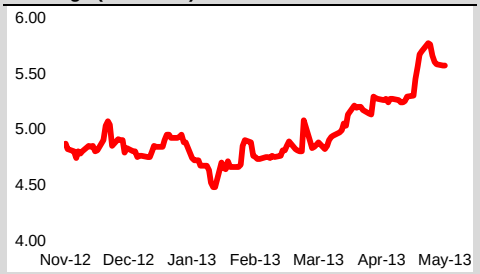
KDN PP17686/03/2013(032117)

RUBBER GLOVES — *Neutral*

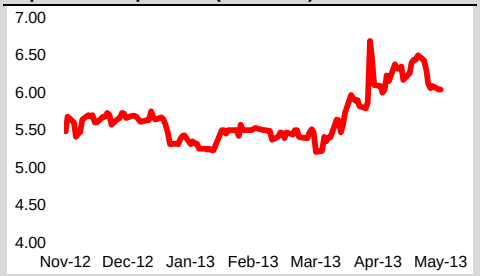
DESCRIPTION

The world's largest nitrile glove manufacturers. Renowned for its innovative technological methods.

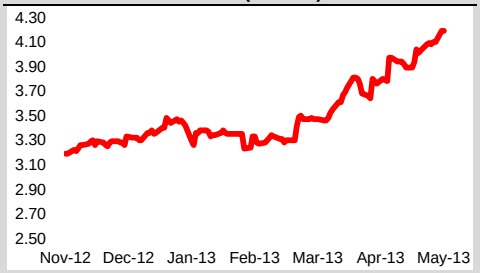
Hartalega (HART MK)



Top Glove Corporation (TOPG MK)



Kossan Rubber Industries (KRI MK)



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Are Margins Sustainable?

Natural rubber gloves seem to have become a thing of the past, while synthetic gloves mainly nitrile have superseded to become the new "IN" product to manufacture. Major glove players are ramping up on their nitrile production to remain competitive and to cater to rising demand for synthetic rubber gloves, but are the traditionally high margins sustainable? We initiate coverage on the rubber gloves sector, supported by our likes for **Top Glove Corporation (Neutral, TP: RM5.73), Hartalega (Neutral, TP: RM5.59) and Kossan Rubber Industries (Outperform, TP: RM4.85)**. These current stock choices stem from an array of production size and variations which we assume at this juncture would most represent a balanced view of the sector.

- **Margins.** Do industry players still have the ability to maintain relatively high margins? For most players, margins have gradually compressed from the high 20% range to as low as 11%-15% range. In the near-term, players who can maintain a competitive cost structure could continue to benefit from higher margins, but in the long-run, theoretically some players would slip to the lower band of margins. But with ongoing competition, we expect would boost efficiency and improve the performance of the sector.
- **Challenges.** Exposed to potential high costs, the cost structure is vulnerable to i.) raw material prices (c. 50%), ii.) energy prices (mainly liquefied natural gas (LNG) with growing biomass) (c. 10%), iii.) labour costs (c. 10%) iv.) currency risks. For this year, uncertainty of the minor costs remains as no announcement to-date has been made post-elections. We do expect the sector to remain resilient however as its impact from domestic influences is limited c.50% of total costs is dependent on market prices of natural latex and nitrile (major butadiene component).
- **Catalyst.** We believe the sector benefits from i.) increasing healthcare expenditure, ii.) unexpected health-related epidemics, iii.) sufficient supply of raw materials, hence softer prices of natural and synthetic rubber to support its growth drivers.
- **Neutral.** Despite the array of catalysts supporting the sector, we are initiating the sector with a ***Neutral*** recommendation as the sector has already undergone a rally and would stabilise at the current price range. Valuing our glove counters with the dividend discount (DDM) approach, we believe the sector would outperform in the long-run. Performance is underpinned by capacity expansion strategies translating to higher earnings and higher dividend payment from industry players in accordance to their dividend policy commitment.

FINANCIAL SUMMARY

Company	Price (RM) @ 20 May	Mkt Cap (RMm)	EPS (sen) 2013F	EPS (sen) 2014F	EPS Growth (%) 2013F	EPS Growth (%) 2014F	P/E (x) 2013F	P/E (x) 2014F	P/B (x) 2013F	P/B (x) 2014F	ROE (%) 2013F	ROE (%) 2014F	Dividend Yield (%) 2013F	Dividend Yield (%) 2014F
Hartalega*	5.57	4085.6	32.0	34.9	16.0	9.0	17.4	16.0	5.3	4.0	34.0	29.0	2.6	2.8
Top Glove Corporation	6.04	3742.6	51.1	57.7	56.0	13.0	11.8	10.5	2.7	2.4	23.8	24.0	4.2	4.8
Kossan	4.19	1335.0	38.6	47.2	18.0	22.0	10.8	8.9	2.0	1.8	19.2	21.4	3.7	4.5

Source: PublicInvest Research estimates - Hartalega – Annualised for FY13.

Overview and Developments

The demand and supply trend of rubber gloves have shifted towards higher consumption of nitrile (SR) from the traditional natural rubber latex gloves (NR) (Figure 1). We expect this pattern to persist due to the preferred properties of nitrile.

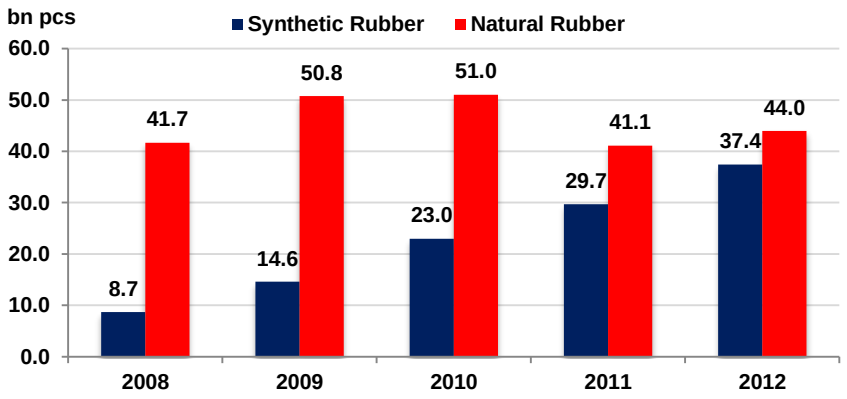
Figure 1: Types and Properties of Rubber Gloves

	Natural Rubber	Nitrile (Synthetic)
Major Users	**Developing Nations**	**Developed Nations**
Weight	**5.0g – 11.0g**	**2.5g – 7.0g**
Types	**Powdered / Non-powdered**	**Powdered / Non-powdered**
Components	**100% Latex**	**32% Acrylonitrile** (often produced from acetylene or ethylene oxide and hydrogen cyanide) **68% Butadiene** (often produced from acetylene or ethyl alcohol)
Properties & Characteristics	**Can cause latex protein allergy** **More suitable for surgical, due to high elasticity – more comfortable wear** **Elastic properties may self-seal if there is a pin hole – more flexible** **Low water retention** **Non-chemical resistant & low temperature exposure** **Bio-degradable – can be recycled and turned into other products**	**Allergy-free** **Less suitable for surgical** **Pin hole becomes bigger with movement – less flexible** **High water retention** **Chemical resistant & high temperature exposure**
Purpose	**Surgical** **Household** **Cleanroom** **Examination**	**Food handling** **Examination** **Dental clinics** **Laboratories**
	Specifications of Production	
Length of Production Line	**c. 65 metres**	**c. 120 metres**
Drying Time	**10mins**	**20mins**
Temperature	**100°C**	**120°C**

Source: PublicInvest Research estimates, Various

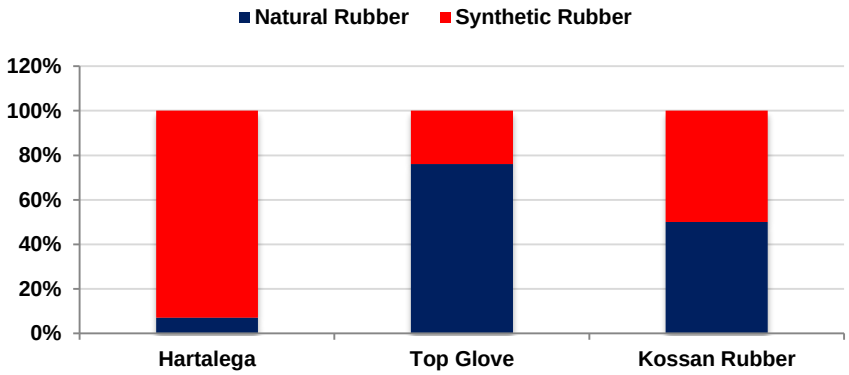
Favouring nitrile. The rise in demand for SR gloves (Figure 2) has caused an inverted trend for the industry, whereby higher demand for SR gloves is gradually cannibalizing the demand for NR gloves. One of the main preferences of SR is the protein allergen-free quality which has made SR become more favourable to use in the medical industry. This trend for nitrile demand in the past decade has influenced some of the world's top rubber glove manufacturers to increase their production of SR gloves, producing interchangeable nitrile-latex production lines (Figure 3).

Figure 2: **Malaysia's Rubber Gloves Exports**



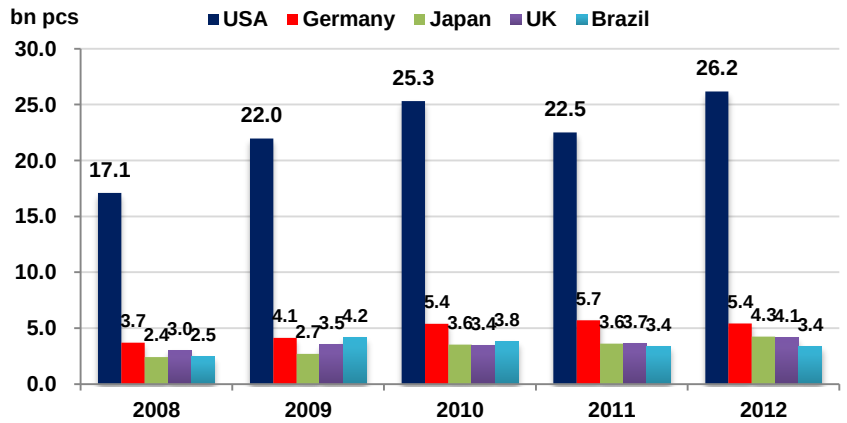
Source: MREPC

Figure 3: Type of Glove Production by Industry Players



Source: Company, PublicInvest Research

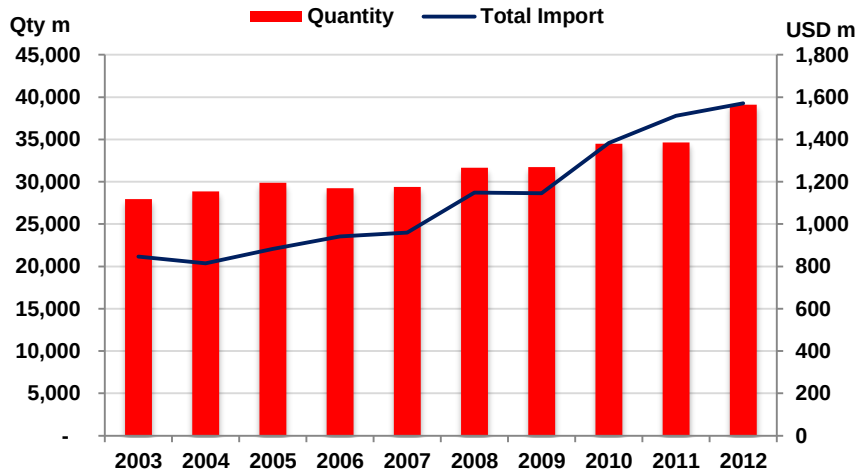
Figure 4: Top 5 Rubber Glove Export Countries for Malaysia



Source: MREPC

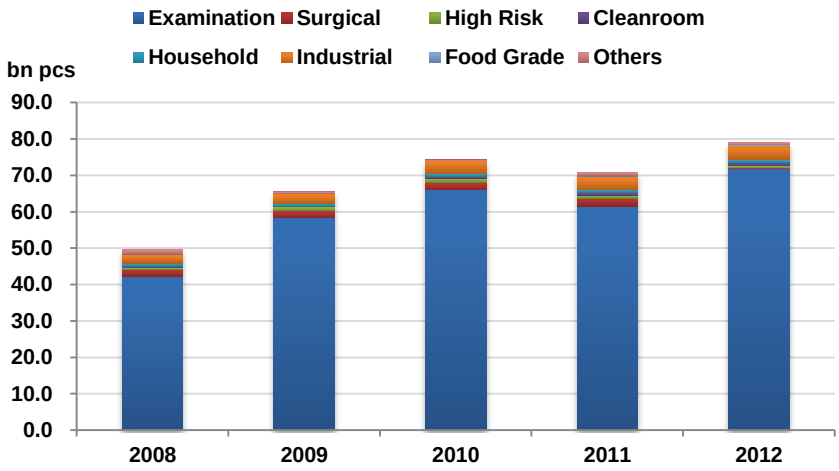
US - The largest importer of rubber gloves. Malaysia produces over 60% of the world's rubber gloves, and the USA accounts for 32.8% of Malaysian current total rubber glove exports in 2013. This amount has increased 4.9% in just 4 months from 2012. Statistics reflect that developed nations are generally heavier users of nitrile gloves, such as US, who have come full circle, to increase their consumption to c. 80% of nitrile gloves in just a decade. We expect this trend to continue going forward with the number for total import of Rubber gloves seen to be rising y-o-y (Figure 5).

Figure 5: US Total Import of Rubber Gloves



Source: MREPC

Figure 6: Malaysia's Rubber Gloves Export by Type of Use



Source: MREPC

Type of use. Is an indicator of the source of growing demand as illustrated by the sustained export of examination gloves since 2008. This type of use constitutes approximately 90% (2012) of Malaysia's total rubber glove exports with an average growth rate of 15% y-o-y for the past 5 years.

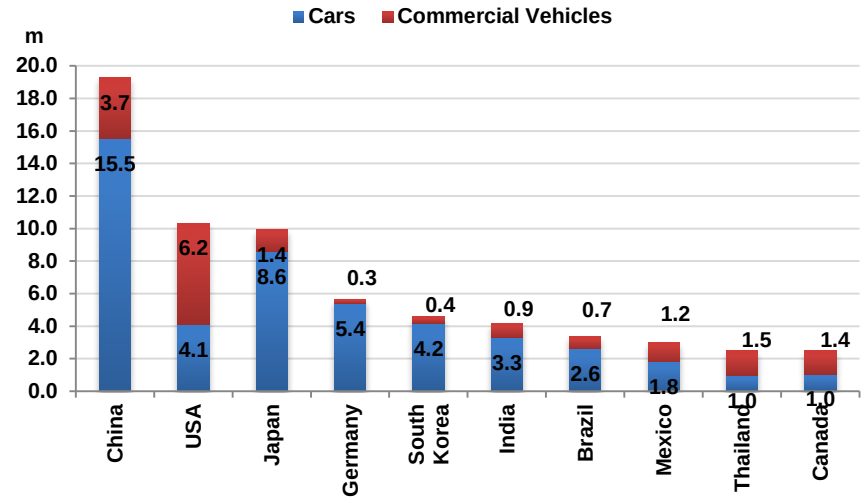
The dominance of examination gloves production translates to the high correlation of the healthcare industry to rubber gloves demand, exemplified by the concentration of medical gloves manufacturing by our 3 glove stocks. Of total revenue, Hartalega (76%), Top Glove (80%) and Kossan (95%) are heavily producing medical gloves, which should see sustained demand.

Natural rubber prices. Approximately 70% of NR is used for the tyre industry, with

remaining 30%; approximately 15% of the 30% is used for dipping goods (including rubber gloves). Taking into account that 60% of all rubber consumption is from the tyre industry, the performance of the automotive industry can be assumed to be linked with the performance of rubber prices.

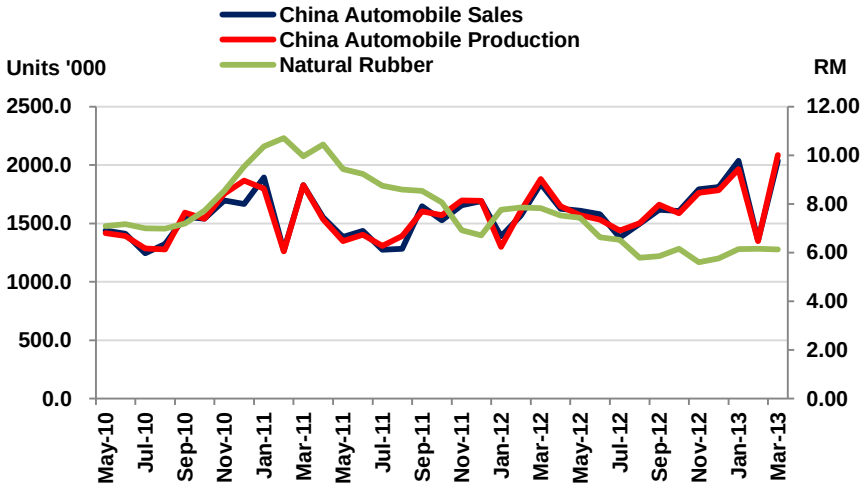
China is currently the world's largest automobile producer with 19.3m vehicles manufactured in 2012, 23% of the world's 84.1m total (Figure 7). Growing 4.6% from 2011, we believe China will continue to command significance in the automobile industry with its 1.4bn population. China is also the largest rubber consumer, in tandem with its status of nurturing the largest automobile industry. The performance of the automobile industry in China would therefore be significant to the market price of NR (Figure 8).

Figure 7: World Motor Vehicle Production 2012



Source: International Organisation of Motor Vehicle Manufacturers

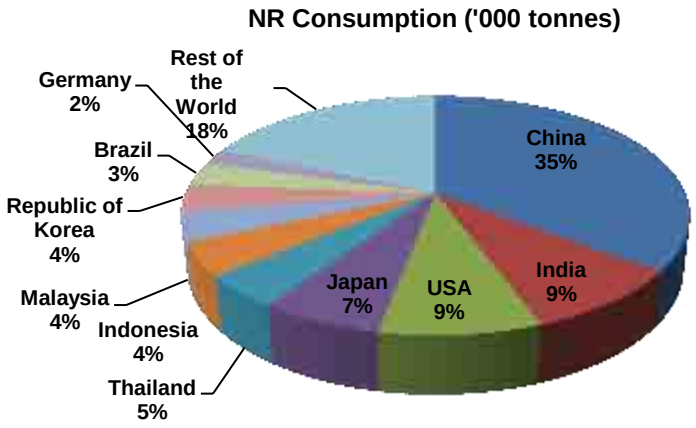
Figure 8: Natural Rubber Vs. China Automobile Sales & Production

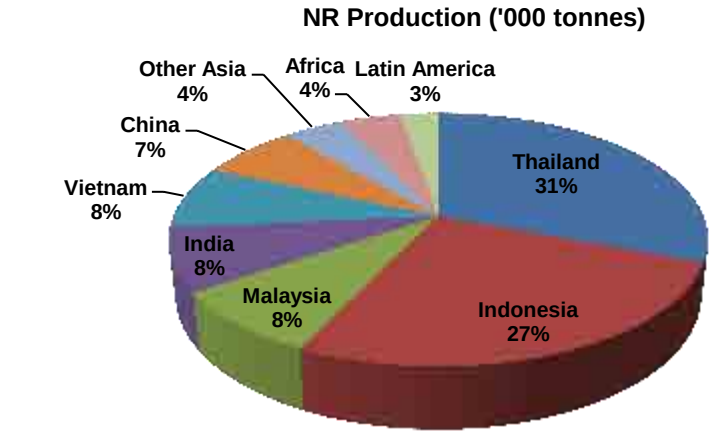


Source: China Association of Automobile Manufacturers, PublicInvest Research, Bloomberg

Figure 8. illustrates the inverse correlation of NR to the demand and supply of automobiles. Where NR prices are high, automobile sales and production in China is low (Feb 2011). The fall in NR price is reflected when automobile sales and production pick-up from July 2011 onwards.

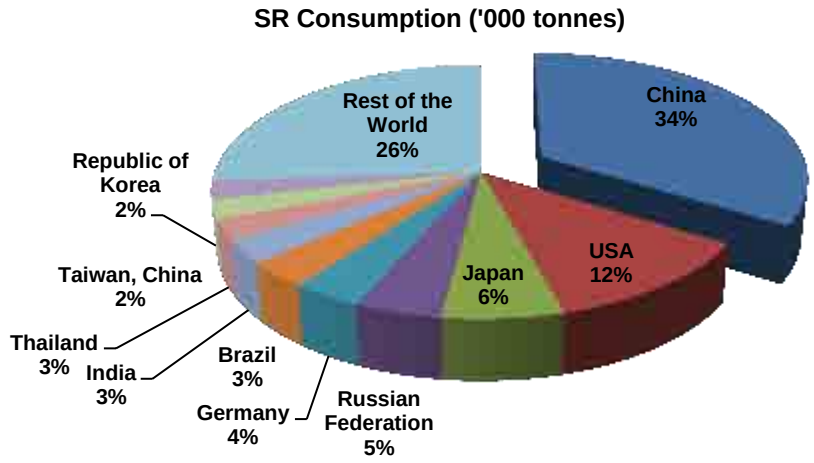
Figure 9: World Natural Rubber Consumption & Production

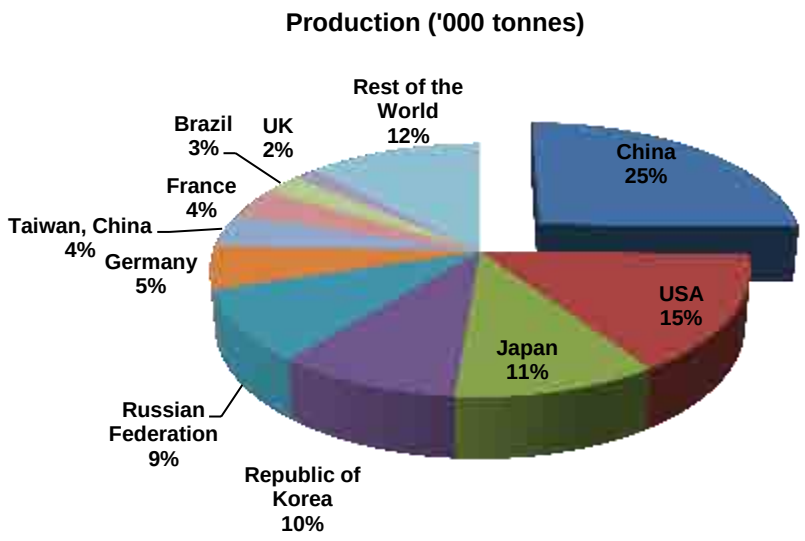




Source: International Rubber Study Group, Rubber Statistical Bulletin, January-March 2013 edition

Figure 10: World Synthetic Rubber Consumption & Production

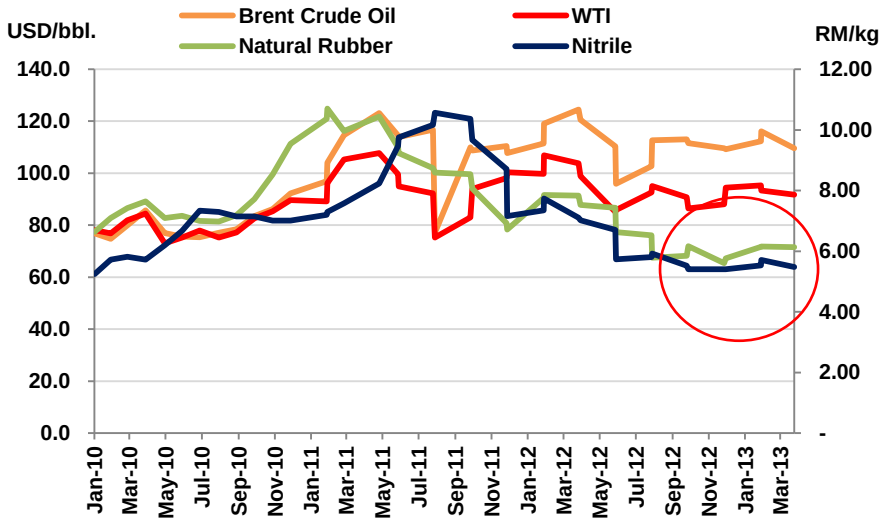




Source: International Rubber Study Group, Rubber Statistical Bulletin, January-March 2013 edition

Synthetic rubber. SR prices are determined by the market price of butadiene and crude oil, being a petrochemical bi-product. Nitrile is estimated to be 32% Acrylonitrile (often produced from acetylene or ethylene oxide and hydrogen cyanide) and 68% Butadiene (often produced from acetylene or ethyl alcohol). The physical and chemical properties for the different glove makers however would vary depending on the polymer's composition of nitrile. Nitrile prices are expected to sustain as it has hit a "comfortable" average price to its historical trend.

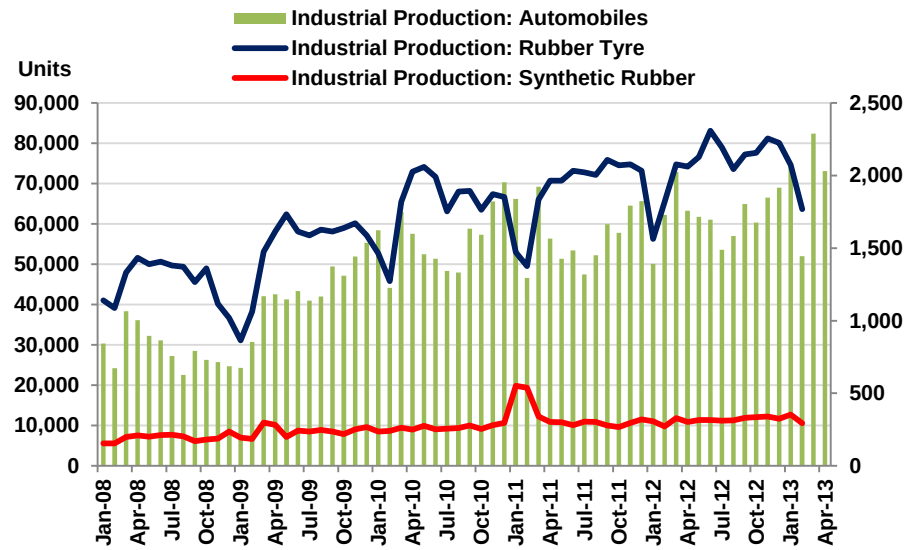
Figure 11: Crude Oil Price Vs. Natural Rubber and Nitrile



Source: Bloomberg, Various

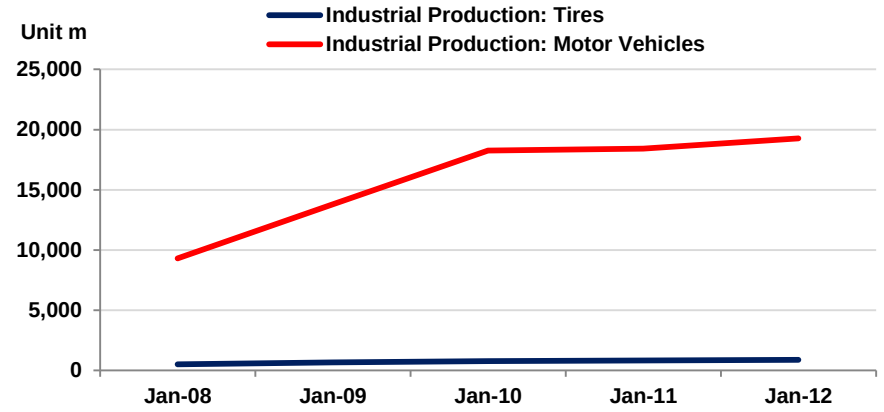
Competition from China? China is currently the largest synthetic glove producer, but mainly in PVC not rubber gloves. Production of rubber gloves remain small as it is not competitive domestically from price wars, resulting in low c.5% margins. From Figure 12, industrial production in automobiles is increasing, however production of rubber tyre and synthetic rubber is declining suggesting that although China has the potential to be a rubber product producer, prefers to import its natural and synthetic rubber products (Figure 9 & 10). We believe Malaysia still has the competitive advantage from its reputable high quality gloves which is proven by its high demand from the US who have stringent quality laws for rubber glove products.

Figure 12: Industrial Production in China



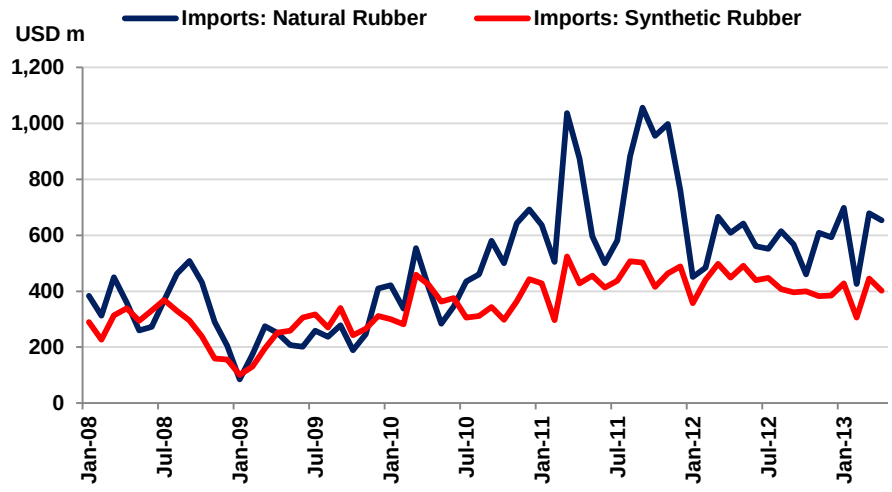
Source: National Bureau of Statistics

Figure 13: Industrial Production in China



Source: National Bureau of Statistics

Figure 14: China's Import of Natural and Synthetic Rubber



Source: General Administration of Customs

Catalysts

The sector is driven by the healthcare industry due to key players mainly producing gloves for the medical segment (examination and surgical). The sector's thrust is related to i.) industry regulations, ii.) domestic government initiatives, iii.) emergence of pandemics, iv.) higher raw materials supply, v.) rise in healthcare and growing population.

Regulations. Through the development of industries such as healthcare and industrial, regulations have evolved for the hygiene and safety of patients and workers. In the healthcare industry for instance, regulation of mandating rubber gloves to be used and changed per treatment not just for surgical, but examination procedures have stimulated the demand for rubber gloves.

Health legislations in respective countries also play a major role on the type of glove used. In the US for example, John Hopkins hospital and states such as Oregon, Arkansas and Arizona have banned the use of rubber latex gloves due to the protein allergy effect. In the UK (since 2000) and Germany (since 1998), the use of powdered latex have also been banned. Opportunities for nitrile consumption would naturally be the option from imposed health legislations.

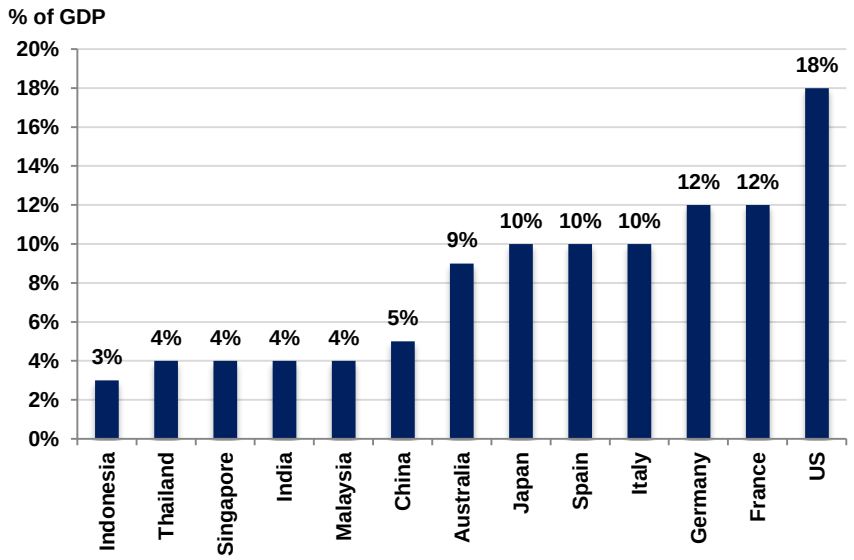
For industrial rubber gloves, standards have been set to ensure workers are operating in a hygienic environment when handling food products and also safety from equipment usage. In working with chemicals, the UK industry spends about GBP30m per year to buy chemical protective gloves to use as personal protective equipment regulated by the Health and Safety at Work Act 1974 and the Control of Substances Hazardous to Health Regulations 1999.

Outbreak of diseases. The recent H7N9 bird flu caused a spike in the rubber glove prices, with the market assuming the outbreak would have a stimulating effect on the sector. The World Health Organisation has stated that the influenza is unlikely to become a pandemic as no evidence of human-to-human transmission has been identified. Glove makers have benefited through a boost in their share prices however, but acknowledged that actual orders have not been placed and may not fundamentally gain from the outbreak, unlike the H1N1 pandemic which occurred in the US – a matured market that required hospitals to stock-up on rubber gloves in anticipation for increased treatments.

Healthcare importance. With the rise of healthcare development and expenditure (Figure 15), we would expect a positive correlation with the increase in number of hospitals and number of gloves demanded per hospital. Ageing population moreover is growing, resulting to changes in the population demographics structure. For economies such as China, the population demographics is becoming bottom-heavy from the nation's one-child policy, influencing the ratio of working-age to elderly population to shrink. In 2012, the labour pool shrank by 3.45m coupled with fertility rate to be measured at 0.7, among the worlds' lowest.

Change in disease profiles. In recent years, the growth in non-communicable diseases has moved the trend of healthcare to further focus on longer-term lifetime support treatments. We expect this trend to boost demand for examination and surgical gloves as more non-communicable diseases require more hygienic and delicate care.

Figure 15: Healthcare Expenditure as % of GDP, 2010

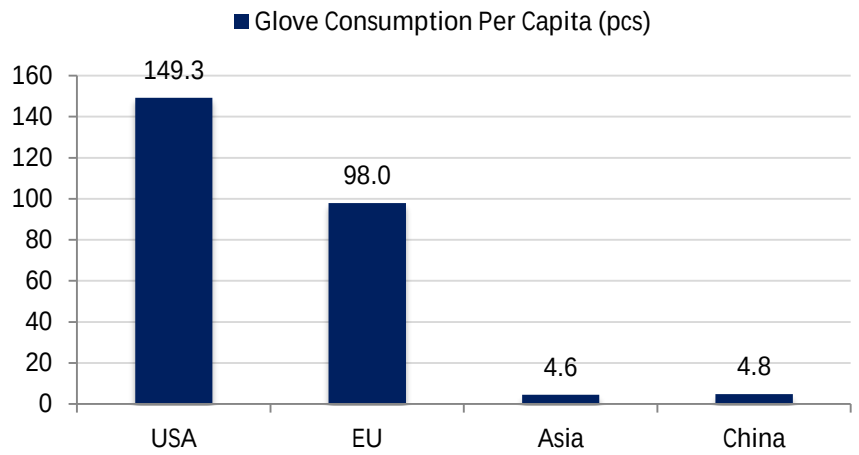


Source: World Bank, PublicInvest Research

World population growth, emerging markets - Asia. For the next 12 years, based on estimates by The United Nations, highest growth rates would be in Asia and Africa, while European nations would peak by 2025 and decline thereafter. This coincides with our Healthcare report on Asia underpinned as the future development of healthcare growth which we are expecting would imply higher demand for rubber gloves from the growing demand from a larger population pool.

Emerging markets. The consumption disparity between US, EU (developed nations) versus Asia and China (emerging markets) signifies opportunities for glove makers driven by our catalysts, whereby we opine the industry's ample potential to penetrate new markets.

Figure 16: Glove Consumption Per Capita



Source: Hartalega

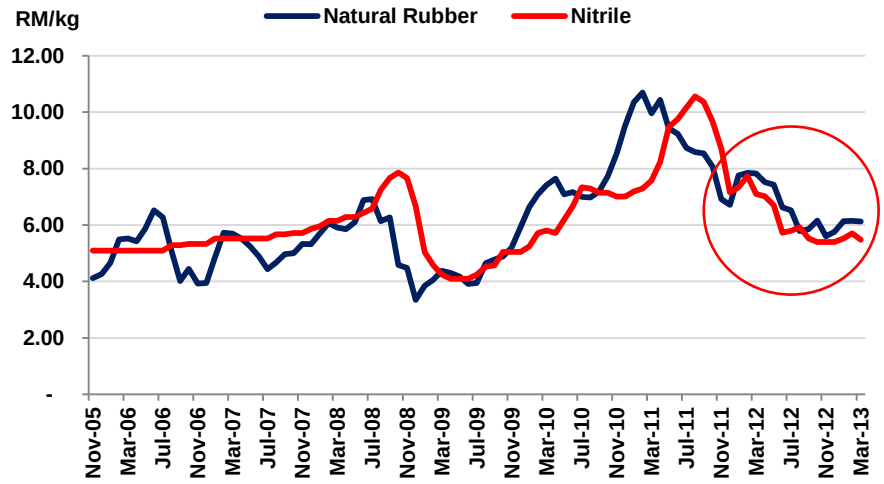
Influencing Variables

Four main variables affect the fundamental performance of the glove segment, i.) raw material, ii.) gas price, iii.) currency risk and iv.) impact of minimum wage to labour costs. The price performance of our 3 peers (Figure 26), fluctuations in each variable would generally affect the share price performance of all the glove players, i.e. implementation of minimum wage in January saw all 3 glove counters to fall. The quantum however depends on the individual fundamentals of the firm.

Raw materials. Rubber glove prices are predominantly determined by rubber commodity (for NR), crude oil and butadiene (SR) prices. Understanding the consumption and production patterns would determine the forward pricing of the respective products. The largest component (averaging c.52%) of the total cost structure for all the glove players. The change in raw material pricing is thus a critical determinant of the margins and selling price for rubber gloves.

Currently latex and nitrile prices are both softening, converging to a similar price band. With the sufficient supply of NR and SR anticipated, should continue to support the softening of raw material prices. This would also allow the glove makers to benefit from minimised cost compression, translating to higher margins going forward.

Figure 17: Latex and Nitrile Prices

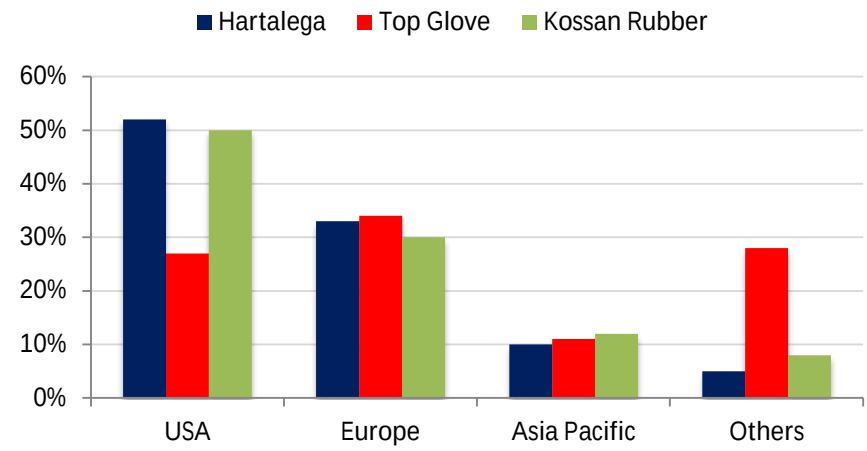


Source: Bloomberg, Company, PublicInvest Research

Sufficient raw materials supply. New planting of over 240,000ha of rubber latex in Thailand and Vietnam since 2008 is expected to mature this year. Latex supply would increase, to maintain softer NR prices.

The setup of 16 petrochemical plants - crude oil based naphtha steam crackers throughout Asia will satisfy the supply quantity of nitrile. Petronas Malaysia, one of the 16 petrochemical plant projects has dedicated part of Pengerang Integrated Petroleum Complex (PIPC) in Johor, to build a Refinery And Petrochemical Integrated Development (RAPID) Project worth RM60bn. RAPID has the refining capacity of up to 300,000 bbl. per day while the additional petrochemical plants would be used to generate value to petroleum products such as nitrile. Petrochemical's naphtha crackers convert naphtha feedstock into ethylene, propylene, BTX and by-products in a two-step process of cracking and separating. With the new supply of butadiene, 68% component of nitrile, we can assume minimal shortage of nitrile raw materials to justify a reasonable degree to lower prices going forward.

Figure 18: Industry Players Geographical Revenue %



Source: Company, PublicInvest Research estimates

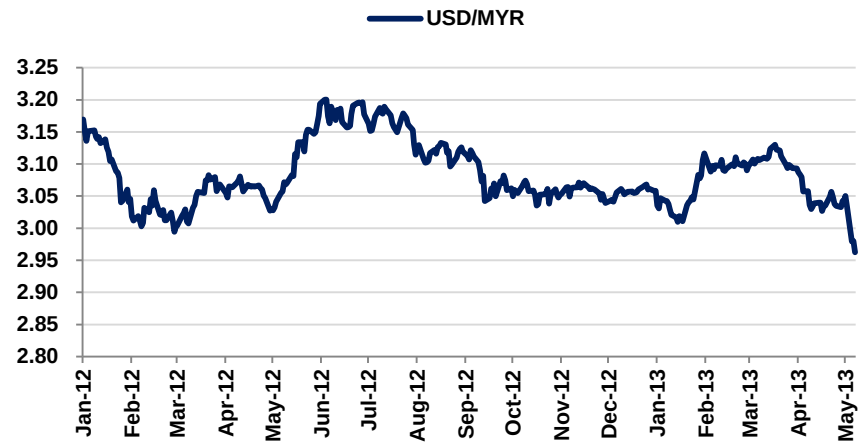
Domestic government initiatives. The recent declaration by the Deputy Minister of Plantation Industries and Commodities in Malaysia is encouraging rubber latex plantation in Malaysia. The government body is providing full assistance and incentives to planters and agencies such as Felda, Felcra and Risda, as well as those at state levels to implement rubber planting for latex production purposes. The Malaysian Rubber Board is also taking initiatives to increase rubber planting areas, with the latest in Perak, Malaysia.

Natural gas. Liquefied natural gas (LNG) prices are locked in on a contract basis, where the 1st band of gas is at a fixed price and every subsequent mmBTU required will be charged at an agreed rate. The uncertainty of energy costs remain for the industry despite the conclusion of the General Elections. With new implementation of government initiatives, we can only expect a hike in gas prices, the largest component (85%) of the energy costs for glove makers.

Minimum wage policy. Effective as of January this year, Malaysia implemented the minimum wage policy of RM900 for Peninsular Malaysia and RM800 for East Malaysia, which we expect would affect the glove players by up to 3% of their bottom-line margins. With the anticipation of the rise in labour costs (c.10% of COS), industry players have raised their average selling price of gloves (Top Glove +3%) to capture the cost increase. As the glove makers have already digested the scenario and with raw materials price softening, we would only assume average selling prices to reduce and do not expect further surprises. But in the long-run we would expect industry players to further automate to reduce labour required. This should stimulate technological advances within the industry coupled with managing margin compression.

Currency fluctuations. We continue to anticipate the strengthening of the ringgit against the US Dollar due to the inflow of ringgit into the country (Figure 19). Expected as a short-term euphoria of the stability of the government, the range upon normalisation is estimated to be around MYR/USD 3.10, an important factor to the industry players as a large portion of their receivables are often denominated in USD.

Figure 19: USD/MYR Fluctuations

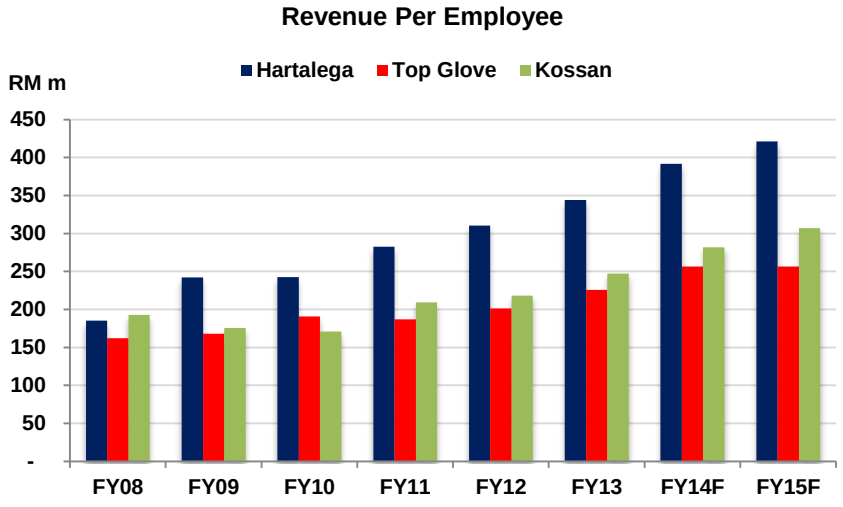


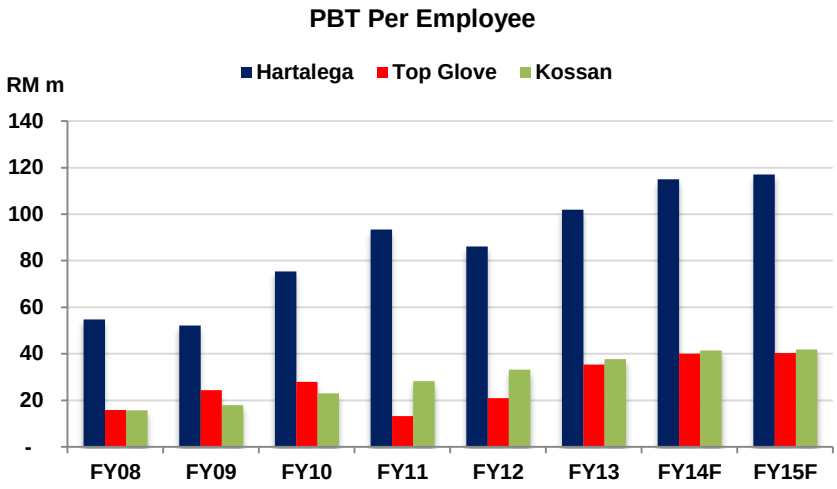
Source: Bloomberg

Maintaining A Competitive Edge

Intensified competition. Since the shift from higher demand for nitrile gloves, the major players have begun gearing up to compete with its peers, increasing their offering in stages. To stay competitive and sustain their "high" margins, all players would have to continuously improve efficiency through i.) increasing line speed efficiencies, ii.) technological advances iii.) research and development to provide high quality gloves and effective processing methods, iv.). minimising costs or rather to manage its cost structure, and v.) penetrating into new (emerging) markets to increase global market share.

Figure 20: Revenue and PBT Per Employee





Source: Company, PublicInvest Research estimates

Increasing technological efficiency. To maintain its high margins, most of the glove makers are using innovative research to automate their lines such as the introduction of the glove stripping process. For Hartalega, they are advancing to create automation to identify defects or damaged gloves during the process. Top Glove's new online packing system features counter and stacking devices to package gloves which would reduce the no. of workers required up to 40%. Kossan too are embarking onto more advanced stages of automation and computerised production floors and manufacturing processes.

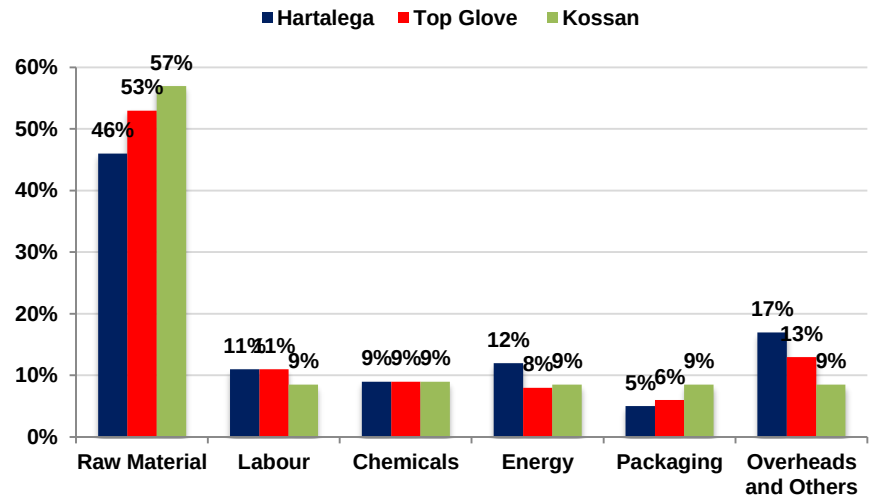
Figure 21: Industry Peers Profile

	Top Glove	Hartalega	Kossan
No. of Production Lines	462	51	146
Pieces/line	75m	200m	69m
Installed Capacity (bn)	41.0	11.2	14.0
Actual Capacity (bn)	30.8	10.1	10.5
Current Utilisation (%)	75%	90%	75%
No. of Workers	11500	3100	5100

Source: Company, PublicInvest Research

Actual capacity. We have been focused on analyzing the glove players via their installed capacity numbers, however the actual capacity which should translate to total revenue is a more meaningful measure. So have the glove players actually grown? We believe the surge of growth especially in nitrile production from the industry players are growing in terms of installed capacity, but actual utilization is not at its optimum capacity hence only marginal bottom-line growth should be expected in the near-term.

Figure 23: Cost Structure Comparison

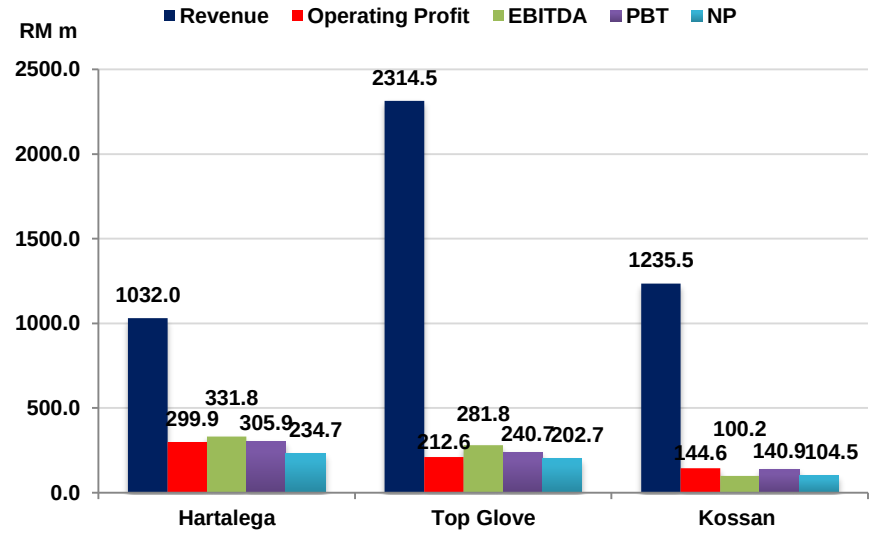


Source: PublicInvest Research estimates

Similar cost structure. All the glove players would have a similar cost structure (Figure 23) due to their final products being fairly comparable. Each glove maker however can remain competitive through managing their cost components to achieve the highest margins possible.

Cost management. Includes i.) expansion plans to enjoy economies of scale, ii.) cost efficiency through hedging better prices for raw materials coupled with better negotiations with sources, iii.) research and development to improve product efficiency, and iv.) effective management of resources.

Figure 24: Latest Historical Financial Summary For Peers



Source: Company, PublicInvest Research
* Hartalega FY13.

Figure 25: Sensitivity Analysis to Raw Material Price Changes

Hartalega	Change in Raw Material Price						
2014F	-30.0%	-20.0%	-10.0%	0.0%	10.0%	20.0%	30.0%
NP Margin	32.07%	29.01%	25.94%	22.87%	19.81%	16.74%	13.68%
Impact on Net Profit (RM)	108.1	72.1	36.0	0.0	-36.0	-72.1	-108.1
Net Profit (RM)	377.0	340.9	304.9	268.9	232.8	196.8	160.8

Top Glove	Change in Raw Material Price						
2013F	-30.0%	-20.0%	-10.0%	0.0%	10.0%	20.0%	30.0%
NP Margin	24.43%	20.34%	16.26%	12.17%	8.09%	4.00%	-0.09%
Impact on Net Profit (RM)	318.3	212.2	106.1	0.0	-106.1	-212.2	-318.3
Net Profit (RM)	634.4	528.3	422.2	316.1	210.0	103.9	-2.2

Kossan Rubber	Change in Raw Material Price						
2013F	-30.0%	-20.0%	-10.0%	0.0%	10.0%	20.0%	30.0%
NP Margin	20.13%	16.34%	12.56%	8.77%	4.99%	1.20%	-2.59%
Impact on Net Profit (RM)	159.9	106.6	53.3	0.0	-53.3	-106.6	-159.9
Net Profit (RM)	283.4	230.1	176.8	123.5	70.2	16.9	-36.4

Source: PublicInvest Research estimates

Sensitivity analysis. We have based our sensitivity analysis on the fluctuations in raw material prices' effect on net profit margins. We believe this is the most vulnerable cost component as it is driven by global demand and supply of natural and synthetic rubber, and constitutes about 50% of our glove peers' cost structure.

Net Profit margins. In the near-term, we believe margins for the respective firms can be sustained based on their capacity expansion plans which would enhance economies of scale. Favourable raw material costs and technological advances will continue to support the higher than expected margins that was previously compressed from higher costs and competition.

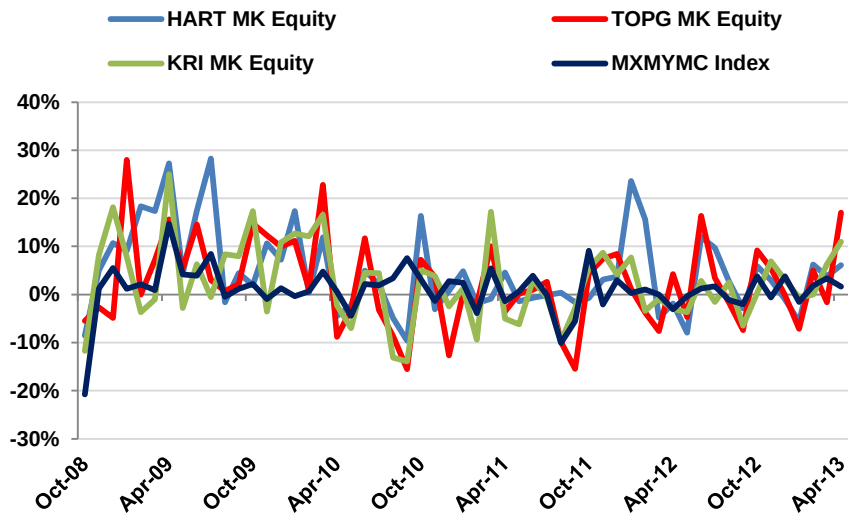
Penetrating potential markets. To ensure demand is continuous, industry players have begun entering infant glove markets such as India and China (refer to catalyst – page 9). US being the largest market are relatively saturated, hence opportunities in those regions are limited.

Key Risks

Cost pressure capping potential earnings growth. Glove players are closely monitoring the fluctuations in costs to ensure their cost structure is well managed to avoid further margin compression. The costs pressure however will continue unless alternatives for raw materials can be used. With the ample supply of rubber in the near-term, we do not foresee any drastic cost changes as raw materials are about 50% of costs and follow market prices, not from domestic sources.

Expiry of tax incentives. Previously, all players enjoyed lower tax margins as they received reinvestment tax contract for duration of 15years. As of 2011, we begin to see some erosion of margins as the contracts have begun to expire. Hartalega's contract expired as of 2011, whilst Top Glove expired last year (2012) and Kossan's will expire this year. We do note that the respective companies have taken necessary measures to rectify the anticipated margin losses.

Figure 26: Glove Players Vs. Mid Cap Index



Source: Bloomberg, PublicInvest Research estimates
* MXMYMC Index – MSCI Malaysia Mid Cap Index

Are margins sustainable? In the short-run, the glove players will be able to sustain their current margins and possibly regain some margin losses through softer raw material prices. By leveraging on increasing SR production, we assume the glove makers would also expect better margins as average selling price is higher than that of NR gloves. Higher capacity production moreover would enhance economies of scale.

In the long-run, the consolidation of industry players would intensify competition but subsequently maintain a check and balance scenario for the industry. This should encourage glove makers to find methods to sustain margins. In theory however, margins may gradually decline as there is a limit to minimising costs coupled with general rise in market prices from inflation.

RATING CLASSIFICATION

STOCKS

OUTPERFORM	The stock return is expected to exceed a relevant benchmark's total of 10% or higher over the next 12months.
NEUTRAL	The stock return is expected to be within +/- 10% of a relevant benchmark's return over the next 12 months.
UNDERPERFORM	The stock return is expected to be below a relevant benchmark's return by -10% over the next 12 months.
TRADING BUY	The stock return is expected to exceed a relevant benchmark's return by 5% or higher over the next 3 months but the underlying fundamentals are not strong enough to warrant an Outperform call.
TRADING SELL	The stock return is expected to be below a relevant benchmark's return by -5% or more over the next 3 months.
NOT RATED	The stock is not within regular research coverage.

SECTOR

OVERWEIGHT	The sector is expected to outperform a relevant benchmark over the next 12 months.
NEUTRAL	The sector is expected to perform in line with a relevant benchmark over the next 12 months.
UNDERWEIGHT	The sector is expected to underperform a relevant benchmark over the next 12 months.

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