



OVERWEIGHT

SECTOR UPDATE

Private Circulation Only

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RUBBER GLOVES

Up Close With 4 Glove Plants

From July 28 to 31, 2009, we organised plant tours to 4 rubber glove companies - Top Glove, Supermax, Kossan and Hartalega. We managed to get up close on the plants and make observations on how they differ, but these differences appear minimal. However, we understand from the respective managements that the differences lie mainly in the technology deployed as well as production efficiency. We believe the demand for rubber gloves from the medical industry is strong, especially from developing countries. We remain Overweight on the sector.

Each plant differs in terms of technology, production efficiency. Although all the processes in the rubber glove manufacturing look identical, there are differences in terms of the technology employed and production efficiency. Having said that, some of the differences we noted during our visits include the working environment for workers, the noise level in the plants, the overall cleanliness and the space between production lines.

Glove supply still short. Since the H1N1 outbreak has been raised to pandemic level, the governments of developed countries like US and Europe have urged all healthcare MNCs to stock up on rubber gloves, which has created short term demand. Over the longer term, demand is expected to come from developing countries like China, India and Russia, which are gradually increasing their use of gloves. Also, with US tightening Food and Drug Administration (FDA) regulations effective December 2008, the number of glove defects per batch would need to be reduced to qualify for entry to the US market. This would reduce the supply of rubber glove exports to US due to the retention of "unqualified" gloves at the ports and hence creating new sales opportunities for the established rubber glove manufacturers. Finally, US President Barack Obama is close to passing comprehensive health insurance reforms that will benefit American families and small businesses, a move that is expected to cover about 46m Americans who do not have health insurance, which would in turn lead to increased usage of gloves.

Maintain Overweight on the sector. We are also raising the target prices for the rubber glove stocks under our coverage, in line with recent developments in the industry spurring demand for rubber gloves. **Top Glove (BUY, TP: RM8.50)** based on 15x FY10 EPS (previously RM7.40 based on 13x FY10 EPS); **Supermax (BUY, TP: RM3.85)** based on 10x FY10 EPS (previously RM2.69 based on 7x FY10 EPS); **Kossan (BUY, TP: RM4.98)** based on 10x FY10 EPS (previously RM4.48 based on 9x FY10 EPS) and, **Adventa (BUY, TP: RM1.87)** based on 10x FY10 EPS (previously RM1.31 based on 7x FY10 EPS). However, for **Hartalega**, given that the share price has caught up with the valuation, we revised our TP upward to **RM5.45** based on 12x FY11 EPS, but downgrade our call to **NEUTRAL** from BUY (previously RM4.10 based on 9x FY11 EPS).

Stock	Price RM ^A	Target RM	Mkt Cap RMm	Volume '000	PER (x)		FY0 ROE %	FY1 DY %	Rel. Performance %			P/NTA (x)	Rating
					FY1	FY2			1-mth	3-mth	12mth		
Adventa	1.50	1.87	208.7	0.0	11.2	8.0	10.9	4.0	24.0	28.3	64.1	1.1	Buy
Hartalega	5.44	5.45	1318.2	0.0	15.6	15.0	38.8	1.5	21.9	44.5	233.7	5.6	Neutral
Kossan	3.79	4.98	605.9	0.0	8.9	7.6	19.8	3.2	-8.3	-6.8	49.9	1.7	Buy
Supermax	2.47	3.85	655.2	0.0	9.2	8.4	10.8	1.6	37.0	41.8	97.0	1.4	Buy
Top Glove	7.26	8.50	2185.7	0.0	16.0	15.2	16.2	1.8	4.8	8.0	80.0	2.9	Buy

Touring 4 Plants In A Row

A tour of Top Glove, Supermax, Kossan and Hartalega plants. From July 28 to 31, 2009, we organised visits to the plants of the 4 rubber gloves companies. All our plant tours also featured briefings by the companies to update investors on the latest developments in the rubber glove industry and the strategies they are employing going forward to capitalise on those developments.

Differing technology and production efficiency. To the layman, the plants' processes appear identical on the surface, except that some lines are longer than others. However, there is more to it than what the eye can perceive through physical observation. We understand that technology plays an important role in determining the quality and features of the glove produced. For example, technology enables players like Kossan to produce the CheMaz-7th Sense glove, which is a chemical allergy-free glove targeting the healthcare sector, which gives the company an edge over its competitors, who only produce normal nitrile gloves. Another good example would be the technology deployed in Hartalega's plants, where the degree of computerization is the highest among its peers' plants, which in turn brings down the production flaw rate further. Finally, to achieve production efficiency, most rubber glove players would upgrade their old production lines so that they have fewer breakdowns and can operate more efficiently.

Supermax Plant Tour

Meru Plant, where the new expansion will be. On July 28, we visited 1 out of 8 of Supermax's plants, which is located in Meru. We believe management picked the plant for the tour simply because this is where the company's new expansion (additional 12 production lines) will be. This plant is not new to Supermax, having started operation 4 years ago. It is capable of housing 28 existing production lines out of its total 132 lines, whereby all the 28 lines are single twin former lines. The plant, whose average utilisation rate is about 80%, operates 24 hours a day, with about 2 weeks of downtime a year for monthly minor maintenance work.

Figure 1: Infrastructure ready for the 12 new production lines



Source: OSK Investment Bank

Produces natural rubber powder and powder-free gloves. We understand from management that the Meru plant does not produce nitrile gloves, even for the new 12 production lines to be installed later the year. Nevertheless, the lines are inter-changeable between natural rubber powder and powder-free gloves. These gloves are for both the OEM and OBM markets, targeting mainly medical MNC customers. There are also a few lines producing the higher end surgical gloves. However, this type of glove only makes up 3% of its product mix and is mainly produced to complement its existing product mix. Adventa Bhd is the market leader for surgical gloves in Malaysia.

Physical observation. On first impression, the plant and production lines are quite similar to Kossan's, especially for NR powder and NR powder glove production. However, compared to Top Glove, we believe Supermax's lines are slightly longer and capable of interchanging to produce NR powder and powder free gloves. Also, the processes are systematic, as can be seen from the pictures here. Supermax conducts complete testing before shipping its gloves out to customers.

Figure 2: Random testing of gloves before shipping out to customers



Source: OSK Investment Bank

Figure 3: Random testing of gloves before shipping out to customers



Source: OSK Investment Bank

Figure 4: Packaging of gloves to ship out to customers



Source: OSK Investment Bank

Top Glove Plant Tour

Factory 9, where both the plant and HQ are located. On July 29, we paid a visit to Top Glove's HQ and its Factory 9 in Meru. Although this factory represents 1 out of 17 factories in its stable, we believe our visit can be taken as being representative of Top Glove's major operation since this factory houses the 45-metre production line used to produce NR powder gloves. NR powder glove makes up about 52% of the company's product mix. This is the product over which Top Glove has a competitive edge owing economies of scale, since it produces more than 15bn pieces of NR powder glove a year.

Physical observation. We noted that the production lines in this plant are mostly single former lines. Also, each of the lines is built quite close to one another, probably owing to Top Glove's strategy to maximise production using the existing space available. Furthermore, we believe there is no reason why management would want to waste space in anticipation of setting up new lines next to the existing ones since this factory is specifically built for the production of NR powder glove, which does not require a longer or more sophisticated production line. Other than that, we notice that the noise level at the plant is rather high, especially at the glove stripping section as the area is not covered, with each production line placed close to one another. From the cleanliness aspect, the factory is well kept, which provides a comfortable environment to work in.

Figure 5: Top Glove HQ attached to Factory 9



Source: OSK Investment Bank

Hartalega Plant Tour

All 5 factories are located in Batang Berjuntai. We drove out to Batang Berjuntai on July 30 to visit Hartalega's plants. There, we toured both its nitrile and NR plants. Its nitrile plants use mostly natural gas while the biomass plant mainly supplies energy to its NR plant. Of the 2 types of gloves produced, we understand that the technology deployed by Hartalega at its nitrile plants is way ahead of that at its NR plant, since it specialises in producing nitrile gloves.

Physical observation. The first thing we noticed was that all of Hartalega's plants are located in the same vicinity, thus making delivery of raw material (latex) and finished products (rubber gloves) more efficient. On stepping into the plant, we noticed that all its production lines are fully computerised. In fact, the mobile phones of the entire management team are linked to each of the production lines, which keep them informed of the progress of the lines in real time. We also noticed that the production lines are fully automated, even towards the last stage of production, where Hartalega engages auto stripping machines rather than using foreign labour to remove the gloves from the moulds. Having this technology enables the company to expedite production as the machine strips the gloves faster than when done manually. Besides that, the plant is generally cooler, cleaner, more quiet, has wider walking space and has more covered production lines compared to its peers.

Figure 6: Hartalega's plants in Batang Berjuntai

Source: OSK Investment Bank

Figure7: Hartalega's biomass plants

Source: OSK Investment Bank

Kossan Plant Tour

New nitrile glove plant in Kapar. Kossan's management showed us its new nitrile glove plant in Klang, which currently houses 22 new production lines solely producing nitrile gloves. The incorporation of these 22 new lines boosted its product mix for nitrile glove from 25% in 2008 to 35%-40% now. All the lines, which are up and running now, are 140m long and are double former lines. Also, they are longer than NR glove lines as nitrile gloves require a longer 'curing' time.

Physical observation. During the tour, we noticed how clean and spacious the plant is. However, the auto stripping machines are quite noisy because that area of the production lines is not covered. Other than this, we do not see any significant difference between Kossan's plant and its peers except for the technology and production efficiency deployed here, which cannot be perceived from mere observation.

Figure 8: Kossan's nitrile plant

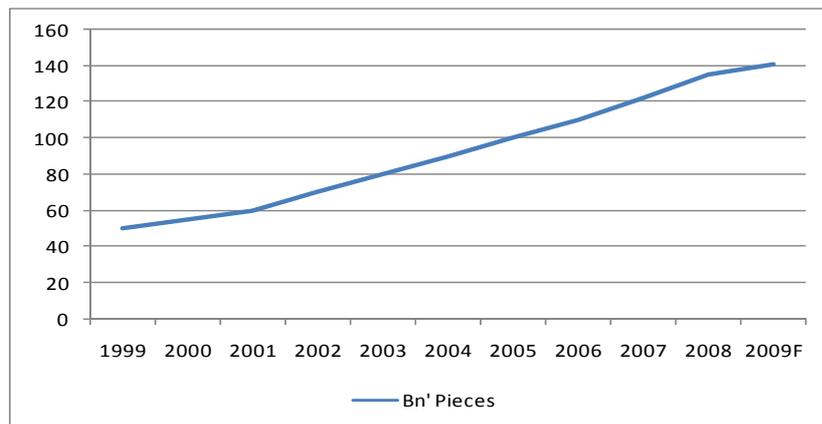


Source: OSK Investment Bank

Supply and Demand For Rubber Gloves

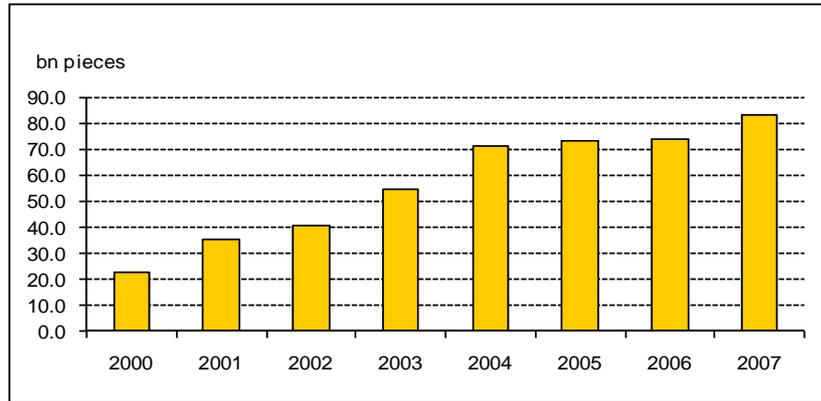
Glove supply to medical industry still short. Since the H1N1 threat was raised to pandemic level, the governments of developed countries like US and Europe have urged all healthcare MNCs to stock up on rubber gloves so that there would not be availability problems when the need arises. Healthcare MNCs as well as other smaller healthcare companies have changed their strategies in doing business since the collapse in commodities prices in the middle of last year, in anticipation of lower selling prices of gloves in the months ahead. They had purchased in smaller quantity but made more frequent orders. Based on the statistics extracted from Top Glove's presentation slides, we understand that global demand will grow by about 10% on average, with the estimated demand for 2009 at 140bn pieces. Also, about 80%-90% of this total is from the medical segment, leaving the non-medical segment taking the balance 10%-20%. The demand from the non-medical segments would be from industries such as the automotive, food processing, and semi-conductor industries.

Figure 9: Global rubber gloves demand



Source: Top Glove, OSK Investment Bank

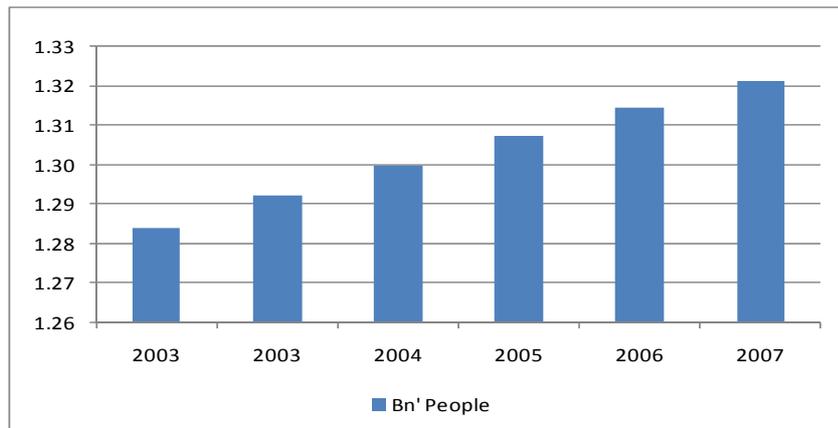
Figure10: Malaysia’s rubber gloves export on rising trend



Source: Top Glove, OSK Investment Bank

Developing countries in Asia increasing rubber glove usage. Countries such as China, India and Russia are gradually increasing their usage of gloves. We gather from the listed rubber glove manufacturers that half of China’s total population uses gloves. And, with the large population size of over 1.3bn people in China and an expected growth rate of about 1% p.a., we believe there is huge growth potential in that country for rubber glove manufacturers. The next big country from which demand would be huge is India, with a total population size of over 1.1bn people. However, we do not see significant demand from here in the immediate term, probably not within the next 3 years.

Figure 11: China’s population on rising trend

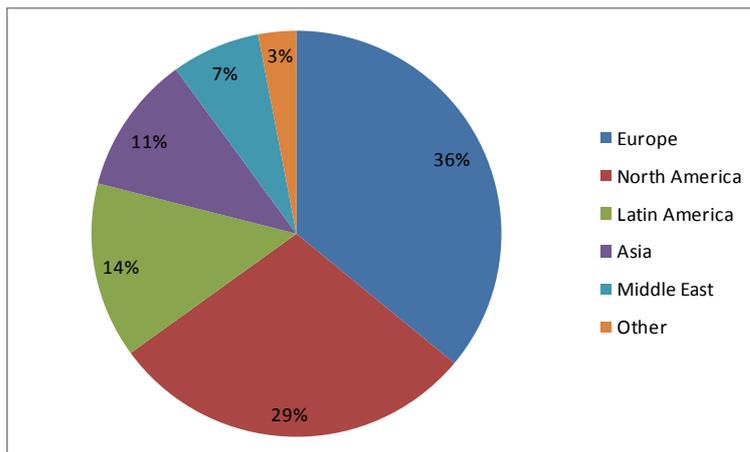


Source: Bloomberg, OSK Investment Bank

US tightens Food and Drug Administration (FDA) regulations. Effective December 2008, all the gloves entering the US market would need to go through a higher tolerable defect Acceptance Quality Level (AQL) of 2.5 from 4.0 previously for examination gloves and 1.5 from 2.5 for surgical gloves. Hence, the number of glove defects per batch would need to be reduced to qualify for entry into the US market. Besides US, the Brazilian government also implemented a new and more stringent quality control and standards for all types of gloves exported to that country. For example, glove manufacturers are required to print the distributor name and batch number on each piece of glove to qualify for entry. We understand that this regulation has reduced the number of players exporting gloves to the Brazilian market, with both Top Glove and Supermax capturing about 70% market share in this country.

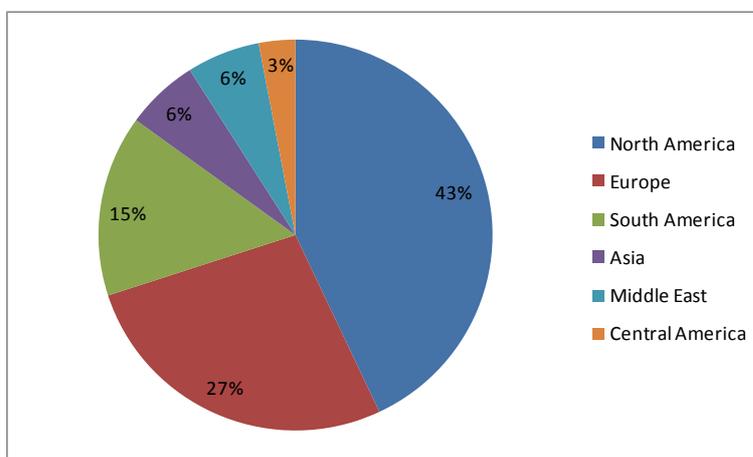
US health insurance reform. We understand that US President Barack Obama is close to passing comprehensive health insurance reforms that will benefit American families and small businesses and is expected to complete this by December 2009. The move is expected to benefit about 46m Americans who do not have health insurance. Once this is implemented, there would be more Americans visiting healthcare centres and as such, this should increase the usage of gloves, thus benefiting all the rubber gloves manufacturers since US is one of the bigger export markets.

Figure 12: Top Glove's target markets



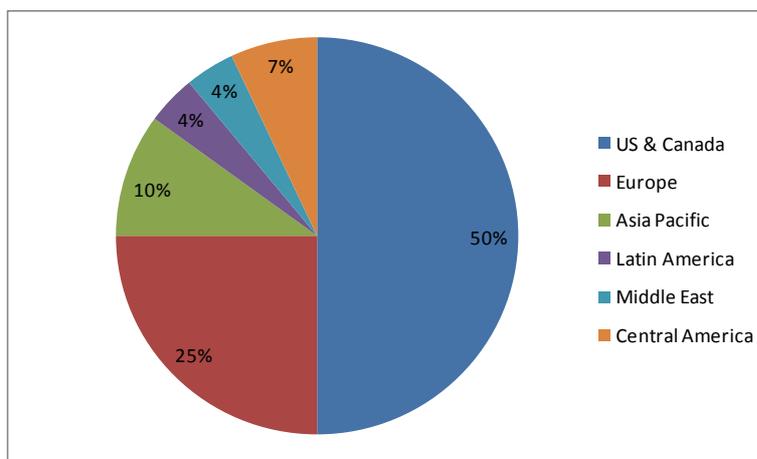
Source: Top Glove, OSK Investment Bank

Figure 13: Supermax's target markets



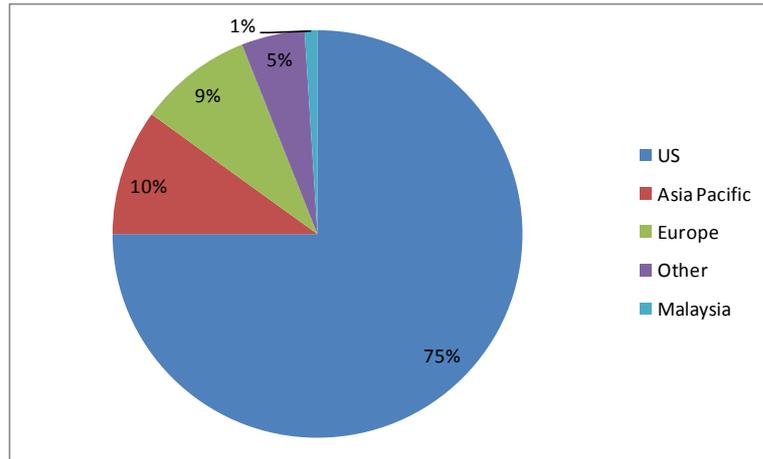
Source: Supermax, OSK Investment Bank

Figure 14: Kossan's target markets



Source: Kossan, OSK Investment Bank

Figure 15: Hartalega's target markets

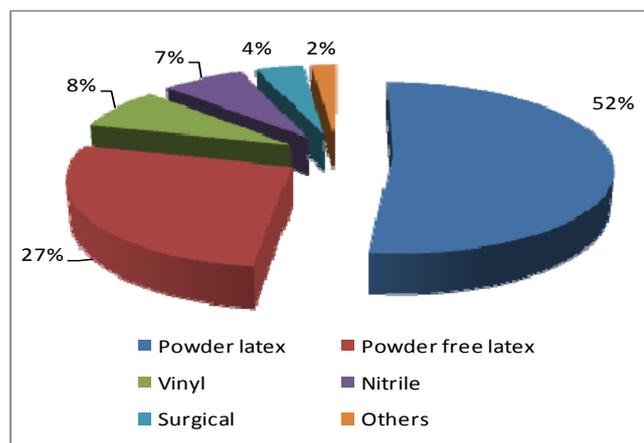


Source: Hartalega, OSK Investment Bank

Strategy By Rubber Glove Manufacturer Going Forward

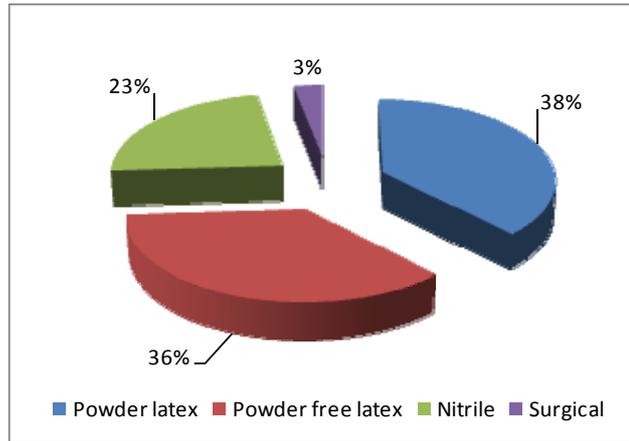
Going back to basics. Based on our meetings with the 4 rubber glove manufacturers, we gather that the big future growth area for the industry would be in NR powder gloves, which would be in great demand: 1) for developing countries like Latin America, China and India, and 2) as the best upgrade/substitute to PVC glove, in line with the rise in standards of living and pricing. We understand that all the 4 manufacturers are gearing their future expansion towards NR powder glove production, with 1) Top Glove continuing to concentrate on what it does best, which is to produce NR powder gloves, which make up more than 50% of its product mix; 2) Supermax to intensify its focus on the Latin American market, especially Brazil, selling OEM NR powder gloves; 3) Kossan's future expansion of 36 lines would be dedicated to the production of NR powder gloves, and 4) Hartalega is slowly increasing its NR powder glove product mix, and expects to increase NR powder and powder-free gloves from 30% now to 40% in the future years.

Figure 16: Top Glove's product mix



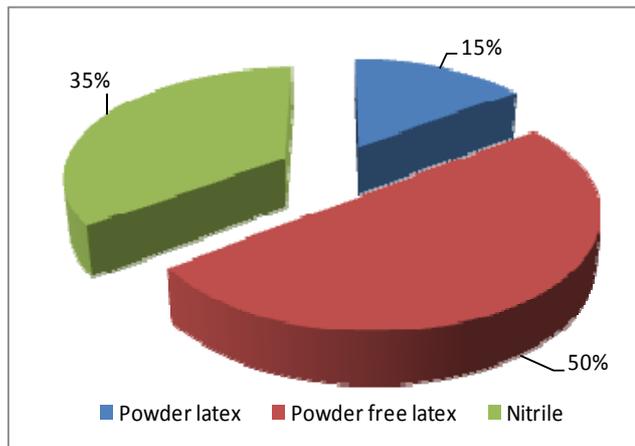
Source: Top Glove, OSK Investment Bank

Figure 17: Supermax's product mix



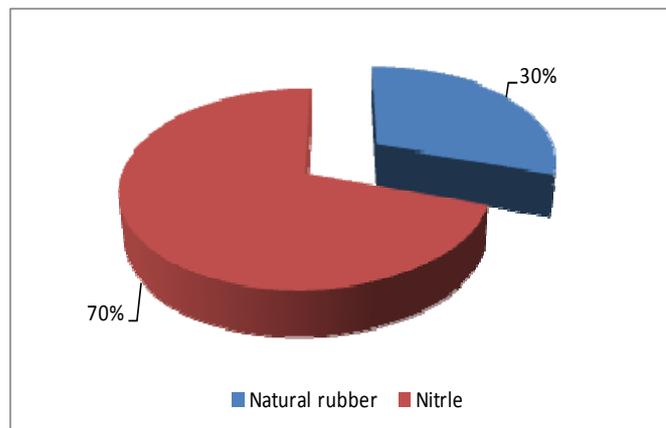
Source: Supermax, OSK Investment Bank

Figure 18: Kossan's product mix



Source: Kossan, OSK Investment Bank

Figure 19: Hartalega's product mix



Source: Hartalega, OSK Investment Bank

Capacity expansion on a recovery in demand. We notice that the 4 rubber glove manufacturers have collectively painted a picture of uncertainty in the demand for rubber gloves since the past one year. Most of them prefer to not fix the new production lines despite having ready infrastructure for them. Instead, they are looking towards increasing their glove production through production efficiency, which has led to faster production and less wastage. Some of them (eg Kossan) even took the trouble of refurbishing the old lines so that they can run more efficiently when demand recovers. Now, we gather from all our 4 plant visits that all of the glove makers are looking at capacity expansion again, but not as aggressively as in the past.

Figure 20: Production lines and capacity

	Existing Lines @ Aug 09	New Lines @ 2010	Total Lines	Existing Capacity (bn' pc)	Expansion (bn' pc)	Total Capacity (bn' pc)
Top Glove	355	32	387	31.5	3.0	34.5
Supermax	132	12	144	14.5	1.7	16.2
Kossan	124	32	156	10.0	2.0	12.0
Hartalega	33	12	45	6.2	4.3	10.5

Source: Various, OSK Investment Bank

Our View

Maintain Overweight on the sector. We are also raising the target price for the rubber glove stocks under our coverage, in line with the recent developments in the industry, which has fuelled demand for rubber gloves. **Top Glove (BUY, TP: RM8.50)** based on 15x FY10 EPS (previously RM7.40 based on 13x FY10 EPS); **Supermax (BUY, TP: RM3.85)** based on 10x FY10 EPS (previously RM2.69 based on 7x FY10 EPS); **Kossan (BUY, TP: RM4.98)** based on 10x FY10 EPS (previously RM4.48 based on 9x FY10 EPS) and, **Adventa (BUY, TP: RM1.87)** based on 10x FY10 EPS (previously RM1.31 based on 7x FY10 EPS). However, since **Hartalega's** share price has caught up with its valuation, we are revising upward our TP to **RM5.45** based on 12x FY11 EPS, but downgrade our call to **NEUTRAL** from BUY (previously RM4.10 based on 9x FY11 EPS).

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