
TRCC CANADA

Monthly Bulletin



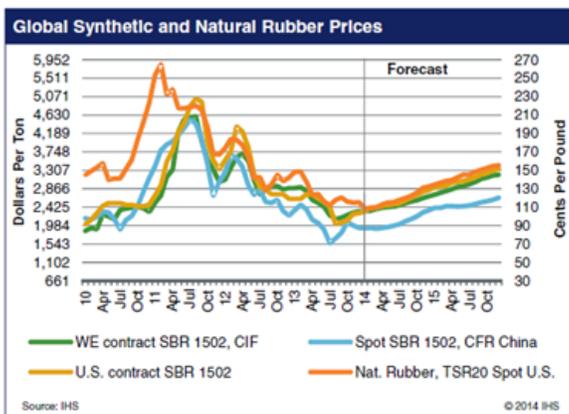
TRCC Canada

Leading World Technologies Through Innovation

March 2014 issue

Executive Summary

Butadiene: IHS Chemical's marker for the March US butadiene contract price increased nearly nine cents per pound to 69.8 cents per pound (\$1,539 per ton). This month's increase is supported by spot prices that have climbed significantly for March and especially April delivery.



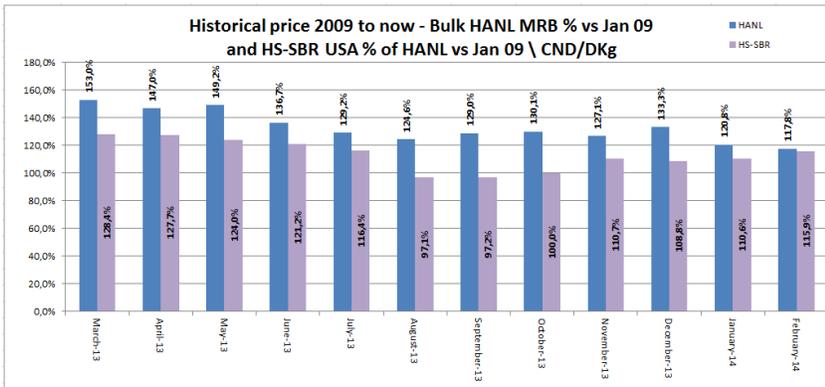
Synthetic Rubber: IHS Chemical's posting for the February medium buyer negotiated SBR 1502 price increased to the 112 to 115 cents per pound range, reflecting an increase in both butadiene and styrene prices. The HIS Chemical posting for SBR 1712 continues to reflect a large differential. The price also increase to the 95.5 to 98.5 cents per pound range.

Natural Rubber: Natural rubber prices continued to fall in February, with the monthly SICOM average price decreasing by 11.5 cents per pound from January IHS Chemical forecasts that US TSR prices will increase slightly in March to \$0.99 per pound before moving higher in the coming months, averaging \$1.08 per pound for the year.



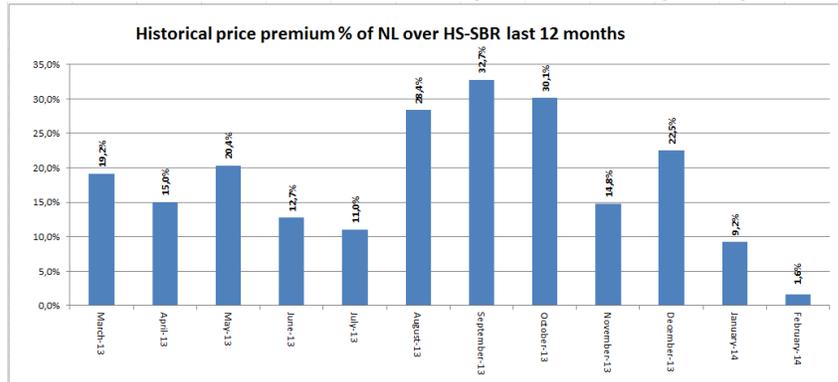


Trending between Natural and Synthetic Rubber Latexes



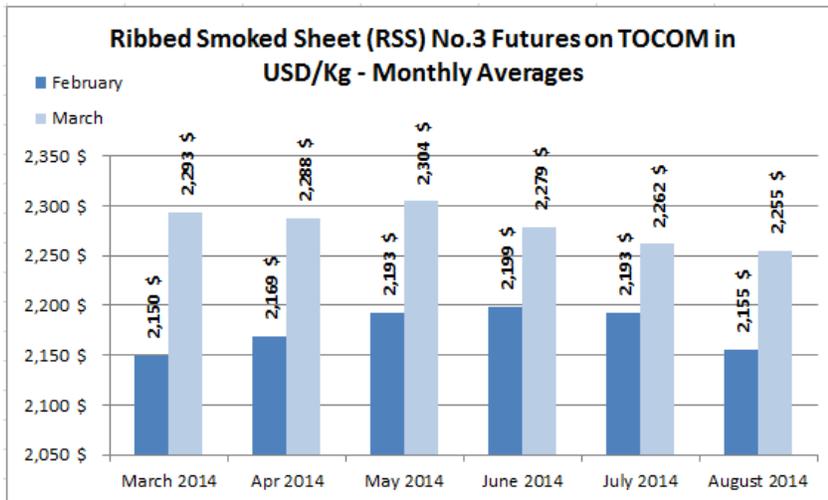
The reported price of bulk natural rubber latex published on the Malaysian Rubber Board (MRB) kept declining in February whereas the North American price of bulk synthetic rubber latex (HS-SBR) continued its rise that has been on-going now since August 2013, leading to a further closing of the gap between the price of bulk natural rubber latex to that of bulk synthetic rubber

latex (both expressed on a dry basis). At the end of February, that gap was only 1.6%. The price of Natural Latex posted on the Malaysian rubber board has been dropping since the beginning of the year due to a slowdown of the Chinese economy and historically high global inventory levels whereas the price of Synthetic Rubber Latex has been on the rise since the beginning of the year due to some level of tightness on the side of some of the HS-SBR feedstock, mainly benzene (a precursor of styrene) and butadiene.



Users of gel foaming compounds used in the carpet and rug mill industry might want to consider using a natural latex rich compound at present given that it can withstand a higher load of filler than synthetic latex rich compounds but the economics must be evaluated on a case by case basis and depends on the system currently in use as well as the specificity of the manufacturing process used in any given mill.

Trending on Natural Latex Futures on key Commodity Exchanges



The February monthly average RSS3 Futures running down to August 2014 on TOCOM showed a rise peaking in the month of June to then start declining, which is not unusual given the seasonality of natural latex rubber prices on the market.

The March month to date average RSS3 Futures running down to August 2014 currently shows a higher price at any given month, indicating that the market has been on the rise over

the last month but the trend shows a small decline, indicative of a slowdown if not a freeze in the trending rise. Moreover, the rise has been quite moderate given the total percent solid that latex contains as opposed to RSS3.

We do believe at present that supply agreements should be put in place not so much to secure a price in the eye of a potential rise but more to provide the assurance to have material available from suppliers for the month to come as some American suppliers seem to be tight with available inventory (stock not allocated on contract already).





Butadiene (building block of HS-SBR and XSBR)

Contract prices

The US butadiene contract price marker posted by IHS Chemical increased nearly 9 cents per pound to 69.8 cents per pound (\$1,539 per ton) for March. The split range this month is 68 to 78 cents per pound.



Monthly Market Summary North America

IHS Chemical's marker for the March US butadiene contract price increased nearly nine cents per pound to 69.8 cents per pound (\$1,539 per ton). This reflects a split settlement with final nominations ranging from 68 to 78 cents per pound. **This month's increase is supported by spot prices that have climbed significantly for March and especially April delivery.**

Calculation of Butadiene Contract Marker with Split Settlement

Mar-14

Nominating Company	Capacity On Line Million Pounds	Nomination Cents Per Pound
ExxonMobil	Baton Rouge	379
	Baytown	331
	Total	710
LyondellBasell	Channelview	240
	Channelview	615
	Total	855
Shell	Deer Park	331
	Norco	575
	Total	906
TPC	Houston	838
	Port Neches	573
	Total	1,411
Total Capacity		3,882
IHS Chemical Wtd. Avg. Marker		69.8

Domestic butadiene production in

February was a bit weaker than it has been for two reasons. First, production has been somewhat **constrained by small ethylene cracker issues**, restricting feedstock to some extraction units. Second, **a producer had logistical constraints** that prevented butadiene delivery by pipeline or barge. As such, **supply has been somewhat limited**. As a result, there was increased spot interest, which drove spot butadiene prices higher.

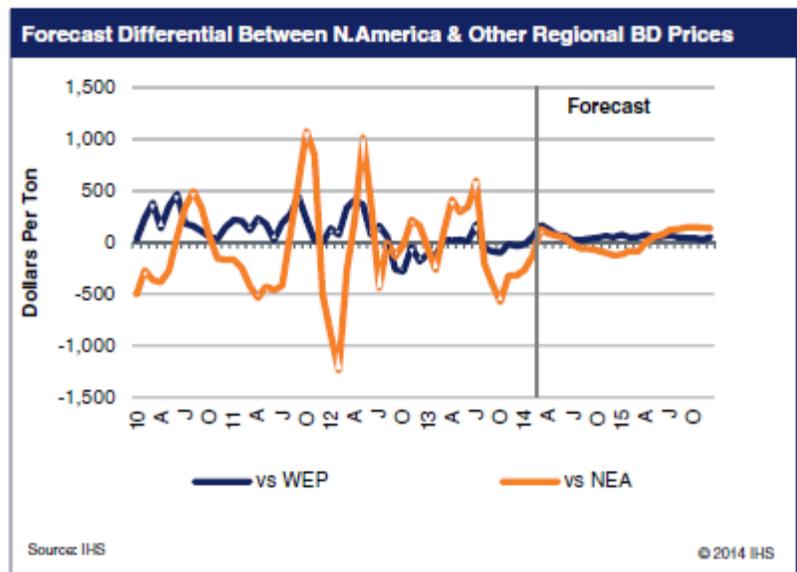
The demand side is showing signs of cautious optimism, though there does not seem to be a significant difference between overall demand in January and February. It remains too soon to consider this a sustainable recovery, but there are signs of life. The concern voiced by butadiene consumers is that the sharp price increase for March will open the arbitrage window downstream, which could blunt domestic demand growth.

The current domestic spot market has strengthened significantly. There are discussions of a great deal of volume coming to North America from Asia in March and April. The amount under discussion is as high as 25KT for March and April combined. This is significant volume and there is no indication that the market will be able to absorb that level efficiently. IHS is aware of spot deals for March and April butadiene delivery at 78 cents per pound (\$1,720 per MT). Of course, this is a landed cost and does not include terminally and delivery costs. There are indications in the market that material was sold as high as 83 cents per pound (\$1,830 per MT) for April delivery, though IHS cannot confirm that price level has actually been done. These high spot price numbers are part of the justification, along with high prices for imported crude C4, cited for the strong price increase nominations.

Market analysis

The sharp increase in the US butadiene contract price caught many market players by surprise. As noted above the price increased by nearly 9 cents per pound over February. In fact two of the four initial nominations were significantly higher than the eventual settlement. This development leads IHS to revisit its analysis of regional differentials in the global butadiene market.

The data on the nearby graph are the butadiene prices in North America less the prices in West Europe or Asia. As IHS has observed frequently, the absolute price level is often less important than the relative prices. Generally, the US is short of butadiene and imports, primarily from West Europe. Therefore, the US price should be higher than West Europe under normal conditions. Over the past couple of years market conditions have been anything but normal. Demand has been soft and imports have often been driven by length in the exporting market rather than tightness in the importing market. As a result, the European butadiene price was less than or equal to the US price for eleven months in 2012 and 2013. This is truly remarkable, though IHS considers it to be a deviation from normal market conditions and not a redefinition of normal. The relationship between prices in the US and Asia varies significantly. At times, there is strong incentive for the US to import butadiene from Asia; at others, the arbitrage is open in the other direction. The freight cost to ship butadiene between the US and Asia averages around \$400 per ton, which is significant, but at times justified.





The sharp increase in price differentials call into focus the question does the market in North America really need to incentivize butadiene imports? As noted, over the past couple of years the answer to this question was clearly no. As 2014 has begun, demand has been somewhat stronger, but not strong. Consumers report that they are optimistic about 2014, but that it is likely to be stronger in the second half of the year than it has been to date. On the other hand, there have been spot purchases at price levels at roughly the same price levels as the net transaction price based on the IHS posted March contract marker. So why not raise the contract price to a similar level? Time will tell as to the wisdom of the current market direction. However, it does put US demand growth at risk of being satisfied by derivative imports rather than domestic production.

Feedstocks

Ethylene (building block of HS-SBR and XSBR)

A market wide agreement covering the February Net Transaction (NT) Contract Reference price was reached at 49.5 cents per pound, a decrease of 0.75 cents from the January contract price. **The February monthly average spot price decreased 2.5 cents from the January figure of 61.25 cents per pound.** Spot prices for February delivery peaked at 66.5 cents with the trades occurring in the Choctaw system in Louisiana on the last day of the month. Ethylene in Louisiana continues to trade at a premium to ethylene in Texas at Williams or Mt. Belvieu due to the closure of the Chevron Evangeline pipeline and the extended outage at Williams Geismar. Spot prices for January delivery in Texas trended lower through the month, with deals reaching as low as 50.5 cents per pound. **The February offline capacity figure of 3.6% was up slightly from January as there minor unplanned production issues this month.** Westlake's Calvert City cracker will be brought down for a three week turnaround in March. **Ethylene supply in Louisiana remains tight. The tightness is expected to continue until the restart of the Evangeline pipeline in late April.** This will most likely result in continued spot price premiums for ethylene in Louisiana until the line is back in service. **Cash costs were higher in February, increasing by 2.0 cents per pound.** NGL prices were pushed higher by high natural gas prices with cold weather gripping much of the US. Ethane maintained its favored feed status, as its advantage over propane ballooned to over 25 cents per pound. Butane remains the second favored feed behind ethane, favored by roughly 18.5 cents over propane cash costs.

Styrene (building block of HS-SBR and XSBR)

The styrene market was awful in February and it looks like nothing is going to change in March. Raw material costs continue to keep styrene producers globally uncompetitive. The March benzene contract settlement was lower than February but it isn't helping because it is still too high relative to the other regions. On production, operating rates are mixed with some units running hard and some reducing rates. POSM is also running at reduced rates. Domestic supply of some derivatives is tight hence the continued pull on styrene. Export demand however is nearly non-existent although some export volume is on automatic pilot and continues to flow out. Traders with styrene are continuing to look for other outlets for their styrene other than exporting to Europe or

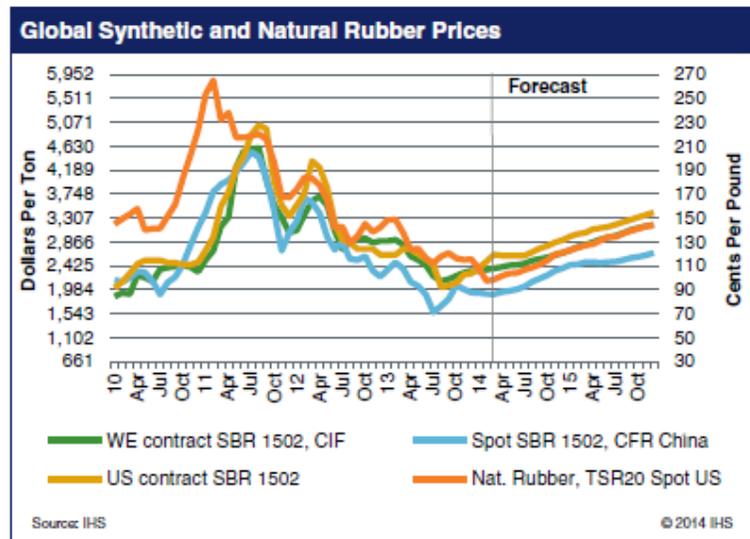


Asia. Large buyers that are not too restrictive on product quality are being sought and are seeing the lowest offers in the market.

Synthetic Rubber

Monthly Market Summary

In the US, signs of an emerging recovery continue. It is probably more fair to say that demand has been stable so far this year, and better than it was in late 2013, than to say that demand is strong. However, even that statement is much better than could have been made in 2013. ESRB production capacity in the U.S. will increase in March as the East West Polymer Company will restart production at the former Lion Copolymer plant in Baton Rouge, Louisiana. ESRB production capacity has not been in short supply, but the restarted unit will add supplier flexibility back to the market.

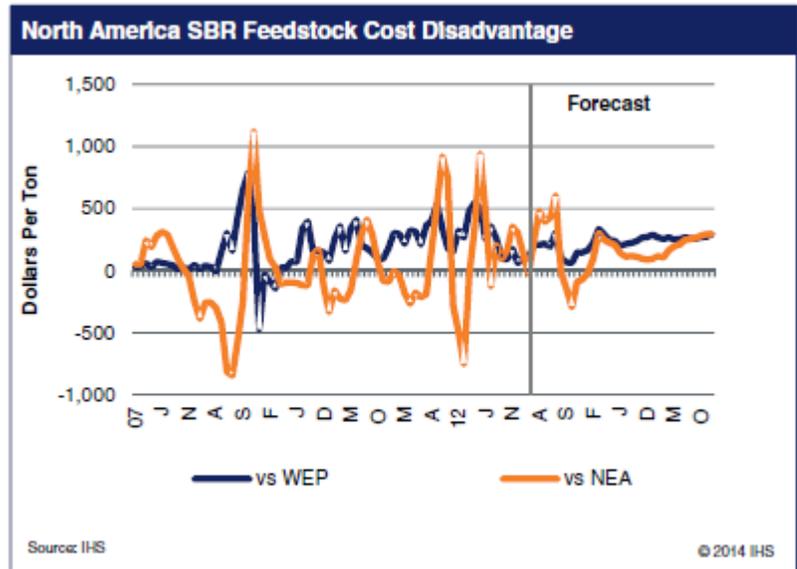


It is much too early to call domestic demand in full recovery, but as far the market performance is at least consistent. There are potential difficulties ahead. The market in Asia remains weak so prices are also weak. The recent butadiene price trends are likely to open the arbitrage window for imports that could limit the recovery's impact on domestic production. This is a recurring market dynamic. In fact, IHS view is that as long as there is surplus production capacity in Asia the regional butadiene price differentials will be regulated by synthetic rubber, particularly eSBR, arbitrage. **IHS Chemical's posting for the February medium buyer negotiated SBR 1502 price increased to the 112 to 115 cents per pound range, reflecting an increase in both butadiene and styrene prices. The HIS Chemical posting for SBR 1712 continues to reflect a large differential. The price also increase to the 95.5 to 98.5 cents per pound range.** The HIS Chemical PBR price increased to the 117 to 121 cents per pound range.

Market Analysis

The current dynamics in synthetic rubber feedstock prices are likely to have an impact on synthetic rubber trade that could put North America synthetic rubber producers at a disadvantage. This month, IHS presents their view of the near term feedstock cost differential between the major producing regions with a focus on SBR.

The data in the graph show the difference between the SBR feedstock cost (butadiene and styrene) in North American and West Europe or Northeast Asia. A positive number indicates an American disadvantage.

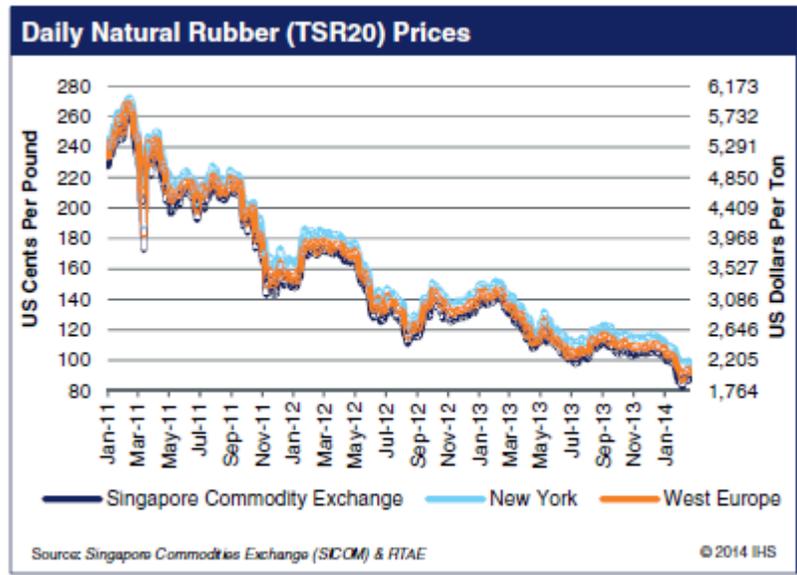


Historically, there have been major and sudden swings in the relationship between North American and Asian prices. The relationship between West Europe and North America has been much more stable. The impact of the global recession in late 2008, the natural rubber price run up and collapse in 2010 and 2011, and the butadiene price bubble of early 2012 are all easily seen in the data. These were times of significant stress in the market that is easily assigned to a source. For much of the first half of 2013, Asia enjoyed a significant cost advantage relative to North America and West Europe. As a result, a significant butadiene price, and therefore rubber cost, correction occurred in both North America and West Europe in the second half of the year to close the arbitrage window. The recent butadiene price dynamics have resulted in a significant change, especially in the relationship between North America and Northeast Asia. Between October 2013 and March 2014, the North American cost disadvantage relative to Asia has increased by roughly \$590 per ton of SBR. Obviously, this is significant since rubber freight rates are far lower than that. More than half of the shift has happened in 2014. This means that the arb is open and trade could have an impact on the market. Shifting trade patterns would not disrupt the market if they were driven by increased demand that could not be satisfied with domestic production. However, note that this is a cost, not price based, analysis. So, the widening differential is not necessarily a signal from the market that rubber imports are needed. It is an indication that upstream dynamics are having an impact on the downstream markets. This is not to say that the butadiene price dynamics are wrong, or even ill advised. They may well be justified; however, their full impact needs to be considered.

Natural Rubber

Monthly Market Summary

Natural rubber prices continued to fall in February, with the monthly SICOM average price decreasing by 11.5 cents per pound from January to 86 cents per pound (\$1.888 per ton). Daily futures on the SICOM traded between \$0.80 and \$0.90 per pound for the month. The 80 cent price level represents the lowest price seen since August 2009 when the recession was in full swing. Current price levels are roughly 50 cents per pound lower than during February 2013. Natural rubber prices have been affected by slower growth in the major economies and by strong natural rubber supplies. As shown in the graph Daily Natural Rubber



(TSR20) Prices, prices have trended lower over the past three years. Prices in New York and West Europe were also much lower, averaging \$0.97 and \$0.91 per pound, respectively.

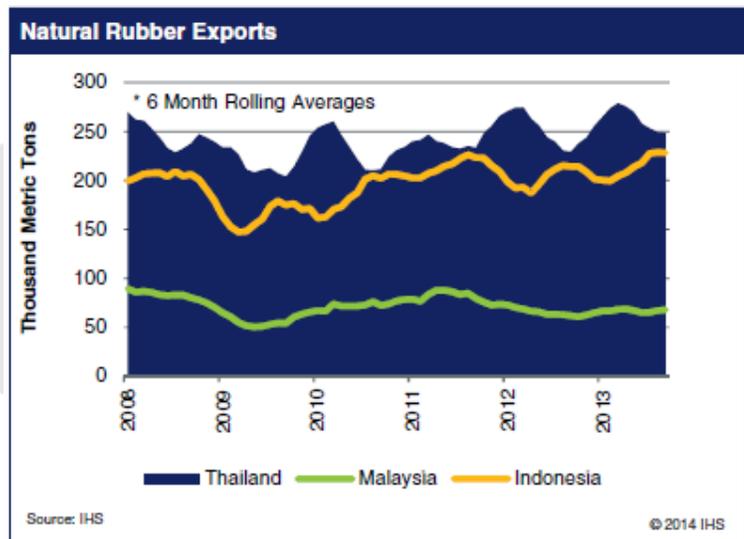
TOCOM natural rubber futures decreased in February, ending the month \$84 per ton lower than the January closing price. The February RSS contract closed at \$2,106 per ton. **Monthly prices on the TOCOM through August 2014 were mostly flat from last month**, ranging from \$2,146 to \$2,181 per ton. TSR futures on the SICOM closed at \$1,888 per ton in February, a decrease of \$255 per ton from the January contract price. **SICOM TSR20 futures prices through August 2014 were slightly lower than the strip at the end of last month**, ranging from \$1,820 to \$1,920 per ton. TSR prices in New York were roughly 10 cents lower than January, averaging \$0.97 per pound. **IHS Chemical forecasts that US TSR prices will increase slightly in March to \$0.99 per pound before moving higher in the coming months, averaging \$1.08 per pound for the year.** US TSR20 prices averaged \$1.25 per pound in 2013, which was the lowest annual price since 2009.

Market Analysis

In this month's market analysis section IHS examines the key aspects of global natural rubber trade. Looking at trends in the trade data helps to analyze some of the price movements that are seen in the natural rubber markets. Natural rubber trade data typically lags between two and four months behind, depending on the reporting country. The data shown in the graphs is a six month rolling average, which helps to remove noise from the data and shows a more general trend.

China is the world's largest natural rubber importer as seen in the chart Natural Rubber Imports. Each year since 2003, China has experienced a new record level of natural rubber imports. Chinese imports in 2013 totaled 2.47 million tons, roughly 300,000 tons more than 2012. While import totals for the country were consistently increasing, the rate of increase slowed in 2011 and 2012. The 2012 import total for China was up roughly 70,000 tons from the 2011 total, and marked the lowest annual increase since 2008. This trend reversed in 2013 as the annual increase was much larger, impacted mostly by very high Q4 2013 import numbers. China produces very little natural rubber for domestic consumption so most of their demand is satisfied by imports. In 2010, natural rubber prices surged as China's import levels soared and resulted in heavy stocking of natural rubber. West Europe and the US each currently import roughly half of the amount of natural rubber that China does. During the height of the global recession, China consumed up to 45 percent of natural rubber which helped prop prices up when demand fell off in the rest of the world. The dip in exports to West Europe and the US in 2009 while China imported almost 160,000 tons helps to illustrate how large of a role China plays in the natural rubber market.

There are several key points to address when looking at the chart Natural Rubber Exports. The first is the distinct seasonality in Thailand's data. While the natural rubber planting and harvesting season impacts all rubber producing countries, there is a more distinct cycle





in Thailand's exports. The long rainy season and extreme flooding in Southeast Asia in 2009 strongly impacted production and thus export levels within the region, and this was especially true in Thailand. The second thing that is readily apparent is the overall increase in Indonesia's level of exports over the past several years. In the period shown, the average monthly volume exported from Indonesia increased from roughly 170,000 tons to over 250,000 tons in recent months. The final point to be made from the chart is the downward trend in natural rubber exports from Malaysia. While the decrease has not been drastic, there has been a steady decline and the country has yet to reach the peak level of exports seen in 2006. One of the reasons exports from Malaysia are lower is its high consumption of natural rubber latex to produce dipped goods which are then exported instead of the natural rubber.

Looking into the forecast period, natural rubber imports are expected to show the same general trends with China leading the way and imports decreasing in other countries around the world. China is expected to see moderate import growth due to its slowing automotive growth, but the country will still remain the largest importer and it is expected that their share of the global import market will increase. With regards to exports, Thailand is expected to remain the largest exporter in the world, with Indonesia second. Malaysia is expected to see decreased export levels based on what has been seen over the past several years, remaining at levels roughly half of those for Thailand and Indonesia.