

VietinbankSc Industry Report

Natural Rubber Industry in Vietnam

November 2013

Nguyet A. Vu

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About the Industry

Industry Definition

Natural rubber is one of the most important agro-based industrial raw materials in the world, leading to more than 50000 applications and products used extensively in the industry as well as daily life. Natural rubber is a highly valuable biomaterial and it cannot be replaced by other synthetic materials for many

vital applications like heavy-duty truck/bus and aircraft tyres as well as many latex products. Therefore, it is the first choice for heavy-duty radial truck tyre manufacturers, especially because of its physical, mechanical properties and excellent adhesion to steel cord.

Main Activities

The primary activities of this industry

Planting, caring, exploiting and processing rubber

Importing and exporting rubber

Trading product in natural rubber forest

The major products in this industry

The natural rubber industry includes 3 essential types of products: Block rubber (SVR3L, SVR5L, SVR5, SVR10...)

Condensed rubber (cream latex, centrifuged latex)

Rubbers sheets (RSS)

Similar Industry

22201: Producing basic chemicals, fertilizer and nitro compound, plastic and synthesized rubber in primeval forms

2211: Producing rubber tyres and tubes, covering and recycling rubber tyres.

2220: Producing products from plastic.

202030:Producing artificial fibers

Additional Resources

For additional information on this industry

www.anrpc.org

The Association of Natural Rubber Producing Countries

www.rubberstudy.com

International Rubber Study Group

www.vra.com.vn

Vietnam Rubber Association

www.vnrubbergroup.com

Vietnam Rubber Group

Industry at a Glance

Key Statistics Snapshot

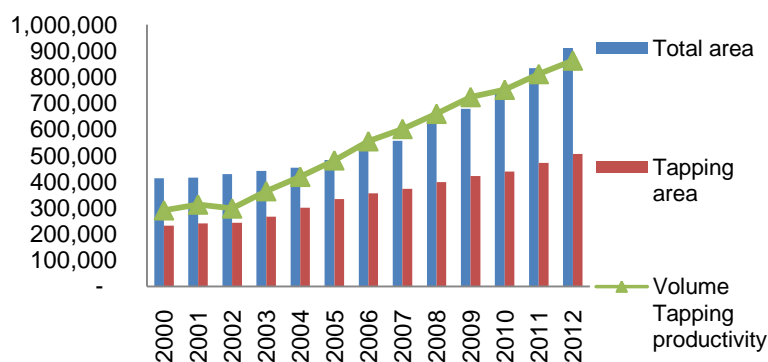
¹ Revenue 2012	Annual Growth 11-15	Annual Growth 15-20
\$1,05bn	10%	15-20%
Profit 2012	Wages	Businesses
\$281,3m	\$41m	44

Market share 2012

Vietnam Rubber Group (VRG)	48.5%
Listed companies	7.6%
PhuocHoa Rubber JSC (PHR)	3.2%
Dong Phu Rubber JSC (DPR)	2.0%
TayNinh Rubber JSC (TRC)	1.5%
HoaBinh Rubber JSC (HRC)	0.7%
Thong Nhat Rubber JSC (TNC)	0.3%

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Vietnam natural rubber statistics



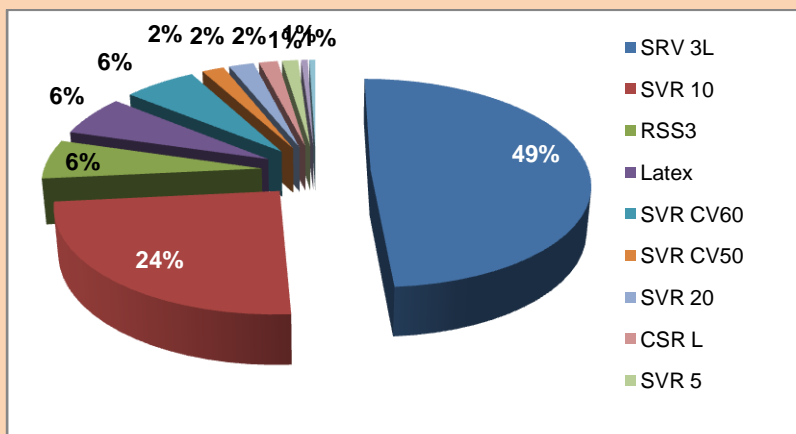
Source: Agroinfo - 2012

Key External Drivers

- Growth of the automobile industry
- External competition – synthetic rubber
- Alternative crops
- Climate change

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Product export segmentation 2012



Source: Vietnam Business New - 2012

Industry Structure

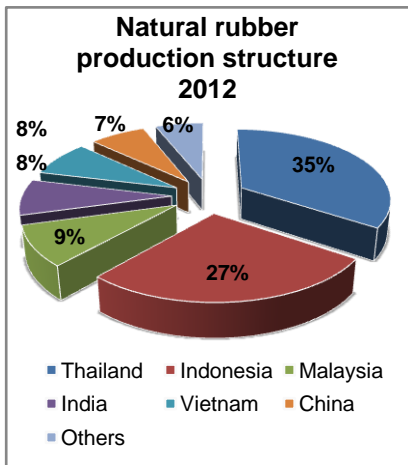
Industry Life Cycle	Mature	Barriers to Entry	Medium
Revenue Volatility	Medium	Industry Globalization	High
Industry Assistance	Medium	Competition Level	Low
Concentration Level	Low	Regulation Level	Medium

¹ Statistics of Vietnam Rubber Group

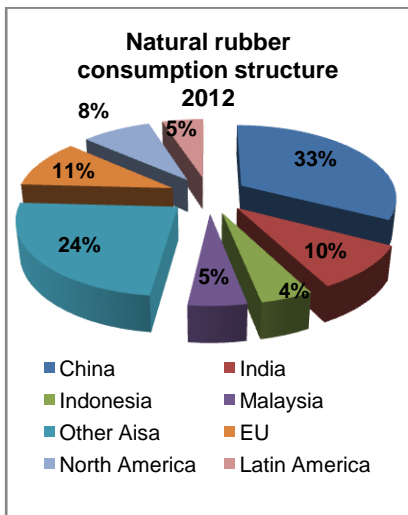
Industry Performance

Executive Summary | Key External Drivers | Current Performance
 Industry Outlook | Industry Life Cycle

Executive Summary



Source: ANRPC - 2012



Source: ANRPC - 2012

The favorable conditions of weather, soil and other conditions in Asia, particularly Southeast Asia are suitable for rubber plantation. Therefore, countries, such as Thailand, Indonesia, Malaysia, India and Vietnam, become the largest producers of natural rubber in the world and account for 82% of total global output. As top producers keep a high market share of the global rubber industry, they can easily reach agreement on controlling supply to support rubber price.

According to statistic in 2012 of Association of Natural Rubber Producing Countries (ANRPC), high demand for rubber comes mainly from China, the US, EU, India and Japan, among which China is the largest consumer (33,5%).

Currently, Vietnam is the 5th largest producer and the 4th largest exporter of natural rubber in the world. Vietnam Rubber Group (VRG) – the state-owned enterprise - has the largest influence on the Vietnam rubber sector, and exerts controls over biggest rubber companies in the industry. In the coming years Hoang Anh Gia Lai JSC (not a member of VRC) will become the top producer of the sector.

Vietnam's natural rubber sector expects little organic growth in the

coming year for the following reasons:

Vietnam's position in the rubber map is not highly recognized because rubber quality remains low and the product lacks a brand identity.

In addition, 85% of Vietnam rubber production is exported, therefore, the volatility of global rubber price directly affects the Vietnam's export turnover. Currently rubber price has considerably decreased by 17,8% y-o-y on average is with 2500\$/ton compared to the peak record for the 2010-2011 period with 5000\$/ton.

Moreover, 60-70% of Vietnamese rubber is exported to China, which has high price bargaining power, resulting in the fact that rubber industry of Vietnam highly depends on this country's economic condition and policies.

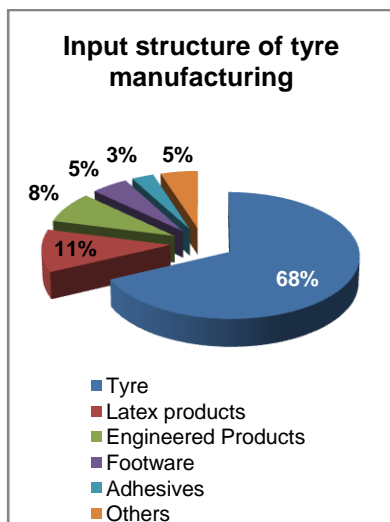
In general, the rubber market is going through a difficult period due to decrease of price. International organizations forecast that rubber prices have little chance of recovering for the next few years due to the global economic downturn caused by European debt crisis, low growth of the American economy, high inventories in China and increasing supply as other countries have expanded their rubber production.



Source: Asia Commodities JSC – Septembre

Industry Performance

Key External Drivers



Source: ANRPC, IRSG2012

Fluctuation in global market in general and the growth of the automotive industry in particular

The deceleration in the global economy has caused a downturn in demand for many industrial raw materials, including natural rubber. As 85% of Vietnam's rubber is exported, external factors will influence the rubber industry more obviously than others, for example the changes in economic condition or policies of major economies such as US, China, and Japan.

Additionally, around 70% natural rubbers are used for the manufacture of tyre. So the growth of automotive industry along with economic growth would tremendously affect the global rubber demand. IMF has forecasted that the global economic growth would be 3.3% in 2013, which is higher than that in 2012 (2.5%). However, the recovery is still apparently slow.

External competition for the natural rubber industry – Synthetic rubber

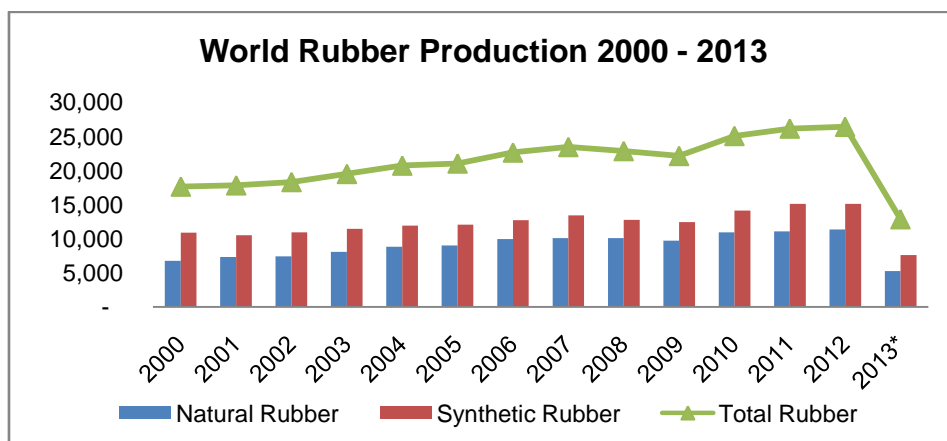
Synthetic rubber, which competes directly with natural rubber, is manufactured from crude oil. Therefore, the volatility of world oil prices negatively affects the consumption of natural rubber.

Alternative crops

Fluctuation in natural rubber supply is mainly caused by production cut and shifts towards more profitable crops. The last decade has witnessed huge ups and downs in natural rubber prices, which led to farmers to develop alternative crops such as palm oil in Malaysia and Indonesia or guayule as a replacement for petroleum-based synthetics and tropical-based natural rubber used in the manufacture of tires, or the milky sap of the dandelion that contains raw rubber of the same quality as that found in rubber trees.

Climate change

The weather conditions play a major role in rubber production. In recent years, the abnormal weather phenomena has caused heavy rains, floods and droughts in the world more frequently, especially in Vietnam and primary natural rubber producing countries in Southern and Southeastern Asia. For example, most recently, in 10/2013, two consecutive storms swept through the central region of Vietnam and destroyed tens of thousands of hectares of rubber trees in Quang Binh, Quang Tri, Ha Tinh, which heavily affected farmers and rubber companies. As a result, supply become little unpredictable



Source: IRSG – September 2013

Industry Performance

Current Performance

Volume increases – Price decreases. Rubber market in the world is in gloomy period

Rubber market in the world is in gloomy period because the global rubber inventory is forecasted to increase by 2.17 millions tons in 2014. Especially, inventory in China is still rising. In addition, current rubber price has considerably decreased compared to the peak of \$5000 per ton in February 2011. The export price is forecasted to go down to at least \$2.300 per tone by the end of this year.

Statistical Bulletin- IRSG stated that the world rubber supply may increase about 4% this year and rubber demand may increase from 2% to 5%. Therefore, the global rubber surplus can stand from 92.000 to 284.000 tons. By the end of 2012, the inventory of the VRG stands at about 60.000 tons. By the end of the year, the volume is expected to reach 200.000 tons.

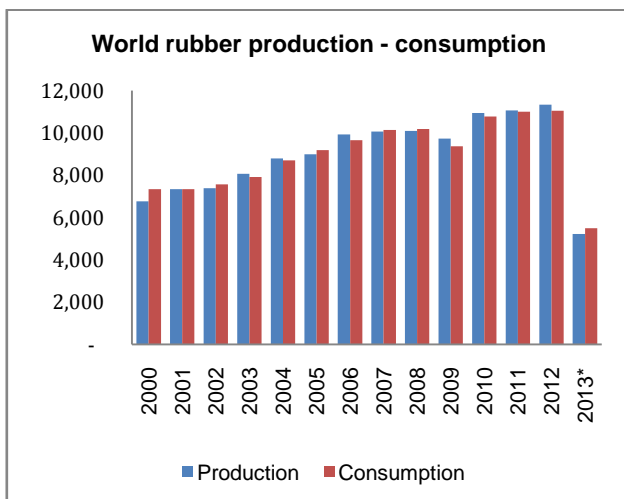
According to the General Statistics Office (GSO) of Vietnam, the export production of rubber in Vietnam in the first 10 months of 2013 is estimated at 846.456 tons, export turnover reaches 1989,7 million dollars, average price is estimated at \$ 2.351/ton. Compared to the same

period last year, export of natural rubber increased slightly by 3,8% in volume, decreased by 13,7% in value and average price fell by 16,9%.

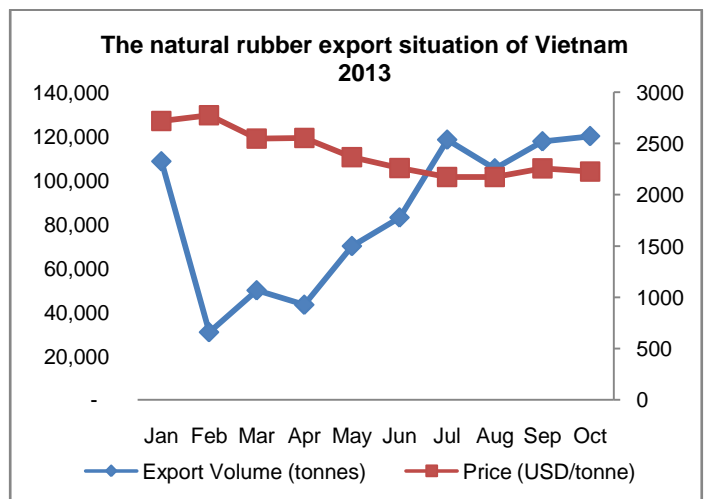
China is the largest market importing 1/3 of the world's rubber production. Moreover 42.7% of Vietnam's total rubber export turnover comes from China. However, the amount of export rubber to China has decreased by 10.3% in volume and 24.8% in value since 2012.

The second importer of Vietnam's rubber is Malaysia, accounting for 21,2% of total export turnover. Currently rubber export volume to this market increases by 17,2% but the price decreases by 6.8% of price compared with same period in 2012.

In the unfavorable situation of the global rubber industry - *increase in volume – reduction in price*, Rubber Industry Group Vietnam forecasts that the export capacity of Vietnam in 2013 will reduce slightly compared to 2012, to 1 million tons with a turnover of approximately \$2,58 billion (decreased to 6.65% compared to 2012).



Source: IRSG – September 2013

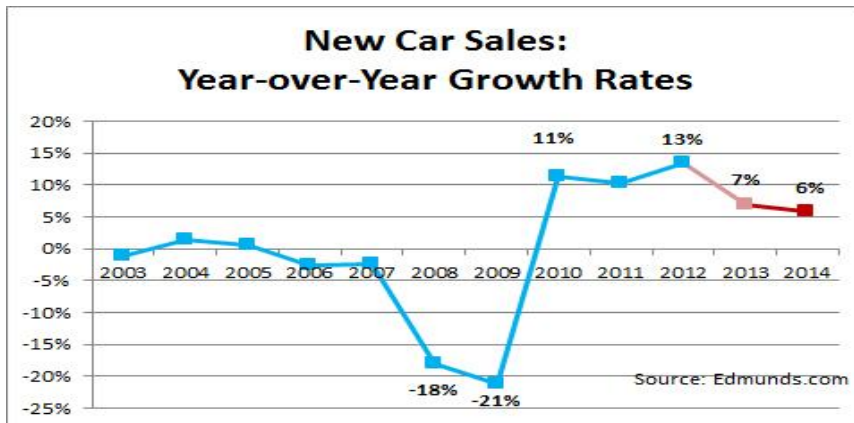


Source: VRG, GSO, GDVC – November 2013

Industry Performance

Industry Outlook

Short term outlook



In short-term, the natural rubber industry in the world is still facing many difficulties due to the gloomy situation of the economy. The

contraction of the automotive industry in the recent years has influenced import demand of rubber in major markets. Typically, China's automobile tyre manufacturing is expected to grow by only 0,9% in 2013. In addition, the pressure from high inventory in China has reduced export surplus, while European debt crisis and weak improvement sign from major countries like the US, China and Japan would constraint the increase of rubber price in short-term.

The rubber price, which Vietnam has no influence on, is one of decisive factors of increasing revenue growth. Therefore, Vietnam's natural rubber expects little organic growth in the next few years.

The underlying trend of the rubber market is positive

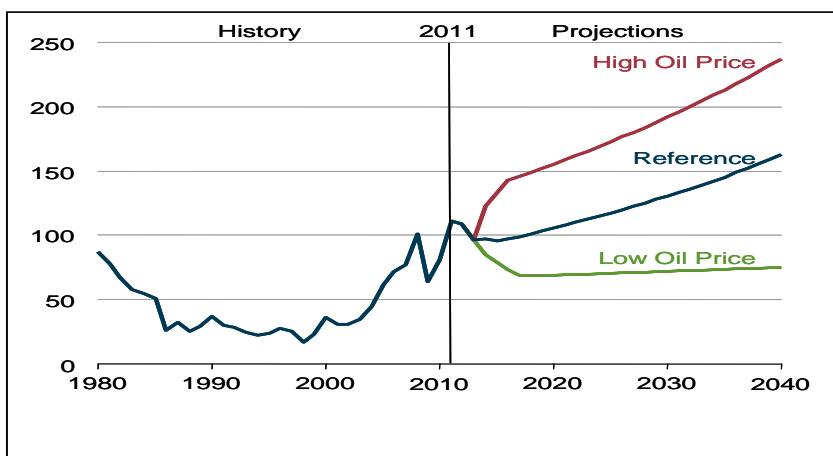
Long term outlook

Rank	Country	GDP in PPP 2020 (\$ billion)
1	China	26,117
2	USA	22,482
3	India	9,297
4	Japan	5,620
5	Russia	4,400

The supply of natural rubber is relatively limited. Meanwhile, along with the growth of the economy, demand will become stronger in the coming years. This should ensure a bottom upward trend for oil and rubber prices. The US, Japan and emerging countries such as India and typically China whose rubber consumption is twice as much as rubber production, would dominate the rubber market.

The global auto sales would not change much in 2014. Edmunds Expects sales of 16.4 million light vehicles in 2014, an increase of nearly 6% over the 15.5 million expected in 2013. At the same time, according to CAAM, auto sales in China are expected to rise by 7% to more than 20 million vehicles in 2013.

In the domestic market, natural rubber still has a lot of growth opportunities. Although Vietnam is ranked the 4th in the world in terms of exploitation volume but the domestic market consumes only about 15% - 20% of output. Vietnam has planned to increase domestic consumption from the current 15% to 40% in the near future. The ratio will be improved from 2013 onwards when Danang Rubber JSC and Southern Rubber Industry JSC put two full-steel radial tire plants into operation. At the same time, VRG Group has invested to expand capacity of manufacturing sustainable development. Furthermore, in the future, the major companies in industry in the form of



Source: BMI Vietnam Oil & Gas Q2 - 2013

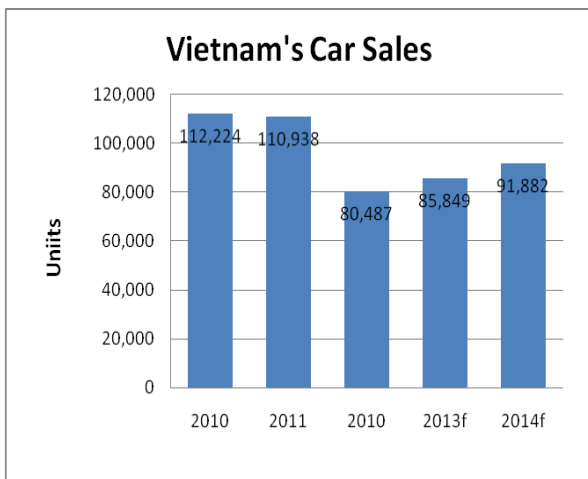
Single Member Ltd Company will attract investment and improve the competition in the industry. BMI forecasts that Vietnam's total car sales will grow at 6.7% on average from 2013 to 2017 after decreasing by 27.6% in total car sales in 2012 due to economy crisis.

VRG has proposed the Government to expand Vietnam rubber area from 800.000 hectares to 1 million hectares in 2015, and to raise the rubber planning in Northern Region from 50.000 hectares to 100.000 hectares in 2020. Increase in planting area and productivity promises potentially higher production in the coming years, which may help Vietnam outperform India and take the 4th position in the list of top producers of natural rubber. During the 2011-2015

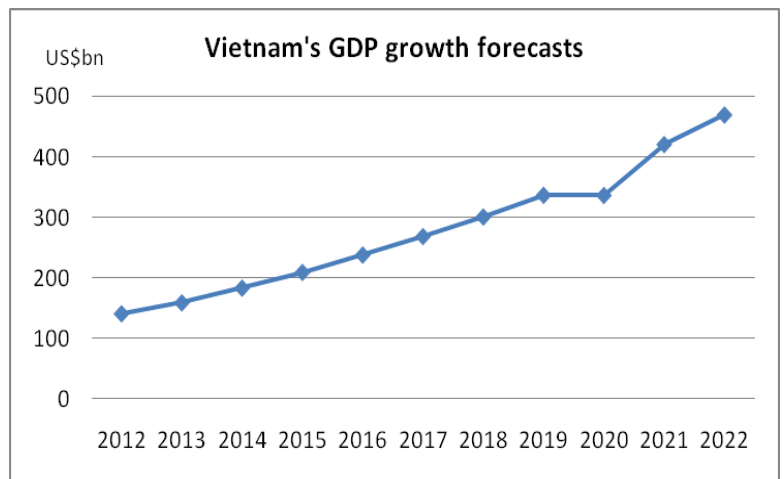
periods, VRG's growth target of revenue is expected to be at an annualized rate of 10% which is equivalent to about VND 50,000 billion in 2015.

Along with the domestic expansion strategy in Central Highlands, North Central and Central Coast, companies also plan to expand the plantation area in Laos and Cambodia. In 2103, VRG exploits the first 600 hectares of rubber in Cambodia, and plans to increase to 100,000 hectares in 2014.

In general, natural rubber has a solid foothold in the agriculture sector as well as in the economy of Vietnam. The facts that soil and climatic conditions are very favorable, have helped to growth of rubber trees with high economic value.



Source: BMI Vietnam Auto 2013



Source: Business Monitor Q3 - 2013

Industry Performance

Industry Life Cycle

Level
This industry is **Mature**

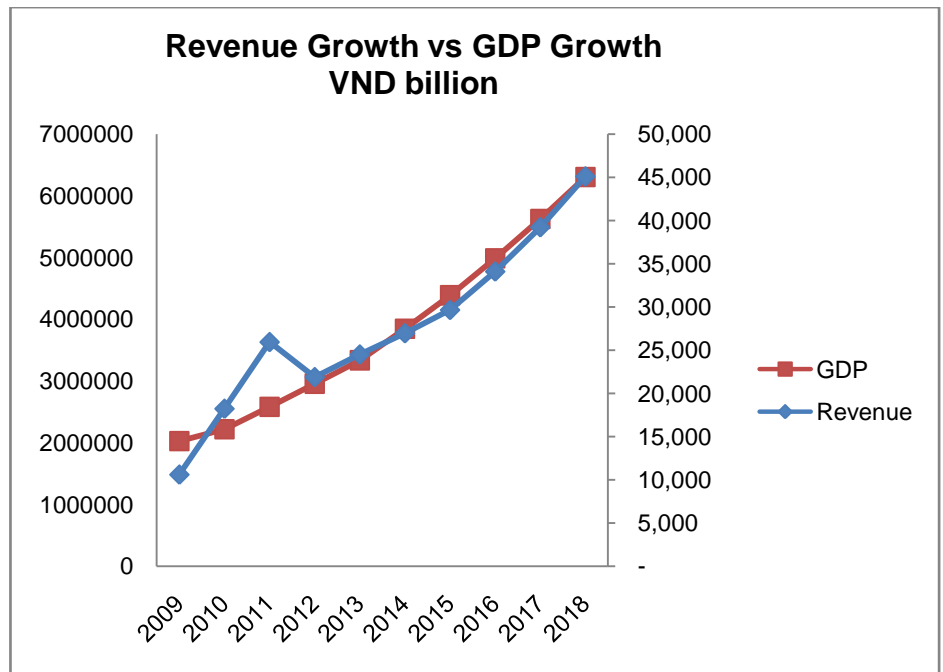
The natural rubber industry in Vietnam is in a maturity stage of its life cycle.

Rubber trees have been planted in the country over 116 years and its industry has long history of development over 85 years.

In terms of revenue, although the production volume has been increasing, the rubber price decreases, which directly affect industry's revenue. The revenue is expected to increase at an annualized rate of 5% in the 2011-2015 period. In comparison, Vietnam's GDP is projected to grow at an annualized rate of 6.5% during the same period. This indicates that the growth of

industry is lower than that of the economy but it is not too different.

In addition, the main exported products are block rubber SRV 3L (at approximately 50%), focusing on China's automotive industry (40%), so both of the product and market of this industry are not diversified. Meanwhile, latex with high profit and stable demand accounts only for about 6% of export output. The consequences are high production volume but low values. Moreover, the rubber industry has to face the barriers on capital, production areas as well as climatic condition. Therefore the ability to expand planting area and introduce new products is limited.



Source: VRG, Business Monitor Q3 2013

Products & Markets

Supply Chain | Products | Demand Determinants
Major Markets | International Trade | Business Location

Supply Chain

Key exporting countries

Vietnam exports rubber to 70 countries in the world

Asia: **China** is the biggest partner (40%); **Malaysia** (19%), **India** (13%), Japan (0,9%)... mainly SVR 3L for tire manufactures
Korea, Taiwan (4%): type of rubber exported to theses markets is usually SVR CV

.....
Europe: Germany (4%), Turkey, Italy, France, Belgium, Spain...

.....
America: US, Brazil, Canada, Argentina, Mexico...

The consumption of the domestic market:

Threes big tyre companies have large-scale projects to manufacture car and truck tyres:

Gold Star Rubber Company

.....
Southern Rubber Company

.....
Danang Rubber Company.

Key importing countries

Vietnam imported natural rubber from more than 40 countries, mostly from:
Cambodia (59%), **Thailand** (17%), **Myanmar** (6%), **Laos** (4%), and **Korea** (3%): type of rubber imported to domestic production such as: RSS, Skim, CSR10...

Products & Markets

Products

90-95% of rubber exported in raw form, mainly SVR 3L

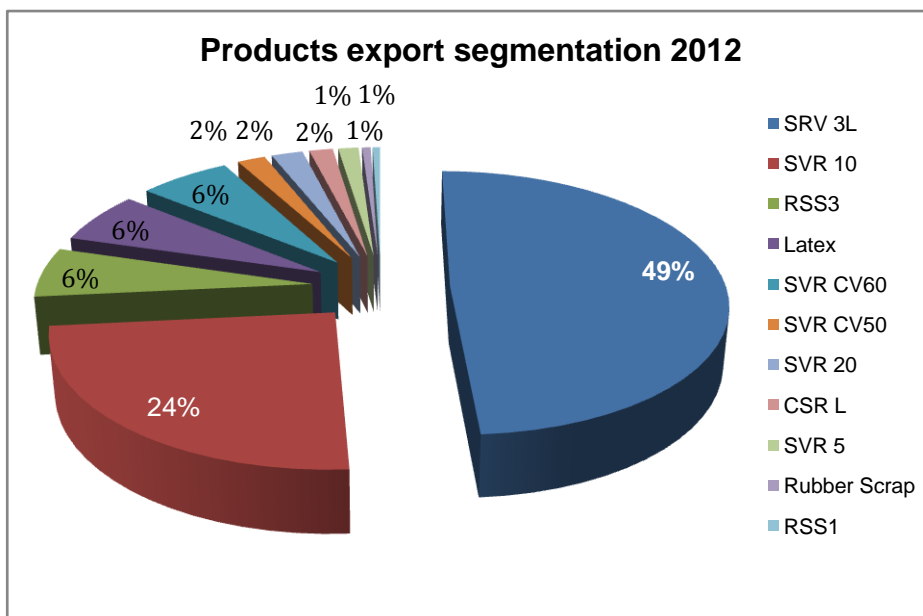
Block rubber: These include technically specified products such as SVR3L, SVR5L, SVR5, SVR10 and natural rubber with stabilized viscosity such as SVR CV50, SVR CV60...Most of these products are used in automotive industry. Particularly, SVR CV 50-60 has high flexibility and is suitable for rolling process and training, should be used for making rubber ban, glue, tire surface...This product line is high-priced and manufactured popularly today.

Rubber sheets (RSS): Due to its high elongation and low aging, it is suitable for products which require high cut resistance, corrosion resistance and high hardness. RSS is widely used to produce products such as car tires, chain conveyors...

Condensed rubber (cream latex, centrifuged latex): Latex is liquid latex forms. And it is mainly applied to manufacture of rubber gloves, medical equipment, bubble, buffer...

Other types of rubber: Crepe, mixed rubber (of both natural rubber and synthetic rubber)

Products segmentation

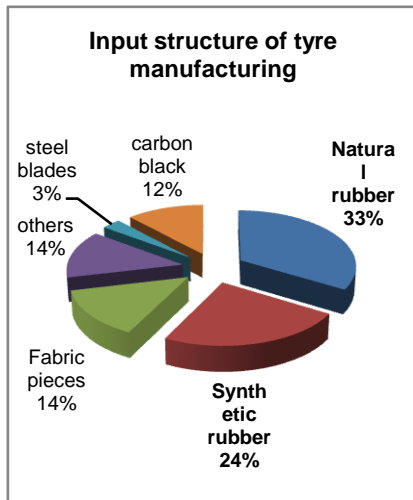


Source: Vietnam Business News 2012

Products & Markets

Demand Determinants

Global rubber demand mainly from the demand for tires (70%)



Source: CSM

The automobile industry

In each 10 million tons of natural rubber produced, 80% is used for the automotive industry. The demand for tire is derived from demand of replacement and new installation. Under the influence of the general economic downturn, the demand of this industry will decrease. This is due to less demand for transportation, longer cycle replacement of tire and reduced demand for new motors and cars. Therefore, high demand thanks to recovery in global automobile

industry sales and the largest automobile producer - China's inventory build-up.

In the short and medium term, the growth of tire demand is forecasted to be relatively low. Edmunds forecasts that 16.4 million light vehicles will be sold in 2014, which increases 6% more than the 2013 forecast. According to CAAM, auto sales in China are expected to rise by 7%. This means there will be more than 20 million vehicles sold.

The world economy's growth

Global rubber demand mainly is controlled by the demand for tires (70%). Tyre industry is always associated with the growth of the automobile industry. Good economic conditions such as steady economic growth and job creation, low interest rates and readily available credit, low inflation, a strong stock market, and improved housing prices would inspire consumers' confidence and motivate them to buy a new car.

series of issues related to public debt, budget deficit, inflation, and unemployment which continuously affect the recovery negatively

WB forecasts GDP growth of the world in 2013 and 2014 would be at 2,6 and 3,3% respectively, higher than that of 2012 at 2,3%. Growth, together with the expectation of the increasing global price for materials, indicated that the global commercial growth of rubber will reach 7% and 7,7% respectively in 2013 and 2014.

However, the global economy in the recent years is going through a

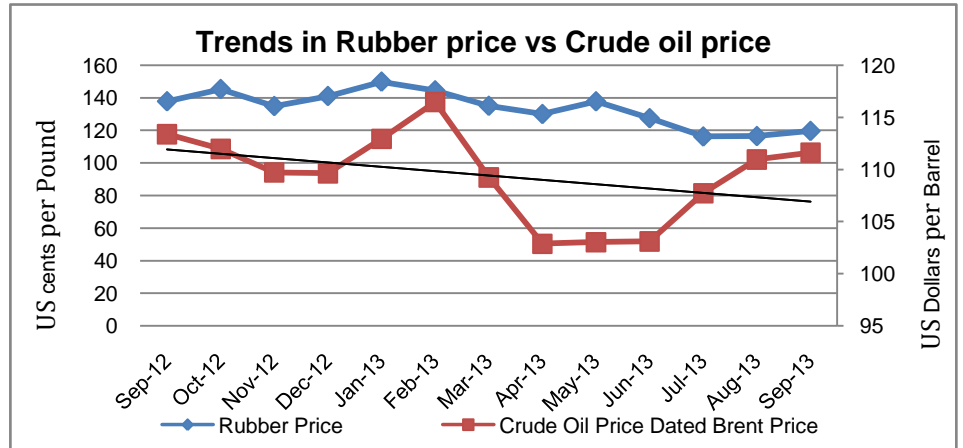
Products & Markets

Demand Determinants Continued

The oil price

The price of rubber is correlated with the price of oil. When crude oil prices rise, for example from 2002 to July 2008, synthetic rubber loses its competitiveness and the demand for

natural rubber increases. So there is a positive correlation between oil prices and the demand of natural rubber.

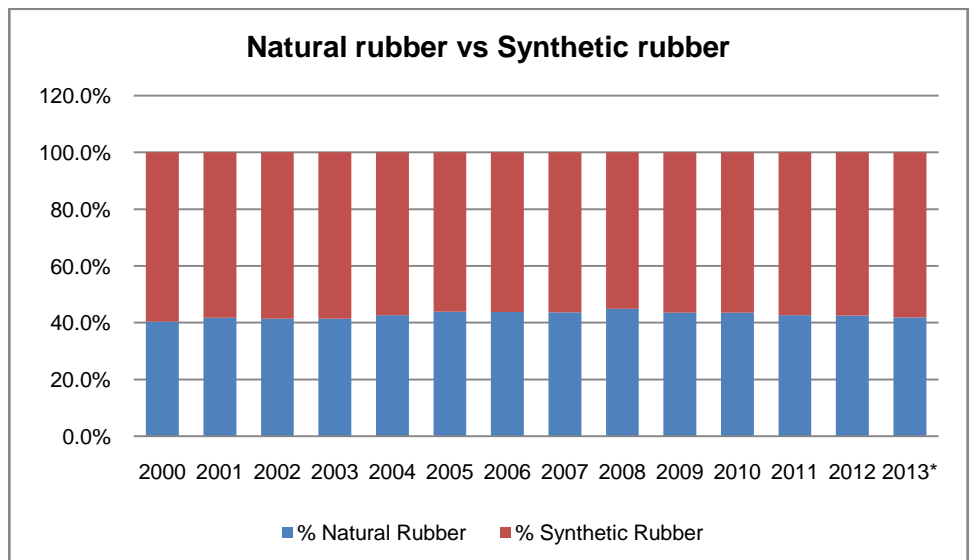


Source: IRSG September 2013

The demand of synthetic rubber

Demand for production and consumption of rubber (natural and synthetic) is around 20 million tons/year, of which synthetic rubber takes up a relatively large proportion (at

approximately 60%). Many products that used to be made of natural rubber are now being made of synthetic rubber since the price of synthetic rubber is much cheaper.

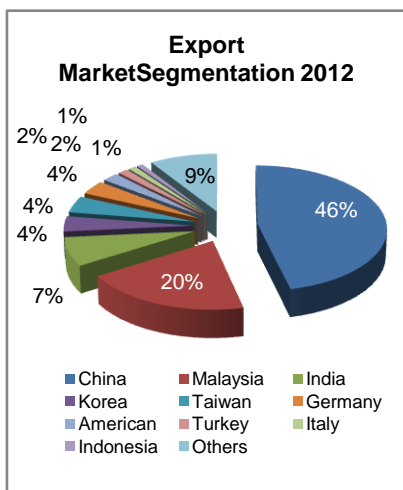


Source: IRSG September 2013

Products & Markets

Major Market

China is the largest consumer, accounting for about 45% natural rubber export volume



Source: Vietnam Business News 2012

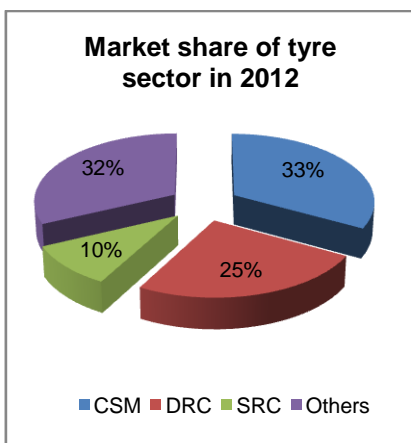
The export market

Nowadays, despite being the largest natural rubber producers in the world, China and India are also the largest consumers of natural rubber due to the inherent problems in expanding its plantation area of rubber.

Annually, 85-90% of Vietnam natural rubber is consumed by more than 70 countries around the world. According to statistic in 2012, China is the largest consumer (46%), followed by the Malaysian Market (20%), India (7%) Taiwan, Germany and Korea (4%)....Last year, natural

rubber production exported to China's market was 408 thousand tons, valued 1.17 billion USD. However this amount decreased by 19% in terms of volume and 39% in term of value compared to 2011. Currently, rubber companies of Vietnam have attempted to diversify the export market to reduce the excessive dependence on China, which helps to reduce the risk of selling price fluctuation and export order. In particular, the proportion of natural rubber export value to Chinese market has decreased from 60% in 2011 to 40-41% in 2012.

Domestic consumption market is quite small (18%)



Source: CSM 2012

The domestic market

From 2009 to 2012, the growth rate of natural rubber consumption in Vietnam was about 11% per year, which is equivalent to 132,000 tons per year, the average consumption /exploitation ratio was about 17-18%, in which 70% was used in tire and inner tube production...The low domestic consumption is due to the small domestic production scale. Its production value is just US\$0.8bn with few players like Gold Star Rubber Company, Southern Rubber Company and Danang Rubber

Company. At present, tyre production factories use about 90 thousand tons of natural rubber per year to produce an estimated number of 150 thousand small tyres and 1,65 million truck tyres of all kinds.

The establishment of the companies producing rubber-related products has increased in recent years, promising that a larger proportion of rubber is also used in the domestic market in the coming years.

Products & Markets

International Trade

Level
International trade in this industry is **High**

Around 83% of Vietnam's total annual natural rubber output is exported. In 2012, according to the Statistic Department, plantation & processing was the largest segment

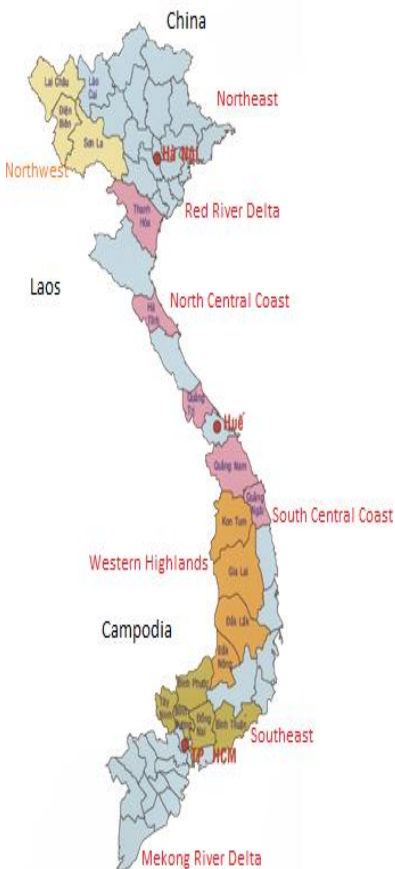
amounting to \$3.36bn, the Vietnam's natural rubber import volume was about 302,000 tons, valued at \$0,80bn, and 1.02 million tons of rubber export, valued at \$2.85bil.

Business Location

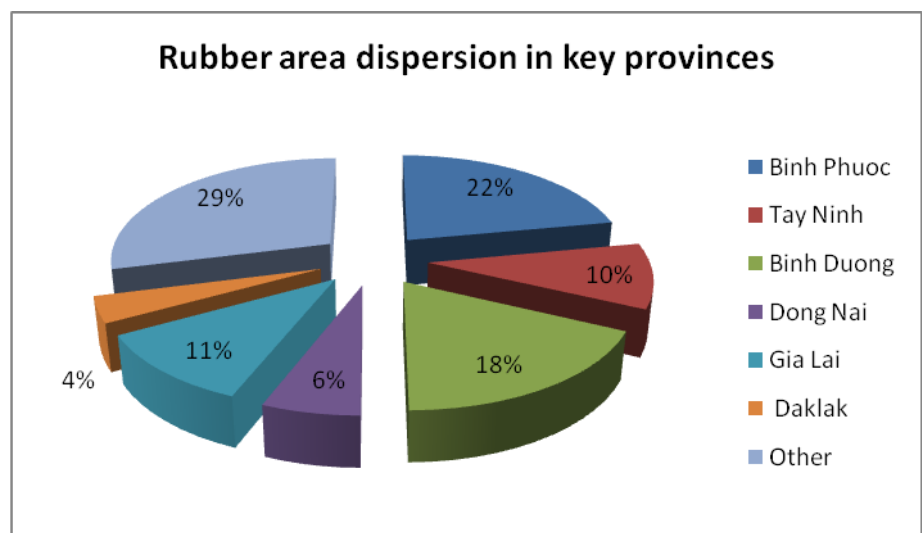
Rubber plantation is mainly focused in the Southeast and Highland of Vietnam

According to the statistics from the Ministry of Agriculture & Rural Development, the total rubber planting area in Vietnam by the end of 2012 was 910,500 hectares, in which, rubber producing area accounts for about 55,55%. Total volume is 863,600 tons and average productivity is 1,71 ton/hectare.

Natural rubber is concentrated in the Southeast and Highland, and the rest is located in the Central North, Northwest, and Southern Central Coast of Vietnam. Along with the domestic expansion strategy, rubber companies expand the plantation area in Laos and Cambodia (200,000 hectares).



Region	Area (ha)	Yield (tons/ha)
Southeast	390,000	2,0 - 2,2
Highland	280,000	1,6 - 1,8
South Central Coast	40,000	1,5 - 2,0
Central North	80,000	1,5 - 1,7
North West	50,000	1,5 - 1,8



Source: VRG, FPT, VietinBankSc

For full version of this report, please contact us at:

Research Department

T +84 4 3974 7952
F +84 4 3094 7572
E research@vietinbanksc.com.vn

Brokerage Department - HO

T +84 4 3974 6900
F +84 4 3974 7572
E moigioichungkhoan@vietinbanksc.com.vn

Brokerage Department – HCM Branch

T +84 8 3820 9987
F +84 8 3820 0921
E moigioiHCM@vietinbanksc.com.vn

W www.vietinbanksc.com.vn



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How to contact us?

306 Ba Trieu, Hai Ba Trung, Hanoi

T +84 4 3974 7952

F +84 4 3094 7572

W www.vietinbanksc.com.vn

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