

The Natural Rubber Market Review, analysis, policies and outlook

Kees Burger & Hidde P. Smit, Woodhead Publishing Ltd, Cambridge, England, 349 pages

Reviewed by Kristina Lawson, the Tun Abdul Razak Research Centre

THIS IS THE latest book resulting from the authors' investigations into the world rubber economy. It uses an econometric approach to examine the main factors determining demand for and supply of natural rubber and is the result of a series of projects which have been undertaken by the Economic & Social Institute of the Free University of Amsterdam for the natural rubber producing countries.

The book is divided into six parts covering the world rubber economy: rubber demand; NR supply; capacity utilization, consumption shares and price formation; the role of the smallholder and government policies and conclusions. These sections are followed by eight appendices which detail the methods used in the econometric models.

A structural model of the world rubber economy is used for the analysis, based on total capacity, total demand and the reaction to demand, supply and price. A review of the world NR economy during the 1980s and early 1990s shows the basis for the analysis and projections in the remainder of the report. The analysis of demand for natural rubber starts with a model of GDP growth per capita as GDP is considered to be the most important factor directly or indirectly affecting world rubber consumption. Projections of demand trends for total rubber consumption (natural plus synthetic) take account of the net increase in vehicles which is calculated using the total number of passenger cars and commercial vehicles in use, new registrations and average age at which vehicles are scrapped.

Tyre demand in specific regions of the world is calculated from vehicle production and a function for tyre replacement. Consumption of total rubber in tyres is then derived for specific countries using average weights of rubber in passenger car and commercial vehicle tyres. An earlier book by Smit (*The World Rubber Economy to the Year 2000*, published in 1982) describes this methodology in more detail. The figures are adjusted to take account of other types of tyres and compared with figures from the International Study Group for the eight countries for which rubber consumption in the tyre/non-tyre sectors is available. Projections for rubber consumption in the non-tyre rubber sector are derived using the forecasts for GDP and added to the figures for the tyre sector.

Supply of natural rubber is considered using a 'vintage' method which uses the year of planting and the expected discard rate and rates of replanting for all the major rubber producing countries. The age distributions and technical production levels have been combined to estimate what is called 'normal production'. The projections for the future are based on assumptions for planting and replanting in each area. This is followed by an analysis of the role of smallholders and the effectiveness of government policies in improving their situation. NR consumption, relative to

SR consumption is projected on the basis of projected relative prices.

The report concludes that the continuous rise in 'normal production' will not, however, keep up with the expected rise in world demand. This will cause upward pressure on prices, and consequently some higher actual production, but a lower share of NR out of total rubber consumption.

This is a comprehensive report, but some specific shortcomings are apparent. The data which have been used to represent China's production of tyres overestimate the total passenger and truck tyre production because closer examination of the figures shows that they actually include motorcycle and scooter tyres. The resulting calculation of rubber demand is therefore an overestimate for China and thus distorts the total rubber consumption figures.

The data for NR production appear inconsistent within the report itself. Tables 2.1 (based on historical data from the International Rubber Study Group) and 13.3 (no source given) do not show the same figures for past production in each of the major producing countries. On closer inspection, however, it appears that the second table refers to 'normal' rather than actual production for past as well as future years.

In some instances, forecasts predicted for 2000 had already been reached in 1996 or even earlier, for example Thailand's consumption of NR and Malaysia, Thailand and Indonesia's consumption of SR (derived from Burger & Smit's figures by subtracting NR consumption from total rubber consumption).

Wear NR not PVC

'THE ENVIRONMENTAL GROUP Greenpeace has recommended that wearers of PVC clothing should switch to natural rubber. They are citing claims that chemicals in PVC can cause hormone disruption.....' so quoted a regional UK newspaper in February this year.

In the last few years we have seen these types of fashions move out of their more traditional places at clubs and parties and onto the street; materials like PVC, leather and rubber no longer just have the 'fetish' image they once had. We have written about the benefits of wearing environmentally friendly garments before in *Rubber Developments*, and it appears that more and more designers are considering natural rubber as a substitute for more conventional materials. There is a big market for PVC clothing but with the fears now associated with it being voiced by Greenpeace, probably the largest environmental pressure movement in the world, the potential markets for NR clothing can only go on growing!