

# **POLICY REFORMS FOR RUBBER-INDUSTRY INVESTMENT**

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## **ABSTRACT**

Investment in the rubber-based industry is not a stand-alone problem. It is related to structural problem in the upstream or at farm-level, low yield or productivity and poor quality of latex. The low level investment in the downstream or rubber-based industry in Indonesia could be associated with the poor business climate and investment attractiveness. This paper examines the policy reforms for downstream rubber-based industry investment and its compatibility with the national strategy of economic recovery. Following this introduction, inter-relational perspectives of rubber-industry investment will be discussed. The paper continues with examinations of four major obstacles of rubber-based investment, before concluding with the reforms strategy to solve these obstacles such as: (1) Improving legal arrangements, (2) simplifying tax policy and administration, (3) improving public services at regions, and (4) employment-based investment strategy.

**Keywords :** rubber-industry, Investment, policy reform.

## **INTRODUCTION : SETTING THE MAJOR PROBLEMS**

Indonesia has been the second largest natural rubber producer behind Thailand, but ahead of Malaysia since the last decades. In 2005, the rubber production of Indonesian is estimated to reach 2 million tons, or about one million ton lower than the Thai rubber production. The growth of natural rubber production in Indonesia is about 6.3 percent per year, a slightly behind the rate of Malaysia, but higher than that of Thailand. The production estimate is not only because the growing demand of world market, hence the high rubber price in the last three years, but also because of growing attention on high yielding clonal rubber and positive externalities brought about by agroforestry system in natural rubber production.

For more than a 90 percent share of Indonesian rubber to fulfill the export market, Indonesia could play a very important role in the international market. Similarly, there are growing concerns among the rubber community to develop domestic markets. Indonesia is really in need to encourage downstream industry investment, deepening industrial strategy, and improving the rubber-product quality. The downstream industry development could face a very serious problem because the incentive systems and quality controls for smallholder growers to produce good quality rubber are very weak. The majority (about 84 percent) of rubber producers in Indonesia is small-holder growers and concentrated mostly (more than 72 percent) in five production centers: North Sumatra, Jambi, Riau, South Sumatra and West Kalimantan.

However, the concerns to develop downstream rubber-based agro-industry are not only about how to establish the mutual linkages between upstream production system and downstream industry, the location preferences of improving added value of the industry, but also related to how to promote investment in such prospective sectors and to contribute to the industrial development in general. The rubber-based industrial development is obviously related to many segments of economic policy, including the technological advancement, information system and financial institutions and legal issues and enforcement structures in general. Therefore, the development of domestic rubber industry needs more strategic approach and policy to better support a high quality of economic recovery in the country.

This paper examines the policy reforms for downstream rubber-based industry investment and its compatibility with the national strategy of economic recovery. Following this introduction, inter-relational perspectives of rubber-industry investment will be discussed. The paper continues with examinations of four major obstacles of rubber-based investment, before concluding with the reforms strategy to solve these obstacles such as: (1) improving legal arrangements, (2) simplifying tax policy and administration, (3) improving public services at regions, and (4) employment-based investment strategy.

### **INVESTMENT ON RUBBER-BASED INDUSTRY: NOT A STAND-ALONE PROBLEM**

Investment in the rubber-based industry in Indonesia is not a stand-alone problem, but related closely to structural problems in the upstream or at farm-level, low yield or productivity and poor quality of latex. More importantly, the low level investment in the downstream or rubber-based industry in Indonesia could be associated with the poor business climate and investment attractiveness since the economic crisis in the end of 1990s and its derivatives of political, social or multi-dimensional crisis afterwards. Foreign Direct Investment (FDI) has not recovered, mostly because of high unpredictable costs, legal security, bad governance and enforcement structures at all level of government systems. Studies have shown that there has been no improvement in "business-friendly environment" for potential investors, especially in the last five years. Consequently, the competitiveness of the country as a whole has significantly decreased, even at the lowest level ever since. It is clearly not an easy task to promote investment in rubber-based industry, when the competitiveness of the country is really in trouble.

Moreover, during the last decades, agro-based industry in Indonesia has also suffered a serious ignorance from banking sector. Most financial institutions do not put investment priorities in agro-based-industries, not because of bad performance or poor prospects of the industries, but mainly because of poor understanding from the banking sector. Advocates in agriculture, agribusiness, agro-industry have faced serious difficulties to disseminate and convince the bankers and fund managers regarding such a prospective sector of the Indonesian economy. As a result, these people have wrong perceptions and maintain

assumptions that agro-based industries are considered a high-risk business, compared to the expected economic returns and its multiplier effects to the rests of the economy.

Even though the growth rate of credit being disbursed to agricultural sector has increased significantly in recent years, the total amount the credit is very small. In 2004, the total credit disbursement to agricultural sector was only Rp 27.3 trillions, or about 20 percent of the total amount of credit being disbursed to industry of Rp 139.3 trillions. Compared to trade sector and service sector, the percentage of agricultural credit was only 27.4 and 33.9 percent respectively (Table 1). In the era of growing dominance of private sector in agro-industry development in Indonesia, it is almost impossible not to rely on banking sector to promote investment in rubber-based industry, especially in the downstream sectors with tremendous amount of potential added values.

Another explanation of low level involvement of banking sector in the rubber-based industry is also related to the current monetary policy adopted in Indonesia. Since its independence or after Law 23/1999, the Central Bank has not directly served as an agent of

**Table 1.** Total credit disbursement by economic sectors, 1991-2004 (Rp billion)

<b>Year</b>	<b>Agriculture</b>	<b>Mining</b>	<b>Industry</b>	<b>Trade</b>	<b>Service</b>	<b>Others</b>
1991	8,465	743	33,131	33,049	20,066	17,371
1992	10,281	762	37,289	32,944	25,870	15,772
1993	12,057	777	51,432	37,794	35,824	12,387
1994	13,860	799	60,211	44,372	50,806	18,832
1995	15,525	913	72,088	54,224	66,584	25,277
1996	17,630	1,693	78,850	70,586	91,655	32,507
1997	26,002	5,316	111,679	82,264	113,569	39,304
1998	39,308	5,909	171,668	96,364	139,124	35,053
1999	23,777	3,697	84,259	43,288	43,161	26,951
2000	19,503	6,680	106,782	44,099	44,316	47,620
2001	20,863	7,440	116,525	48,450	49,061	65,255
2002	22,332	6,095	121,035	65,978	60,983	88,987
2003	24,307	5,061	123,125	84,257	89,129	112,063
2004*	27,286	6,546	139,253	99,735	80,595	133,758

\*) Preliminary estimates

Sources : Economics and Finance Statistics of Indonesia, Bank of Indonesia, 2004

development for the country, but mostly responsible for monetary authority, banking supervisory and inflation targeting. Consequently, the Bank of Indonesia as the most significant monetary authority has a freedom to maintain policy on interest rate rigidity, for the shake of inflation targeting, which obviously hurt the agro-industry such as the rubber-based downstream industries. The banking sector has to put the main priority to comply with the prudential banking principles so that the strategy has been mostly to create rapid or short-term and high economic returns, consumption credit such as vehicle, housing, and even a credit card. Investment credit and working capitals are still considered long-term, slow rate of turnover, hence probably a risky business. These issues and the following explanation on obstacles for investment in general have to be understood properly, as a fundamental basis to recommend policy reforms in the rubber-based industry investment in Indonesia.

### **MAJOR OBSTACLES FOR INVESTMENT**

There are at least, four major obstacles commonly found in promoting new investment in general and in rubber-based industry in particular: (1) legal issues and enforcement structures, (2) unclear tax and custom procedures, (3) excess of decentralization and regional autonomy, and (4) labor issues and industrial relations. Each of these major obstacles will be briefly elaborated further.

#### **(a) Legal Issues and Enforcement Structures**

Problems in legal issues, security and weak enforcement structures are not new issues but have been recognized by private sectors, new investors, and even the government. Informal fees and unpredictability in doing business have lead to unpredictable costs, especially in starting new businesses. A recent study by the World Bank (2004) have confirmed that starting new business in Indonesia is very costly, taking an average of 151 days (5 months), involving about 12 steps of procedures, and requiring as much as US\$ 1,160. These numbers are the highest among other East Asian countries such as Thailand and China which requires less than US\$ 60 to start-up new businesses or the new growing country Vietnam which requires only US\$ 136 (Table 2).

Such unpredictability and legal security have influenced business and investment climate in Indonesia. Since the last five years or so, foreign direct investment have flown mostly to China and Vietnam as the economic prospects in these socialist countries have grown significantly. Intellectual property rights in Indonesia have also been complained as very weak, especially when associated with increasing a large-scale smuggling in recent years. Expectation on new administration of Kabinet Indonesia Bersatu under President Susilo Bambang Yudhoyono (SBY) is therefore very high, noting that the government has declared a war on corruption and bad governance system and combated any wrong-doings in the bureaucracy from the central to regional level.

Table 2. Number of procedures, time and cost required for starting business

Country	Number of Procedures	Duration (days)	Total Costs (US \$)
Indonesia	12	151	1,163.31
Malaysia	9	30	965.78
Thailand	8	33	159.63
Vietnam	12	56	136.07
China	11	41	158.14
Philippines	11	50	201.50
India	12	89	264.59
Australia	2	2	600.02

Sources : World Bank, 2004

Bad economic and physical infrastructures in Indonesia have also contributed to the informal fees, leading to a high cost economy because the travel time and costs associated with the flow of good and services were extremely high. Poor conditions of roads, bridges and irrigation infrastructures have created opportunities on both officials and informal levies. Weak administrations in the majority of ports in Indonesia have been major concerns by domestic and foreign investors alike. These all have influenced the level of competitiveness of the Indonesian economy which has been decreasing in the recent years.

#### (b) Unclear Tax and Custom Procedures

Unclear tax and custom procedures in Indonesia have been complained by both domestic and foreign investors. Double taxation is very common, where investors and other business entities have to pay value added tax (VAT) and luxurious VAT on one commodity. No good criteria and indicators on the "intensification" tax strategy so that one taxpayer might have to "negotiate" with tax administrators. Procedure on tax restitution is very complicated, providing a grey area of collusion between tax consultants and tax administrators, which obviously harming the potentials of state revenue. Indonesia has also been known of poor law enforcement on large scale businesses and taxpayers who have proven performing tax evasion for a long period of time.

A survey conducted by Japan Economic and Trade-Relation Organizations (JETRO, 2004) (Table 3) shows that the majority of private-sector respondents have complained about tax administration (72%). They also claimed that international trade relations and custom procedures in Indonesia created more problems (67%), instead of providing solution for international trade. This bad image on tax and custom is very much worse compared to tax practices in Malaysia (11%) and in Singapore (13%), which have been modernized since the last decades and easily accessible by public. Other countries have adopted

Table 3. Major problems of investment environment

Country	(% of valid responses to total responses)					
	Insufficient conditions of Infra-structures	Uncertain and unclear policy of local government	Troublesome, complicated tax practices	Troublesome complicated customs and trade procedures	Increase employee wages	Labor issues, strikes, trade unions etc.
Thailand	15.6	9.5	46.3	62.8	41.6	7.1
Malaysia	23.6	16.5	11.0	33.9	52.1	6.6
Singapore	3.1	6.3	12.5	21.4	54.0	1.1
Indonesia	54.7	67.7	72.0	67.6	86.4	37.0
Philippines	75.5	47.9	20.9	37.1	36.5	25.7
Vietnam	63.8	61.3	40.0	56.8	29.5	11.5
India	72.2	14.8	55.6	58.5	55.7	26.2

Source : "Japanese-Affiliated Manufacturers in Asia-ASEAN and India-(Survey 2004)" JETRO

a strategy of "low-rate high compliance", but Indonesia is still struggling in tax intensification but the tax-ratio is well below 15 percent of the GDP.

A rate of 30 percent in business income tax on paper sometimes become 50 percent, mostly because of unpredictability in the public service such as the inclusion of promotion tax, unless otherwise negotiated. This rate is extremely high compared to income tax in Malaysia, which has planned to cut the rate from 28 to 25 percent in 2005 or Singapore which plans to reduce the income tax to 20 percent. China has been famous in the eye of investors because of a 15 percent income tax in the special zone for economic development or in the prospective high rate of economic growth. Therefore, China has been the most favored destination for foreign investment in recent years.

### (c) Decentralization and Regional Autonomy

Since 2001, Indonesia has adopted a decentralization policy to transfer some powers to local government according to Law 22/1999 on local government and Law 25/1999 on fiscal decentralization. Initially, the local government enjoyed a new power under the regional autonomy, even though it is too premature to offer an empirical statement on how the new decentralization policies in Indonesia have contributed to good governance and better public services in Indonesia. In fact, some have argued that increased power among the elites in the regions has complicated the well-known corruption problems due to weak rules of law in the country. Business entities and other economic actors have complained

about increased country risks in the regions due to economic uncertainty and business unpredictability of future benefit streams as decentralization became effective in 2001.

Policies of regional autonomy do not increase the amount of investment in the regions, but could contribute to inflationary effects because some new local taxes and retributions were created after the autonomy. This obviously increases unpredictable costs and the total burden of doing business in Indonesia (Arifin, 2002). Studies by LPEM-UI (2001) also indicated an increase in additional costs of 10 percent in Java and 11 percent outside Java to deal with bureaucracy in the regions. Small and medium-scale enterprises (SME) have to pay 11 percent additional production costs, while large-scale enterprises have to burden only 8 percent additional costs in doing business in the regions after the policies of regional autonomy. However, how deep the magnitude of these problems remains important questions in the future because the public debates and opinion exchanges around the issues mostly stem on the surface, rather than crawling down into the roots of the problems. Studies by JETRO (2004) also confirmed that about 80 percent of private sectors are not satisfied with the current implementation of regional autonomy and decentralization policy in general. Unclear procedures to obtain principle permit (*ijin prinsip*) and business permit (*ijin usaha*) from the local government, factors of local politics and democracy in transitions have also contributed to higher economic costs in investment and doing businesses in general. Therefore, poor images on local government in Indonesia are obviously lower than those on local government practices in Singapore (6.4%), Thailand (9.5%), Malaysia (16.5%) and India (14.3%).

Business society and general people are now putting a very high expectation on the newly passed Law 32/2004 on local government and Law 33/2004 on fiscal decentralization, replacing the previous laws 22 and 25/1999. Some substantial changes have been imposed in the new decentralization laws, especially to improve efficacy of provincial government as a representative of central government in the region and as a coordinator for local government. The new laws also put more emphasis on direct election of the head of local government (regent and mayor) and the local legislative cannot easily impeach the regent or mayor. It is very interesting to watch over more closely on the reaction of local elites, government officials, legislative members, and civil society to the new laws in the near future.

#### **(d) Labor Issues and Industrial Relations**

Labor issues and industrial relations between the employers and employee are perennial and sometimes very sensitive when entering the wage rate and related labor policy involving the government. Employers or business entities complains about the current minimum wage policy, especially in relations to the productivity of labor force in Indonesia. Business sectors have now to face a tendency that the increase in wage rate exceeds labor productivity and the rapid movement of labor unions which exceeds the ability of the private sectors to adjust to more democracy. The JETRO survey (2004) (Table 4) also shows

Table 4. Labor issues and related business costs in five cities of East Asia

	<b>Jakarta</b>	Kuala Lumpur	Bangkok	Shanghai	Ho Chi Minh
Legal minimum wage (US\$/month)	<b>74.21</b>	N A	106.00*	68.87	40.11
Corporate tax(%)	<b>30</b>	28	30	33	25
Electricity rate for business use (charge per kWh)	<b>0.05</b>	0.05	0.04	0.03-0.10	0.05-0.07
Water rate for business use (charge per meter <sup>3</sup> )	<b>0.78-0.82</b>	0.47	0.24-0.40	0.15	0.22
Gas rate for business use (charge per meter <sup>3</sup> )	<b>0.13</b>	0.13	N A	1.06	N A
Container transport (40 feet to Yokohama Port, Japan)	<b>890-990</b>	575	1,200	700	900

Note : \* based on 4.24 US\$/day, 25 working days

Source : The 14<sup>th</sup> Survey of Investment Related Cost Comparison in Major Cities and Region in Asia  
(March 2004) JETRO

that the majority of business sector (86%) has complained about the increasing wage rate but lowering labor productivity. Most foreign and multi-national companies do not understand and do not want to learn the complexities of industrial relations. However, efforts to mediate and establish mutual dialogues on these issues do not result in a better way out for improving the competitiveness of the Indonesian economy in general. The dissemination procedures to achieve better industrial relations are not effective in mediating the tripartite of employers, employee, and the government.

At micro level, a component of wage rate is very significant in shaping the cost structures of businesses in Indonesia, especially when fixed costs and other burdens of doing business in Indonesia are the highest in Southeast and East Asia. An average legal minimum wage of US\$ 74 per month in Jakarta is actually lower than that in Kuala Lumpur and Bangkok, but higher than in Shanghai of China and Ho Chi Minh City of Vietnam. However, the labor unions have complained that such a minimum wage rate could fulfill the basic-needs requirement to live in big cities such as in Jakarta, Bogor, Tangerang and Bekasi where the average inflation rate is also high. Actually, both employers and employees expect better solutions in the newly formulated regulations of regional minimum wages. Unfortunately, the difference in detailed assumption used by employers and employee can



not be mediated properly by the government because the two have a very different objective.

In additions, business sectors are not satisfied with the limitation of outsourcing and contract recruitment, such as commonly adapted in the principles of flexible labor market in the different parts of the world. However, the labor force has constantly making pressures to increase the job security and property rights in the growing competition of global economy. One-way traffic of decision making in the business organizations – and sometimes authoritarian and unfair for the labor – has to be reformed, by promoting more business governance and corporate social responsibility so that the property rights of each party could be secured. The transitional phenomena of labor market and growing democracy in the society have somehow affected the pace of labor productivity improvement in the private sector.

Example of rules and regulations in the labor sector that has been constantly in dispute include Law 13/2003 on employment and Law 2/2004 on settling up the disputes of industrial relations. These two laws are not well accepted both by labor unions and business entities and have served as a source of disputes recently in the policy making process. Labor unions accuse that the laws are too liberal and serving only the interests of employers or the private sector development in general and putting less attention on the welfare of labor force. Business entities also blame that these laws are formulated very much for the interests of labor protection, but at the expense of investment climate and economic development in general.

### **CONCLUDING REMARKS : REFORMS REQUIRED**

This final section discusses the reforms required for rubber industry investment in Indonesia and probably in other producing countries in the regions such as Thailand and Malaysia. The reforms could not be separated from the triple tracks strategy promoted by the new administration under President Yudhoyono. These tracks is sometimes claimed as pro-growth, pro-employment and pro-poor strategy, consisting of (1) achieving an average rate of growth of 6.5 percent per year through investment creation and export promotion; (2) improving industrial capacity (real economic sector) to generate more employment; and (3) revitalizing agricultural sector and rural development to combat poverty and maintain food security. Therefore the policy reforms suggested in this paper include (1) improving legal arrangements, (2) simplifying tax policy and administration, (3) improving public services at regions, and (4) employment-based investment strategy.

#### **(a) Legal Arrangements to Improve Business Climate**

**Establish rule of law and secure its enforcement.** The first step to attract investment in rubber-industry investment is to establish “rule of law” and secure its enforcement. This pre-requisite is very important to build a good image about business climate in Indonesia and especially compatible with the triple strategy of the new government administration.

Streamlining various permit and license procedures could be seen as a serious reform process about rule of law on investment and industrial development policy in general. Clear policy in improvement in basic infrastructure is also important to secure the flow of good and services and to maintain low and affordable utility cost for investors.

**Build clear steps to develop downstream industries.** The government could start to develop incentives system for deepening rubber industry, such as tax-deductible system for agro-industry new investment. Incentive system in price differences between high quality and low quality rubber products would create more opportunities for upstream industries to improve rubber yield and encourage higher quality of upstream products in general. This could be possible when these steps are formulated in such a way and integrated with other agro-based industry and broad-based development policies.

**Improve capital and financial market system.** Increase accessibility of the credit for new investment and working capital for rubber-based industry. The monetary authority is really encouraged to maintain flexibility of the interest rate in credit market otherwise the financial sector is very dependent on the interest margin based on the certificate of Bank of Indonesia. The phenomena of dysfunctional banking system have to be solved at the first place, for example by establishing adequate incentives for banking system that are involved directly in the agro-based industries.

#### **(b) Tax Policy and Administration Reform**

**Simplify taxing procedures.** Tax policy and administration reform should start with simplifying taxing procedures in order to avoid informal fees. The form of tax obligation, especially for corporate (and individual) income tax has to be periodically received by tax payers on time. Tax compliance could be increased by improving the quality of service among tax administration officials. Transparency in tax administration could be speeded up by utilizing information technology for the filing system and procedures. This could reduce the opportunity for “tax bargaining” regarding the amount and scope of tax objects. Special treatment and tax deductible could be given for downstream companies investing in research and development (R&D) and human resource development (HRD) to broaden the downstream rubber-based industrial development.

**Expand the tax bases.** “Extensification” strategy is sometimes more appropriate to be adopted when the economy does not provide adequate returns for long-term investment. Improving tax returns on a certain tax base (intensification strategy) could generate regressive impacts for the business climate and investment environment in general. Therefore, tax administrators are encouraged to improve the service, at least by adopting equal treatment for the small and large tax basis. The main key in tax policy and administration reform is tax compliance, instead of tax evasion, which is a source of chronic corruption and collusion in Indonesia.

**Maintain incentive systems for international trade.** Incentive systems for rubber-based downstream industry aiming to enter international market are necessary steps to show the

government commitment on value-added creation. Export credit, deduction in import tariff for working capital, and possibly non-excessive export tax are among the general instrument for the incentive systems. In the mean time, empowering the front-line of actors involved in international trade has to be sharpened, especially to improve the preparedness of these key actors in a more open and competitive global market. Finally, adequate diplomacy support is also necessary in the international fora and economic cooperation such as AFTA, APEC, WTO, etc.

**(c) Improving Public Service at Regions**

**Serve as motivating and facilitating agent.** Every-single district autonomy could serve as a motivating and facilitating agent, instead of being an actor in regional economic development. At least, these regions have to provide and facilitate exchange information on data and information about resource endowments: land, labor, capital, and technology for downstream rubber industry. Capacity building for bureaucracy or government officials and legislative members at local level is a fixed variable to improve the public service at regions. At the same time, improving awareness of civil society at both local and regional level could also contribute to foundation of economic policies and more sustainable outcome for the welfare of local people and the nation as a whole.

**Set up one-roof service window.** The main principle in one-roof service window is that broad authority to facilitate the downstream industry investment could be assured. New and existing investors, both domestic and foreign companies could have a security feeling and predictability level in executing their businesses in the field. The central government should have more power to withdraw rules and regulations at local level which have a conflict and against higher laws and regulations at national level. Therefore, the room of maneuver of rent-seekers and "usual suspects" could be limited so that the impacts of economic distortions at local and national level could be reduced.

**Establish public-private partnership.** A regular forum or task-force consisting of public officials and private entities should be established in each district. This partnership could contribute to the local level development planning and necessary requirement for pilot programs and implementation stages. Academic exercise and policy strategy should start at this level, where the partnership could serve as a clearing house for specific policy such as in the rubber-based development strategy. For example, local government could develop necessary incentive systems for new investment or existing companies investing in downstream agro-based industries. Equally important, the partnership should serve as a handful institution to interpret the new arrangements Law 32/2004 on local government and Law 33/2004 on fiscal decentralization.

**(d) Employment-Based Investment Strategy**

**Review current labor regulations.** A thorough review on the existing law such as Law 13/2003 on employment and related ministerial decrees has be conducted before aiming at creating new law on employment. Equally important is on the newly passed Law 2/2004 on

settling up the disputes of industrial relations, which has generated conflicts and different perceptions among employers and labor unions. The main goal of the employment-based investment strategy is to develop win-win solutions both for rubber-based investment strategy and employment creation in the downstream sectors.

**Maintain flexibility in labor markets.** This should not be interpreted simply as weak property rights for labor force, but rather to establish adjustment mechanisms based on real wages, instead of lay-offs. The principles in labor market flexibility would rely on government support programs on unemployment when the economy experiences serious external and internal shocks. For Indonesia with a huge amount of informal labor market, flexibility in labor market could also imply outsourcing and flexible recruitment mechanisms in order to provide a mutual bridge between informal and formal sector. In this case, the investment in rubber-based industry could be more attractive for private sectors and business entities interested in agro-industry development in general.

**Eliminate unofficial levies and retributions.** Eliminate unofficial levies and local tax or retributions do not have a direct impact on labor market, but could provide a guarantee for investors that Indonesia is very serious on reducing the transaction costs in doing business. The final outcome in reducing the levies and high-cost economy is that business entities could be prevented not to adopt lay-off strategy more easily and at the same time could encourage more human investment, R&D and labor productivity. Value added creation and downstream rubber-industry investment could then be seen as a more prospective sector and the future of natural rubber industry in general.

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