

Module 1

PROJECT APPRAISAL, VALUATION AND FINANCING

- 1. Raymond Textiles: Globalisation within Emerging Markets**
- 2. Petrobras in Nigeria: Valuation of the Agbami Oil Field**

CASE 1

Raymond Textiles: Globalisation within Emerging Markets

DESCRIPTION

The case describes a capital budgeting decision considered by the textile division of Raymond Limited, a well-known Indian company, in early 2005. The company was in the process of setting up a textile manufacturing plant in South East Asia. Potential plant locations considered included China, Malaysia and Thailand. The case details the economics of setting up a project in Asia's emerging economies.

LEARNING OBJECTIVE

To introduce issues in cross-border capital budgeting and advanced valuation concepts.

SUBJECTS COVERED

Financial Management, Capital Budgeting.

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INTRODUCTION

In March 2005, Gupta, the President of Raymond Textiles, was deep in thought when he came out of the monthly strategy meeting with the Executive Board in Mumbai, India. The meeting had revolved around the potential investment in a greenfield integrated textile manufacturing plant in the South East Asian region. The proposal had been in the works for quite some time and the strategy team had been considering various countries in the region as a potential location for the plant. While the initial investment in the plant would not be considerable, Gupta knew that the success of the project would determine the company's longer-term strategy of creating low-cost manufacturing hubs outside India to fuel future growth. The plant would be the first step in a long series of similar investments in the region. While the preliminary financial analysis conducted was encouraging, Gupta was not sure whether the analysis had taken into account all the risks associated with the project. He had asked Sandeep Bhagaria, a senior financial analyst in the corporate office to carry out a more detailed analysis of the project. On entering his office, Gupta saw the completed project report lying on his desk and he sat down to read it.

COMPANY DESCRIPTION¹

Raymond Limited was a public company incorporated in India. Founded in 1925, it had five divisions comprising Textiles, Denim, Engineering Files & Tools, Aviation and Designer Wear. The company derived 54% of its revenues from its Textile Division, Raymond Textiles. Raymond Textiles was India's leading producer of worsted suiting fabric with over 60% market share. With a capacity of 25 million metres of wool and wool-blended fabrics, Raymond Textiles was the world's third-largest integrated manufacturer of worsted fabric. It manufactured high-value pure-wool, wool-blended and premium polyester viscose suiting in addition to blankets and shawls, all marketed under the flagship brand Raymond's. It also produced and marketed plush-velvet furnishing fabric in wide array of designs and colours, including carpeting for the niche markets of India and Middle East.

Over a period of time, it had evolved into one of the largest players in as diverse businesses as fabrics, designer wear, denim, cosmetics & toiletries, engineering files & tools, prophylactics and air charter services in national and international markets. It had some of the most highly respected apparel brands in its portfolio like Raymond, Raymond Premium Apparel, Manzoni, Park Avenue, ColorPlus, Parx, and Notting Hill.

The company exported 11% of its production to more than 50 countries in North America, Europe, Asia, Africa and the Middle East. The exports had a different demand dynamics than the domestic market. The demand for worsted fabric in India was mainly from customised tailored garments and in-house demand from the garments division. The international demand was from the garment industry, which used fabric to manufacture ready-made garments. Apart from the large garment manufacturers, demand also originated from big retail stores, which ordered fabrics to be supplied to their selected fabricating units that could be outside vendors. While Raymond had a strong brand presence in the domestic market, its brand in the global market was relatively unknown.

¹<http://www.raymondindia.com/>, accessed on January 9, 2012.

Raymond's manufacturing facilities were all located within India and comprised three fully integrated plants. All the plants were self-sufficient in terms of providing educational, housing and recreation support system to employees and connected townships.

Raymond's products were distributed through about 310 exclusive retail shops in India and surrounding countries, 30,000 multi-brand retail outlets and over 100 wholesale distributors. Exhibits 1 through 4 present the company's historical financial statements and key ratios.

BACKGROUND OF THE TEXTILE INDUSTRY²

The textiles industry consisted of production of cotton, wool and man-made fibres for different uses such as apparel, home furnishings, footwear and other industrial purposes.

Demand

In 2003, the global textiles sector was worth \$958.6 billion at manufacturers selling price (MSP), having grown at a compound annual growth rate (CAGR) of 2.9% since 1999 (see Exhibit 5). In recent years, prices had been declining due to pressure from manufacturers of apparel, home furnishings and automotive interiors. Despite this, the sector had retained its positive growth, primarily due to increased demand for textiles in the Asia-Pacific region. Looking ahead, increased demand was expected to drive prices upwards again. The increase in demand was primarily forecasted to originate from the Asia-Pacific region, although Europe and North America would also support this growth (Exhibit 6). By 2008, the sector was expected to reach a value of \$1.18 trillion, growing at a CAGR of 4.3% since 2003. In terms of production, the sector would reach a volume of 57.1 million tons in 2003 (CAGR of 2.7%) since 1999. Unlike values, volume growth during 2003–08 was expected to be lower than that during 1999–2003. Volume was expected to reach 64.2 million tons in 2008, growing at a CAGR of 2.4% since 2003.

The vast majority of textiles were produced from raw cotton or synthetic fibres, which collectively accounted for nearly 93% of the sector volume share. Synthetic fibre had become increasingly popular in the last two decades and represented over 54% of the sector volume. In terms of end-users, apparel manufacturers were the primary consumers of textiles, accounting for over a third of all consumption.

Supply

Asia-Pacific was the dominant producer of textiles. In 2003, the region produced over 59% of volume, which amounted to 33.9 million tons of product. The major producers of textiles within Asia-Pacific include China, India, Japan and Taiwan. Europe remained a significant producer of textiles (20% of volume), although its dominance of the sector was long forgotten. The US sector was relatively small and produced just 5.5% of the global sector volume. Due to the relatively low value of textiles,

²Data Monitor, Global Textiles, Industry Profile, May 2004.

manufacturers had been increasingly attracted to Asia-Pacific, with its abundance of low wage workers.

Major Companies

The global textiles sector was highly fragmented, with the top five players collectively controlling little more than 2% of the sector value share. The leading company in the textiles industry sector was Coats, which generated 0.6% of the sector's value. Coats' nearest competitor was Far Eastern Textiles, which accounted for a further 0.6% of the sector's value. The vast majority (98.1%) of the sector was fragmented between smaller players, which individually held market shares of less than 0.4%.

Current Situation

Until recently, trade in textiles was subject to a number of quotas and trade restrictions reducing the share of free trade. However, this situation changed in January 2005, when the World Trade Organization phased out completely the Multi-Fibre Agreement (MFA). The MFA, negotiated through the World Trade Organization (WTO), used to place limits, by country, on exports of textiles for 30 years. In 1995, the WTO began to phase out these quotas under the Agreement on Textiles and Clothing, but left the largest reductions in quotas for 2004, the final year of the phase-out. It was expected that the liberalisation would shake up the global textiles market by increasing exports and increasing share of China and possibly India. However, a number of smaller exporters such as Mexico, Indonesia or Bangladesh would suffer as they would not be able to stand up to the new competition. Consequently, enjoying the lowest cost base, primarily due to low labour and raw inputs costs, would not be sufficient. In addition, the winner would have to offer high productivity and high quality infrastructure allowing for fast exports.

THE INDIAN ECONOMY

India was the sixth largest and second most populous country in the world. It was subject to several hundred years of invasions and foreign rule and after a sustained campaign for independence, India succeeded in gaining independence from the British on August 15, 1947. British India was partitioned, amidst great bloodshed, into Muslim-dominated Pakistan and secular India.

India is the world's most populous democracy with regular and free elections held since independence with a Prime Minister as the elected executive head of state. But the young democracy was fraught with tension and violence. For example, a state of emergency was declared by the then Prime Minister Indira Gandhi in the 70s when civil rights were suspended, the press was controlled, and many of her critics were imprisoned. One Prime Minister and One former Prime Minister were assassinated in 1984 and 1991 by insurgents. But the tide seemed to have turned in the last decade.

The current Prime Minister Manmohan Singh, had held many important positions in the economic and civil service hierarchy in India, and was a respected economist, a pragmatist, and was highly regarded across the political spectrum. He was widely credited with the successful implementation of

wide-ranging economic reforms as finance minister in the previous government in 1991 at a time of deep economic crisis.

Border and Internal Safety

Political tensions continued between India and Pakistan, which had already fought three wars. Most of the tension was focused around the northern border region of Kashmir, where the situation remained volatile and terrorist attacks were frequent in the region. Further aggravating the situation was the fact that both nations had a nuclear weapons development programme and had tested nuclear devices in recent years. India's relations with China were also delicate because of disputes over land ownership on the border. However, trade relations had improved in recent decades.

India suffered from occasional bomb attacks, often occurring at densely populated places, usually attributed to Pakistan's intelligence agency (ISI). There were also religious clashes between Hindus and Muslims that escalated rapidly and led to a great number of casualties.

Economy

The first Prime Minister Jawaharlal Nehru, had visited the Soviet Union in the 1930s and felt that it provided the best economic model for India's development. Under his government, India established a complex system of socialist economic controls that remained in place until the 1980s. In the late 1980's and early 1990's, liberal reforms made the country more receptive to foreign trade and investment and led Western countries to take greater interest in India.

Two-thirds of India's labour force worked in agriculture which, with forestry and fishing, accounted for around 25% of GDP. Since less than one-third of cropland was irrigated, agricultural output (and GDP) was heavily dependent on the annual monsoon. GDP growth had been between 5–8% over the last decade and inflation was largely under control. In the 90's, inflation was around 10% but had fallen to 4–5%.

The majority of landholdings were farmed at subsistence level, and many farming families lived below the poverty line. India had some of the lowest human development indicators in the world, particularly in rural areas. At the other end of the scale, India also had a large number of highly qualified professionals, as well as several internationally established industrial groups. Without a rapid and sustained increase in economic growth and higher investment in primary education and healthcare, reducing poverty would remain a considerable challenge.

Currency

The Reserve Bank of India (RBI) had managed the exchange rates very carefully after liberalising the exchange rate policy in 1991. The main focus of the central bank's currency policy had been to smoothen out the rupee's appreciation since June 2002 and reduce the volatility of the nominal exchange rate. India had taken a gradualist approach to capital-account convertibility. In January 2004 custom duties on capital-goods imports were reduced further and Indian companies were allowed to invest abroad up to their net worth. Restrictions on capital outflows stemmed mainly from the

concern that the rupee needed to be protected from a speculative attack, depleting foreign-exchange reserves.

Infrastructure

The low quality of India's infrastructure was a major hindrance to growth—the road network was poor and the 13 ports around the country had poor port governance and inefficient customs clearing, which translated into high costs. An identical shipment of textiles to the US from India would cost, on average, 20% more than from Thailand and 35% more than from China. The power sector was plagued with problems of a grossly inefficient State Electricity Boards (SEBs), high levels of power theft, unsound cross-subsidisation policies and chronic underinvestment. The government was attempting to encourage private investment, but had been largely unsuccessful.

Textile Industry Competitiveness³

India enjoyed several competitive advantages in the textile industry, such as competitive labour cost, abundant input raw materials (3rd largest producer of raw cotton), rich textile traditions and skilled designers and workers. However, to succeed in the new global competitive landscape several barriers still existed. First, the regulations favoured small-scale 'family' operated textile facilities through tax advantages. Second, inflexible labour laws required companies to obtain government approval for labour force reduction in companies with over 100 employees. Third, lack of transportation infrastructure (e.g. ports) increased the time needed for exporting from India. Finally, the textile industry was scattered all around India, which made co-operation more difficult. If India did not want to lose its competitive position after the Multi-Fibre Agreement liberalisation, it was necessary that the government adopted measures eliminating these barriers.

RAYMOND'S EXPANSION STRATEGY AND RATIONALE

Focus on Exports

Raymond was looking at exports as an engine for growth in the future. It was targeting an export target of 32% of its production by 2007. The reasons were:

Stagnant domestic market

The domestic market size had stagnated for the last several years. Raymond's market share was high leading to limited growth opportunities in the domestic market. Thus, exports were increasingly becoming the most viable strategy to fuel future growth.

Lowering of import quotas and phasing out of MFA

The changes in WTO import restrictions had led to increased competition from cheap imports from countries like China and Thailand. It had also made export markets much more accessible, especially

³McKinsey Quarterly 2004 Special Edition—Freeing India's Textile Industry.

to countries like US and Japan. While the demand for worsted fabrics had not increased in absolute quantitative terms, the realignment of the sources of supply after the WTO regulations came into force in January, 2005 had made Indian exports more competitive and Raymond wanted to take advantage of this opportunity.

Off Shoring Strategy

The global markets required Raymond to develop certain competencies mainly because of the following factors:

- Unlike the domestic market where most of the demand for worsted fabric originated directly from the customer requiring fabric for customised tailored garments, the demand in the global market came from the large garment manufacturers and retail stores. Thus, the fabric was more of a commodity and pricing was more aggressive in the international market.
- Unlike the domestic market, Raymond did not have a brand presence and thus could not demand a premium for its products, thus driving down prices and profit margins.
- Increased competition from low cost manufacturers in countries like China had driven down prices in the recent past. Exports needed to be competitive in two aspects: prices and speed of delivery.

In order to meet the above requirements, the company decided to explore the possibility of locating manufacturing facilities outside India, mainly for the following reasons:

High Operating Costs

Raymond was facing increasing operating costs at home. Labour cost, which was historically about 11% of revenues, had increased to 17%. The company's domestic workforce was highly unionised and with every wage settlement the labour cost was likely to go up even more. To overcome this, in the past, the company had been following a strategy of increasing volumes and relocating to backward areas where wage costs had been lower, but this strategy was no longer effective due to a stagnant domestic demand and due to narrowing of the wage differentials between different regions within India. Stringent labour regulations had hampered the company's efforts to reduce labour costs and the company had been unable to reduce labour strength through retrenchment. Finally, infrastructure costs (power, water, etc.) were also growing in India.

Longer Delivery Lead-Time

To be competitive in the global market both the cost of production and speed of delivery were critical. Poor infrastructure and inefficient port systems in India had made it harder for Raymond to remain competitive in the international market.

Export Mix

The company's export mix was highly concentrated in the Middle East (see Table A). Asia and North America were the largest importers of textile fabrics and the company needed to penetrate these

markets. Proximity of the manufacturing location to these markets would enable not only to lower lead times but also enable faster penetration due to brand recognition. It was felt that the Asian markets in particular considered fabric manufactured in Asia but outside India to be better than fabric manufactured in India.

Table A Raymond's Exports Break Up by Region

Region	Share of Exports %
Middle East	33
North America	14
South America	6
West Asia	14
Europe	12
Australia/New Zealand	2
Africa	6
Rest of Asia	6

Diversification of Risks

Locating the company's entire manufacturing operation in India led to concentration of operational risks to a single country while at the same time insulated the company from international developments.

EVALUATING PLANT LOCATIONS

Considering the above factors, the company decided to explore the possibility of locating manufacturing plants outside India, namely China, Malaysia and Thailand.⁴ Raymond's strategy was to gain expertise in manufacturing in an international location and eventually have a larger manufacturing base outside India.

China

The Chinese Communist Party (CCP) had been in power ever since the People's Republic of China (PRC) was founded in 1949. Free-market economic reforms since 1978 had transformed the structure of the economy and raised living standards, but politically China remained a Marxist-style party-state. National leaders were not elected but emerged from the CCP's political-bureaucratic structure.

During the past 20 years, China's economy had been transformed from one in which the industrial sector was largely centrally planned to the one in which the allocation of resources was increasingly determined by the free operation of market forces. Economic reforms had not been carried out according to a comprehensive blueprint, but rather had been piecemeal and ad-hoc, best summarised by the Chinese phrase "crossing the river by getting a feeling for the stones". The process began with

⁴Country information is from The Economist Intelligence Unit: Country Reports—Thailand, China, Malaysia, and India.

the gradual phasing out of communes in the agricultural sector and their replacement by the semi-private household responsibility system, a change that gave individual families the right to keep—and then sell at market price—any produce above a set level procured by the government. The government also established four Special Economic Zones, whose authorities were given the power to offer tax incentives to attract foreign direct investment (FDI).

The official currency of China, the Renminbi, was denominated in units of Renminbi, Jiao and Fen (one Renminbi equals ten Jiao, or 100 Fen). Since January 1994, the People's Bank of China (PBC), the central bank, had fixed the value of the currency in a “managed float” that allowed it to fluctuate in a very narrow range of Rmb8.277: US\$1 to Rmb8.278: US\$1. Unlike managed floats in high-inflation economies, the PBC had kept prices under control and had no need to carry out periodic devaluation of the Renminbi (see Exhibit 7b).

The decline of the US dollar, to which the Renminbi was effectively pegged (4.2), had led to an improvement in China's competitiveness against Japan and Europe. As a result pressure on China to revalue its currency for an adjustment of the decade-old peg to the US dollar had been mounting since early 2003.

China's sheer size had always been a considerable attraction for foreign investors. Recent interest in the country, however, had stemmed from the country's membership in the World Trade Organization, which became a reality in December 2001 after a 15-year long application period. China's complex system of restrictions on foreign investment would gradually soften as the country became a WTO member.

Entering the Chinese market as a foreign company could be a challenging process. Establishing a joint venture (the once-common investment vehicle for foreign investors) generally involved protracted negotiations. Approval procedures for most foreign activity remained complicated, and this was especially true for wholly foreign-owned ventures. Legislation governing foreign investment could be bewildering (and arbitrary, as authorities experimented with new regulations).

Earlier efforts to lighten bureaucratic burdens on foreign-invested enterprises (FIEs) had been reversed in the past few years. China had increased its scrutiny of proposed foreign investment to ensure that only those projects that supported national development priorities and balanced foreign exchange flows were approved. But China's entry into the World Trade Organization in late 2001 would gradually lead to a more transparent, less cumbersome investment environment.

Foreign investors could remit dividends and profits from joint ventures after they paid Chinese income taxes and met all reserve-fund and labour fund allocations. Funds were convertible at the exchange rate at the time of repatriation or transfer. For joint ventures, the board of directors normally established dividend policies. Profits could not be distributed until losses from previous years had been made up. Dividends could be distributed according to the equity shares of the investing parties, and no cap was imposed on their amount. FIEs could freely remit their after-tax profits and dividends.

China still had intermittent problems with electricity shortages. These faded in the late 1990s when a slowdown of economic growth led to a contraction of energy consumption. Electricity consumption started growing again in 2000 with the rate of expansion picking up sharply in the following three years. As a result, by 2003 individual regions within China were once again struggling with electricity

shortages. In 2004 the shortage affected key industrial regions such as Shanghai and the Yangtze River Delta, where firms facing planned power cuts were forced to contemplate night shift. However, new power capacity due to come on line in the next couple of years, coupled with a slower pace of investment growth, was expected to lead to a significant reduction in power shortages by 2006.

Malaysia

The Malaysian political environment was stable and democratically oriented, though power was strongly centralised. After independence on August 31, 1957, the Federation of Malaysia was formed on July 9, 1963. As a constitutional monarchy, Malaysia's head of state was the "Yang di-Pertuan Agong" (paramount ruler), customarily referred to as the king. Kings were elected for five-year terms from among the nine sultans of the Peninsular Malaysian states. The king had ceremonial duties and was also the leader of the Islamic faith in Malaysia. The executive branch of the federal government was headed by the prime minister who was appointed by the king.

The United Malays National Organization (UMNO), the party of Malay nationalists in the colonial period, remained the most important of the Malay parties. In the March 2004 election it regained the majority support of the Malay section of the population, which it had lost in the 1999 election.

Race was the major defining feature of the political system. The Party Islamsa-Malaysia (PAS), an alternative to UMNO for the Malay population, was a conservative Islamic party and a haven for Malay protest votes, offering a greater devotion to Islam and possibly also a stronger commitment to Malay nationalism than UMNO. From its inception, PAS had intended to set up an Islamic state and introduce Islamic law. As only 60% of Malaysians were Muslims, PAS—like UMNO—would need to align itself with other parties. But the intention of creating an Islamic state presented a major obstacle to the building of a coalition of opposition forces.

Malaysia's local currency, the Ringgit (M\$), was pegged to the US dollar at M\$3.80: US\$1, a peg originally established on September 2, 1998 (see Exhibit 7b).

The economy of Malaysia once relied principally on the production of raw materials for export, particularly petroleum, natural rubber, tin, palm oil and timber. Recently, the manufacturing sector had played an important role in developing the economy. The government had sought to promote foreign investment in export-oriented manufacturing and capital-intensive and high-technology industries.

Malaysia's legal system was based on English Common Law. Although there had been accusations of political influence being brought to bear in some sensitive criminal and civil legal cases, the local judiciary and legal profession were generally considered independent and protective of their rights and privileges. Foreign investors could be confident that commercial cases would be handled independently. The imposition of sweeping foreign exchange controls in September 1998 made the environment for foreign investors more difficult, but controls had gradually been eased since 1999.

No controls existed for the repatriation of invested capital, including reinvested profits, other than nominal transfer approval by Bank Negara Malaysia. Remittance of dividends and profits did not require permission from Bank Negara Malaysia. Commercial banks had the authority to approve overseas payments of any amount.

The government's stated policy was that all investors, both foreign and domestic, were entitled to fair compensation in the event that their private property was required for public purposes. Should the investor and the government disagree on the amount of compensation, the issue would be referred to the Malaysian judicial system, which had a reputation for enforcing property and contractual rights.

The infrastructure was excellent. Corruption, more often than not linked to ethnic-political overlay, did not generally affect foreign companies; the bureaucracy did not pose an obstacle to operations, although its efficiency could be improved. However, tightly-knit links between politics and business somewhat reduced transparency.

Malaysia was well endowed with energy resources. Rapid industrial development significantly boosted demand for electricity in the 1980s, and the resulting supply shortfall led the government in the early 1990s to award contracts to private consortia, known as independent power providers (IPPs), to build and operate thermal-generating plants to supply to the national grid. Malaysia's reserve margin - the difference between installed capacity and peak demand - remained large: by end-2003 the reserve margin stood at 47%.

Thailand

Thailand, the only country in South-east Asia not to have been colonised by a European power, was a parliamentary democracy with a constitutional monarchy. The king had ensured some political continuity, although there had been 17 military coups (the last in 1991) since the absolute monarchy was abolished in 1932. A civilian government was restored in 1973, but the administration was short-lived and unstable. Thailand's political system had gained stability as the country's democracy had matured since 1992. The military was withdrawn from the political scene and peaceful changes of government had become the norm. However, the authoritarian tendencies of Prime Minister Thaksin Shinawatra had raised concerns. The introduction of a progressive constitution in 1997 was yet to be complemented by changes in Thailand's political culture, thus far hostile to principles of transparency and accountability. Despite this, political stability remained high. In January 2001, a general election was held with a new electoral system, an Election Commission was formed and empowered to oversee polling and prevent fraud. The election resulted in a resounding victory for the newly formed Thai Rak Thai (TRT), under the leadership of a former telecommunications tycoon, Thaksin Shinawatra.

Based traditionally on agricultural exports, the Thai economy was transformed into one of the most diverse economies in South-east Asia in the 25 years up to 1998. However, the earlier neglect of the need for structural reform left Thailand's industry unable to absorb the technology needed for higher value added production. In the 1990s pegging the Thai Baht to a strengthening US dollar eroded the competitiveness of low-cost goods and import-dependent high-technology products were unable to fill the gap. The Bank of Thailand (BOT, the central bank) was forced to abandon the currency peg on July 2, 1997. The subsequent collapse of the Baht sharply increased the Baht cost of servicing private debt and the country was forced to seek an IMF rescue package in August of that year.

The turnaround in the external payments position had been profound, with the reversal from deficit into surplus allowing deep incursions into debt stocks, while the fiscal position had stabilised. However, structural reforms remained incomplete. More aggressive market liberalisation, the strengthening of

financial mediation in favour of the private sector and investment in education to boost lagging skill levels were required particularly, as Thailand negotiated the growing challenge posed by emerging markets such as China.

Since July 1997 the Baht has been freely traded against all other currencies under a “managed float” system that empowered the Bank of Thailand (BOT—the central bank) to intervene in support of the currency or to prevent it from appreciating to a level where it might affect export competitiveness (see Exhibit 7b).

The Thai government had long maintained an open, market-oriented economy and encouraged foreign direct investment as a means of promoting economic development, employment, and technology transfer. Profits and dividends could be freely repatriated once tax and reserve requirements had been met. There was no limit on commercial banks authorizing such remittances if appropriate documentation was supplied. Larger remittances required central bank approval.

Thailand’s legal system was generally satisfactory, but there was a need to improve the environment for foreign investors. Transparency was sometimes missing; and although the judiciary was generally independent, well-connected third parties had been known to influence the outcome of court cases. Under the Thaksin government, concerns were raised over the protection of foreign interests, particularly with regard to Thailand’s bankruptcy law.

Private property could not be expropriated for public purposes in accordance with Thai law, which provided for due process and compensation. In practice, this process was seldom used, and had been principally confined to real estate owned by Thai nationals needed for public works projects.

Thailand’s current energy provision was adequate and reliable. Energy conservation schemes had proved successful and domestic energy production was continually increasing, reducing Thailand’s traditional reliance on imports. In 1992 the country imported 90% of its energy needs (mostly in the form of oil) but this had fallen to just over 60% by 2001.

There was a low rate of unionisation in Thailand, at only 2–5% of the workforce. The most vocal, and the only influential, labour unions were in state-owned enterprises, some of which were scheduled for partial privatisation.

Thailand signed free-trade agreements (FTAs) during 2004 with Australia and New Zealand and had already signed FTAs with Bahrain, China and India. Agreements were planned with the United States, Peru, Chile and Japan. Like many other regional economies, Thailand stepped up its FTA talks after the failure of the World Trade Organization (WTO) talks in Cancún, Mexico, in September 2003. Thailand was one of the founding members of the Association of South-East Asian Nations (ASEAN), which also included Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), the Philippines, Singapore and Vietnam.

Historically there had been little serious risk of armed conflict in Thailand, but since the beginning of 2004 there had been mounting civil unrest in the southernmost provinces of Thailand, home to the minority Muslim population. Over the last 30 years, there had been sporadic incidents of violence by members of the Muslim population, objecting to rule by the Buddhist-dominated Bangkok government. In early 2004, the security situation in the region again deteriorated, and martial law was

declared on January 4. Despite the imposition of martial law, the attacks on police, and state personnel and property escalated.

When evaluating the data on the three possible countries, Raymond defined cultural fit, bureaucracy and tax incentives as key criteria for the success of their textile business and as a consequence picked Thailand as their number one choice for location.

PROJECT DESCRIPTION

The proposed project would be the first of its kind in the nature of a composite and vertically integrated worsted textile mill in Thailand.

Products: The total production of the Thai project would be 4 million metres of worsted suiting fabrics. Major products/product categories were: all-wool, wool-rich and polyester wool blended fabrics. The product mix would include 70% top-dyed and 30% piece-dyed materials. All the production would be exported and all products would be priced in USD.

Facility and Location: Raymond would build a new fully integrated mill, including in its scope production/process facilities for wool scouring, wool combing, dyeing, spinning, weaving and finishing fabrics. The plant would be located in Industrial Zone 3, a large, new, private industrial park at 140 KM northeast of Bangkok in Thailand. This industrial park had the necessary infrastructure and there were a number of large manufacturing facilities, including several Japanese companies already operating in the area. The Zone 3 also enjoyed significant government incentives.

Land: In order to build the new facility, Raymond purchased a fully developed land in sizes that Raymond needed: 20 acres in the beginning and 20 additional acres in case Raymond decided to increase the plant capacity in the future.

Capacity: It was assumed on a conservative basis that only 70% of the production would be in line in the 1st year, and 100% in the 2nd year onwards. No increase in the sales realisation or unit costs were assumed for the future years.

Inputs

Raw Materials: The major raw materials required for the project were raw wool, polyester tow and dyes and chemicals. All of them would be imported and priced in USD, with the exception of the raw wool, which was priced in A\$.⁵ The packaging materials would be produced locally and priced in THB.

Utilities: Zone 3 offered excellent availability of power and water. The industrial park had an internal power plant of 300 MW capacity and a private water reservoir of about 36 million cubic metres. The utilities were considered at the rates prevailing in the industrial park and were priced in THB.

⁵Raw wool is required to be imported from Australia as the required quality of wool is not available anywhere else.

Labour: Labour was readily available (from the Prachinburi area) at an average total cost of THB 5500 per person per month. The employment costs were considered for 740 workers at total wage cost of THB 200 for 26 days in a month, while staff costs were taken at an annual cost of THB 240,000 for 120 staff. There were thirty expatriate staff from India at a cost of THB 80,000 per month.

Machinery and Equipment: The major plant and machinery required for the project would be imported from European countries and Japan. Prices for these machines were assumed to be in USD. The proposed project would seek to acquire and install in all sections the most modern textile machinery of high productive efficiency, appropriate for the production of the best quality fabrics demanded by the markets it intends to sell.

All other costs were assumed to be in local currency. Exhibit 8 provides a graphical illustration of the value chain structure and locations.

Export Prices

The ready-made garment from worsted suiting fabrics industry was highly fashion- and design-conscious. The quality of fabrics dictated its price, markets and its makers. The wool fabric prices, however, were seen as commodities with USD denominated prices. Export Prices used in Raymond's evaluation of the Thailand plant were thus USD denominated and based on conservative demand projections from Raymond marketing team.

Segmentation of the Export Market

All-wool and wool-blended fabrics and garments were particularly popular in western countries, Japan and South Korea as they served as a natural protection against severe winter conditions. Demand for these products in tropical countries like Thailand though limited, could improve if export-oriented garment units (which use these fabrics) were set up in Thailand, as there was significant interest in the western countries for outsourcing fabrics and garments at competitive prices from Asia.

As Thailand was a member of the ASEAN (association of South East Asian Nations), export efforts could be directed towards the ASEAN countries and other regional markets of Japan and South Korea. Furthermore, North America was also expected to be a major market for Raymond's exports.

Japan: Much of Japan's worsted fabrics were sourced from China, mainly due to the proximity of the two countries. Nevertheless, Japan would certainly prefer to reduce its dependency on China. Raymond had already been supplying fabrics to major Japanese apparel companies and hence export fabrics from Thailand offered logistics advantage.

South Korea: Though Korea imported large quantities of pure wool fabrics from China, it was also looking for alternative sources of supply. A manufacturing unit in Thailand closer to this market would ensure quick delivery and provide Raymond a chance to secure a portion of the South Korean market.

USA: The American market dominated by big retail stores was looking for sourcing fabrics or garments from Asia due to its lower cost as well as diversity of its sources of wool fabric supply, which

was currently provided mainly by China. Investing in a plant in Thailand would help Raymond gain access to North American markets.

Government Incentives

The Thai government welcomed foreign investment in a large category of industries, provided fiscal incentives and guarantees against nationalisation and price controls for overseas investors.

The project would enjoy significant government incentives because (1) it would be located in industrial zone 3, an area which the Thai government wanted to develop and (2) it would be the first fully integrated worsted textile mill in Thailand. The Thai government wanted to develop the textile industry in line with the expectations of market growth in the light of recent changes in the WTO.

Raymond's management was very confident that it would be able to secure the following incentives with the Thai Government Board of Investments:

1. Zero import duty on machinery as well as significant duty waiver/reduction for raw material imports—An import duty of 30% on raw wool and polyester tow was levied on normal imports while projects approved by the Board of Investments was levied an import duty of not more than 1% for raw materials. The concessional import duty of 1% on raw and essential materials was necessary to ensure the commercial viability of the project and would continue during the entire life of the project.
2. Income tax exemption in the first 8 years followed by 50% reduction in the next 5 years subject to a maximum exemption limit equal to the project cost.
3. No withholding tax on dividends for first 8 years followed by 50% reduction in the next 5 years.
4. Guarantee from the government against nationalisation and price control.

CAPITAL STRUCTURE

The cost of the project was estimated to be THB 1736 m (approximately USD 45 million). Plant and Equipment was denominated in USD; the rest of the costs would be in Thai baht. The break-up of project cost is shown in Exhibit 9. The Thailand facility would be known as Raymond Textiles Thailand Limited (RTTL) and be a fully owned subsidiary of Raymond Incorporated in Thailand. The project would be financed with 50% debt with RTTL contributing THB 873 m towards equity. The remaining portion of the capital requirement would be provided by local banks by way of term loan repayable in instalments over the next 5 to 7 years. The bank debt would be denominated in USD and THB, most likely in the ratio of 50:50, with interest rates ranging from 5% (USD) to 6% (THB). The term loans would be repayable in 8 half-yearly instalments after a two-year moratorium. The parent company would provide no guarantee for the loans, but management had already made an initial assessment of the availability of funds in the Thai market and was confident that liquidity would not be a problem.

RAYMOND'S PROJECT VALUATION APPROACH

Raymond prepared Pro Forma financial projections for the proposed investment project (Exhibit 10). The company projected revenues, cost and capital expenditures for 13 years and assumed that the pre-completion phase would last 12-18 months. All numbers were projected in *real* (net of inflation) terms and converted from foreign currencies to Thai baht (THB) using the following exchange rates: 1 US Dollar = THB 42.41, 1 Indian Rupee = 0.89 THB, 1 Australian Dollar = THB 26.76.

In consecutive years it was assumed that the exchange rates would evolve based on the expected purchasing power parity trends among respective countries. It was projected that 70% capacity utilisation would be realised in year 1 increasing to 100% in year 2 and afterwards. After year 13, the plant would be worth its depreciated book value and no terminal growth was assumed. These projections yielded a real internal rate of return (IRR) of 12.86% (Exhibit 11).

In India, Raymond Ltd. was using a 12% real hurdle rate for approving its investment projects. Even though the IRR was higher than the hurdle rate the difference was not very significant. It was not clear how the IRR would change if some of the assumptions around fabric prices, input costs or exchange rates changed. In addition, Bhagarria wondered whether it was correct to use Raymond's Indian investment hurdle rate to an investment in Thailand.

It was a standard practice to estimate the value of a project's equity by discounting Free Cash Flow to Firm by weighted average of cost of capital (WACC) and deducting value of debt on the books of the company or discounting equity cash flows by cost of equity.

CAPM was appropriate if the portfolio returns could be completely characterised by the mean and standard deviation. A large number of studies had shown that emerging market returns were non-normal and hence could not be described by mean and variance.⁶ If one examined the returns from an emerging market like Mexico one would see that there were many small returns and a large number of negative returns. If the Mexican returns were generated from a normal distribution, we would not expect so many negative returns of that magnitude. Thailand was similar to Mexico with some extreme negative observations. The same was true of many other countries. Emerging market returns were not only higher than developed markets but also far more volatile due to economic shocks, military coups and such other factors. In addition, the mean and variance of returns changed over time.

In many emerging countries, the stock markets lacked depth. Typically, a handful of companies accounted for more than half the market capitalisation. So, the stock market index would be a poor proxy for market portfolio, which was supposed to represent the portfolio of all risky assets held by the marginal investor. A study of emerging market returns suggested that there was no relation between expected returns and beta measured with respect to the world market portfolio.⁷ Further, according

⁶Erb, Claude B., Campbell Harvey and Tadas Viskanta, "Expected Returns and Volatility in 135 Countries", *The Journal of Portfolio Management*, Spring 1996; "Risk in Emerging Markets", *The Financial Survey*, July–August, 1998; "Political Risk, Economic Risk and Financial Risk", *Financial Analysts Journal*, Nov./Dec. 1996; Bekaert, Geert and Campbell Harvey, "Emerging Equity Market Volatility", Working Paper, Duke University.

⁷Campbell Harvey R., "Predictable Risk and Returns in Emerging Markets", *Review of Financial Studies*, 8, 1995. He found that the regression of average returns on average betas produces an R^2 of zero.

to CAPM, expected return was a function of beta. The beta was measured by analysing the way the equity returns co-vary with a benchmark return. In many countries, beta cannot be estimated because the equity market did not exist!

One could estimate the beta of the company, if there was a stock market, by regressing stock returns against an international index such as the Morgan Stanley Capital International Emerging market index.

The risk premium for a company in a non-US country could be expressed as follows:⁸

Risk premium = base premium for a mature market + country premium

Cost of equity = $R_f + \beta$ (base premium for mature market like US) + Country premium

where $R_f = T$ – bond rate, a proxy for risk-free rate, base premium was the geometric average premium (i.e., $R_m - R_f$) earned by stocks over bonds over a long period of time, 6.1% in case of the US. The country premium was added on the assumption that country risk could not be diversified due to cross-market correlation. Put differently, a major portion of the country risk was systematic. The equity risk premium of a country was a function of country default risk and the volatility of equity market relative to the country bond market.

$$\text{Country equity risk premium} = \text{Country default spread} * [\sigma_{\text{equity}} / \sigma_{\text{country bond}}]$$

The country risk could be measured by the credit rating given by international credit rating agencies like Standard & Poor's and Moody's.⁹ These agencies published default spread over T-bond rate and spread over corporate bonds with similar rating in the US. Either the Corporate spread or the Country spread could be used as default risk premium. The default risk premium could be translated into equity risk premium as follows:

$$\text{Country equity risk premium} = \text{Country default spread} * [\sigma_{\text{equity}} / \sigma_{\text{country bond}}]$$

where σ_{equity} is the standard deviation of returns on the country's stock market index and $\sigma_{\text{country bond}}$ is the standard deviation of country bond prices.

The cost of equity could be used to discount free cash flow to equity investors to value the project's equity.

The International Cost of Capital and Risk Calculator (ICCRC)¹⁰ model proposed by Erb-Harvey-Viskanta, unlike the other models that calculated expected equity returns using stock market or economic data, focused on country credit ratings. The result of credit risk ratings of 75–100 bankers conducted biannually by Institutional Investor was the basis for their model.¹¹ Since the country ratings took into account macroeconomic factors like political and expropriation risk, exchange rate volatility,

⁸Aswath Damodaran, "Estimating Risk premiums", Working Paper, Stern School of Business, Undated.

⁹See www.moodys.com

¹⁰Campbell Harvey, "The International Cost of Capital and Risk Calculator", Unpublished Manuscript, Duke University; Erb, Claude B., Campbell Harvey and Tadas Viskanta, "Expected Returns and Volatility in 135 Countries", *The Journal of Portfolio Management*, Spring 1996.

¹¹These bankers rate each country on a scale of 0–100, with 100 representing the lowest risk of default.

sensitivity to global economic shocks, E-H-V took country risk ratings as proxy for fundamental risk and try to model equity data and associated credit ratings for some 135 countries.

That is,

$$R_j = a_0 + a_1 \text{Log}(\text{CCR}_j) + \varepsilon_j$$

where R = semi-annual return in US dollars for the country

$\text{Log}(\text{CCR})$ = natural logarithm of the country credit rating

ε_j = regression residual

The log of credit rating was used to capture non-linear relationship between CCR and expected return. Further, the E-H-V study indicated that country credit ratings also pick up “country risk” and that higher rating (lower risk) led to lower expected returns. Their study established the following regression model:

$$\text{Country Hurdle Rate} = \text{Risk free rate} + 0.944 - 0.177 \log(\text{CCR})$$

Exhibits 12 through 14 present data on country credit ratings, Textile and Apparel Beta vis-à-vis MSCI and S&P 500 indices, risk-free rates in India and the US, market risk premium for India and Raymond’s equity beta.

CONCLUSION

After reading through the report that Bhagaria had prepared, Gupta scribbled a few points that he needed to consider and discuss with Bhagaria:

- (a) The internal rate of return arrived at for the project was marginally above the internal hurdle rate of the company. It would be difficult to convince the Board that investing in the project was indeed beneficial to the company. But Gupta was uncertain that the cash flow projections had taken into account additional sources of revenue or other benefits that the project might generate over the years and whether these sources indeed could add value to the project.
- (b) He was also uncertain whether the projections had incorporated all the risks associated with the setting up of a plant outside India. While risks such as political, institutional and currency risks had been mentioned in the project, he wanted to ensure that these risks had been incorporated in the actual financial analysis.
- (c) Finally he was not convinced that Thailand was the right location for the plant. While the report had carried out an analysis of alternate locations, the reasons for the decision to set up the plant in Thailand were not very convincing.

Gupta decided that he needs more clarifications about these issues before he could take the proposal to the Board.

Exhibit 1	Income Statement, 2003–05 (₹ Crore)		
	2005	2004	2003
Sales Turnover	1158.76	1089.98	1011.52
Excise Duty	9.5	81.8	84.14
Net Sales	1149.26	1008.18	927.38
Other Income	103	176.7	111.96
Stock Adjustments	-21.12	5.13	1.28
Total Income	1231.14	1190.01	1040.62
Raw Materials	351.24	310.92	240.72
Power & Fuel Cost	83.92	83.43	81.27
Employee Cost	198.9	176.49	166.54
Other Manufacturing Expenses	174.24	145.89	132.29
Selling and Administration Expenses	122.66	112.93	117.09
Miscellaneous Expenses	116.54	88.32	74.41
Less: Pre-op Exp Capitalised	0.11	0	0
Total Expenditure	1047.39	917.98	812.32
Operating Profit	183.75	272.03	228.3
Interest	28.83	23.09	38.72
Gross Profit	154.92	248.94	189.58
Depreciation	63.78	64.08	58.13
Profit Before Tax	91.14	184.86	131.45
Tax	10.99	44.68	36
Fringe Benefit tax	0	0	0
Deferred Tax	-2.99	7.89	5.2
Reported Net Profit	83.14	132.29	90.25
Extraordinary Items	6.17	33.39	14.1
Adjusted Net Profit	76.97	98.9	76.15

Source: Capitaline Database

Exhibit 2 Balance Sheet, 2003–05 (₹ Crore)				
	2005	2004	2003	
Share Capital	61.38	61.38	61.38	
Equity Authorised	100	100	100	100
Equity Issued	61.38	61.38	61.38	61.38
Equity Paid Up	61.38	61.38	61.38	61.38
Reserves Total	1042.55	987.17	892.97	
TOTAL RESERVES EX REVAL RES	1042.55	987.17	892.97	833.88
Capital Reserves	0	0	0	1.48
General Reserves	767.55	759.23	697.98	627
Share Premium	147.78	147.78	147.78	147.78
Investment Allowance Reserve	0	0	0	0
Debenture Redemption Reserve	7.5	5	3.75	2.5
Capital Redemption Reserve	13.71	13.71	13.71	13.71
Profit & Loss Account Balance	106.01	61.45	29.75	41.41
Total Shareholders Funds	1103.93	1048.55	954.35	
Secured Loans	393.33	229.28	271.8	
Unsecured Loans	179.45	247.22	209.6	
Total Debt	572.78	476.5	481.4	
Total Liabilities	1676.71	1525.05	1435.75	
Gross Block	1140.69	979.53	909.87	
Less: Accumulated Depreciation	627.98	573.1	514.97	
Less: Impairment of Assets	0	0	0	
Net Block	512.71	406.43	394.9	
Capital Work in Progress	79.84	14.79	11.12	
Investments	734.27	715.87	612.32	
Inventories	287.56	294.91	277.35	
Sundry Debtors	226.28	246.14	290.71	
Cash and Bank	13.25	26.76	14.94	
Loans and Advances	127.92	140.1	153.8	
Total Current Assets	655.01	707.91	736.8	
Current Liabilities	195.04	180.37	202.18	
Provisions	56.06	83.73	68.4	
Total Current Liabilities	251.1	264.1	270.58	
Net Current Assets	403.91	443.81	466.22	
Miscellaneous Expenses not written off	0	1.17	0.32	
Deferred Tax Assets	13.63	6.37	10.34	
Deferred Tax Liability	67.65	63.39	59.47	
Net Deferred Tax	-54.02	-57.02	-49.13	
Total Assets	1676.71	1525.05	1435.75	

Exhibit 3 Cash Flow Statement, 2005 (₹ Crore)

Net cash flow from operating activities (indirect method)	119.29
Net profit before tax & extra ordinary income	140.83
Adjustments for depreciation	70.71
Adjustments for interest payable	32.33
Adjustments for add back of other provisional adjustments	2.73
Adjustments for (profit)/loss on sale of investments	-31.94
Adjustments for (profit)/loss on sale of assets	-0.49
Adjustments for interest income	-15.61
Adjustments for dividend income	-18.11
Adjustments for provision / liabilities written back	-0.63
Operating cash flow before working capital changes	179.82
Cash inflow/(outflow) due to decrease/(increase) in trade & other receivables	-0.85
Cash inflow/(outflow) due to decrease/(increase) in inventories	6.62
Cash inflow/(outflow) due to increase/(decrease) in trade and other payables	-0.81
Cash flow generated from operations	184.78
Cash (outflow) due to direct taxes paid	-36.59
Cash (outflow) due to dividend tax paid	-4.33
Cash flow before extraordinary items	143.86
Cash inflow/(outflow) from extraordinary items	-0.46
Cash (outflow) due to miscellaneous expenditure	-24.11
Net cash inflow/(outflow) from investment activities	-210.62
Cash (outflow) due to purchase of fixed assets	-312.45
Cash inflow due to sale of fixed assets	7.71
Cash inflow due to sale of investments	30.56
Cash inflow/(outflow) due to loans to other cos.	20.7
Cash inflow due to interest received	14.9
Cash inflow due to dividend received	18.11
Cash inflow/(outflow) due to other income	9.85
Net cash inflow/(outflow) from financing activities	83.81
Cash inflow due to proceeds from total borrowings	185.8
Cash inflow due to proceeds from long term borrowings	185.8
Cash (outflow) due to repayment of total borrowings	-34.22
Cash (outflow) due to interest paid	-35.93
Cash (outflow) due to dividend paid	-33.54
Cash inflow/(outflow) due to other cash receipts/payables from financing activities	1.7
Net cash inflow/(outflow) due to net increase/(decrease) in cash & cash equivalents	-7.52
Cash flow – opening balance	56.88
Cash flow – closing balance	49.36

Source: CMIE Prowess

Exhibit 4 Key Financial Ratios, 2001–05					
	2005	2004	2003	2002	2001
Debt-Equity Ratio	0.49	0.48	0.55	0.6	0.77
Long-Term Debt-Equity Ratio	0.38	0.32	0.33	0.42	0.63
Current Ratio	1.56	1.5	1.46	1.61	1.82
Turnover Ratios					
Fixed Assets	1.09	1.15	1.17	1.21	1.29
Inventory	3.98	3.81	3.77	4.03	5.39
Debtors	4.91	4.06	3.27	3.2	5.06
Interest Cover Ratio	4.16	6.96	3.86	2.25	1.27
PBIDTM (%)	15.86	20.61	20.54	18.25	13.57
PBITM (%)	10.35	14.73	14.79	12.83	7.98
PBDTM (%)	13.37	18.49	16.71	12.55	7.28
CPM (%)	12.68	14.95	13.28	11.5	7.14
APATM (%)	7.17	9.07	7.53	6.08	1.55
ROCE (%)	7.5	10.85	10.46	8.84	7.83
RONW (%)	7.73	9.88	8.23	6.68	2.68

Source: Capitaline Database

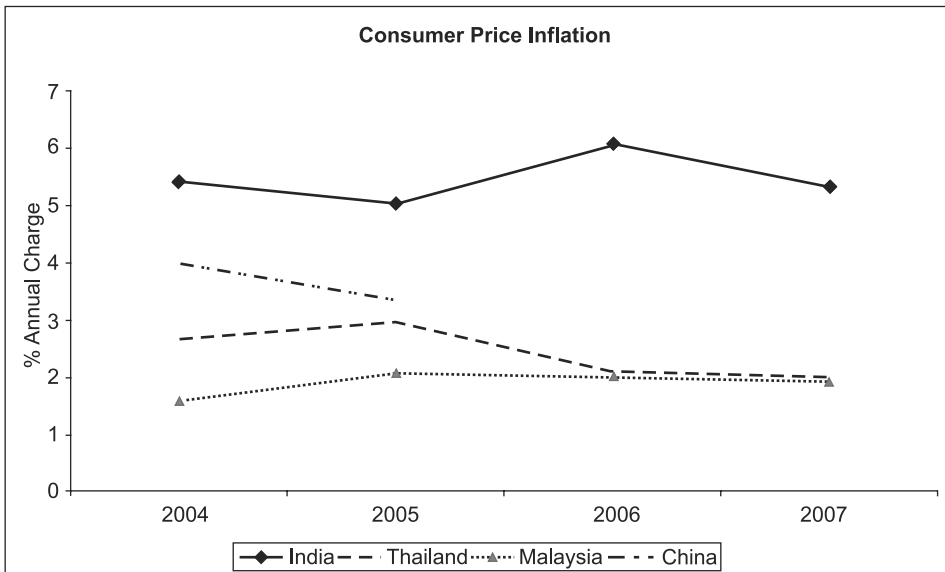
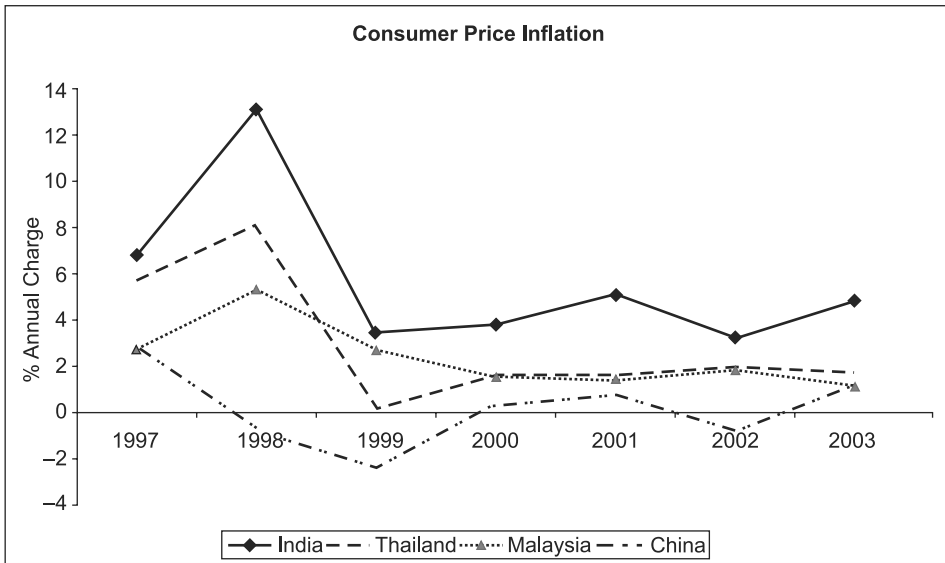
Exhibit 5 World Textile Market Projection					
Market Value (at Manufacturer selling price)			Market Size (quantity)		
Year	\$b	% Growth	Year	Tons \$m	% Growth
1999	855.2		1999	51.4	
2000	894.5	4.60	2000	53.4	3.80
2001	918.9	2.70	2001	55.4	3.70
2002	945.9	2.90	2002	56.5	2.10
2003	958.6	1.30	2003	57.1	1.10
1999-2003 CAGR = 2.9%			1999-2003 CAGR = 2.7%		
2008	1180.0		2008	64.2	

Source: Data Monitor—Global Textile Industry Profile, May 2004

Exhibit 6 World Textile Market Segmentation			
Segmentation by Product Category		Segmentation by Product Category	
Category	% Share	Geography	% Share
Synthetic Fibers	54.4	Asia-Pacific	59.3
Raw Cotton	38.3	Europe	20.0
Cellulosic Fibers	4.9	United States	5.5
Raw Wool	2.4	Rest of the world	15.2

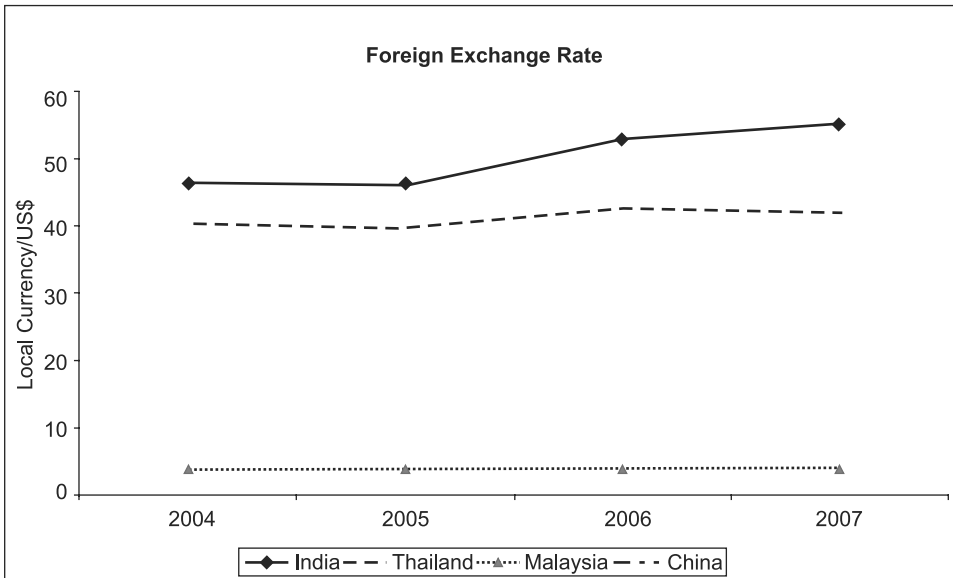
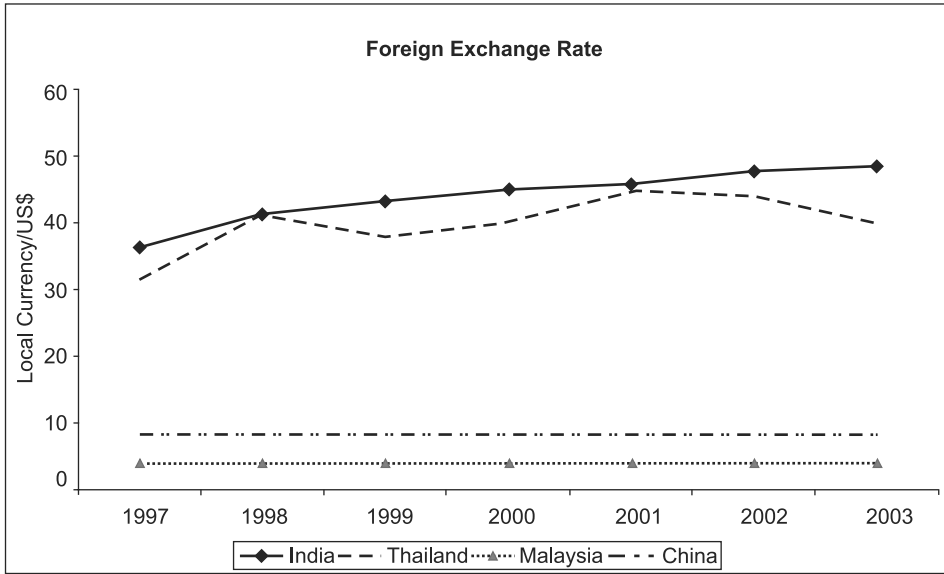
Source: Data Monitor—Global Textile, Industry Profile, May 2004

Exhibit 7a Inflation Development and Forecast

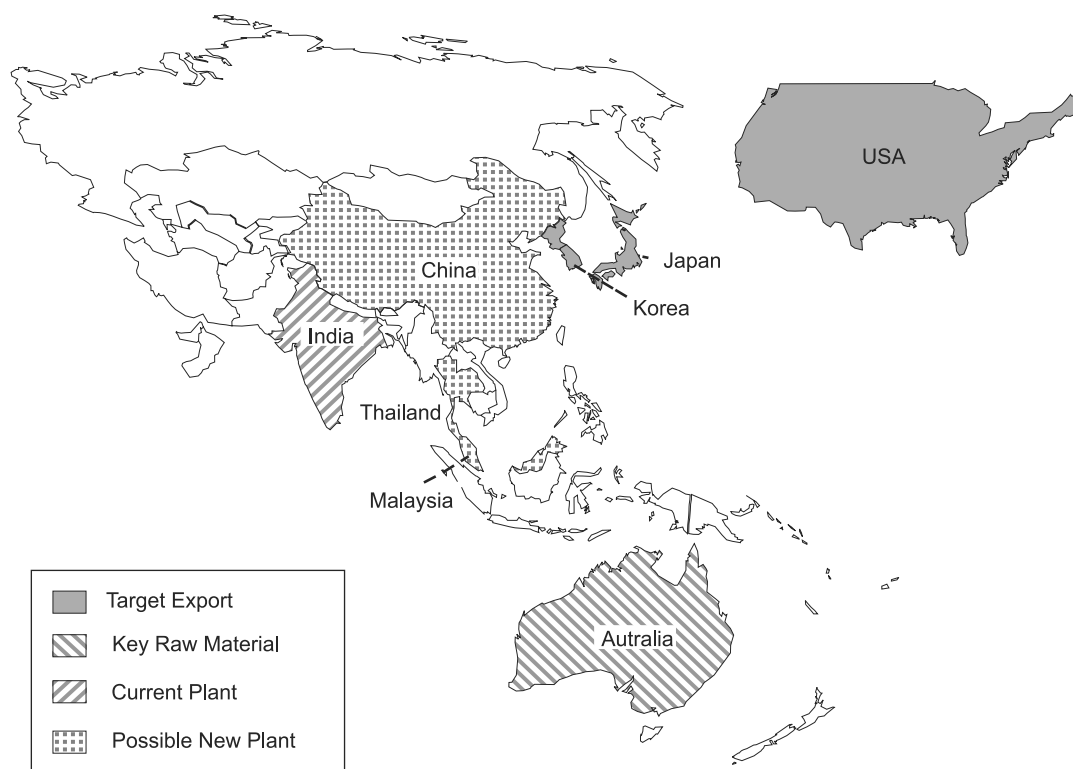


Source: ISI Emerging Markets

Exhibit 7b Exchange Rate Development and Forecast



Source: ISI Emerging Markets

Exhibit 8 Proposed Project Value Chain**Exhibit 9 Project Capital Expenditures and Financing Structures**

	Project Cost in millions of THB	Currency of Denomination
Land and Buildings	310	THB
Plant and Equipment	1182	USD
Pre-Operative Expenses	45	THB
Working Capital	129	THB
Contingencies	80	THB
Total	1746	

Sources of Financing	Amount (THB)	Share %
Equity	873	50
USD Debt	436.5	25
THB Debt	436.5	25
Total	1746	

Source: Company

Exhibit 10 Project Pro Forma Capital Projections

Profit and Loss Statement		(in 1000 THB, real terms)												
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Revenue	US\$	657,954	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791	1,066,791
Raw material cost														
Domestic	THB	(3,750)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)	(5,357)
Foreign	AUS\$	(254,909)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)	(364,156)
Labor costs														
Domestic	THB	(61,527)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)	(75,553)
Foreign	Ind.Rupee	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)	(28,800)
Public Utilities	THB	(51,134)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)	(73,049)
Depreciation	THB	(127,205)	(127,205)	(127,205)	(132,205)	(137,205)	(142,455)	(147,705)	(152,955)	(160,705)	(168,455)	(176,205)	(183,955)	
SG&A	THB	(74,016)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	(104,483)	
Interest charges	THB	(60,130)	(60,130)	(60,130)	(56,856)	(43,761)	(30,666)	(17,571)	(7,750)	(7,750)	(7,750)	(7,750)	(7,750)	
Miscellaneous (fees, other manuf.)		16,186	(72,771)	(72,771)	(72,771)	(72,771)	(72,771)	(72,771)	(72,771)	(72,771)	(72,770)	(72,770)	(68,297)	
Total cost		(645,285)	(911,504)	(911,504)	(908,230)	(900,135)	(892,040)	(884,195)	(879,624)	(884,874)	(892,623)	(900,373)	(903,650)	(911,400)
Profit before tax		12,669	155,287	158,561	158,561	166,656	174,751	182,596	187,167	181,917	174,168	166,418	163,141	155,391
Tax (@ 15% from year 9)		—	—	—	—	—	—	—	—	—	26,125)	(24,963)	(24,471)	(23,309)
Profit after tax		12,669	155,287	158,561	166,656	174,751	182,596	187,167	181,917	148,043	141,455	138,670	132,082	

(Contd.)

(Exhibit 10 Contd.)

Cash Flow Statement	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Inflows													
Profit after tax	12,669	155,287	158,561	158,561	166,656	174,751	182,596	187,167	181,917	148,043	141,455	138,670	132,082
Add back: depreciation	127,205	127,205	127,205	127,205	132,205	137,205	142,455	147,705	152,955	160,705	168,455	176,205	183,955
Add back: preliminary expenses	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	—	—
Funds generated from operations	144,347	286,965	290,239	290,239	303,334	316,429	329,524	339,345	339,345	313,221	314,383	314,875	316,037
Increase in share capital	873,000	—	—	—	—	—	—	—	—	—	—	—	—
Increase in borrowings	873,000	121,284	8,002	—	—	—	—	—	—	—	—	—	—
Decrease in working capital	—	—	—	—	—	—	—	—	—	—	—	—	—
Total inflows of funds	1,746,000	265,631	294,967	290,239	303,334	316,429	329,524	339,345	339,345	313,221	314,383	314,875	316,037
Outflows													
Capital expenditures	1,571,982	—	—	—	50,000	50,000	52,500	52,500	52,500	77,500	77,500	77,500	77,500
Increase in working capital	129,286	113,283	16,003	—	—	—	—	—	—	—	—	—	—
Decrease in borrowings	—	—	—	218,250	218,250	218,250	218,250	—	—	—	—	—	—
Preliminary expenses	44,732	—	—	—	—	—	—	—	—	—	—	—	—
Total outflows of funds	1,746,000	113,283	16,003	218,250	268,250	268,250	270,750	52,500	52,500	77,500	77,500	77,500	77,500
Net funds flow - current year	—	152,348	278,964	71,989	35,084	48,179	58,774	286,845	286,845	235,721	236,883	237,375	238,537
Net funds flow - cumulative	—	152,348	431,312	503,301	538,385	586,564	645,338	932,183	1,219,028	1,454,749	1,691,632	1,929,007	2,167,544

Source: Raymond Ltd.

Exhibit 11 Calculation of Internal Rate of Return (IRR)

	(in 1000 THB, real terms)													
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Profit before tax	12,669	155,287	158,561	166,656	174,751	182,596	187,167	181,917	174,168	166,418	163,141	155,391	183,061	
Add back: interest	60,130	60,130	56,856	43,761	30,666	17,571	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750
Profit before interest and tax, (PBIT)	72,799	215,417	215,417	210,417	205,417	200,167	194,917	189,667	181,918	174,168	170,891	163,141	190,811	
Less: tax (@15% from year 9)								(27,288)	(26,125)	(25,634)	(24,471)	(24,471)	(28,622)	
Profit after tax (PIT)	72,799	215,417	215,417	210,417	205,417	200,167	194,917	189,667	154,630	148,043	145,257	138,670	162,189	
Add back: depreciation	127,205	127,205	127,205	132,205	137,205	142,455	147,705	152,955	160,705	168,455	176,205	183,955	156,286	
Add back: preliminary expenses	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	4,473	—	—	
CFO - cash flow from operations	204,477	347,095	347,095	347,095	347,095	347,095	347,095	347,095	319,808	320,971	321,462	322,625	318,475	
Capital Expenditure	(1,571,982)	—	—	(50,000)	(50,000)	(52,500)	(52,500)	(52,500)	(52,500)	(77,500)	(77,500)	(77,500)	(77,500)	
Asset sales (@ book value)	—	—	—	—	—	—	—	—	—	—	—	—	—	535,804
Increase in working capital	(129,286)	(113,283)	(16,003)	—	—	—	—	—	—	—	—	—	—	—
Start-up expenses	(44,732)	—	—	—	—	—	—	—	—	—	—	—	—	—
CFI - cash flow from investment	(1,746,000)	(113,283)	(16,003)	(50,000)	(50,000)	(52,500)	(52,500)	(52,500)	(52,500)	(77,500)	(77,500)	(77,500)	(77,500)	458,304
Free cash flow to unlevered firm	(1,746,000)	91,194	331,092	347,095	297,095	294,595	294,595	294,595	242,308	243,471	243,962	245,125	776,779	
Project's IRR	12.86%													

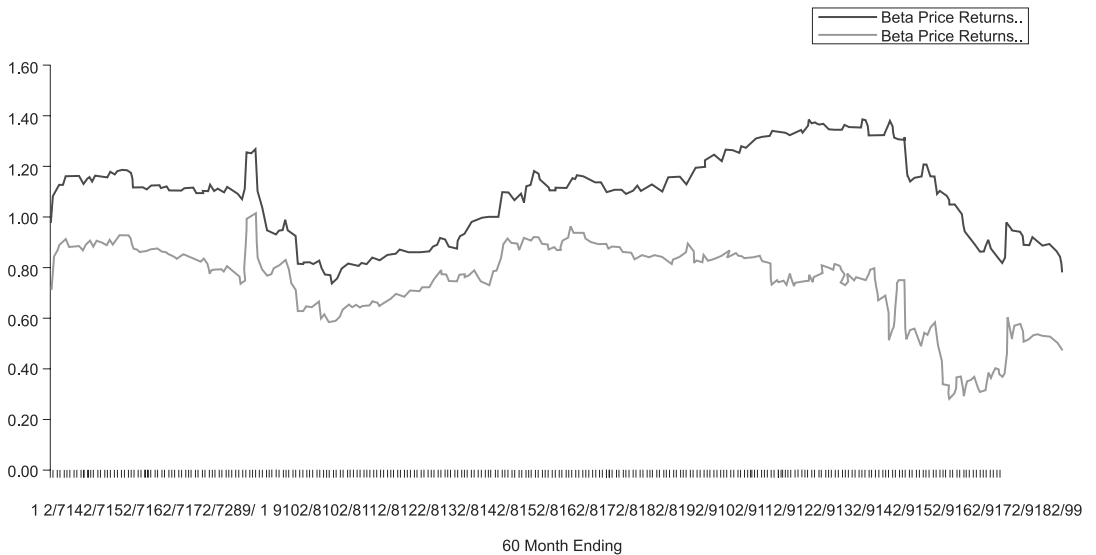
Source: Raymond Ltd.

Exhibit 12 Country Credit Ratings

Country	S&P Currency Rating	ICCRC Rating (Sept. 2004)
Thailand	BBB+	59.5
Malaysia	A-	65.5
China	BBB+	65.7
India	BB+	53

Source: S&P, ICCRC

Exhibit 13 Textile and Apparel Sector Beta vis-à-vis MSCI and S&P 500



1 2/7142/7152/7162/7172/7289/ 1 9102/8102/8112/8122/8132/8142/8152/8162/8172/8182/8192/9102/9112/9122/9132/9142/9152/9162/9172/9182/99

60 Month Ending

Exhibit 14 Treasury Rates in India and the US, Raymond Equity Beta, and Indian Stock Market Risk Premium

1 year T Bill Rate	= 7%
10 Year T Bond Rate	= 7.9%
30 year T Bond rate	= 8%
Raymond Equity Beta	= 0.68
Market Risk premium	= 8%

Source: Capitaline, FIMMDA

US Treasury Rates

Tenor	2/22/2005
1 Month	2.43
3 Month	2.67
6 Month	2.97
1 Year	3.12
2 Year	3.46
3 year	3.62
5 Year	3.88
7 Year	4.09
10 Year	4.29
20 year	4.75

Source: US Treasury