# 13. INDEPENDENT MARKET RESEARCHERS' REPORT

(Prepared for inclusion in this Prospectus)

Infocredit 527570-M)

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17 January 2005

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The Board of Directors
BP Plastics Holding Bhd
5A, Jalan Wawasan 2,
Kawasan Perindustrian Sri Gading,
83300 Batu Pahat
Johor Darul Takzim

RE: INDEPENDENT MARKET RESEARCHERS' REPORT FOR BP PLASTICS HOLDING BHD ("BPP HOLDING" OR THE "COMPANY")

This Report has been prepared for inclusion in the Prospectus to be dated 26 January 2005 pursuant to the listing of BPP Holding on the Main Board of the Bursa Malaysia Securities Berhad.

This research is undertaken with the purpose of providing an overview of the Plastic Packaging Bags, Sacks and Films ("BSF") industry in Malaysia. The objective of the research is to identify the market position of BPP Holding within the focus industry.

The research methodology for the study includes primary research, which involves in-depth trade interviews and telephone interviews of pertinent companies, as well as secondary research such as reviewing press articles, periodicals, trade/government literatures, in-house corporate databases, Internet research and online databases.

Infocredit D&B (Malaysia) Sdn Bhd ("Independent Market Researchers" or "IMR") has prepared this Report in an independent and objective manner and has taken all reasonable consideration and care to ensure the accuracy and completeness of the Report. We acknowledge that if there are significant changes affecting the content of the Report after the issue of the Prospectus and before the issue of securities, the Independent Market Researcher has an ongoing obligation to either cause the Report to be updated for the changes or withdraw our consent to the inclusion of the Report in the Prospectus.

An Executive Summary is highlighted in the following sections.

For and on behalf INFOCREDIT D&B (MALAYSIA) SDN BHD

Tan Sze Chong Managing Director



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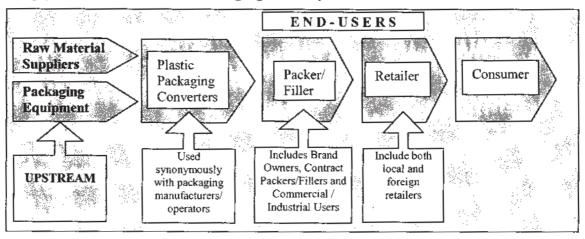
# **EXECUTIVE SUMMARY**

# PART 1 MARKET DEFINITION

# 1.1 SUPPLY CHAIN OF THE PLASTIC PACKAGING SECTOR

The industry structure of the plastic packaging industry is complicated as the supply chain encompasses packaging converters, its suppliers as well as customers. A simplified value-chain of the plastic packaging supply chain is illustrated below.

# Supply Chain in the Plastic Packaging Industry



Source: Infocredit D&B

## **RAW MATERIAL SUPPLIERS**

Raw material suppliers include manufacturers that produce raw materials such as Polypropylene ("PP"), Polyethylene ("PE"), Polystyrene ("PS"), Expanded Polystyrene ("EPS"), Polyethylene Terephthalate ("PET"), Styrene Monomer, Vinyl Chloride Monomer, Acrylic Monomer, Polymers, Unprinted Plastic Films, Master Batches and other Resins.

#### PLASTIC PACKAGING EQUIPMENT SUPPLIERS

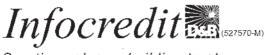
Plastic packaging equipment suppliers are mostly distributors of foreign brands from advanced countries such as Europe, the United States of America ("The U.S.") and Japan.

#### PLASTIC PACKAGING CONVERTERS

Converters are companies that produce packaging materials ready to use by a packer/filler. BPP Holding is operating in this sector.

#### PACKERS/FILLERS

Packers/fillers are companies that use packaging materials for filling and packing of products. Typically, these companies operate in the Fast Moving Consumer Goods ("FMCG"), Consumer Durables, Commercial and Industrial Products.



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#### RETAILER

Retailers are companies that sell its own branded goods ("own label") or proprietary brands to the consumer. Some retailers are also brand owners, particularly in FMCG markets in situations when they have a high proportion of house brands.

#### **CONSUMER**

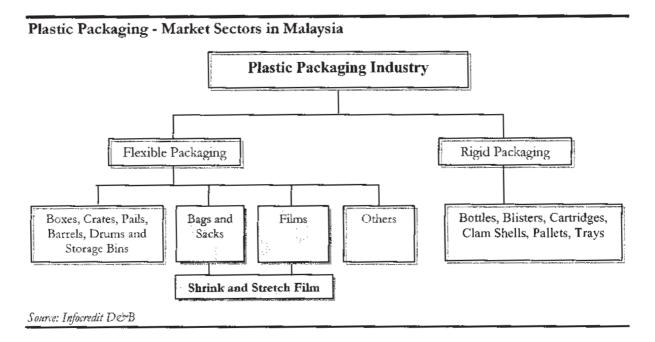
An individual person or end-user that purchases goods from a retail outlet.

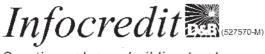
## 1.2 INDUSTRY DEFINITION

The plastic packaging industry covers the value-chain from manufacturing (converters), supplies and distribution of a variety of products to a diverse pool of end-users in the commercial and household sectors. Generally, the role of plastic packaging is vital to the commercial success of both the consumer and industrial sectors, as it is used for the following purposes:

- Protecting the product
- Providing information about the product
- Providing tamper-evidence for the product

The focus of this research is on bags, sacks and films ("BSF"), within the flexible packaging subsector. As a comparison to the overall market sectors of plastic packaging products in Malaysia, the focus sector under review is highlighted in grey, diagrammatically illustrated below.





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# 1.3 DEFINITION OF BAGS, SACKS AND FILM ("BSF")

For the purpose of this report, the plastic packaging industry is specifically focused on the market for plastic packaging BSF – which is made up of PP, Low Density Polyethylene ("LDPE"), High Density Polyethylene ("HDPE"), Polyvinyl Chloride ("PVC") and Laminated Plastic Materials. The focus industry is made up of products such as pre-formed, supermarket, and garbage bags, shrink film, stretch film, and snack food packaging products.

In general, the BSF sector includes stretch and shrink films which is defined as "films for all industrial and commercial wrapping applications". Dow Chemicals defines stretch film as "high clarity, polyolefin film utilised to protect and unitise manufactured goods or any other items for transportation or for storage". It is also important to note that stretch film is used synonymously with cast film in this report, which is a term generically referred to by local industry players.

Stretch film can be produced either by blown or cast film process. Multi-layer polyethylene stretch films are used as industrial wrap to provide stability and value added protection to loose pallet loads or merchandise. Polyethylene shrinkable film provides over wrap applications to process consumable products, which can be packaged in the form of unit packs or to serve as transit packs. Stretch/cast film is widely use in the market due to processing advantages such as higher output and better optical properties.

Stretch and shrink films are used to wrap the packed cartons of all types of bottles and cans into unit packs as well as to wrap palletised manufactured goods, such as electronic components and ceramic products. These products are typically manufactured from PE and PP plastics.

Internationally, stretch and shrink films are principally consumed by the manufacturing industries such as food & beverages, textiles and garments, electrical and electronics, industrial and chemicals, cosmetic and toiletries, agriculture and plantation, construction, transportation, wire and cables and others.

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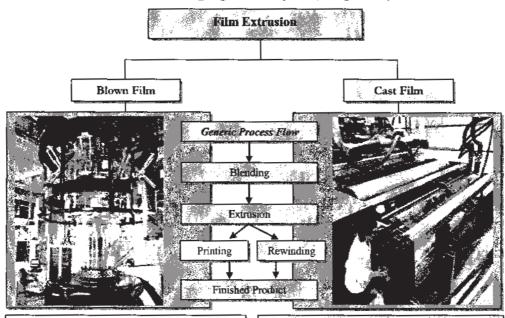
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# 1.4 CONVERSION PROCESSES OF THE BSF SECTOR

Typically, the BSF packaging industry uses several conversion processes, such as extrusion, cast film, calendaring or blown film extrusion, which is complex due to the ubiquity of plastic materials and also the different names used to differentiate each of these processes. As such, to facilitate a better understanding of the conversion (manufacturing) process of the BSF sector, a simplified version is illustrated below.

# Conversion Processes of BSF Packaging in Malaysia (Simplified)



A process that involves the blowing of molten plastic into a continuous tube of polymer film. Air is blown into the tube, causing it to form a bubble. When the bubble has cooled, it is collapsed between rollers and wound on to a drum. The blowing action stretches the film radially and often the film is also stretched in a vertical direction by the winding process. The result is a biaxially-oriented film, which can have great strength. Multiple-layer films, often used for food packaging, can be produced using this process.

A process of extrusion followed by cooling on chill rolls which are controlled progressively. The film gauge is determined by the dimensions of the die and the rates of extrusion take-off. During the production process, cast him can be oriented by stretching. This strengthens the film and can also improve its resistance to gas permeation. Orientation can be in one direction (uniaxial) or both directions (biaxial). Film that is used to make bags is usually uniaxial as most of the forces occur in one direction only.

Note: The term 'converters' is used interchangeably with 'manufacturers' in this report Source; Infocredit D&B

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## 1.5 Types of Raw Materials

Resins such as PE and PP plastics constitutes to a large proportion of raw materials consumed in the plastic packaging industry. PE and PP are also the two most commonly used resins in the local BSF packaging industry.

#### **POLYETHYLENE**

In flexible applications, HDPE is used in the manufacture of blow and cast films for many food items. Linear Low Density Polyethylene ("LLDPE") is used in the manufacture of industrial liners, vapour barriers, shrink- and stretch-wrap films. LLDPE is used in the manufacture of stretch/cling film, grocery bags and heavy-duty shipping sacks.

#### POLYPROPYLENE

Among other things, PP is used to manufacture medical packaging, moisture-proof wrapping and fat-resistant films. PP is a versatile polymer and is used both as a plastic and as a fibre. As a plastic, it is used to make products such as food containers because it does not melt below 160°C. Structurally, it is a vinyl polymer.

#### **POLYOLEFINS**

Polyolefins is the generic term used to describe a family of polymers derived from a particular group of base chemicals known as olefins. The polyolefins family includes PE and PP. Polyolefins are extremely versatile. They possess a successful combination of properties, including flexibility, strength, lightness, stability, impermeability and easy processability. PE and PP are also well-suited for recycling and re-use.

#### **POLYMERS**

The next stage, polymerisation, converts ethylene and propylene molecules into long chains known as polymers. Thus, ethylene is polymerised into PE and propylene into PP. Modifying this process yields an extremely broad range of PE and PP products with differing properties. The main plastic polymers used in the manufacture of plastics packaging are PE, PP, PS and PVC. The demand for PE and PP (especially Biaxially Oriented Polypropylene) films is growing in the Malaysia, mainly attributed by the higher demand of PET film.

#### POLYETHYLENE TEREPHTHALATE

PET is used for both rigid and flexible packaging. In flexible packaging, PET is commonly used to manufacture pouches for sterilisable medical applications and for boil-in-the-bag foods. PET film is used in many types of packaging applications ranging from food and drugs to industrial and consumer goods. This type of film can be plain or metallised, and is formable and heat shrinkable. It can also be coated to provide a barrier, or used for metal adhesion, laminating adhesion, extrusion coating adhesion, printing or sealing. PET film has particularly useful characteristics for the packaging market: it can be easily worked on a machine; it is very strong; it is resistant to both high and low temperatures; and it has a crystal clarity and printability.

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#### POLYVINYL CHLORIDE

PVC is used for both rigid and flexible packaging applications and has had to contend with concerns about its use from the environmental lobby. It is still used, however, in the manufacture of films for butter, meat, fish, poultry and fresh produce. It is also used to make bags for blood and intravenous solutions, and in the manufacture of blister packs for medical devices, pharmaceutical products, hardware and toys. PVC flexible film is widely used for packaging, making bags and stationery, such as book covers. PVC rigid film is used for forming, packaging, making cards, and stationery.

#### POLYVINYLIDENE CHLORIDE

Polyvinylidene Chloride ("PVdC") was developed in the 1950s and, therefore, has a long history of use as a high-barrier material. In the early 1990s, it remained one of four options for manufacturers wishing to provide barrier properties with their packaging, together with nylon, EVOH and metallised films. Nowadays, PVdC is commonly used in multiple-layer constructions with other materials for enhanced barrier properties.

#### ETHYLENE VINYL ALCOHOL COPOLYMERS

Ethylene Vinyl Alcohol Copolymers ("EVOH") is used in multi-layered flexible packaging to provide an oxygen barrier. EVAL is the brand name of the EVOH resin product, manufactured in Belgium and North America by Kuraray, a Japanese company. EVAL is used in the food packaging industry and acts as a barrier layer and oxygen scavenger used to produce multi-layer PET.



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# PART 2 MARKET SIZE

# 2.1 TOTAL MARKET SIZE OF PLASTIC PACKAGING BSF IN MALAYSIA

The Tables below detail the market size and growth indicators of the Malaysian BSF packaging industry between 2001 and 2003.

# Market Size Indicators of Plastic BSF Packaging Products, 2001-2003

Year	Import [a] RM-million	Production [b] RM million	Supply [a + b] RM million	Export [c] RM million	Total Domestic Market Size [a + b - c] RM million
2001	65.59	1,100.40	1,165.99	861.48	304.51
2002	93.40	1,200.00	1,293.40	835.18	458.22
2003	95.82	1,258.40	1,354.22	890.41	463.81

Note: Imports and Exports are based on latest statistics on HS Codes 392321000 and 392329000 Production based on estimated by Malaysian Plastics Manufacturers Association ("MPMA")

Source: Department of Statistics

# Market Size Growth Indicators of BSF Packaging Products, 2001-2003

Year 2001	Import Growth %	Pr G	oducti rowth 19%	611 %	Supply Growth %	Export Growth:%	Total Domestic Market Growth % 19%
 2002	 42%	····	9%		11%	11%	50%
 2003	 3%		5%		5%	5%	1%

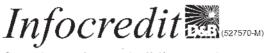
Note: Imports and Exports are based on latest statistics on HS Codes 392321000 and 392329000

Production based on estimated by MPMA

Source: Department of Statistics

## KEY NOTES TO MARKET SIZE

- Total domestic market size of the plastic packaging BSF sector in Malaysia was worth an
  estimated RM463.8 million, registering an average growth of 23% on a yearly basis
  between 2000 and 2003.
- The export of plastic packaging BSF registered a value of RM890.4 million in 2003, which contributed to a substantial portion of the total export of plastic packaging products.
- Exports of plastic packaging BSF products are expected to increase due to strong international demand coupled with Malaysia's ability to produce quality products at competitive prices.
- Local demand for industrial packaging would continue to be strong in view of the rapid industrialisation of the Malaysian economy.



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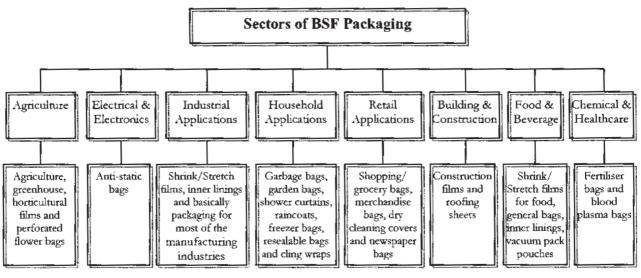
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The typical sales by sectors of the BSF packaging industry is diagrammatically illustrated as follows:

# Typical Sales by Sectors of BSF Packaging



Sources: MPMA and Infocredit D&B



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# 2.2 TOTAL MARKET SIZE BY MARKET SECTORS

The market share of the BPP Holding Group is illustrated as follows:

#### MARKET SHARE BASED ON PRODUCTION

# Production Market Share of BPP Holding Group

A North Control of the Control of th	BSF Production Malaysia RM million	BPP Holding Group Revenue RM million	BPP Holding Group - Market Share %
2002	1,200.00	47.7	4.0%
2003	1,258.40	64.9	5.2%

Sources: Department of Statistics, Infocredit D&B

 Based on the audited results of BPP Holding Group for the years ended 31 December 2002 and 2003, the Group recorded revenue of RM47.7 million and RM64.9 million respectively. Based on the total BSF production value of Malaysia, the Group's market share is estimated at 4.0% and 5.2% in 2002 and 2003 respectively.

# MARKET SHARE BASED ON EXPORT

#### Export Market Share of BPP Holding Group

A Verr	BSF Export Malaysia RM million	BPP Holding Group - Byport Revenue RM million	BPP Holding Group - Export Market Share
2002	835.18	25.58	3.1%
2003	890.41	36.72	4.1%

Sources: Department of Statistics, Infocredit D&B

• In terms of exports, the Group registered RM25.58 million and RM36.72 million for 2002 and 2003 respectively. Based on the total BSF export value of Malaysia, the Group's export market share is estimated at 3.1% and 4.1% for 2002 and 2003 respectively.



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# PART 3 INDUSTRY BACKGROUND

## 3.1 BACKGROUND OF PLASTIC PACKAGING

New plastic packaging products and new applications are constantly being introduced to the market. While most plastic packaging materials are produced from commodity polymers, an increasing number are now being made with sophisticated multiple-layer structures and combinations of substrates. In line with policies to promote the use of biodegradable materials and to enhance the use of agriculture waste, product development is geared towards higher value-added biodegradable disposable packaging household ware from pulp and palm fibre.

The versatility of plastic packaging materials means the range of technology and ongoing technical and commercial developments in plastic packaging is growing at the expense of a number of other packaging materials especially paper. The qualities of plastic packaging materials allow converters/manufacturers to satisfy the requirements of flexible and rigid packaging users. Plastic continues to be an attractive packaging option for a wide range of applications and enduses because of its superior formability and versatility, i.e. its ability to be produced in a number of intricate shapes and colours. It is also light in weight, durable and recyclable.

Specifically the BSF packaging industry consist of products such as pre-formed, supermarket, and garbage bags, shrink film, stretch film, and snack food packaging. Generally, these products are manufactured from PE and PP plastics. The raw materials used in production are mainly resins and additives, which are further discussed in the later sections of this report.

The consumption of locally produced raw materials has increased tremendously over the years and this ratio is expected to continue its upward trend. One of the main reasons is that more local petrochemical projects are now on-stream and have the capacity to increase local production of plastic raw materials supplying to both the local and export markets. A large proportion of this increase has resulted from the establishment of projects and companies such as Idemitsu Group, Titan Group, Polyethylene (Malaysia) Sdn Bhd and Polypropylene (Malaysia) Sdn Bhd. The establishment of this local petrochemical industry will help spur the growth of the plastic packaging industry, as Malaysia is already a producer of all the major resins such as PE, PP, Polystyrene ("PS"), Polyvinyl Chloride ("PVC").

#### 3.2 BARRIERS TO ENTRY / EXIT

Entry into the advanced level of the BSF packaging market in Malaysia is difficult due to the high capital investment costs, experience in terms of formulations and technology, and well developed distribution networks. Newcomers to the market are also experiencing problems due to the saturation of the new players market and 'price-squeezes'.

The advanced level of operators are focused on customisation and creation of unique designs, characteristics and properties of shrink and stretch bags, and often with fully automated machines. In some specific industries such as food & beverages, electronics and medical/healthcare – it is a requirement for these packaging converters to invest in R&D to improve on the required properties and characteristics of specified packaging products. This level of investments is usually beyond the reach of smaller backyard packaging players.



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## 3.3 EASE OF OPERATIONS

The industrial policy of Malaysia is open and free of red tape and all competitors in the plastics packaging and plastic products industry report no government barriers to growth and development. The Malaysian government has not applied any regulations and legislation concerning the production of plastic and plastic packaging. Companies who produce under a certain volume are not required to register with the government, nor obtain manufacturing licences. Companies intending to move into the export sector are often required to obtain product approval from international agencies, especially in Japan and Europe. Usually, this applies greatly to larger and more advanced operations.

#### 3.4 MARKET STABILITY AND SEASONALITY

Due to the consumption of plastic packaging products by households, the commercial sector and a broad range of industries, demand for these products is stable and not affected by any seasonal conditions. Even during the festive periods in Malaysia, especially the Hari Raya and Chinese New Year festivals, consumption by industries may decrease slightly due to lower production as most factories close during this period. However, consumption by households tends to increase. As such, these two factors counteract each other.

## 3.5 CAPITAL AND LABOUR INTENSIVENESS

Labour shortages and environmental concerns are the major problems facing manufacturers in the Malaysian plastic packaging industry. Different sectors of the plastics packaging industry are capital intensive, while others are labour intensive, depending on the type of packaging process. However, as a whole the industry avoids being in competition with most manufacturing industries in the low-skilled market. Yet, problems occur over the availability of skilled and semi-skilled personnel required for quality control and machinery maintenance.

As such, the plastic packaging industry is gearing towards a capital intensive environment and industry leaders invest in high-end operations and large production facilities. For example BP Plastics acquired a 5-layer cast pallet stretch film machine in 2000 and an additional 4 meter 7-layer cast pallet stretch film in 2003, all of which are state-of-the-art equipment with specifications such as fully computerised Acurablend Gravimetric Feeding & Blending System, beta source scanning and automatic thickness profile die control. The 7-layer cast pallet stretch film machine has 4 meter net width and is believed to be the widest (based on net width) in Malaysia and Asia which is capable of an annual production capacity of 14,000 tonnes.

To produce better quality products, especially superior products components and to meet stringent customers' requirements, these companies invest in advanced machineries that are usually imported from the US, Germany, Taiwan or Japan. Some of these companies also have the capability to invest in R&D to reduce lead-time and to save cost, hence having greater production efficiency. Specialised equipment used in higher end or more advanced operations of plastic packaging production processes require large capital investments.

<sup>1</sup> Source: Battenfeld Gloucester Letter dated April 3, 2004

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## 3.6 DEPENDENCY ON IMPORTS AND VULNERABILITY

In 2002, Malaysia imported an estimated value of RM5.1 billion plastic resins. Some of the most important resins imported are polystyrene & co-polymers, polyethylene, polyesters that include PET and epoxies. The imported resins mainly consist of the more complex polymers and co-polymers.

On 27 July 2004, Malaysian Plastics Manufacturers Association ("MPMA") announced that the prices of major types of plastic resins, both local and imported, have registered substantial increases of up to 65% over the past year. The sharp increase in prices was mainly attributed to a worldwide shortage of feedstock, which are the building blocks of plastic resins. Major types of feedstock have recorded price increases up to 120% over the last 12 months. Feedstock plants are currently operating at full effective capacity and yet are unable to meet demand. The current high price of crude oil has further exacerbated the pressure on prices of resins.

Given the long lead-time for new feedstock plants to come onstream, the existing shortage is expected to be compounded by an increase in worldwide demand, particularly from China. In this regard, it is envisaged that prevailing price trends of plastic resins are expected to continue into 2005. The unabated increase in the prices of resins, particularly during the last six months, has resulted in manufacturers of plastic products experiencing a substantial increase in the cost of production.

Under these circumstances, MPMA has sought the understanding of the intermediate users and retailers of plastic finished products to help bear part of the substantial increase in cost, which is currently mainly borne by manufacturers of plastic products. MPMA has also appealed to all parties involved to exercise mutual understanding in such negotiations to minimise the impact of any potential price adjustments on consumets.

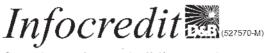
#### 3.7 DEMAND OF PLASTIC RESINS IN THE WORLD

The prices of plastic resins have increased significantly since 2001 and this has translated into higher prices of plastic products. According to MPMA, the rise of plastic resin costs and crude oil costs have resultant in an average increase of 30% for plastic products in 2002. The world demand for plastic resins grew at an average rate of 5% per annum. As a comparison, its growth rate is approximately 3 times the rate of GDP in most developing countries.

However, with the implementation of AFTA, the reduction of import duties would encourage local resin producers to be more price competitive and this in turn would benefit the plastic packaging manufacturers. Local prices of plastic resins are expected to be close to the international free market level as import duties are low at 5% or free for resins imported from ASEAN countries. Plastic resins are likely to be competitively priced due to stiff competition from existing and newly constructed plants in the region.

## 3.8 DEPENDENCY ON OTHER INDUSTRIES

The nature of the plastic packaging industry is such that it intertwined with most, if not all industries. The growth of the plastic packaging sector is dependent on the well beings of food and beverage, textiles and apparels, electrical and electronics, industrial and chemical, cosmetic and toiletries, agriculture and plantation, construction, transportation, and other manufacturers.



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Similar to other plastic product producers, stretch and shrink packaging players are dependent on the plastic resins producing industry. Historically, industry players have suffered from both uncertain prices and uncertain supplies for imported plastic resins. The risk is fortunately minimised now, since local productions are also supplying a large portion of the resins demand. However, it must be noted that the pricing of plastic resins is linked to the international market and is denominated in USD. With the large import of resins totalling RM5.1 billion, there is risk exposure to foreign exchange currency and supplies.

# 3.9 SUBSTITUTE PRODUCTS/SERVICES

Plastics have increasingly replaced traditional materials in the packaging sector because of its light weight and superior functionality. In rigid packaging PET has replaced glass in bottles for carbonated drinks, which has moved this resin from a speciality to a commodity plastic. New developments in materials include heat resistant and high barrier plastics which can replace metals and glass in other packaging applications. Polyester-film-based flexible packaging is replacing other packaging formats and materials, including rigid packaging. Aluminium foil is replacing metallised polyester film in laminate applications.

However, in the ubiquitous technology world, new materials are introduced for commercialisation frequently. Traditionally, paper used to be the substitute for plastic packaging products. Today, plastic is fast replacing paper as the packaging choice due to its advantages such as flexibility, strength, lightness, durability and cost competitiveness. The probability of other materials posing as a threat to plastic is also minimal, as these competing products would need to have all the attributes mentioned above. Furthermore, it must be cheaper for current end-users to switch.

#### 3.10 ENVIRONMENTAL ISSUES

Environmental concerns regarding the production and consumption of plastic packaging is global. In Malaysia, however, this seems to be a non-issue at present as consumers are displaying little interest in decreasing their present level of consumption. With regard to environmental problems, recycling of plastics and the use of post-consumer recycled plastics in Malaysia is still low despite the rapid growth of the plastics industry. According to some specialists, the reasons given for the untapped recycled plastics market in the country are:

- · Lack of economic incentives for companies to enter the recycled products market;
- Insignificant domestic demand to fuel industrial growth; and
- Limited domestic supply of post consumer plastics

#### 3.11 GOVERNMENT LEGISLATIONS, POLICIES AND INCENTIVES

The major incentives for manufacturers in Malaysia are tax incentives, both direct and indirect, provided under the Promotion of Investments Act 1986, Income Tax Act 1967, Customs Act 1967, Sales Tax Act 1972 and Excise Act 1976 and Free Zone Act 1990. These acts cover investments in the manufacturing, R&D, training and environmental protection activities.

The manufacture of plastic products including plastic packaging products is one of the activities in the list of promoted activities that is eligible for consideration of pioneer status and Investment Tax Allowance ("ITA"). Specifically, the list of activities is as follows:

Inflatable plastic products

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• Specialised plastic films/sheets

- Geosystems products (Cellular Confinement System and Porous Pavement System)
- · Plastic products for engineering use
- Precision engineering plastic products
- Expanded polystyrene foam

A company granted ITA gets partial or full allowance from its qualifying capital expenditure (such as factory, plant, machinery or other equipment used for the approved project) incurred within five years from the date on which the first qualifying capital expenditure is incurred. Companies can offset this allowance against 70% of their statutory income in the year of assessment. Any unutilised allowance can be carried forward to subsequent years. Companies located in East Malaysia, namely Sabah and Sarawak, as well as the East Coast of Peninsular Malaysia enjoy an allowance of 80% on the qualifying capital expenditure incurred. The allowance can be utilised to offset against 85% of statutory income for each year of assessment.

In addition, plastic products manufacturers involved in the above-mentioned promoted products can also participate in the Industrial Linkages Programme, whereby expenditure incurred in the training of employees, product development and testing and factory auditing to ensure the quality of vendors' products can be eligible for the following incentives:

- Pioneer Status with tax exemption of 100% of its statutory income for a period of five years; or
- Investment Tax Allowance of 100% on qualifying capital expenditure incurred within
  five years from the date on which the first qualifying capital expenditure is incurred. This
  allowance can be offset against 100% of statutory income for each year of assessment.

An important macro development is the tariff deregulation under the Common Effective Preference Tariff ("CEPT") within AFTA. Tariffs for products from within Asean member countries are capped between 0% and 5% under CEPT. Products will deemed to be from Asean member countries if 40% or more of its content originates from any member country. The tariff reduction has come into effect from January 2003 for all products produced and sold within Asean with the exception of Malaysia's automotive industry. Malaysia has asked for and received permission to delay the implementation of CEPT for the local automotive industry until 2005. The six original members, namely Malaysia, Singapore, Thailand, Indonesia, Brunei and the Philippines, have fully implemented CEPT. The other member countries, namely Vietnam, Laos, Myanmar and Cambodia, will be fully implementing CEPT in 2008.



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# PART 4 COMPETITOR ANALYSIS

#### 4.1 COMPETITOR ANALYSIS

Players in the BSF packaging industry are fragmented with each player servicing different endusers, which include industries such as food and beverage, textiles and apparels, electrical and electronics, industrial and chemical, cosmetic and toiletries, agriculture and plantation, construction (e.g. bricks and tiles), transportation, wires and cables and to other manufacturing industries in general. Another new and growing niche market is the packaging of pharmaceutical and medical products. There is strong and increasing demand for these products in industrialised countries, where considerable consumer expenditure is available for healthcare.

Most of the BSF packaging players, especially smaller backyard players, are focused on producing normal low-quality plastic packaging products. However, some of these backyard players were also found to be exporting to a limited number of countries. The larger players are involved in a diverse range of plastic packaging products which are usually customised to customers' requirements. Over the years, the demand for plastic packaging products has been on a rising trend and standards required by customers have also been increasingly more stringent.

Some players have moved up the value-chain towards higher-end plastic packaging services in terms of materials used and processes which are commonly integrated with complementing services such as logistics and other form of value-added services. Companies such as BP Plastics, Thong Guan Industries Bhd, Great Wall Plastics Industries Sdn Bhd, Klang Hock Plastics Industries Sdn Bhd are some of the major players that provide such services with their existing technical know-how, industry knowledge and existing resources. These larger players have already garnered a strong foothold in their respective niche market and as such, make it difficult for new entrants to penetrate.

Based on the latest financial results available from ROC, the 28 selected BSF companies (including BPP Holding) recorded an estimated revenue of RM1.2 billion in 2002, which is also within the range of production figures obtained from Department of Statistics, which similarly registered a sales value of RM1.2 billion in 2002. Based on the research compiled by Infocredit D&B, BP Plastics is ranked tenth (10) in terms of market share (by revenue of all key players) with an estimated 4.0% of the entire domestic market size of the BSF industry.

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# PART 5 INDUSTRY OUTLOOK

## 5.1 INDUSTRY CHALLENGES

#### TECHNOLOGY UPGRADING

Driven by rapid technological changes, there is a growing need to modify additives and upgrading commodity plastic resins to be used in areas requiring specific performance criteria. There is also a trend of the proliferation of poly-blends and composites. The dominant trend in the plastic packaging industry on a global scale is diversification in which plastics are increasingly designed and developed with specific properties and characteristic for specific applications. If a company is unable to response to customers' requirements in time, it may face the risk of losing the accounts. The capability to cope with rapid changes in the manufacturing technology is also an important success factor in maintaining customers and securing new contracts.

#### COMPETITION

As the industry becomes more fragmented due to historically low barrier of entries, competition increases and top plastic manufacturers sought acquisition to look for synergies, improve production efficiency and invest in technology upgrading. The plastic packaging industry is highly competitive and includes an estimated 35% or 455 manufacturers/converters of plastic BSF. The high level of competition also results in the existence of 'price-squeezes' among players, whereby prices lack the flexibility to increase easily.

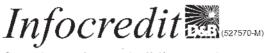
However, at the higher end of the market, competition is less intense. Companies that have been able to capture a significant share of the market are those that have invested in high technology production equipment producing quality products that comply with international standards, concentrate on local distribution within region centres and developed an export market for their own products.

From the view of newcomers, the market can be characterised as saturated. New players are bound to face strategic problems especially in relation to experience, distribution and customer and supplier networks. Based on the research from Infocredit D&B, it was observed that larger and more established players tend to have 'carved out a niche' market and face little competition from the saturated newcomers' market.

Based on the above factors it is possible to estimate that there are approximately 50 (5% of competitors) key players only in the plastic bag market located throughout Malaysia. Similarly, to plastic bags - the stretch film market can be characterised as highly competitive and the position of key players is highly dependent on the level of technology, especially in relation to machinery utilised.

#### ENVIRONMENTAL CONCERNS AND PRESSURE GROUPS

There are pressure groups such as environmental activists and health-care providers that call for plastic materials recycling and reduce toxic emissions of production process. Globally, new environmental regulations, societal concerns and a growing environmental awareness throughout the world has triggered a paradigm shift for manufacturers to develop products and processes that help preserve world resources and environmental friendly. The Group's products are known to be environmentally friendly. Raw materials used are mostly recyclable. Clear scraps from production are reused in the production of plastic packaging products. Colour scraps are made into builder films, which are widely used in the construction industry.



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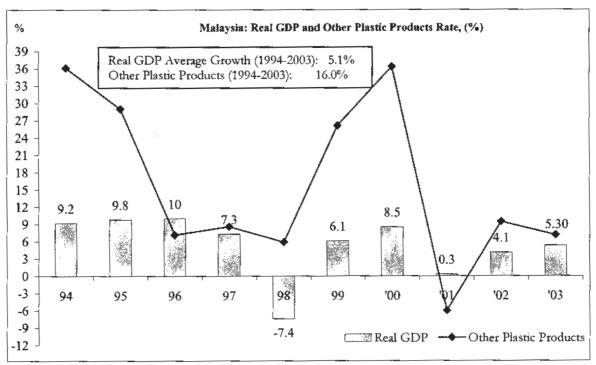
## 5.2 INDUSTRY GROWTH FACTORS

Opportunities for growth do exist for the Malaysian plastic packaging industry. Plastic packaging converters who are successful in developing their share of the market will be those that invest in high technology machinery, supply a wide range of products covering a variety of industries, achieved international standards in terms of quality, and develop an export market. The following factors will contribute to the future growth of the industry:

#### GROWING GDP AND MANUFACTURING SECTOR

Following two consecutive quarters of strong growth averaging 8%, real GDP growth for Malaysia continued to remain favourable at 6.8% in the third quarter of 2004. The resilient GDP Growth, which recorded an annual average growth of 5.1% coupled with the strong growth of the manufacturing sector created a large base of demand for plastic packaging products – which is a supporting industry for manufacturers especially the other plastic products sector (comprising a large proportion of plastic packaging products) has contributed greatly to the plastic packaging industry, as illustrated below.

# Real GDP and Growth in Other Plastic Products (%), Malaysia



Based on Production Statistics of Manufacturing of Other Plastic Products, Not Elsewhere Classified Sources: Bank Negara Report dated 26 March 2004 and Department of Statistics

<sup>1</sup> Source: Economic and Financial Developments in the Malaysian Economy in the Third Quarter of 2004



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## GROWING APPLICATION MARKETS

In the food sector, flexible plastic packaging is showing a sharp increase in demand as the move towards convenience foods in Malaysia continues apace. A new range of plastic films is being developed that helps to encourage the growth of the flexible plastic packaging market in the food sector.

Polyester-film-based flexible packaging is replacing other packaging formats and materials, including rigid packaging. Aluminium foil is replacing metallised polyester film in laminate applications.

The continuing globalisation and modernisation of economies is increasing the dependency on the usage of packaging products. The development of the end-user industries is expected to sustain healthy growth rates for the plastic packaging products.

#### SUPPLY OF LOW COST RAW MATERIALS FROM MALAYSIA

The producers of PP, PE, PS, Acrylonitrile-Butadiene-Styrene ("ABS"), PVC, and other relevant raw materials for the packaging industry are abundant in Malaysia. Between 1998 and 2002, the sales value recorded for PP, HDPE, LDPE and PVC bags reached RM1.2 billion in 2002.

#### RAPID INDUSTRIALISATION IN MALAYSIA

The rapid industrialisation in Malaysia, in line with Government specified directions, necessarily translates to an increase in demand for plastic packaging products. Today's plastics packaging is up to 80% lighter than it was 20 years ago. Advances in materials and processing technology have seen the weight of items decrease substantially over the years. Minimisation brings added advantages, such as reduced fuel consumption and associated airborne emissions during the distribution of packed products. Plastics allow packaging producers, packaging specifiers and packaging users to optimise their resources by cost-efficiently delivering products to consumers with minimal wastage.

#### INCREASED ACCESS TO THE ASEAN MARKET

Increased access to the ASEAN market due to the CEPT and achievement of the AFTA by 2003. The reduction of import duties from a range of between 0% and 5% with the advent of AFTA would make imports competitive against local manufactured products. On the other hand, it also serves as a good platform for export-oriented plastic packaging converters to penetrate into other potential countries.

# PRESENT LOW CONSUMPTION OF PLASTIC RESINS PRESENTS OPPORTUNITY FOR EXPANSION

Malaysians per capita consume only 20 kilograms annually of plastic resins. This figure is low when compared to developed nations where per capita consumption is between 80 and 120 kilograms annually.

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## 5.3 CONCLUSION

Plastic packaging continues to be the fastest-growing sector of the Malaysian packaging industry and is gaining market share from rival materials, such as paper, glass, metals and wood, in a number of older applications. Plastic packaging materials manufacturers are also making considerable efforts in the environmental arena to counter the negative image of plastics, with recycling being encouraged.

Asia presents a vast marketplace for plastic packaging players. With increasing competition and regionalisation, local players need to become more technology-driven in order to stay competitive. The introduction of AFTA and withdrawal of ASEAN tariff barriers will likely bring stiffer competition from neighbouring countries such as Thailand, which has a very strong consumer plastic products manufacturing base. On the other hand, the ASEAN market has a population of more than 500 million. Malaysian based BSF converters are well positioned to capitalise on, and take advantage of this opportunity, as Malaysia is already a proven export-based packaging industry.

In the long term, the sustainability and viability of the local plastic packaging industry will depend much on the ability of the industry players to constantly keep abreast with the various technological developments and innovations. Local players must gear towards higher productive processes and skills to meet the challenges arising from global trade liberalisation. It is critical for local players to enhance their technological capability, skills and undertake vigorous R&D activities.

Players that constantly improve themselves in terms of innovations, sophistication, constant reinvention and redefining of designs will likely stay ahead of competitions and contribute to making the local plastic packaging industry more dynamic and visionary. These players stand better chance in securing contracts and benefit from the increasing outsourcing trend. Besides, players should actively look for growth opportunities in offshore market development to take advantage of fast growing developing markets such as China and Vietnam, and to reduce their dependence on economic cycles of the major application sectors within the local market.

However, as with the current export markets of Japan, Europe and Australia, Malaysian plastic packaging manufacturers will need to continue to develop their products to be in line with advances in technology and industrial standards to remain at the forefront of the market.

#### 14. DIRECTORS' REPORT

(Prepared for inclusion in this Prospectus)



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17 January 2005

The Shareholders of BP Plastics Holding Bhd

Dear Sir/Madam.

On behalf of the Board of Directors of BP Plastics Holding Bhd ("BPP Holding"), I wish to report that after due enquiry, that between the period from 31 December 2004 (being the date to which the last audited accounts for BPP Holding Group has been made) to the date hereof (being a date not earlier than 14 days before the issuance of this Prospectus), that:-

- the business of BPP Holding Group has, in the opinion of the Directors, been satisfactorily maintained;
- in the opinion of the Directors, no circumstances have arisen subsequent to the last audited accounts of BPP Holding Group which have materially and adversely affected the business, operations or the value of assets of the Group;
- the current assets of BPP Holding Group appear in the books at values which are believed to be realisable in the ordinary course of business;
- no contingent liabilities have arisen by reason of any guarantees or indemnities given by BPP Holding Group;
- e) since the last audited accounts of BPP Holding Group, there has been no default or any known event that could give rise to a default situation, in respect of payments of either interest and/or principal sums in relation to any borrowings in which the Directors are aware of; and
- f) save as disclosed in the Accountants' Report and Proforma Balance Sheet, there have been no material changes in the published reserves or any unusual factors affecting materially the profits of BPP Holding Group since the last audited accounts of the Group.

Yours faithfully,

For and on behalf of the Board of Directors

BP PLASTICS HOLDING BHD

Lim Chun Yow Managing Director