



R&I Rating Approach by Sectors: Synthetic Fiber

(This report is an English translation of the original report in Japanese.)

General View

In addition to the textiles business, synthetic fiber companies have developed extensive operations that include chemicals, and the pharmaceuticals and medical treatment sectors as well as plant-related businesses such as water processing and materials for aircraft and automobiles. Synthetic fibers are textiles that have been chemically synthesized from petroleum, and production processes are no different from those of chemical manufacturers. However, Japanese synthetic fiber manufacturers did not only sell thread, but also held the initiative in product processing, being deeply involved in the textile industry from weaving and dying through to the product. Nevertheless, since the 1990s, domestic demand for textiles has contracted sharply, forcing changes to a business model that was centered on apparel and textiles. The synthetic fiber industry had made efforts early on to diversify its operations, and gradually promoted strategies to expand the business base drawing on the spinning and high polymer processing technologies that had been cultivated in textiles. Today, products such as chemicals that include packaging and industrial film as well as high function fibers that include carbon fibers form the pillar of earnings at each of the companies. While quite a lot of products and businesses are in competition with chemical manufacturers, there are also many products, such as high function fibers, that draw on strengths that are unique to synthetic fiber manufacturers.

The customer base has expanded from durable consumer goods to producer goods and consumer goods through the progress in the shift to non-textile businesses, and this is also effective for business risk diversification. Nevertheless, with the maturing of the economy and the advance of greater sophistication in the industrial structure, companies have shifted the allocation of management resources away from the commodities sector into the high function sector that includes high function fibers and high function chemicals, increasing the proportion accounted for by such sectors as information and electronics, which includes liquid crystal and semiconductor-related components for which there is high demand, and automobile goods. As a result of this, it is important to be aware that business risks have also changed to include a greater degree of fluctuation in earnings depending on the crystal cycle and automobile production trends.

The general-purpose textile business, such as for apparel, turned into an industry that is structurally in the red from the 1990s due to the slump in domestic demand and catch up by neighboring nations in Asia. Subsequently, although profitability has not been that high as a result of the contraction in business and the promotion of restructuring, synthetic fiber companies have managed to secure stable earnings. Despite this, the business environment remains tough, with the proportion of

Main Indicators

- Return on assets (ROA), return on sales (ROS)
- Operating cash flow, free cash flow
- debt: cash flow multiple
- Equity ratio
- Debt-equity ratio
- EBITDA
- R&D expenses
- Proportion of high function products, general-purpose products, etc.

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domestic apparel consumption accounted for by imports increasing at a high level.

Rating Points for the Synthetic Fiber Industry

Evaluation of High Function Products

The business territory of synthetic fiber manufacturers is diverse. Because the structure of income and expenditure and business risks vary in each of the businesses in which they are involved such as textiles, chemicals, and pharmaceuticals and medical treatment, it is essential to evaluate each individual business. Overall, all the companies have pushed forward in the product shift from the general-purpose sector to the high function sector. Examples of high function sector products include the information and electronics sector, such as LCD panels, and energy-related materials in the field of chemicals, and carbon fibers, which have received attention as a structural material for aircraft, and super fibers with features such as heat and fire resistance and high strength, where demand for engineering and industrial applications is expanding, in the textiles field. There has also been an expansion in the sectors using these products, which were limited by factors such as high costs in the past, but in which price reductions due to mass production and technological improvements such as workability have made progress. With high growth potential and profitability due to relatively favorably competitive conditions, these products are now driving earnings growth at synthetic fiber manufacturers. The merits and demerits of products in the high function sector exert a major impact on a company's earnings. Thus, such factors as the scale and profitability of high function products, the height of entry barriers, and competitive strength are important perspectives in a qualitative evaluation.

With the progress in the shift to the high function sector, the risk of obsolescence due to technical innovation and the risk of price falls have also risen, so a check on whether a company has the capacity to accommodate these risks is also an important rating point. For example, it is necessary to examine as far as possible whether a company is able to secure a certain market position through alternative or successor products when the risk of product replacement becomes apparent based on such factors as the basic research and development capabilities of the relevant company.

Evaluation of General-purpose Products

With stiff competition, earnings for chemicals that have already become commodities and general-purpose fibers for apparel are subject to fluctuation due to volatility in market conditions, and profitability is also generally low. The impact of the strengths and weaknesses in the earnings base of these general-purpose products on overall earnings is not small. The viewpoints in an evaluation include such factors as the scale and competitiveness of general-purpose products as well as the impact on overall income and expenditure and finances in the event of a withdrawal.

Profits are difficult to achieve in general-purpose fibers, typified by polyester, because the final product is primarily apparel, and it is hard to raise prices because of stiff competition at the retail level. Companies have increased the proportion of differentiated fibers with higher functions, but major profit improvement is difficult. Business scale has contracted compared to the past as a result of restructuring, reducing the degree of earnings fluctuation, but the scale of personnel and assets is not small by comparison with the amount of earnings. R&I confirms whether a company's overall resilience matches the risk involved in general-purpose fibers although this does also depend on the scale of the business as a proportion overall and its competitiveness.

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Diversification of Revenue Sources and Stability of Earnings

Depending on the mix of businesses or competitive strength, some companies have quite high earnings volatility despite developing a variety of businesses and diversifying risk. From the perspective of earnings stability, it is desirable to construct a balanced earnings base that includes such features as diversification in the customer base according to business and well-balanced revenue sources. Nevertheless, even with a bias in revenue source, R&I makes a corresponding evaluation if the business is extremely strong.

Financial Resilience Corresponding to Level of Earning Potential and Risk

There is generally high volatility in demand volume and product prices for material products and it is difficult to argue that profitability is stable. Moreover, high value added applications, such as electronic materials, tend to be exposed to the risks of material replacement and price falls due to the advance of technical innovation. Volatility in market conditions themselves cannot be reduced. However, whether a company has high earning potential sufficient to absorb earnings fluctuations is an important point in terms of profit and cash flow stability.

High function products with growth potential generally involve the risks of technical innovation and price falls, and it is necessary to continue relatively high level of investment in order to maintain and boost competitiveness. A company therefore is required to secure the entire cash flow at over a certain level and build a robust financial base.

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