Economist Intelligence Unit

The Economist

Keeping competitive in commodity plastics

Strategies for survival in Europe

A report from the Economist Intelligence Unit

Sponsored by Alastian

Preface

Keeping Competitive in Commodity Plastics is an Economist Intelligence Unit briefing paper, sponsored by Alastian.

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The report's author was Eric Johnson and the editor was James Watson. Mike Kenny was responsible for design and layout.

Our sincere thanks go to the interviewees for sharing their insights with us.

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Executive summary

Just as its products are moulded into different forms, today's European plastics industry is itself being reshaped. A mature industry with thousands of companies that have overcome numerous challenges, it is nonetheless in a period of uncertainty, with fears of increasingly powerful competitors in the Middle East and East Asia and significant oil price instability.

What can companies do in response to these challenges and how are their businesses changing? This briefing paper, based on interviews with executives from 20 plastics producers, converters and industry analysts, provides an overview of both the pressures that European firms face and the strategies they are adopting to cope with these pressures.

The main conclusions of this report include the following:

- **The Middle and Far East are becoming increasingly tough rivals**. The European plastics industry must deal with two growing competitors: low-cost converters in East Asia, and Middle East producers with massive natural advantages in raw materials. Previously content to focus more on oil extraction and exporting, firms from oil- and gas-rich countries are steadily moving up the value chain to compete against established producers directly.

- **Oil price instability is buffeting the plastics business.** Turbulence in oil prices is not a new threat, but it's one that both rising demand in China and uncertainty in the Middle East are exacerbating. The enormous volatility and uncertainty surrounding crude oil prices is forcing firms to adopt new, as yet unproven strategies, such as price hedging on commodity exchanges.

- **Efficiencies are being driven in the front office, not just on the production line**. Cost cutting and process innovation are no longer solely for production and conversion plants, but are now being applied to a range of commercial activities. For instance, after a slow start, a growing number of firms are now going online to streamline the way they buy and sell both raw materials and finished products.

- **Much scope for further consolidation exists**. The crowded European plastics market offers plenty of room for consolidation, both for converters and producers. Firms will merge with and acquire each other to create greater economies of scale and to gain pricing power. The ongoing rise of private equity will also continue to change the way many companies operate, partly by facilitating a longer-term outlook.

All of these factors are transforming the makeup of the European plastics industry. Although demand is still climbing, growth rates are falling in a number of plastics markets, forcing companies to respond. The majority are adopting a mix of basic strategies in response to the threats faced: driving greater efficiency; improving technical innovation and product branding; adopting new price-management techniques; and increasing integration across their supply chains. Others are testing as yet unproven strategies, such as no-frills distribution. However, it is far from clear right now which of these differing approaches will succeed in the long-run.

A plastic lifecycle: from oil and gas to phones and pipes

In the developed world, plastics are everywhere. Each of us already consumes more than 100 kg of it every year, with a steadily increasing trend. Bags, wrappers, cups, computers, telephones, automobiles, pipes, buildings; plastics can be found in almost every facet of life.

Most plastics are derived from oil or gas. Through a series of refining and chemical processes, these hydrocarbons are typically synthesised into long, molecular chains of carbon, which are then often studded only with hydrogen, but at other times also with nitrogen, chlorine, fluorine, oxygen or other atoms that confer strength, stretchiness, brittleness, toughness and many more properties. In chemical terms, they end up looking like an endlessly linked chain, hence the name polymers.

There is a reasonable consensus that four types of plastics—polyethylene, polypropylene, polyvinyl chloride and polystyrene—are commodity products, because of their ubiquity and relative standardisation.

Plastics producers are sometimes integrated all the way back to oil and gas wells, but a polymerisation plant (which, to a layperson, looks rather like a refinery) stands several steps removed. It sources monomers—the basic raw materials or feedstock used to produce plastics—from a refiner or a petrochemical operator. Producers then manufacture bulk loads of plastic, usually in the form of pellets, which range in size from that of a boiled sweet to a packet of bubble gum.

Pellets are purchased by converters who process them, using high-technology machinery along with additives, into end products. Often there are also secondary and tertiary converters who paint, print or assemble the outputs of primary converters.

Producers and converters, although symbiotic, are very different animals. The former are heavyweight, capital-intensive firms numbering in the dozens. The latter are mostly small to mid-sized firms, predominantly family-owned, lightly capitalised and numbering in the tens of thousands.

Introduction

Something must be done, but what?

There is a growing consensus across the European commodity plastics industry that several threats are challenging the status quo. A collapse, such as the one experienced by its commodity cousins, ammonia and methanol, does not seem to be on the cards, but the sector's future seems to involve both a relative, and perhaps even an absolute, decline. Producers and converters of polyethylene, polyvinyl chloride (PVC) and polystyrene are already experiencing nearly flat year-on-year growth. Even polypropylene, the major performer of the 1990s, has reverted to mundane growth rates of 3-4% per year.

None of the challenges that the industry faces today—volatile pricing, competition from firms in countries with access to cheap raw materials and the economic boom in Asia—are new. Rivals from countries endowed with excess supplies of oil and gas have been a concern since the oil price spikes of the 1970s, and pricing risk is a perennial issue. Even the boom in Asia has been underway for years, not months. The difference today lies in both the severity and permanence of these threats.

This dim outlook is sobering to an industry that, since its establishment, has nearly always expanded in turnover and volume. It will also have an effect on the way the sector conducts its business. "The industry has become used to steady growth, which can take the sting out of management mistakes," says John Nash, a senior consultant at industry specialist, AMI Consulting. "As volumes flatten, there will be less margin for error."

Even as they post good financial results for 2005, Europe's plastics makers are "already worried about masses of new capacity coming on-stream in the next two to three years," says Nigel Davis, veteran industry watcher and editor of industry newsletter, ICIS Insight. "They are happy to be making money now, but they're worried about who will be losing the least then."

This report reviews both the challenges faced by the industry and the strategies that firms are adopting in order to cope.

Challenges to Europe's commodity plastics players

Three primary challenges to Europe's commodity plastics sector are reiterated in discussions with industry experts: pricing risk; competition from exporters with significant advantages in raw materials; and the Asian boom.

None of these issues are new. Pricing risk and feedstock advantage have been concerns since the 1970s, although the oil bust of the 1990s mostly left them in the background. The resurgence of crude prices over the past few years has brought them back to the fore and, given the unpredictable nature of petro-politics, they seem unlikely to go away anytime soon. Asia's boom has taken slightly longer than was forecast in the early 1990s, but it is now a significant factor. In textiles, for example, a major market for plastics manufacturers, nearly half of the world's output is now "Made in China".

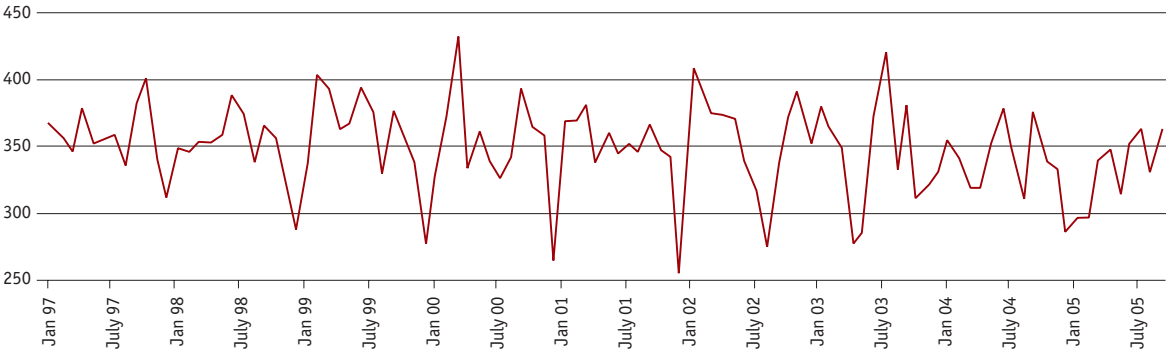
Pricing risk

"All of us [in the supply chain] would like pricing to be more stable," says Koos van Haasteren, the Netherlands-based managing director for polymers at Saudi-owned SABIC, "especially in segments where the customer's customer wants a longer-term price." Price swings have "become worse than ever," adds David Gurney, senior sales executive at US converter, Innovative Plastics. "And they cause more headaches than ever, too."

"Pricing risk is a huge concern for us," says a senior manager at a large European converter, who notes that prices rose 25-30% over the course of 2005. "With increases like that, it is difficult to pass them entirely on to our customers."

Of course, price volatility has been around for almost three decades. When oil prices rocketed in the late 1970s, the production economics of petrochemicals were turned on their head. Instead of fixed costs being dominant, the soaring costs of raw materials took the upper hand. Numerous studies from industry specialist, SRI Consulting, estimate that for commodity polymers such as polyethylene, polypropylene, PVC and polystyrene, raw materials

Figure 1
Market volatility in the demand for plastics
(Kton)



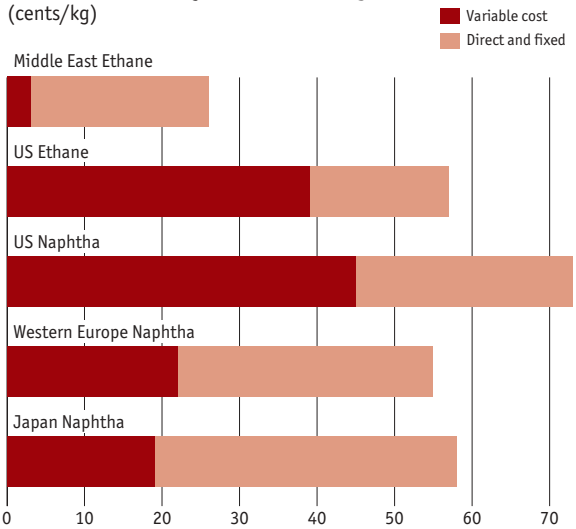
Source: SABIC

now account for the majority of either cash or full production costs. Consequently, the volatility of oil prices has a significant effect on the plastics industry.

Making matters worse is the classic supply cycle. Typically, new capacity floods the market, depressing prices and eventually prompting shutdowns. This is followed by a recovery that is capped by a brief period with operating rates in excess of 90% where prices soar. This in turn prompts a renewed flood of capacity.

Mr van Haasteren contends that another exacerbating factor has become relevant in recent years: extraordinary peaks and troughs in inventory holdings by converters. Data collected by SABIC for low-density polyethylene (see figure 1) show an astonishing fluctuation in monthly purchases—volumes in peak months are almost twice as high as in troughs.

Figure 2
The Middle East's ethylene cost advantage
(cents/kg)



Source: SRI Consulting

Competition from feedstock-advantaged exporters

Nothing demonstrates the power of cheap raw materials better than the methanol business. While producers in remote places such as Qatar or Chile process natural gas valued at around US$0.50-1 per million British thermal units (BTUs), their competitors in the traditional industrial centres of Europe, North America and Japan pay US$5-10 or even more. The effect of this on the industry has been stark: these developed regions, which once dominated world methanol production, have almost completely exited the industry over the past decade.

The threat to commodity plastics is not as extreme. Giordano Righini, head of plastic additives at Ciba Specialty Chemicals, says polymer markets are less commoditised than methanol markets. "There is still a significant role for sophisticated products delivered with high service by regional suppliers." David Rolph, vice-president of polyolefins at plastics producer, Borealis, points out that resins are not commoditised to the extent of, say, benzene, toluene or methanol. "In the world of macromolecules, rheology [of the same basic molecule] still can be very different from one company's product to the next."

Nonetheless, even Mr Rolph concedes the competitive power of cheap raw materials. Moreover, the advantage held by Middle East ethane-based ethylene manufacturers (see figure 2) will become more permanent in decades to come. Recent analyses from both the International Energy Agency and the US Energy Information Administration conclude that cheap oil has disappeared forever. Inflation-adjusted crude prices are forecast to dip into the mid-US$40 per barrel (bbl) range by 2010, but then to accelerate to around US$60 by 2030.

Therefore, the concern is less of a methanol-style collapse, but rather a steady shrinking of production. "North American and west European producers built huge amounts of capacity under the assumption that they had low-cost economies of scale, and therefore export markets," says Eddie Kennedy, director of e-business at Dow Chemical. "Somebody forgot that one day some of those export markets might go out and build their own plants."

The Asian boom

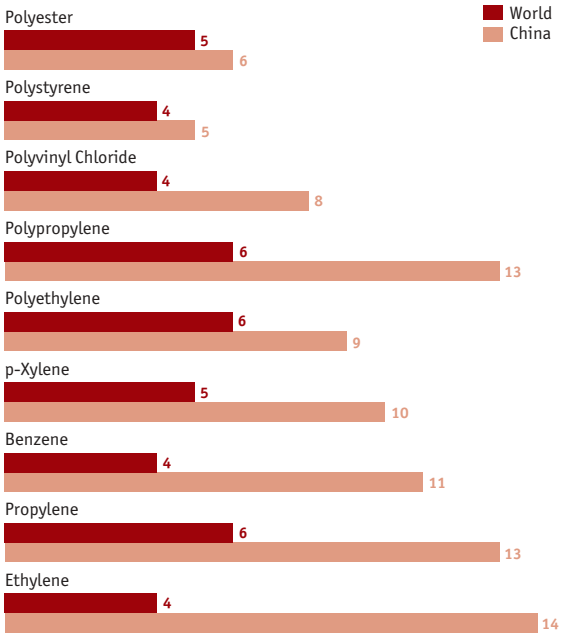
Nobody has missed the transformation of East Asia into the world's factory over the past decade. The region has become both the fastest growing and one of the largest consumers of basic chemicals, including commodity plastics (see figure 3). Indeed, for Western producers (more so for North Americans than Europeans), exporting to the region has been an important means of increasing sales.

However, this market is beginning to be divided up between the Middle East's feedstock-advantaged players and a rising breed of Asian producers. The latter group is surprisingly competitive in their domestic markets, according to SRI Consulting, because they offset their disadvantage in raw materials with obvious savings on freight and tariffs, in addition to lower capital charges. "Building a petrochemical plant in China can cost one-third less than building the same plant on the Texas or Louisiana coast," says SRI senior consultant Ken Zhang.

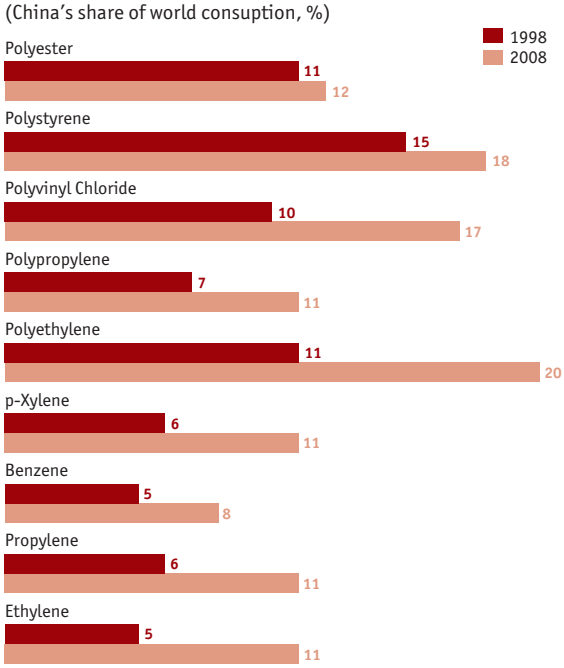
For converters, the challenge of Asia is starker. The assembly powerhouses building up in China, Korea, Taiwan and their neighbours will do an increasing amount of plastics fabrication by themselves. "For somebody assembling personal computers or other electronics," says Mr Davis, "it is hard to see that they will want to fabricate housings in Germany, ship them to China for assembly and then ship them back for sale in Germany. This converting naturally belongs in the Far East."

Converters themselves hold stark views about the threat. "There are many areas where European converters cannot compete with Asia," argues Alessandro Toso, a director at British converter ITS. "Their labour costs are much lower, and their work ethic is much higher."

Figure 3
China's rising demand for plastics
(Compound average annual growth 1998–2008, %)



(China's share of world consuption, %)



Source: SRI Consulting

A multiplicity of strategies and approaches

These current challenges faced by the industry are not only problematic, they bring opportunities as well, although not always in Europe. Producers and converters are adopting, or at least considering, a variety of strategies in response. The difficulty will lie in selecting the approach most appropriate for an individual business.

Driving efficiency

Make more out of less. This, the essence of efficiency, has been a watchword of the industry for decades, but in recent years its focus has shifted from the production plant to the front office.

Automation and online commerce

In the 1990s large investments were made in enterprise resource planning (ERP) systems that automated many aspects of the business. Today, the focus is on automating trading networks or supply chains and adopting e-commerce. Industry experts say increased automation can reduce error rates in conventional chemical transactions from 5-15% to just 1-2%.

Nonetheless, the bigger question being asked is when all of this will start delivering serious savings. Several producers quietly say that e-commerce in plastics and chemicals is about to turn the corner. It may not immediately generate serious profits, but e-commerce will break even within the next year or two, and then slowly start delivering increased returns. "Everybody still agrees that more computer usage will save money and raise profits," says Dow Chemical's Mr Kennedy. "There is less agreement on how long it will take us to get there."

However, progress is being made, with firms such as Alastian, part of major polyolefin materials developer and producer, Basell, and Elemica, a specialist online transaction network for the chemicals industry, providing online sales channels. Alastian hopes eventually to account for between 20% and 40% of Basell's commodity chemicals sales, while Elemica now has nearly 2,000 partners, annual trading volumes of more than US$35bn and expects to post a modest profit in 2006. Recognising that its future was in serious doubt only two years ago, Elemica's chief executive, Mike McGuigan, believes his firm is now here to stay.

Another positive trend is the increasing interest that converters are showing in e-commerce. They were much slower than producers to adopt online trading, but are now seeing it as a way "to compete with Asian suppliers who roam the European market," according to Andre Jacobs, technical director of Dutch converter, Sunware. Innovative Plastics' Mr Gurney says converters can use automated supply chains to satisfy large customers, such as Procter & Gamble, who are "obsessed with shortening lead times and time-to-market."

Industry consolidation

Merging companies may be one of the oldest approaches to efficiency, but it is far from exhausted. In commodity plastics, there still is much room for consolidation. "Look at PVC," says one private equity advisor, "there are still 11-12 producers in Europe, when there really ought to be four to five at the most."

The first major benefit of consolidation is that it spreads fixed costs over larger volumes. "To succeed in

commodities," says Ciba's Mr Righini, "you need to have site capacities of at least 300,000-400,000 tonnes." SABIC's Mr van Haasteren regards this as an underestimate, arguing that firms will require at least 750,000 tonnes of polyolefins capacity per site to remain competitive in the future. He contends that smaller, non-integrated players are doomed. "There are still some small high-density polyethylene (HDPE) and polypropylene sites with 100,000-150,000 tonnes capacities with no ethylene or propylene onsite. Will they be able to compete?"

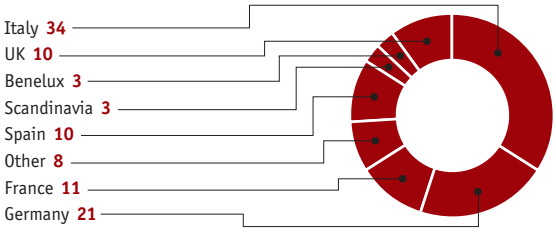
The other major benefit is in pricing power. As a board member of an east European PVC producer notes, markets tend to become "orderly" when there are no more than four to five suppliers—a level that commodity plastics have yet to reach. The limit is reached at around three suppliers, because the EU aims to restrict maximum market share to about 30-35%.

Martin Pugh, managing director of plastics supplier, NOVA Innovene, says consolidation also offers a morale boost for poor performers. Bringing together the European polystyrene businesses of Nova Chemicals and Innovene (formerly part of BP Chemicals) has unleashed "a wave of energy and enthusiasm," he says. Both organisations realise that working together is the only way out of their predicament, in a way that more profitable companies might not.

Consolidation has even greater potential among converters. Western Europe has some 16,000 sites for injection moulding alone (see figure 4), of about 118,000 worldwide, according to AMI Consulting's Mr Nash. Most of them are single, privately owned companies. "The industry is hugely fragmented; there is a massive opportunity for consolidation."

Progress is slow, says Mr Nash, although mergers are underway. In polyethylene film, for instance, the EU's 50 biggest producers accounted for 55% of production in 2000; by 2005 this had risen to 60%.

Figure 4
The breakdown of Western Europe's 16,000 injection moulders.
(%)



Source: AMI Consulting

No-frills distribution

The no-frills approach has already reinvigorated other industries, most notably airlines. A similar attempt is underway in plastics. "Some customers want a good price and no service," observes AMI's Mr Nash. Only five years ago, "every converter was getting the same level of service from every producer," says Elemica's Mr McGuigan. "No-frills is market segmentation introduced to the plastics industry."

Werner Breuers, president of Basell Polyolefins Europe, says many converters today have a mature understanding of polyethylene's technical properties, which removes the need for much of the technical support most firms currently offer. This is precisely why his firm set up its no-frills offering, Alastian, and why others, such as Dow in epoxy resins and Dow Corning in silicones, have done the same. A no frills operation runs cheaper than a full service one, according to Mr Breuers.

For their part, converters see an opportunity for no-frills businesses. "There is no need for frills in the European commodity plastics business," says ITS' Mr Toso. "Everybody knows how polyethylene or polypropylene is going to behave during processing."

Others believe no-frills has a role to play, although not in every sector of the plastics' industry. "When we are producing more sophisticated packaging for medical or pharmaceutical applications, we really do

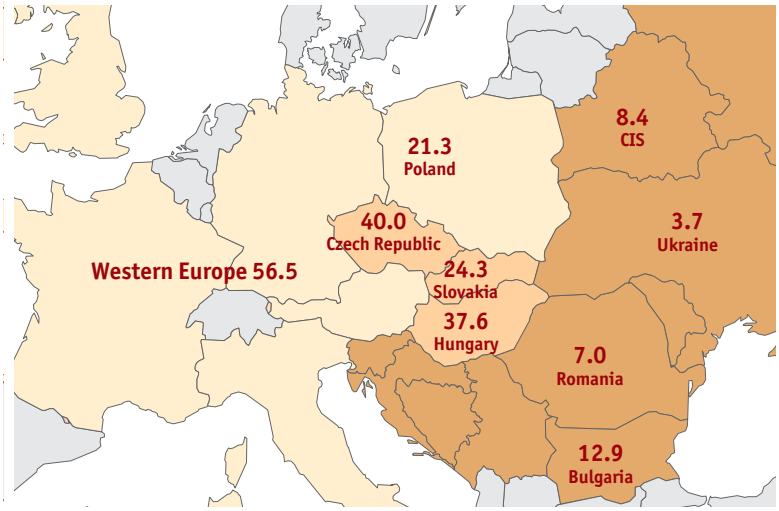
call on the expertise of producers to help us out," says a senior manager at a large European converter.

In the plastics and chemicals industry, the report card for the no-frills is yet to be written. Dow closed its e-epoxy.com, blaming a "lack of growth", while competitors grumbled that it had dumped product, which had depressed prices. Dow Corning's Xiameter e-commerce service claims to be making money without cannibalising its full-service clientele, while Alastian is still in take-off stage.

Supply-chain integration

In the early 1980s energy crisis, integration was the industry's hottest buzzword. Perhaps its most extreme disciple was Du Pont, which purchased Conoco in order to secure its supply of raw materials. Today, vertical integration is still relevant for producers, and integrating geographically into new markets is critical to converters.

Figure 5
Plastic demand in the East has a lot of room to grow
PE and PP demand per capita (kg/capita/year)



Source: MOL (Hungarian Oil and Gas Plc)

Integrating production with raw materials

All polyolefins producers either have physical or financial links to olefins suppliers. In PVC and polystyrene there are still a few non-integrated producers, but, as one of them puts it, "most of us have been quaking in our boots ever since oil prices spiked."

The major trend in integration is a shift in the feedstock providers that producers are partnering with. Oil multinationals BP and Shell, for instance, have started shedding their plastics operations, while crude-rich non-European companies have expanded theirs: International Petroleum Investment Company of Abu Dhabi now controls Borealis; Saudi Arabia's SABIC bought DSM's former plastics business; and Basell was acquired by investors with significant interests in Russian petroleum.

Russia's oil barons are still seeking downstream capacity: Lukoil has acquired assets in Bulgaria and Romania; and Gazprom has attempted to purchase several plants in Hungary. Iran's National Petroleum Company is also in the market: although its bid for Basell failed, it is still shopping for other European operations.

Integration will always be critical, says SABIC's Mr van Haasteren, "because this is a cyclical industry, and that is never going to go away."

Expanding production into new markets

For plastics producers, the Asian boom is not so much a threat as an opportunity. Many of them are now building or operating plants in China, and India is starting to attract interest.

For most converters, however, which are smaller, lower-capitalised, less-global companies, expansion in the Far East is simply not feasible. By contrast, operating in the near East, Central Europe and the former Soviet Union, is often feasible. Companies such as Bericap, Manuli and Mailis are setting up operations

there, with many more on their heels. "There is an entire automobile industry being stamped out of the ground in Slovakia. Converters are flocking there to supply it," says one major Austrian investor.

There are considerable advantages to the region: wages tend to be about half or less of those in western Europe, yet technical prowess is comparable. Also, consumption of plastics is dramatically below the West's (see figure 5). This promises to soar in coming years, as eastern consumers adopt the lavish lifestyle of those in the West.

Innovation and branding

In the plastics industry, innovation is a double-edged sword. One look at the massive size and complexity of a modern polymer plant ought to convince most people: innovation was the force that allowed polymers to become commodities in the first place. And that has generated considerable pride. "There is a lot of ego that goes with building and running a mega-tonne plant," says George Intille, vice-president at SRI Consulting. "It is very hard for those same people to admit they have slipped into being niche players."

However, this is precisely the path that European producers ought to be taking, adds Mr Intille. Basell's Mr Breuers agrees, noting that Europe's plants are already more flexible than the low-cost behemoths populating the Middle East. For instance, Europe still has slurry-phase polyethylene units, which are easier to chop and change than gas-phase competitors to the East. "We can move from one grade to another in our Hostalen process, without producing any off-spec material at all," he says.

Most threatened by resource-rich competitors are bulk-film and injection-moulding grades of plastics. These are easiest to master from a technical standpoint, and experts predict both production and conversion of these will leave Europe. Even so, there has been a rear-guard action among converters, who have launched anti-dumping claims against Asian plastic-bag makers in the US in 2004 and in the EU in 2006.

Other grades of plastics are less vulnerable. NOVA Innovene is finding defendable niches in electronics packaging, disposable cups and insulation. Borealis is focusing on high-tech areas, such as cross-linked wire and cable sheathing, pipe from random polypropylene and breathable food packaging. It launched 50 new products in 2005 alone, says David Rolph, head of polyolefins at the firm.

It is also setting a new example of how to pursue innovation, says AMI Consulting's Mr Nash. In 2004 Borealis teamed up with converter, RPC, to introduce a new freeze-resistant, transparent grade of polypropylene for ice-cream packaging for Unilever. Unlike most product development in the past, says Mr Nash, Borealis hung on to many proprietary aspects of the technology, therefore keeping future supply contracts as well as giving itself "unusually high visibility for a polymer producer in the supply chain."

This combination of innovation and branding will be crucial for future growth. Leading converters in this area, says consultant Marc-Oliver Mewes of Monitor, are companies such as Geberit, Goretex, Ikea, Tupperware and Velcro. "These are household names, with fanatically loyal customers who will not switch suppliers just to save a few pennies."

At the same time, warns Ciba's Mr Righini, converters will need to work ever harder to speed up their customers' acceptance of novelties, such as anti-scratch agents in automobile coatings. "We have seen some cases of business moving to Asian converters, yet using European formulation technologies, because the Asian end-users were willing to move faster," he says.

Price management

Of the two main remedies for pricing risk, only one, hedging, is new to plastics. The other, strategic pricing, is an industry evergreen that has taken on

greater importance since oil prices began to surge in the late 1990s.

Hedging

The debut of plastics futures on the London Metal Exchange (LME) in May 2005 has a long history behind it. There have been failed attempts to launch public exchanges for chemical products for decades now, starting with the defunct Electronic Markets Information Service in 1983, followed by contracts on the New York Futures Exchange and then by dot-coms such as ChemConnect, CheMatch, e-chemicals, PlasticsNet and five or six others.

Time and again, the fatal flaw has been a lack of liquidity. Neither buyers nor sellers can be sure that an exchange price is real and not manipulated. Therefore, most plastics and chemicals continue to set prices through a combination of buyer-seller chat and pricing services, where the two majors are ICIS (owned by Reed-Elsevier) and Platts (part of McGraw-Hill).

As for the success of the LME, which started with linear low-density polyethylene and polypropylene, the jury is still out. Even supporters from the producer community concede that correlation to physical markets is sometimes absent, converters have hardly participated. "We use the LME for hedging our aluminium positions, but we have yet to use it for our plastics," says one large converter. "We're sceptical about the chances of plastics futures succeeding, but if they do, we'll get into the market." Some producers—namely those who profit from conventional pricing's opacity—continue to disregard the whole concept. Several companies still treat the term "commodity" as politically incorrect.

Nevertheless, the general view is cautious optimism, for three main reasons. First, the sheer size of polyolefins—together more than 100m tonnes per year—may be enough to clear the liquidity hurdle. Second, some producers, especially those under newer ownership, are jettisoning the notion that polyolefins are not commodities. Third, price movements have caused end-users to protest. "Converters, and users in automobiles, packaging and durable goods are just fed up," says David Paul, global head of chemicals and plastics at Barclays Capital. "They feel they cannot plan their businesses anymore."

Mr Paul suggests that plastics futures could go the way of aluminium ones, which when they launched two decades ago reached similar maturity after one year. Today, when aluminium producers decide to build new capacity, they can develop cash-flow projections based on LME forward prices. Then, long before production even starts, they typically sell forwards on up to one-third of the plant's output for its first five years of operations.

Strategic pricing

Two stories are often heard in the plastics industry today: one notes that the most successful salespeople always sign contracts before agreeing a price, while another talks of consultants who never simultaneously agree to a deliverable and a deadline. There is a sad truth to both. As a 2004 report from Monitor Group puts it: "the main pricing problem facing the chemicals industry is not the use of simplistic pricing tools. It originates at a more fundamental level. Most often there is no overall strategic framework that governs pricing at the corporate level." In other words, there is no pricing policy.

Under the premise that something is better than nothing, one large producer has put up signs in the hallways of its headquarters asking "Did you get the best price?" A more sophisticated approach is to segment the customer base and then apply selective pricing. Other companies are trying a combination of the two: sales training and customer targeting.

Companies are almost always reluctant to talk about this publicly, for fear of alienating customers,

but the results can be astonishing. One large producer of PVC and other chlorinated products says it was able to increase prices by as much as 25%, to more than one-third of customers, just by asking. "Over and over again, we would fearfully ask for a higher price," recalls one of the involved salesmen, "and then try to contain our surprise when the customer immediately agreed."

The approach take by UK converter, ITS, is to "close positions with our customers, before we close positions with our suppliers," says Mr Toso. "We put the onus of price increases on our customers," says Mr Toso. "They have the highest margins, and they are most able to raise prices. A few pennies more for our products in the supermarket, and Mrs Jones will hardly notice the difference."

The rise of private equity

Private equity's role in chemicals has soared: in 1997 investors spent US$250m buying the sector's companies; by 2005 spending had risen to US$15-20bn, according to estimates from independent British analyst, David Ingles. In some years, this has been worth more than one-third of the value of all chemicals deals (see figure 6). Plastics producers have been heavily involved with this, especially last year when Access Industries bought Basell for €4.4bn and Ineos paid US$9bn for Innovene.

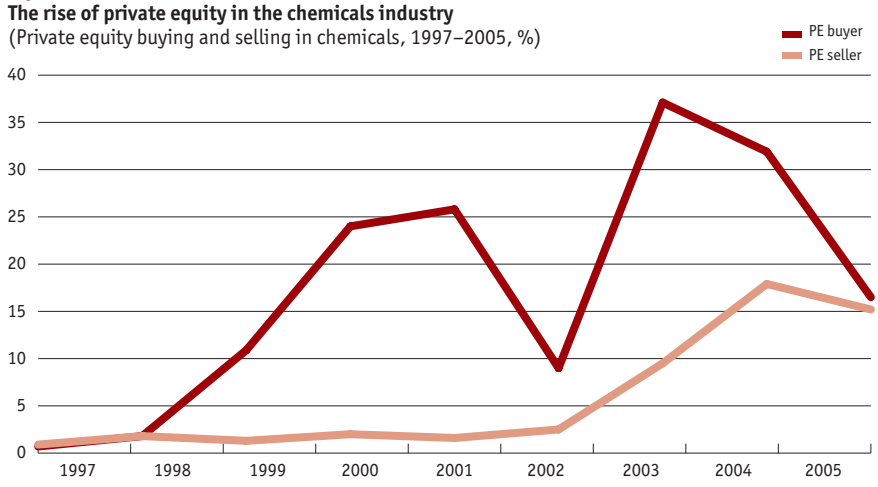
But why do private investors want to be involved when public investors do not? The ability to make difficult decisions seems to be their main advantage. "Closing plants, laying off people, cancelling budgets. Often in Europe these measures are badly overdue. We can step in and force these things to happen," says one private equity advisor.

Private owners tend to be more focused on financial results, but are free of the short-termism that can plague public companies. "They take a longer-term view," says a senior manager who has run a plastics producer under both private and public owners. Another senior manager adds: "we have become much faster and more agile since going private. Our targets are high, but the new owners let us get on with running our business. With the previous owners we spent too much time discussing trivia such as, say, the cost of injection moulding in Spain."

There have already been some big successes in chemicals, according to Mr Ingles. For instance, The Blackstone Group made "spectacular returns" on Celanese and Nalco, he says.

So far in plastics, however, it is less clear how well private owners will fare. Huntsman, one of the industry's major players, nearly slid into bankruptcy in 2001/02. Huntsman's problem, say insiders, was over-gearing, relying on too much external debt financing. And, as world interest rates continue to climb, this threat may worsen. Private equity players say they have "priced in" rate hikes, but others are not so sure. "Their advantages will be competed away, and they won't enjoy the same massive amounts of cheap capital," says Mr Ingles.

Figure 6
The rise of private equity in the chemicals industry
(Private equity buying and selling in chemicals, 1997–2005, %)



Source: David Ingles, *The Changing Structure of the Global Chemical Industry*

Conclusion

While there is considerable consensus about the challenges that the European plastics industry faces, there is rather less unity about how best to respond. The industry has many strategies at its disposal, but none offer a perfect, all-round solution to the threats faced.

- **Driving efficiency.** Both producers and converters have a lot of scope here, with the most obvious approach being industry consolidation, for which much potential still exists. Producers are also starting to adopt the Internet as a more cost-efficient way of buying and selling goods. And some producers, as well as converters, are backing this up with a no-frills option, giving their customers the option of easily ordering bulk goods online without any extras. Critics of this approach highlight the potential for conflict within existing full-service businesses. "These are two different business models, two conflicting sets of rules," says Mr Mewes of consultants, Monitor Group. "When they are within the same organisation it can be very disruptive." However, others, such as Basell's Mr Breuers, counter that this competitive tension can be productive. "We'll let our customers decide what the mix of the two should be," he says.
- **Supply-chain integration.** Nearly all producers have some kind of link to their feedstock suppliers, but there is a major shift in the composition of these suppliers. Western oil giants are reducing their plastics involvement, while their crude-rich, non-European rivals are rushing to fill the gap. For their part, converters are embracing the wealth of opportunity that exists in eastern Europe, partly to take advantage of the low-cost skills available there, as well as the soaring demand from the region.
- **Innovation and branding.** The European plastics industry as a whole stands to benefit from a greater focus on product innovation. Here, much potential exists for both producers and converters to collaborate on technical advances, as well as branding initiatives. One example of this in action is Borealis's partnership with converter, RPC, to produce a new type of ice-cream packaging for global consumer giant, Unilever. Most converters agree that long-term survival in Europe will require a focus on selected markets where they hold an edge, either through more advanced technology or by specialising in goods that are bulky and expensive to ship long distances. The key, according to one senior manager at a large converter, is: "finding niches in products that don't travel well, or in niches where extra skill and expertise, such as the use of special equipment, is needed."
- **Price management.** Both producers and converters face the chronic problem of gyrating prices, which has worsened in recent years. Here, strategic pricing may be one solution. Hedging, too, holds great promise, especially if it can deliver for plastics what it has done for aluminium, although this has yet to be proven.

It will be several years before all of these strategies can be judged, and a clear result is unlikely, as various hybrid approaches may become more prominent than any individual approach. As NOVA Innovene managing director Mr Pugh points out, there is no ban on combining more than one strategy at one time.

Still, European plastics firms can take some solace in the fact that the threats they face today do not only bring challenges, but opportunities too. The difficulty will lie in determining how best to take them on.

LONDON
26 Red Lion Square
London
WC1R 4HQ
United Kingdom
Tel: (44.20) 7576 8000
Fax: (44.20) 7576 8476
E-mail: london@eiu.com

NEW YORK
111 West 57th Street
New York
NY 10019
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
E-mail: newyork@eiu.com

HONG KONG
60/F, Central Plaza
18 Harbour Road
Wanchai
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
E-mail: hongkong@eiu.com