

Globalisation**The strange life of low-tech America**

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America's most basic manufacturing industries have survived globalisation unscathed. So far

WHEN people think about America's electronics industry, they conjure up semiconductor workers in Dr No suits—not people in T-shirts checking lightbulbs. Using machinery that is mostly more than a decade old and technology that has not greatly changed in half a century, the 210 workers at Osram Sylvania's factory at Maybrook, New York, churn out some 22m fluorescent lights a year. Yet the plant has the biggest share of the American market for compact fluorescent lights—and the factory manages to export a third of its output.

Maybrook is surprisingly typical, in several respects. Most of America's lightbulbs are still made in the country. More generally, far from relocating overseas to benefit from cheap labour or lax regulations, low-tech America—or a fair part of it—seems to be staying at home. For every Intel or fashionably "virtual" company such as Nike (whose shoes are assembled around Asia), there are plenty of humdrum American manufacturers turning out plastic chairs, cutlery, toys, tape-measures and T-shirts.

Numbers are hard to come by. But evidence from 19 low-tech industries shows that while average growth has not been spectacular, most are holding their own in terms of both output and jobs (see chart). Joel Kotkin, of Pepperdine University, reckons that in Los Angeles, which is America's biggest manufacturing centre, the clothing business, which has been renewed by a new generation of Asian, Middle Eastern and Latin American immigrants, has sneaked past aerospace to become the second-biggest employer after the entertainment industry.

In the United States, wages and fringe benefits in manufacturing average about \$18 an hour. Undoubtedly many low-tech firms pay their workers, legal and illegal, much less. Even so, hourly rates in America are more than a week's pay for workers in many developing countries. Most of the difference can, of course, be explained by lower labour productivity in poor countries: unit labour costs are often not that different. But productivity has been climbing fast in emerging markets. So what is stopping low-tech businesses relocating abroad in search of bigger profits?

Some low-tech American businesses are small family-owned outfits: their bosses, the "Millionaires Next Door" celebrated in the book of the same title, might have merely sentimental reasons for staying put. But others are controlled by multinational firms (Osram Sylvania is owned

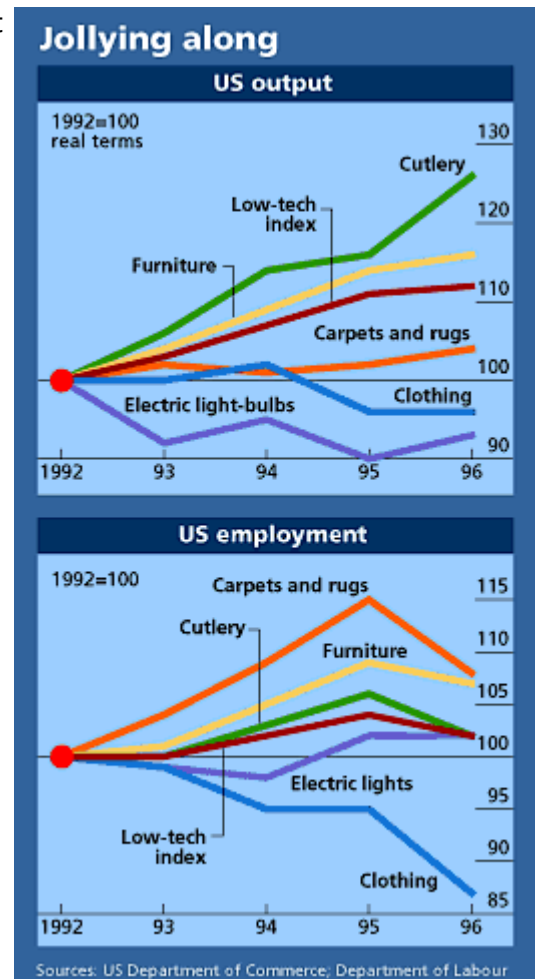
by Germany's Siemens), which would not think twice about moving if it made sense. Similarly, many low-tech firms have been shielded by America's long economic boom. But if domestic demand falters, they may have to look again at where their factories are located, particularly since emerging-market currency devaluations have made overseas facilities more competitive.

Low-tech American enterprises might still fall back on other defences:

- **Transport costs** often matter more in low-tech industries. Importing a 50-cent lightbulb from overseas might cost 20 cents. Foamex International, the world's biggest supplier of urethane foam (which goes into car-seats and mattresses), has 67 different factories and distribution outlets in America. Andrea Farace, the firm's chairman, points out that transporting a product that is 95% air is not economic.
- Many low-tech industries are either **capital-intensive** or can be made to be so. For instance, Oneida, a New-York-based firm that is the world's largest manufacturer of steel cutlery, invested in new machinery for its domestic factories even as many of its peers moved overseas in search of cheaper hands. Two-thirds of the firm's cutlery is made in the United States. At Maybrook, labour accounts for only 20% of the cost of each fluorescent light.
- **Quick delivery** and **reliable service** often matter more than cost to customers—particularly to retailers keen to reduce their own inventories. Rubbermaid, one of America's most admired companies, could probably make its plastic household products more cheaply in Asia. But in order to keep fussy customers such as Wal-Mart happy, it would have to keep an enormous inventory of products; it might not be able to ramp up production quickly if a product were successful. More than 90% of Rubbermaid's sales in America are made there.

John Dunlop, a former Secretary of Labour who is studying the links between America's textile, clothing and retail industries, claims that "labour costs no longer decide the global economy: time is the critical issue." Oscillating fashions, promotion schedules and seasonal offerings demand flexibility. Nike's distributors have to order their shoes from Asian suppliers months in advance—which relies on them staying in fashion. When the enthusiasm of American teenagers for Nike cooled last year, the system clogged up with unsold sneakers. One reason why Vita Needle, a small Massachusetts company, still dominates many specialist applications for metal needles is because customers like its portfolio of designs that date back five decades.

- Many American consumers still have **local taste** and are nervous about foreign-made products. One South Carolina-based distributor says that furniture made in many Asian countries does not look "American enough": so far he has got what he wants only from one Filipino factory, so he buys the rest at home. Some even suggest that patriotism matters. Two shoe firms, New Balance and Red Wing, maintain that "a certain segment" of customers care about their "Made in the USA" stickers—though there is no evidence that Nike has lost sales despite widespread criticism of its working practices abroad.
- Many industries are protected by **trade barriers**, both formal and informal. In some cases, these have been removed once the firms put their house in order (Harley-Davidson licked its wounds behind import tariffs in the 1980s). In many more (including textiles and most of



agriculture) they remain: despite NAFTA, a complicated lumber accord still protects America's saw mills from cheaper Canadian producers.

- Many low-tech businesses rely on **skills** that are not easily transferred. "You can't just train people to make lamps overnight," says an indignant Dick Brace, Maybrook's plant manager, pointing out that new competitors from such places as Asia always run into problems to do with quality. The machinery at Maybrook may look quaint, but it is intricate and hard to maintain. With its know-how in adhesives, 3M still makes things like sandpaper in America: its grains stick to the paper longer than those of competitors.
- **Constant innovation** also helps American firms. Fluorescent lights heat up as they burn out, sometimes expanding so they get stuck in their fixtures. Maybrook has just started adding small drops of titanium hydride that will put out the light when it gets too hot, giving the factory a—probably short-term—advantage over its competitors. One of Mr Brace's innovations has been to introduce a couple of R&D people to the factory floor to spot similar opportunities.

Under the thumb?

The most enduring image from low-tech America is of remorseless pressure to change. Globalisation may not have forced all firms overseas, but it has certainly forced them to jump through hoops that they never knew existed. Over the past decade, Osram Sylvania has cut its workforce in America from 19,000 to 13,000, while boosting productivity by 50%. Rubbermaid has had several reorganisations. At the end of August, 3M said it would cut its 75,000-strong workforce by 6% and discontinue some of its 50,000 products. Meanwhile, now that Indonesian and Thai furniture firms have dropped their prices by a third, the South Carolinian furniture distributor is planning another tour of Asia.

At Maybrook, Mr Brace is under no illusions about globalisation. Lights made by cheap overseas firms are getting better. New equipment at an Osram factory in Bari in Italy is faster than Maybrook's and Mr Brace may have to reduce the line that makes the same "S-type" lights as Bari (which accounts for a third of Maybrook's output). On the other hand, he thinks that Maybrook can take over some work from a German factory. Meanwhile, he is pushing through other changes, such as a new profit-share scheme for all the workers at the factory, and a new computer system. As long as Maybrook keeps changing more rapidly than its competitors, it will be some time before the lights go out.