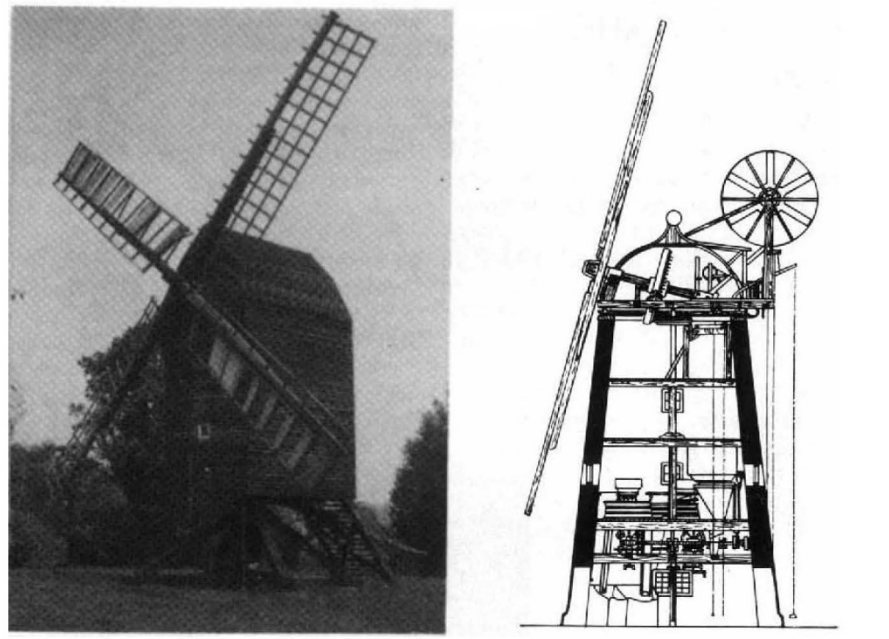
Business plan

Bob Johnstone

Computers Inc. Japan's Challenge to IBM. By Marie Anchordoguy. *Harvard University Press: 1990. Pp. 273. £19.95, $25.*



Early windmill design, from *The Traditional Buildings of England* by Anthony Quiney. Published by Thames and Hudson, price £14.95. □

INDUSTRIAL policy can work. That is the inescapable conclusion of this important new study on the rise of the Japanese computer industry. Classical economic theory — as preached by zealots of the Bush administration — states that governmental attempts to 'pick the winners' inevitably distort the market, ending up by doing more harm than good. Yet, as the Japanese have demonstrated, and as this book documents, an industry can indeed be nurtured and brought to international competitiveness. What it takes is a consistent, long-term strategy and close cooperation between public and private sectors. Proof, if proof is required, of Japan's success in the computer industry is evident in the admission by Ed Lucente, president of IBM's Asia–Pacific group, that IBM views Japanese computer companies as "our most serious competitors".

In 1960, IBM obtained permission from Japan's Ministry of International Trade and Industry (MITI) for permission to manufacture in that country. Back then, only brave souls would have predicted that, within two decades, Japanese domestic manufacturers would catch up with and — at least in some respects — overtake the giant US firm.

But that is exactly what happened. In 1980, Fujitsu — Japan's leading computer manufacturer — became the first company in the world to top IBM in computer sales. Although IBM remains the dominant force in the worldwide computer industry, with an estimated 70 to 80 per cent share of the $40,000 million mainframe market, the Japanese are eroding the US company's market and technological leadership (see last week's News section, page 307). In June this year, for example, Hitachi, Japan's other maker of IBM-type mainframe computers, announced that it would shortly begin sales of machines considerably faster than IBM's current top of the range models. Less than a month later, Hitachi's rival NEC produced a mainframe that it claims is even faster than Hitachi's.

The Japanese are adept at using the threat of foreign dominance — real or imagined — to motivate themselves to redouble their efforts in any given endeavour. Of all the bogeymen they use, IBM has traditionally been the most frightening.

IBM's request for permission to produce locally seems to have reminded MITI bureaucrats of the arrival in Tokyo Bay, about 100 years earlier, of Commodore Perry with his fleet of black ships, demanding that Japan open up to foreign commerce. MITI officials determined that the giant US firm would not be allowed to dominate the Japanese market as it had — in their estimation — in Europe. To counter IBM, says Anchordoguy, "Japan would turn to its full repertoire of industrial policy tools". These included protectionism, appeals to patriotism and outright coercion. Fiscal tools included subsidies, tax-benefits, low-interest loans and loan guarantees.

It is often thought that the Japanese government merely sprinkles financial aid on infant industries, leaving companies to foot most of the bill. In the case of the computer industry, however, as Anchordoguy is at pains to point out, this was certainly not true. "A conservative estimate shows", she writes, "that some US $542 million in subsidies, tax benefits, and loans were granted to the industry from 1961 to 1969." This figure does not include "the huge benefits of procurement from NTT" — Japan's public telecommunications monopoly, which played a very important complementary role in the development of the Japanese computer industry — "and other government institutions."

Perhaps the most significant, and certainly the most innovate, support mechanism that MITI came up with to boost sales of computers was the Japan Electronic Computer Company. This was a government-funded company which between 1961 and 1981 purchased computers worth $2,000 million from the makers, then rented them to users. The company had the dual purpose of providing companies with cash that they could quickly plough back into development, while at the same time stimulating demand by making computers relatively easy for users to afford.

But MITI also made some false moves. Most notable among them was the Japan Software Company, a joint venture it created to provide programmes for computers developed under a ministry project. Isolated from the market, the firm failed to produce software that anybody wanted, and was dissolved in 1972.

For the most part, though, things went according to the ministry's master plan. One important factor that helps to account for the success of MITI's strategy was that it managed to achieve a workable blend of cooperation and competition between firms. Japan was thus able to avoid the pitfalls of the single-company 'national champion' approach of Britain and France.

Companies were happy to make the best use of scarce resources by collaborating on upstream development efforts. Nor did they object too strenuously to being paired off (Fujitsu with Hitachi, NEC with Toshiba and Mitsubishi with Oki) to attack different market segments, thus avoiding excessive competition. In their individual segments, however, companies competed fiercely against one another. And, despite generous government subsidies, all were prepared to commit significant investments of their own.

Others have told the story of the development of the Japanese computer industry before. But no-one has told it so well, or in so much detail, as Anchordoguy in this excellent book. □

Bob Johnstone is Technology Correspondent of Far Eastern Economic Review, *Centre Point, 181 Gloucester Road, Hong Kong.*