

It has long been recognised that many of the labour-intensive industries would migrate from the advanced industrialised nations to the newly developing economies. The latter have a cost base with which the former cannot compete directly. This has already led to a diminution of many long-established industries and a consequent loss of jobs, particularly those requiring lower levels of skill. The expectation has always been that these would be replaced by new industries requiring higher levels of skill, creating new jobs. What has become increasingly apparent is that this is not necessarily the whole picture. The now rapidly advancing developing economies have no desire to remain as suppliers of cheap, low-skilled labour to the world. And indeed, why should they?

To help assess the latest position, with particular regard to the build-up of creative capabilities in these countries, I engaged Professor John Heskett, Chair Professor of Design at Hong Kong Polytechnic University, to carry out a brief study. Looking at the latest position in China, Korea, Singapore and Taiwan, he confirmed that massive strides were being made. They are not, however, the only competitive threat. Brazil and Russia are also becoming prominent players. The UK's traditional industrial competitors all face the same challenge and some have responded early.

The fast-growing economies of the Far East are building up impressive capabilities

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What is impressive – and worrying – about the emerging economies is not where they stand today but how they are positioning themselves for the future. Alongside the enterprise and vigour that characterise their economic growth, they are building up new technology-based industries and impressive capabilities in scientific research, and investing massively in education, technical skills and creative capabilities. As a consequence, it is now the high-skilled jobs in the hitherto leading economies that are coming under threat.

The growth of the Indian software industry is a dramatic illustration of this advance. In the early 1990s, companies in North America and Europe started commissioning software from Indian sources, mainly for routine applications, on the grounds of cost; today, it is for advanced applications on the grounds of capability. In the first half of 2005, Indian exports of software and IT-related services are estimated to be worth over £5.5 billion.

India is also fast becoming an international centre for research. Intel now has 800 hardware and software designers based there and GE has 1,000 scientists. Microsoft has opened a research laboratory in Bangalore – the third outside the US, following on from Cambridge and Beijing. Indeed, the build-up of research facilities is one of the most significant developments in the shifting balance of world capabilities.

Over the last two years, China has had the fastest global rate of increase in R&D, and is now estimated to have reached 1.5 per cent of GDP. The capability that is being built up is one of high investment, high-level skills and a low cost base. It can lead in only one direction.

It was recently reported that GlaxoSmithKline was seeking to save hundreds of millions of pounds by conducting more of its research outside the US and the developed world. Its Head of R&D, Tamachi Yamada, was quoted as saying, "You can do studies of equal or better quality in eastern Europe, Asia or Latin America at maybe 10 per cent of the cost".



The competitive threat is not to manufacturing alone

Contrary to widespread perception, the total output of UK manufacturing has not declined over the last 25 years; it has actually grown. Two things *have* declined. One is the total number of staff employed – illustrating the need to add value and be more productive to stay in business – and the other is the proportion of GDP that manufacturing represents.

However, although it is manufacturing where the UK has so far felt the brunt of global competition, the build-up of skilled capability in the developing nations is equally a threat to the service industries. Indeed, thanks to advances in information and communications technology (ICT), it is often easier to relocate services than production facilities. The model of the UK becoming an all-service economy, the world's leading repository of professional skills, is enormously appealing – and totally unrealistic. It is naive to assume that countries will be content to leave such capabilities to the UK, while they simply concentrate on delivering goods and services, dependent on the creativity of others. China, for example, is putting a huge amount of effort and resources into building an indigenous design capability. Nor should we be obsessed with China alone. Many other countries – both emerging economies and long-established industrialised nations – are doing the same.

They are following a recognisable path to development

Professor Heskett points out that the path of development being followed has many precedents. We have seen it with the remarkable development of Korea and Taiwan over the last three decades, but it goes back much further. The process is typical of many newly industrialising countries, such as the US and Germany in the late 19th century, and Japan more recently. It involves initially taking models and procedures and acquiring new skills and competences from other countries and adapting them to local conditions, with the domestic market protected to stimulate growth. Inevitably, at this stage, competitive advantage can come only from high-quantity production and low costs.

Once a platform – in terms of finance, plant, equipment, and accumulated skills – is established, new opportunities emerge, but higher levels of performance require two things. First, there is the change from reliance on imported technology to developing new technologies, requiring an advanced research capability. Second, there is the ability to transfer this technological competence into higher value-added products and services. That demands an equally advanced design capability to translate technological possibility into products and systems that are appropriate, useful, affordable and attractive to people in many different economic and cultural circumstances.

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The UK has a window of opportunity

These latter stages of economic development, though following a clear path of progression, can take time to complete. This provides a window of opportunity for the UK while others seek to replicate some of its existing strengths. With respect to China, for example, Professor Heskett concluded, “A major feature of the command economy is that it literally has no concept of markets, neither is there any consciousness of consumer rights or needs. There are still huge problems for Chinese industry and its managers in coming to terms with approaches that focus upon customers, their needs and desires.”

The new Far East economies are not the only source of competition

While the Far East economies show the most dramatic signs of increased capability – and tend to be the focus of media attention – they are not alone in making progress. The potentially huge economies of Brazil and Russia, backed by abundant natural resources, will also figure large in a reshaped world. Brazil has already become one of the two dominant global suppliers of regional airliners (the other being Canada), a scenario that few would have predicted 25 years ago. The old Soviet bloc countries of Eastern Europe are increasingly demonstrating their competitive offering of a combination of skilled workforce and low cost base.

The four potentially largest developing economies – Brazil, Russia, India and China – are sometimes collectively referred to as the BRICs. At present, their combined GDP amounts to little more than 20 per cent of that of the G6 countries – the US, Japan, Germany, the UK, France and Italy. However, it is forecast that by 2040 – that’s within a working lifetime – they will overtake the latter. That is a massive shift in the balance of world economic power. It also means the creation of vast markets that represent new opportunities for UK companies. But those opportunities will be grasped only by offering goods and services that cannot be produced better and more cheaply locally, or by establishing brands that are sought-after globally. As the Design Business Association has described it, “The new economies have fantastic factories but don’t know what to make. Customer insight, as much as product design or development, can give the UK the edge”. The new markets will be big markets but not soft markets.

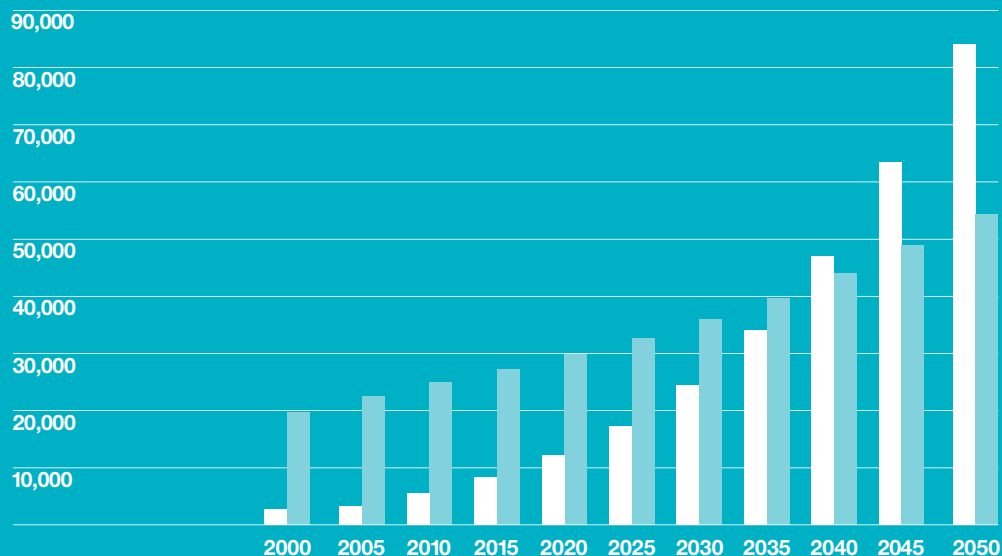
‘...It also means the creation of vast markets that represent new opportunities for UK companies...’



The whole balance of economic power is forecast to shift...

BRIC economies set to overtake the G6 by 2040
(US \$ Billion GDP)

■ BRICs – Brazil, Russia, India, China
■ G6 – US, UK, Japan, Germany, Italy, France

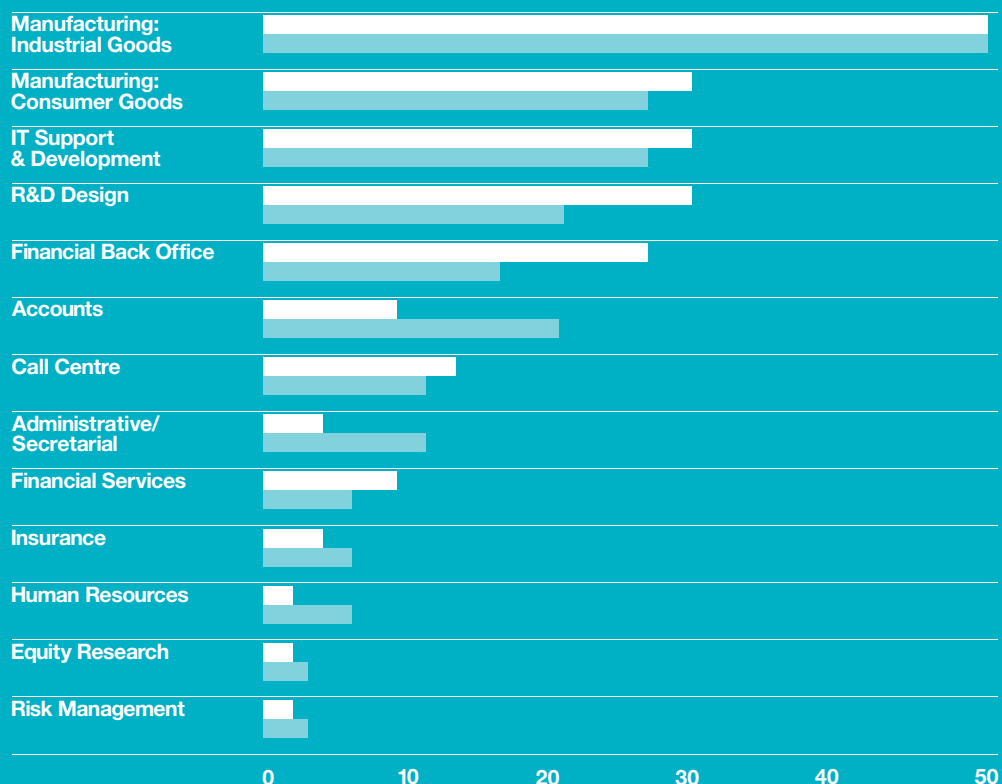


Source
Goldman Sachs
Global Paper 99 2003

International capability is building up...

Which operations are you relocating?
(% respondents)

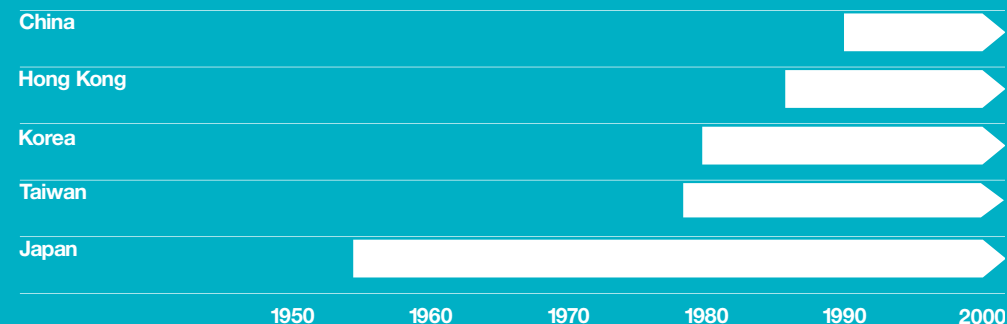
■ % of respondents considering
■ % of respondents already have done



Source
Confederation of British Industry
Off-shoring survey 2004

The developing economies are latching onto the implications of indigenous design capability...

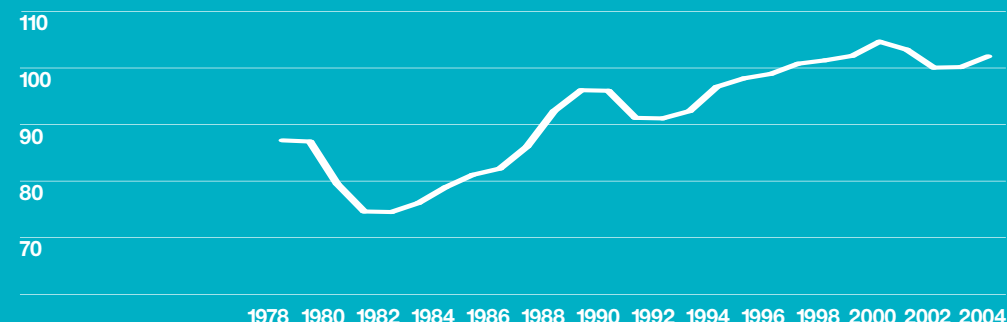
Adoption of national design policies in Asia



Source
Professor Jonathan Heskett
Design In Asia 2005

Contrary to the general perception, manufacturing output has actually increased in the UK over the last 20 years...

Manufacturing output index (2002 = 100)

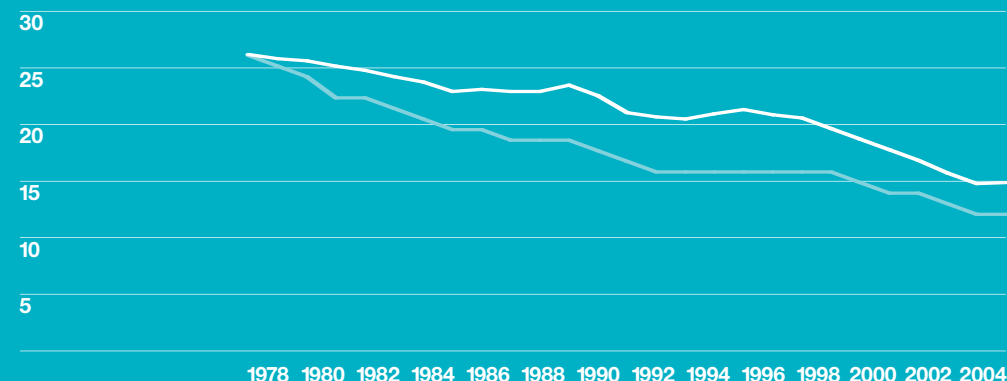


Source
Office for National Statistics

... however, manufacturing's share of GDP and employment has fallen significantly...

Manufacturing in the UK (% share)

■ Share of GDP
■ Share of employment



Source
Office for National Statistics



The UK is not alone in facing the challenge

It is wrong to think that the UK is alone among the established economies in facing the threat of intensified competition or to assume that we are alone in taking steps to respond to it. Our traditional industrial competitors in Western Europe and North America all face the same challenge. This was acknowledged when the European governments committed, in Lisbon, to move away from regulation and intervention to focus on knowledge, skills, enterprise and innovation. So far, the action hasn't matched the rhetoric, but the example of the Finns demonstrates what can be done.

Following the recession of the early 1990s, the Finnish government and industry worked on a long-term vision for the country, where investment in R&D and innovation was seen as the path to prosperity. The fruits can already be seen. Companies such as Nokia, Kone (lifts) and Matso (paper machines) are now world leaders – from a country with a domestic market of just five million people. They have demonstrated that there is a future for manufacturing in the Western economies, if it is approached in the right way.

The Dutch have also recognised the threat and are currently carrying out an investigation similar to this review although, in their case, focused more on the creative industries. The policy recommendations are due to be put forward later this year.

Boardrooms in the US are increasingly valuing creativity and the business-transforming potential of innovation, as demonstrated by the August edition of *Business Week*, which devoted a special report to the subject.

The pace is hotting up, from old and new competitors alike. In the Boston Consulting Group's *Innovation 2005* survey, 74 per cent of the respondents said that their companies would increase their investment in innovation in 2005.

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