

## The global revival of industrial policy

# Picking winners, saving losers

Industrial policy is back in fashion. Have governments learned from past failures?

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AS THE financial crisis hit in late 2008, Meccano, a French maker of construction toys, watched its pre-Christmas sales slip. Its banks got jittery and things looked difficult for the 103-year-old firm (which was born British, in Liverpool). The government stepped in. In July 2009 the Fonds Stratégique d'Investissement (FSI), a sovereign-wealth fund set up in 2008 by the president, Nicolas Sarkozy, invested €2.2m (\$3.1m). "Should toymaking now be considered strategic for France?" asked a business radio station. The firm will bring jobs home. In February Meccano said it would repatriate manufacturing jobs from China to its headquarters in Calais.

France's tinkering with Meccano is a part of a renewed trend of industrial intervention by governments in rich countries. America has pumped billions into banks and carmakers, taking large stakes. Barack Obama said in 2009 that the government must make "strategic decisions about strategic industries". His stimulus plan last year earmarked billions for innovation in sectors such as renewable energy, high-speed rail and advanced vehicles.

Japan's prime minister, Naoto Kan, said in April that the government wanted to create a new "Japan Inc", deepening the links between business and the state. In June the Ministry of Economy, Trade and Industry (METI) announced a strategy to combat the "increasingly aggressive" industrial policies of America, Britain, China, France, Germany and South Korea. Mighty MITI, as METI's forerunner, the Ministry of International Trade and Industry, used to be known, will ride forth again.

Like America, European countries have lavished money on banks and carmakers. The European Commission will unveil a new, active industrial strategy later this year, which will pay more attention to manufacturing and less to services and "knowledge" industries.

"Industrial policy is no longer taboo," says Mario Monti, a former competition commissioner.

"There's a revival of demand for it." France's government, having retreated from directing industry in recent years, launched a heavily interventionist policy in March, vowing to lift manufacturing output by a quarter over five years. As well as setting up the FSI, Mr Sarkozy plans to exert tighter control over companies in which the state still has stakes. This week he ordered their bosses to report formally to ministers every six months.

Inspired by the French, Britain's Labour government last year set up a Strategic Investment Fund to steer £750m (\$1.2 billion) of state money to particular industries and companies. The Conservative-led coalition has since rejected what it calls a "new interventionism" around the world. It has cancelled some loans, such as one to Sheffield Forgemasters, a northern steel firm. But much of Labour's plan remains.

Poorer countries have tried to promote chosen industries as a way of speeding up economic development. There too, it is becoming respectable again. Dani Rodrik, a professor at Harvard University, says that the World Bank, after decades of consensus that industrial policy doesn't work for developing nations, is now recommending its use. A recent paper by Justin Lin, the bank's chief economist, and a colleague, Célestin Monga, examines how governments can identify possibly successful policies and likely failures.

### **Jobs, greenery, momentum and fear**

In rich countries four main forces are driving the revival of industrial policy. First is the weak state of the world economy. Governments are under pressure to reduce unemployment and stimulate growth: support for chosen industries is a way of saving jobs and helping local firms fight foreign competitors. Second, some countries, such as America and Britain, want to rebalance their economies away from finance and property. Along with older manufacturing, clean technology is emerging as a favourite direction. Nearly every large economy has plans to win global market share and create green jobs.

Third, emergency use of industrial-policy tools leads to demands for more. Mr Obama has responded to complaints that only big companies such as General Motors and AIG, an insurer, have enjoyed the state's largesse by setting up a \$30 billion small-business lending fund. Fourth, rich countries are responding to the apparently successful policies of fast-growing economies, notably China and South Korea.

Industrial policy remains controversial. Defined as the attempt by government to promote the growth of particular industrial sectors and companies, there have been successes, but also many expensive failures. Policy may be designed to support or restructure old, struggling sectors, such as steel or textiles, or to try to construct new industries, such as robotics or nanotechnology. Neither tack has met with much success. Governments rarely evaluate the costs and benefits properly.

In America the debate has raged fiercely. The government has long helped business, for instance through the Small Business Administration (SBA), set up in 1953, which guarantees loans to small firms. Heavy defence and space spending has created national champions, such as Boeing in aircraft-making. The government bailed out Lockheed in 1971 and Chrysler in 1979, and raised motorbike tariffs in 1983 to save Harley-Davidson. But efforts to support specific industries and firms have remained sporadic despite calls for a coherent policy. Ronald Reagan and George Bush senior tried to eliminate industrial policy wherever they found it, says Michael Boskin, chairman of the Council of Economic Advisers under Mr Bush.

The Obama administration has laid out an innovation strategy for sectors of national importance, citing past examples of where government intervention benefited industry. Programmes such as the SBA, short of resources under previous administrations, will get more money, and the government will set up a national network of business incubators. "While there has always been some level of industrial policy it has waxed and waned at a low level in previous administrations," says Mr Boskin. "The Obama administration has greatly expanded its size and scope."

America can claim perhaps the most important industrial-policy success, in the early development of the internet and Silicon Valley. The Defence Department's Defence Advance Research Projects Agency (DARPA) supported the creation of ARPANET, the predecessor of the internet, despite a lack of interest from the private sector. Israel's government was similarly successful in boosting its early-stage venture-capital industry with its \$100m Yozma fund, which supported foreign investors backing Israeli start-ups. In July Israel said it would give its high-tech industry a new boost, including tax breaks for start-ups and guarantees for Israeli pension funds that invest in venture capital. France can claim successes in nuclear power and high-speed rail. Airbus, an aircraft-maker jointly controlled by France, Germany and Spain, is another European example.

But missteps and failures are more usual. In Britain a long list of disasters, from cars to semiconductors, is etched in the public's memory. France's biggest blunder has been its attempt to construct an information-technology industry. With a few exceptions, such as Israel's, governments usually fail in attempts to boost entrepreneurship, according to "Boulevard of Broken Dreams", a book by Josh Lerner of Harvard Business School.

### MITI wasn't always mighty

Even supposed masters of industrial policy made embarrassing mistakes. Japan's MITI once opposed carmakers' plans to export and tried to stop Honda expanding from motorbikes into cars because it didn't want another company in the industry. "Probably I would have been even more successful had we not had MITI," Soichiro Honda, the company's founder, said of his battles with the ministry.

The more globally competitive and open an industry, the harder it is for governments to promote companies effectively. The semiconductor business demonstrates this well, argues the McKinsey Global Institute. Although America, South Korea and Taiwan established enduringly successful semiconductor industries, others have so far wasted billions (see table).

Will the new wave of activist policy prove any more successful? The most feared of all industrial strategies is China's. China has pumped billions into "pillar" industries such as telecoms, information technology, car manufacturing and steel. The country has clocked up giddy GDP growth rates. It boasts the world's most valuable bank, its biggest mobile-phone operator and its largest pile of foreign-exchange reserves. Its growing economic power is one of the things that has had richer countries looking for new industrial policies of their own.

Yet China's own industrial policy is a mixed bag—in particular, in developing technological prowess. On the success side, according to Denis Simon, co-author of "Technological

| Flaws law                                      |         |  |                               |
|--|---------|--|-------------------------------|
| Attempts to establish semiconductor industries |         |  |                               |
| Country  | Date*   | Estimated subsidies <sup>†</sup><br>\$bn | Sustainable competitive edge? |
| United States                                  | 1976-80 | 12-36                                    | ✓                             |
| Japan  | 1980-82 | 19-54                                    | ✗                             |
| Taiwan   | 1990    | 15-43                                    | ✓                             |
| South Korea                                    | 1990    | 9-26                                     | ✓                             |
| Singapore                                      | 1995    | 5-16                                     | ✗                             |
| Germany  | 1996    | 2-7                                      | ✗                             |
| China  | 1999    | 6-17                                     | ✗                             |
| Malaysia                                       | 2001    | 1-3                                      | ✗                             |

\*Point at which industry investments exceeded \$1bn  
<sup>†</sup>Cumulative government incentives to 2008, estimated at 20-35% of total investment

Source: McKinsey Global Institute

Innovation in China", is the Loongson or Dragon chip, developed with money from the state's high-tech development plan. The new chip is expected to wean China's computer industry quickly off dependence on foreign central-processing units. China plans to export the chips too. Government funding also built a strong presence in supercomputers.

But Mr Simon argues that the state's various high-tech programmes have left China's leaders disappointed. Other parts of industrial policy have misfired, such as attempts to support domestic technology by setting standards. The government tried to promote a home-grown 3G technology, TD-SCDMA, or TD-S, against foreign standards. By the time the government was ready to introduce it, Huawei and ZTE, a smaller rival, were already doing well abroad with no help from TD-S. In 2008 the government forced China Mobile, the world's largest mobile operator, to adopt the technology, but even this huge firm has struggled to sell it to its customers, mainly because of the lack of TD-S handsets. There is little chance that TD-S will ever be adopted outside China, and Chinese firms are hoping to move on to a 4G standard as quickly as possible.

Japanese industry, which has a leading position in nuclear power, got a shock when South Korea unexpectedly won a contract to supply four reactors to the United Arab Emirates last December. One reason was deemed to be lack of marketing support from government ministers. On June 1st, after years of stepping back from explicit intervention in the economy, METI announced a comprehensive strategy to promote five strategic sectors: infrastructure, environmental products, medical services, cultural industries and new fields such as robotics and space. With remarkable precision, METI projects that government support will drive these sectors to increase their collective market size by ¥27.4 trillion (\$318.7 billion) by 2020, with a net increase of 2.579m jobs.

Some of METI's new measures, such as reviewing immigration laws, make sense (Japan attracts only a tiny number of highly educated foreign workers). Picking so many sectors as winners, however, may dilute any impact on each one. And there is little sign of much desire to reduce protection to make industries more competitive. In food products, another area regularly touted as ripe for export growth, abundant protection for local farmers distorts the market and reduces competitiveness.

Of all the new strategies, France's *politique industrielle* looks the most defensive and politically driven. The FSI has invested in growth businesses, for instance creating a new biotechnology fund, but it has also put money into companies such as Valeo, an 87-year-old car-parts firm recently targeted by foreign activist shareholders for poor performance. It plans to invest in the remains of Pechiney, a former aluminium champion bought by Canada's Alcan some years ago. One of the main risks of state investment in companies—to allocate money for political reasons—is already apparent. The FSI has come under pressure to rescue Heuliez, a bankrupt maker of car parts based in the home region of Ségolène Royale, a former presidential candidate.

In Britain the coalition accused Labour of also using its new industrial policy for political gain. Vince Cable, the business secretary, says the government will not "wave a chequebook" at industry. He will concentrate more on measures such as simplifying regulation and lowering taxes for business. The loan to Sheffield Forgemasters, which wanted to break into the market for the very heaviest components for nuclear-power plants, has been cancelled. But the new government has confirmed several other decisions made by Labour, such as a £360m loan guarantee to Ford for research and development of green vehicle engines, and £3.9m for Michelin, a French company, to modernise a tyre factory in Stoke-on-Trent.

## Green dreams

Clean technology has captured the imagination of several governments, which are spending hundreds of billions in the hope of creating many jobs as well as meeting carbon-emissions targets. Many will find they wasted money, says Michael Liebreich, chief executive of Bloomberg New Energy Finance, which advises investors on renewables and energy technology. Most countries are trying to do the same things and not all will succeed. "Where the industry ends up will inevitably be different from where the money went in," says Mr Liebreich. Green manufacturing jobs may find their home mostly in China, not America, and China may struggle to make its mark in the research-and-development end of the industry, he says. Both are investing a lot (see chart).



Some green industrial policies have backfired already. Spain's fixed-price subsidy system for solar energy has been a disaster. The state dramatically underestimated the quantity of energy that would be sold at subsidised prices. Since the government picked up the extra cost to consumers in the short term but put no cap on the number of solar plants that could claim the high prices, it built up a huge off-balance-sheet liability. This week Spain said it would cut the guaranteed price to solar-power producers by up to 45%, angering investors in renewable plants.

Despite promises that they are not out to pick winners this time around, in green technology governments are doing exactly that. In April the European Commission anointed the electric car as the green vehicle of the future, giving warning that American and Asian competitors were moving ahead with their own programmes. Picking champions in clean technology is a mistake just as it was in older industries, says James Manyika, a director of the McKinsey Global Institute. A better approach would be to concentrate efforts on creating demand for green products and services by setting a carbon price, he says. Policymakers should leave individual products to emerge from the market.

America's investment of tens of billions to stimulate new green technology may be the biggest industrial-policy effort in history, according to Mr Rodrik. One slice is a \$25 billion low-interest loan programme from the Department of Energy (DoE) for new green vehicles. The DoE has made loans to Nissan, Ford, Tesla Motors, Tenneco and Fisker Automotive, a start-up, for a total of \$8.5 billion since the programme started in late 2008. Some in the green-vehicle industry argue that by lending such huge sums, the government is in fact stifling innovation by distorting the private venture-capital market. According to Darryl Siry, former chief marketing officer for Tesla Motors, venture capitalists are now interested only in companies with the DoE's seal of approval, so that the government has become the sole route to funding for new firms in the sector.

Creating jobs quickly is a priority. Fisker will use its \$529m to build and market two designs of plug-in electric cars, the Karma and another, code-named NINA. At the time it sought a loan, it was assembling the Karma in Finland. The DoE suggested that for the NINA, Fisker could shift manufacturing back to America. Exactly \$359m of the loan to Fisker, said the White House, would go to revive manufacturing at a factory in Wilmington, Delaware, which was shut by General Motors last year.

Few quarrel with the need for governments to help business with straightforward “horizontal” measures, such as research and development or fostering high-tech skills. But there is no accepted framework for “vertical” policy, favouring specific sectors and companies. Governments use industrial-policy tools only marginally more competently than in the past, says Christian Ketels of Harvard Business School.

The lessons of the past are clear. First, the more it is in step with a national or local economy’s comparative advantage, the more likely industrial policy is to succeed. Drives to spur high-tech entrepreneurship in areas of heavy manufacturing, for instance, face a struggle. According to Mr Lin of the World Bank, following comparative advantage has produced clear successes for some developing countries. Chile, for instance, moved from basic industries such as mining, forestry, fishing and agriculture to aluminium smelting, salmon farming and winemaking thanks to a number of government initiatives.

Second, policy is least prone to failure when it follows rather than tries to lead the market. Curiously, Sheffield Forgemasters might have been an example of the former: Westinghouse, an American company, had suggested to the Yorkshire firm that it should try to break Japan’s monopoly on ultra-large nuclear steel forgings.

Third, industrial policy works best when a government is dealing with areas where it has natural interest and competence, such as military technology or energy supply. The worst problems unfold when politicians intervene in purely private domains with short-term goals, bailing out old firms to save jobs or spending lavishly on white elephants. The present round of industrial policy will no doubt produce some modest successes—and a crop of whopping failures.

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