Other countries would love to import Germany’s economic model. But its way of doing things is a lot less amenable to export than the wares it produces
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Correction to this article
THE European Central Bank controls Europe's currency from Frankfurt, Germany's financial centre. Beckhoff Automation, in a bucolic corner of Westphalia, controls the bank. Or more precisely, its devices control the bank's lighting and ventilation. Other Beckhoff gizmos raise the curtain and dim the lights at Milan's Teatro alla Scala. Yet more are embedded in luxury sailboats, in dancing fountains outside Las Vegas hotels and in half the wind turbines made in China.
Related topics
Omnipresent but obscure, family owned but by no means puny, Beckhoff is among thousands of “hidden champions” that account for much of Germany's prowess as a manufacturer and exporter. Its sales leapt 34% to €465m ($608m) last year. It is aiming for €2 billion by 2020. Beckhoff exports more than half its output. But its manufacturing is mainly in high-wage, rule-bound Germany.

Largely thanks to its Beckhoffs, Germany looks like a bright exception to the dispiriting rule among developed economies. True, its economy contracted more than those of most rich countries during the 2008-09 world recession (see chart 1). But the jobless rate rose by less than in all the others, peaking at 7.9%. And nobody talks about downgrading Germany's AAA credit rating; it can borrow money for practically nothing.

**Envy and emulation**

Not all the news is good. The economy shrank in the final quarter of 2011; and even if first quarter figures do not reveal Germany itself to be in recession, its economy will continue to suffer the drag of recession elsewhere in the euro area and a slowdown in developing countries. But just 1% growth is enough to create jobs, according to Bert Rürup, a former chairman of the government's council of economic “wise men”. In a book written with a journalist, Dirk Heilmann, “Fat Years: Why Germany has a Brilliant Future”, he giddily predicts that by 2030 Germany will become the world's richest large country in terms of income per head.

Such success does not bring universal admiration. Germany is hated in parts of Europe for demanding growth-crushing austerity as the price for supporting the euro. Greek tabloids have depicted Angela Merkel, the chancellor, in Nazi uniform. A current account surplus larger than China's as a share of GDP is a badge of pride for many Germans (see chart 2). But economists such as Simon Tilford of the Centre for European Reform (CER) accuse them of “fetishising exports” while low wage growth depresses their demand for goods from other countries. When in 2010 Christine Lagarde, then France's finance minister and now head of the International Monetary Fund, questioned whether Germany's export-dependent model was “sustainable” she spoke for many.

Yet there is also a great deal of admiration. Spain's education minister is looking into Germany's “dual system” of vocational training, which combines classroom instruction with work experience. John Cridland, director of the
Confederation of British Industry, wants Britain “to have its own version of the German Mittelstand”, ie, firms like Beckhoff. Nicolas Sarkozy began his campaign for re-election as France's president sounding as if he would gladly swallow the model whole. Germany prioritised “jobs, jobs, jobs,” he said. “If it worked for them, why wouldn't it work for us?”

But is the model copiable? After a few days in East Westphalia-Lippe (now marketing itself to the world as OWL) you wonder. Beckhoff and its peers have global ambitions but their business culture has deep provincial roots. They look back as much as forward. “We have existed since 1825 and have been doing the same thing since then,” says Dieter Brand, chairman of the Sparkasse, or savings bank, in Bielefeld, the region's biggest town. In some senses the same is true of his corporate customers. Germany may have reformed and rearticulated its model in recent years. But the underlying skeleton is ancient, and perhaps inimitable.

Two decades ago, the country seemed distinctly arthritic. The euphoria of unification in 1990 was followed by the sharpest recession since the second world war. Some 500,000 manufacturing jobs were lost. Business was menaced by an overvalued D-mark, nimble Asian competitors and unification's huge costs. The economy had become rigid and uncompetitive, moaned entrepreneurs. The then-president, Roman Herzog, captured the zeitgeist in 1997 when he spoke of “the loss of economic dynamism, the torpor of society, an unbelievable mental depression”. Reformers clamoured for elements of the German model, like vocational training and centralised wage bargaining, to be scrapped.

**Shaping up**

Instead it was made more limber. Business outsourced some production to eastern Europe; fear of that process extracted concessions from German workers, who offered flexibility on wages and work hours in exchange for greater job security. In the subsequent decade manufacturing's share of GDP rose even as it was falling elsewhere (see chart 3).

In the early 2000s, with growth still in low gear and unemployment in double digits, the then-chancellor, Gerhard Schröder, a Social Democrat, started another round of gruelling physiotherapy. His labour-market reforms reduced unemployment benefits and liberalised temporary work. Since she became chancellor in 2005 Mrs Merkel of the Christian Democrats has raised the pension age from 65 to 67 and amended the constitution to require state and federal governments to cut their structural budget deficits to more or less zero (the template for what is now a Europe-wide agreement).

Benefits thought to be sacrosanct were cut. Income inequality rose. But so did employment. Core workers in industrial firms—the muscle behind Germany's manufacturing prowess—were not affected directly. But the rise in low-paid, insecure jobs has held down the cost of services, making it easier for factory workers to accept modest pay rises, points out Anke Hassel of the Hertie School of Governance in Berlin.

The original assembly of the German model also dates to a recessionary crisis following hard on the heels of a unification: a 23-year-long slump starting in 1873, two years after Bismarck finally succeeded in pulling Germany together into a single state. This Gründekrise and its prolonged aftermath forged new ideas about how capital, labour and the state should relate to one another.

An 1884 law created the dual-board system of corporate governance in its current form, with a managing Vorstand answerable to a separate supervisory board. Among the supervisors were bankers, who provided “patient capital”, and scientists, whose expertise was valued as highly. The vocational training system, set up during the 1880s, provided new producers of chemicals and machinery with skilled and loyal workers. Bismarck established the welfare state in part to cater to their needs. The way the health insurance system worked required capital and labour to co-operate, paving the way for works councils and, almost a century later, for mandatory representation for the workers on the supervisory boards of large companies.
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The “co-ordinated market economy” has withstood dictatorship, wars, revolutions and globalisation. It prizes trust, relying on the principle that nobody will “make full use of his freedom” by grabbing everything he can, says Werner Abelshauser, an economic historian at the University of Bielefeld. Its elements are “so tightly meshed”, he has written, “that it would be difficult to replace any one of them with an alien component.”

The trust and co-ordination may be national properties, but their roots are typically quite local. Before Bismarck, Germany's provinces, principalities and palatinates often had rulers who were keen to establish local industries. In 1678 Brandenburg's Great Elector gave Bielefeld the privilege of certifying the quality of local linen, cementing its position as a centre for the textile trade. Centuries later Beckhoff's first customers made machines for the furniture industry that had developed out of the crate-making trade that had grown with the export of textiles.

Dozens of other regions can tell similar stories, and these concentrations have become part of the country's contemporary success. On a list of 100 clusters picked by the European Cluster Observatory for their size, level of specialisation and location in “innovative regions”, Germany occupies 30 places.

Germany experimented with American-style standardised production during and after the second world war, which was one reason why it imported unskilled guest workers from Turkey and elsewhere. The Siren across the Atlantic called again in the 1990s and 2000s, urging Germany to deregulate, embrace services and maximise “shareholder value”. When that call was silenced by the financial crisis, “Germany had its consensus model to go back to,” says Gustav Horn of the union-linked Macroeconomic Policy Institute.

Small towns in Germany

Hans Beckhoff, boss of the automation company that bears his name, does not come off as a throwback. His silver-grey hair is modishly long, his collar unbuttoned. But some of his habits seem distinctly old-fashioned. Take his approach to debt: he's against it. Investment in the company is funded by him and his three siblings, the only shareholders. It is the same with nearby Miele, a 113-year-old maker of kitchen equipment and white goods, with annual sales of €3 billion. This is not the most efficient way to run a company. With more leverage Mittelstand firms could boost their pre-tax profit by several points, notes Armin Schmiedeberg of Bain, a consultancy. He thinks they are wise not to.

The point is not to maximise short-term profit, says Markus Miele, a managing director at his firm, but to aim at “where we want to be when we hand over to the next generation.” Mr Beckhoff says he fends off monthly offers to buy his company. Lack of financial ambition goes along with the observance of unwritten sumptuary laws. “Families behind the Mittelstand live in an acceptable, modest and healthy way,” says Mr Beckhoff.

Maybe that is because they lean so heavily on the skilled workers the country is so good at producing. Around half of German high-school students go on to dual training in one of 344 trades, from tanner to dental technician. Many of the courses are set by unions and employers' federations. State and local governments provide the schools where apprentices get their theory. Chambers of commerce and industry run the exams. When foreigners ask why youth unemployment is so low (just 8.2% compared with Spain's 50.5%), older Germans tout the dual system. Young Germans are not so convinced; it is the first choice of just a fifth of high-school students, says Swen Binner of the Bielefeld chamber of commerce. And the number of school leavers in OWL is dropping by 2% a year while demand for skills is rising. Business is adapting by blurring the previously sharp distinction between vocational and university training. Beckhoff now offers “academic apprenticeships”, which combine hands-on experience with study at a technical university.

The relationship between conscientious proprietors and diligent craftsmen is not without conflict, but it is set in a governance framework that contains disagreements without stifling them, and can deliver flexibility. In the metal and electrical engineering sector, the heart of manufacturing, labour contracts still tend to be settled on an industry-wide basis (outsourcing trouble, as some bosses see it).

Knowing what's kneaded

The entrepreneurs of OWL are confident that global trends will continue to go their way. 5 billion people can reasonably aspire to join the 1 billion who are already well off, says Mr Beckhoff. It will take “a lot of engineering” to pull that off without environmental ruin and strife over resources, and that will provide ever more opportunities for manufacturers.
As the aerospace industry turns to new materials like titanium and car makers shrink engines to boost efficiency, they provide machine-tool makers with new markets. And old markets can be refined as they grow. WP Kemper, a maker of baking equipment near Bielefeld, expects demand for dough to double over the next decade, as consumers in developing countries broaden their diets. The new generation of bakers will be unfamiliar with the mysteries of European bread, so Kemper is working on an “intelligent kneader” that knows when dough is ready.

Many *Mittelstand* firms are oligopolists, argues Mr Schmiedeberg, occupying niches so narrow that they attract few rivals. Increasingly, the niches are being defended with services, in this context not the term of derision it often is in manufacturing circles. Beckhoff builds its own sales and maintenance networks, relying little on dealers—unlike some of its non-German competitors.

The next stage is “hybrid value-added”, in which the product is an outcome that the customer wants rather than the good that produces it. Wolf Heiztechnik of Bavaria is developing a contract under which it sells temperature control rather than heating equipment. “Every Chinese firm can do the industrial part, not the whole hybrid,” says Karl Lichtblau of IW Consult, a consultancy. Counting industry-related services, he reckons, manufacturing’s share of GDP is more like 30% than 20%.

In places like Bielefeld the future looks like an extension of the past. Not everything changes at once, and institutions are there to help out. When the machine-building department at Bielefeld's University of Applied Sciences looked in danger of closing, industry drummed up interest among students to keep it open. IT'S OWL, a new initiative by machine builders, car-part suppliers and electronics companies, enlists universities to add intelligence to regional products, like Kemper's smart kneader. “We are successful because we have companies behind us and companies ahead of us,” says Mr Beckhoff. His advice to politicians: don't break the chain. But is the success of which he is justly proud enough? And is it something other countries can learn from?

The platform for Germany's success looks precariously narrow. Vehicles, machines, electronic devices and chemicals account for more than half of Germany's exports, and exports provided nearly all Germany's growth from 2001 to 2007. Optimists think Germany can keep its share of world trade, which grows twice as fast as global output, and thus stay ahead. But this is a big bet on a thin slice of the economy. Employment in manufacturing proper is less than a fifth of the total. In unglamorous, non-export oriented services Germany is in a much sorrier state. Stunted services depress incomes and investment. The OECD predicts that, as the population ages, potential growth will drop, falling below 1% by 2020. “The underlying issue is raising productivity in services and increasing wages in line with that,” says Mr Tilford of the CER.

Germany could do a lot more to perk up domestic demand. Deregulation of professional services would boost productivity and investment. Barriers to women working, including incentive-killing tax and benefit regimes and a shortage of crèches, should be removed. And Mr Tilford finds it “astonishing” that a country with a current-account surplus as big as Germany's insists on balancing its budget.

Demographic decline could initially be a blessing, shifting power to workers as the workforce shrinks, with the subsequent increase in labour costs boosting domestic demand (see chart 4). Verdi, the services union, extracted a 6.3% pay rise from federal and municipal governments last month. In the engineering sector, where talks are under way, bosses are encountering a more assertive union. Domestic demand is expected to provide all this year's growth, partly because Germany's European trading partners are in such bad shape. Many of them would profit from becoming more like Germany in terms of building business success, but there are limits. Any leader with backing and boldness can imitate some of what Germany did when its joints were stiffened, like raising the pension age (which France has only just started on) or cutting social-security contributions, as Mr Sarkozy talks of doing. Southern Europe's crash programme of structural reform is partly inspired by Germany. The
dual system may be exportable, though not overnight. But it is another matter to excel in high-end capital goods or
to assign to enterprise, unions and the state roles that
Germany has been practising, with disastrous interruptions, for more than a century. During the crisis Italy introduced
a short-time working scheme like Germany's, but the results were disappointing: Italian firms and their workers could
not mimic Germany's ordered flexibility. Germany can offer lessons in how to get back into shape; but the essence of
its model is rooted too deeply to be copied with ease.

Correction: In the original version of this story an out-of-date IMF GDP estimate was used in the first chart. The chart
now displayed uses IMF estimates released in April this year. This was corrected on April 19th 2012.

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