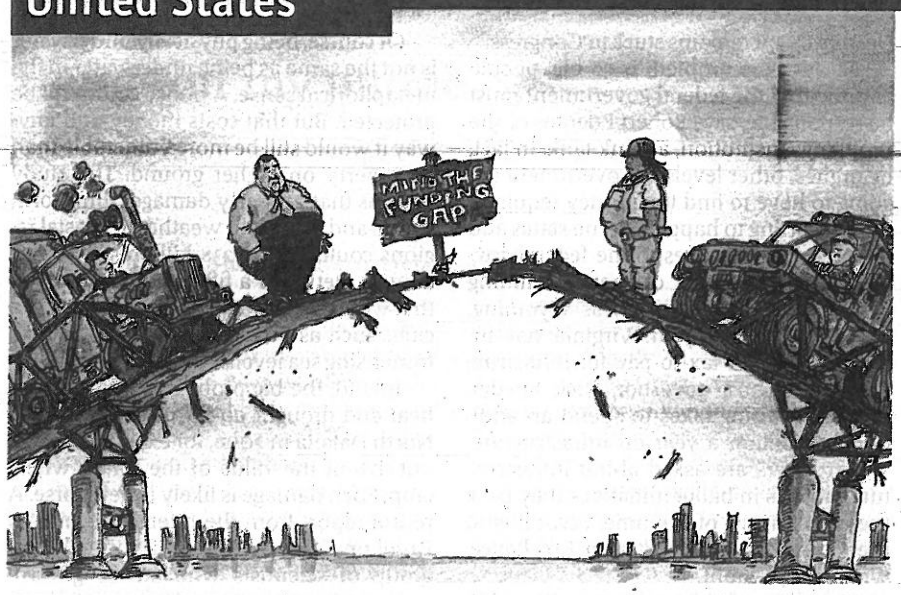




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America's crumbling infrastructure

# Bridging the gap

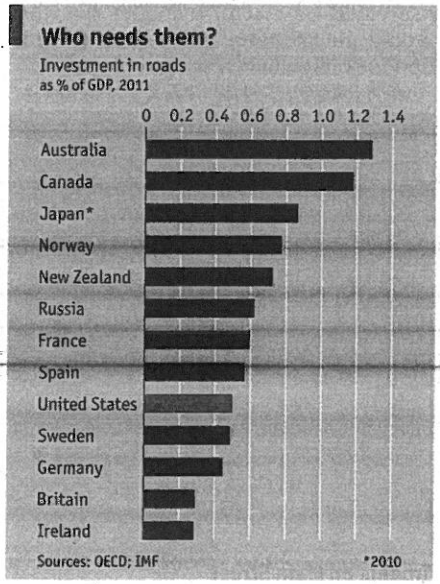
WASHINGTON, DC

**For a country where everyone drives, America has shoddy roads**

THE Pulaski Skyway is a bridge of beauty, a lattice of steel held high above the river that separates Newark from Jersey City. It is also a bit rickety. Some of its struts have begun to resemble the pastry on a millefeuille. Its structure is described as "basically intolerable" by the National Bridge Inventory. The thousands of motorists who cross it each day probably agree. With no money to pay for its maintenance, New Jersey re-classified the Pulaski as an entrance to a tunnel that maps suggest lies miles to its north, so that the Port Authority could be tapped for funds. For this, Chris Christie, the state's governor—who has had other troubles with bridges recently—finds his administration under investigation by the Securities and Exchange Commission and New York's District Attorney.

New Jersey's scramble to find money for basic repairs is not unusual. The Highway Trust Fund, a pot of federal cash that covers a quarter of spending by states on infrastructure, will have to start withholding money this summer to keep its balance above zero, as required by law. "The problem with the trust fund," says David Walker, a former head of the Government Accountability Office, "is that it's not funded and you can't trust it." A short-term fix may be found: Congress has already passed ten of these, shifting money from elsewhere to make up for a persistent shortfall in revenue from fuel taxes, which have been held constant since 1993. But such hand-to-mouth financing makes planning difficult and encourages city, state and local governments to put off repairs for as long as possible.

America saw two great booms in infrastructure spending in the past century, the first during the Great Depression, when the Pulaski skyway was built, and the second in the 1950s and 60s, when most of the interstate highway system was. Since then, public infrastructure spending as a share of GDP has declined to about half the European level. America is one of the most car-dependent nations on earth, yet it spends about as large a share of GDP on roads as Sweden, where public transport is pretty good (see chart). The federal government scrimps on airports and sewage pipes so it can pay for pensions and health care.




Something similar is unfolding at the state and local level, where three quarters of all spending on infrastructure occurs. States cut their budgets by 3.8% in 2009 and 5.7% in 2010—and have not made up the lost ground. Meanwhile bills for repairs are coming due. Much of what was built after the war was only designed to last for 50 years and now needs replacing. That includes almost half the country's bridges.

Signs of the shortfall are everywhere. Airports are funded by passenger fees and another trust fund. Neither has kept up with the increase in air traffic. The last big new airport was opened almost 20 years ago, in Denver. Everything about America's major airports is too small, starting with the gates for parking planes. Last year Boeing began offering aircraft with folding wing-tips because so many are damaged while trying to squeeze in. At the busiest international airports, clearing customs can take hours. At New York's JFK the average wait is about 30 minutes, but some poor souls wait four hours.

This is relatively efficient compared with what is going on in the sky. Most air-traffic control systems are less advanced than the technology found in smartphones. Alaska's Juneau airport, which is smothered by low-lying cloud, is an exception. Its airport introduced GPS navigation after there were threats to move the state capital to Anchorage because it was so hard to land. The result has been 2,000 fewer flights cancelled each year. Other airports still treat planes as if they were galleons crossing an ocean, travelling between fixed points on a two-dimensional map.

With interest rates low and companies sitting on $2 trillion in cash, this should be a good time to bring in private money to make up for the lack of public investment. That cause has not been helped by some ▸▸

high-profile flops: the consortium that took over a stretch of road in 2006 that runs from Chicago to the Ohio turnpike and is operated by Ferrovial of Spain and Macquarie of Australia is near bankruptcy. The involvement of two foreign infrastructure finance companies is telling: because America has been slow to adopt public-private partnerships its companies have little experience of them. The Port of Miami tunnel, a billion-dollar project which is due to open shortly, was financed by Europeans and used a boring machine built in Germany and shipped across the Atlantic in pieces to dig the tunnel.

**A long road ahead**

Jeff Immelt, the boss of GE, an industrial conglomerate, reckons that big public infrastructure projects require some government involvement, whether through subsidies, loan-guarantees or public-private partnerships. To this end John Delaney, a congressman from Maryland, has proposed a bill that would give firms a tax break on repatriated foreign profits if part of the money brought back was spent on infrastructure bonds. The bill has 35 Republican and 33 Democratic co-sponsors in the House and the support of seven Republicans and six Democrats in the Senate. Despite this, it remains stuck in Congress.

Because the problem is so big, people assume that the federal government must be responsible, says Robert Puentes of the Brookings Institution, a think-tank. In fact, he argues, other levels of government are going to have to find the money required. This is starting to happen. Some states add their own petrol taxes to the federal government's one. Eight of them, including some deep-red places such as Wyoming, put them up last year. Virginia has increased its sales tax to pay for infrastructure. Michigan's governor, Rick Snyder, proposed raising taxes to spend an additional $1 billion a year on infrastructure. When voters are asked about infrastructure projects in ballot initiatives they back them about 75% of the time, according to the Centre for Transportation Excellence, which keeps count.

For more of this to happen, Republicans—who control most statehouses and governorships—will have to stay their urge to shrink government and cut taxes. The party often argues that the federal government should spend less and let the states make more decisions about how to tax and spend. On infrastructure at least they have got their wish. Now is the time for them to show that they mean it. ■

Climate change and the economy

# The cost of doing nothing

**Scorched farms, flooded homes and lower productivity**

IT HAS been the hottest May ever, says the National Oceanic and Atmospheric Administration. The world's average surface temperature was 0.74°C above its 20th-century average. Alaska was almost 2°C above its 1971-2000 level.

The heat has brought American business out in a rash. Two weeks after President Barack Obama proposed new rules ordering power stations to cut carbon emissions, the bosses of several big firms (including Coca-Cola and General Mills) demanded that other governments get on with it and negotiate a treaty on greenhouse gases. Now Michael Bloomberg, a former New York mayor, and several other gazillionaires—including three former Treasury secretaries—have come up with new forecasts of the economic damage that climate change might do. Their study is notable for its wealth of detail and for concentrating on things you can see.

It looks at three areas where the weather makes the biggest difference: coastal property, farming and the effect of heat on work. It points out that, if the oceans go on rising at current rates, the sea level at New York city will rise by 27-49cm by 2050 and by 64-128cm in 2100. In Norfolk, Virginia—home to America's largest naval base—the rise could be 134cm. Increases like that would put property now worth $66 billion-106 billion below sea level by 2050.

Trouble on Main Street

Of course, being physically underwater is not the same as being underwater in the metaphorical sense. A house could still be protected. But that costs money and anyway it would still be more vulnerable than a property on higher ground. The study reckons that property damage from storm surges and other bad weather in coastal regions could reach $238 billion-507 billion in 2100. Between a fifth and two-fifths of that would come in the south-east. Coastal cities such as Miami are especially at risk from rising sea levels.

Inland, the big problem is the effect of heat and drought on farming. Drought in North Dakota in 2006, for example, wiped out 10% of the value of the state's wheat crop. Such damage is likely to get worse. A recent report from the Intergovernmental Panel on Climate Change (a controversial group of scientists who advise governments) argued that cereals are more sensitive to heat than used to be thought and that damage in hot agricultural areas would outweigh gains in cooler ones that warm up (such as the Pacific north-west).

On current trends, by 2050 America's most productive cereal-growing region, the Midwest, will have between nine and 28 days a year in which average daytime temperatures will be 35°C (95°F) or above; for the past 40 years, it has had, on average, just two such days each year. In even-more-sweltering Texas, Oklahoma and Kansas, the number of hot, hot days could rise from 39 to 67-99 a year by 2050. The heat could cut yields in the Midwest by a fifth, the study reckons—though that assumes farmers do not adapt by planting heat-tolerant crops, which of course they would. The problem is that, at the moment, new crop varieties cannot withstand such high heat without big yield reductions.

Steamy temperatures make people wilt, as well as crops. Previous studies have shown that, when the thermometer hits 37.8°C, the supply of labour in farming, construction and other outdoor jobs falls by an hour a day, compared with mild days at 24-27°C. The new study is more cautious: it reckons labour productivity among outdoor workers could fall 3% if there were 27-50 extra days of daytime temperatures over 35°C. That is still a lot (for comparison, total Greek labour productivity fell only 0.7% in 2013). Moreover, high temperatures do not affect only outdoor workers. Another study found that a week's worth of outside temperatures over 32°C cuts production in car plants by 8%.

This week, the Supreme Court limited Mr Obama's authority to use executive rules to rein in carbon emissions from some large polluters, though not from the ones which account for most of the pollution. It was a quibble at a time when, in America as a whole, business concerns about the climate are growing sharper, even if public opinion is not. ■