5

STIMULUS

If the Treasury were to fill old bottles with banknotes, bury them at suitable depths in disused coalmines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well-tried principles of laissez-faire to dig the notes up again . . . there need be no more unemployment and, with the help of the repercussions, the real income of the community, and its capital wealth also, would probably become a good deal greater than it actually is.

JOHN MAYNARD KEYNES, *The General Theory of Employment, Interest and Money*

Did he actually say that? (You see? I told you I'm reading those chapter-opening quotations.)

He did, or at least he wrote it. John Maynard Keynes suggested that you could not only boost employment in your economy, but even boost income and wealth, by printing money and burying it.

I thought we were supposed to be getting away from the idea of printing money.

Fair enough. Keynes was making a point by proposing an obviously absurd idea, so in the same spirit let's find an equally ridiculous one that doesn't involve printing new money. Let's say instead that your government finds a warehouse full of stale chocolate coins, the leftovers from some Christmas binge in the mid-1990s. (Fresh chocolate would never do: making new chocolate coins might accidentally stimulate the sugar, cocoa, dairy and gold-colored foil industries, and we want our example to be as pointless as possible.) You then hire a small army of people to bury the stale chocolate coins at the bottoms of abandoned mineshafts, and then another small army of people to dig the chocolate coins up again. Think of it as Sisyphus meets Willy Wonka.

Right. And why would we do this, exactly?

Well, you wouldn't, obviously. You might well decide that your government should try to boost the economy by hiring a small army of people. But clearly you'd be insane to make them bury and dig up chocolate coins. No, you'd put them to work on mundane and sensible-sounding things like sweeping the streets, or policing the streets, or building new streets, wouldn't you?

I guess so. Or building houses. Or updating the subway system. Come to think of it, perhaps laying superfast broadband to rural areas would be a better use of their time. They could work in early-years education, improving childhood outcomes and freeing parents to join the labor market. Or we could put them to work on green energy infrastructure. So many possibilities. What would you advise?

You see, you're illustrating one of the reasons Keynes chose such an odd example. Because you're a sensible person, you would focus on the microeconomics of the projects in question, which means

asking annoyingly reasonable questions such as "What are the benefits of having the streets swept?" "Are the street sweepers doing the job properly?" and "Could we do better by outsourcing the job, using taxpayers' money to pay a private-sector firm?" Perhaps you should even stop altogether, trusting that if private citizens want clean streets, they will organize themselves to achieve that goal.

All these are perfectly good microeconomic questions to ask of government projects. But government spending has a macroeconomic aspect, too. Perhaps Keynes was worried that whenever we consider a project with macroeconomic implications, we distract ourselves with the details. (Is this *really* the best way to keep the streets clean? Would we rather have rural broadband or an upgraded subway system?) And so we end up rejecting projects because of their doubtful microeconomic benefits, even if the macroeconomics look good.

It helps us to focus on the macroeconomic case for government spending if we consider a policy that quite obviously has no other benefits whatsoever—like burying and digging up chocolate coins. (Incidentally, Keynes had another reason to talk about buried banknotes: he also wanted to draw an analogy with mining for gold and silver. But fortunately, unlike Keynes, we don't need to get into arguments about a gold standard.)

Of course it would be better to build houses or subway systems, but for now let's follow Keynes and pick a daft project so that we can think more clearly about what government spending of any kind might do for—or to—your economy. So what happens if your government spends, say, a million dollars hiring people to do something completely, idiotically pointless?

My opinion poll ratings go down, I presume.

There is that. But let's stick to the macroeconomic effects. Economists find this question so intriguing that they have a special piece of horrible jargon for it: the spending multiplier.

Here's what the spending multiplier means. If your government spends a million dollars, and the economy grows by a million dollars as a result, the multiplier is one. If you spend a million dollars and the economy doesn't grow at all, the multiplier is zero. If the economy grows by $500,000 due to the extra spending, the multiplier is 0.5. You get the idea. The multiplier can be negative—say you spend a million dollars and the economy shrinks by $200,000 as a result. That's a multiplier of minus 0.2. And it can be bigger than one. If you have a multiplier of 1.6, then for every million dollars you spend, you will find that GDP grows by $1.6 million.

Let's start by thinking about a couple of simple cases to illustrate. If you were to implement your chocolate coin policy when your economy was doing well, you'd have a spending multiplier of zero. Your economy is limited by supply constraints: the stock of equipment, the infrastructure available, the workforce, its skills, and the number of hours in the day. If you hire people to bury and exhume chocolate coins, that can only mean they are not available to install kitchens, do waitressing or sell insurance. As the part of the economy controlled by your government expands, the private sector must shrink to accommodate it. Perhaps this is because taxes go up and people spend less money on kitchens. Perhaps it is because your chocolate coin program drives up wages, making it too expensive for the insurance company to hire agents, and it goes out of business. Whatever the reason, we know —because the economy is not in a slump—that a new government spending program will not make the economy any bigger. That's what a spending multiplier of zero means—every dollar spent by the government grows the economy by zero dollars.

I should point out that this doesn't mean all government spending in a booming economy is a

terrible idea. It simply means that we need to apply a cost-benefit test to your spending priorities. And in fact a traditional cost-benefit test of a government policy—such as, "Is burying and unearthing stale chocolate money really the best thing we can think to do with a million dollars?"—does assume a multiplier of zero. A million-dollar spending program, by definition, increases the size of the government sector by a million dollars, so a multiplier of zero would mean that the private sector would have to shrink by a million dollars if the economy as a whole stays the same size. That's what it really means to say that a project costs the country a million dollars. We should take the policy on its own merits rather than hoping it will produce some fuzzy benefit for the wider economy. And if the policy is chocolate coin burial, the cost-benefit test will not be passed. But if it's road building or staffing hospitals, then those policies might well pass a cost-benefit test. They would be worth doing even with a multiplier of zero.

Now let's imagine that we're in a slump, like the Great Depression—which prompted Keynes to write his *General Theory*—or like the recent financial crisis, which led a lot of governments to implement stimulus programs. Lots of people are unemployed because of sticky wages or sticky prices. People are saving their money rather than spending it, and the savings are sitting in ninety-year-olds' cookie jars or under mattresses rather than funding physical investment in new roads or factories. Here, supply isn't the limit on economic output; demand is. That means it's perfectly possible for your government spending program to hire people without hiring them away from the private sector. Imagine that you do so: you spend a million dollars hiring chocolate coin extractors, but the private sector doesn't shrink at all. In this case, every dollar you spend makes the economy itself a dollar bigger. In the jargon, the spending multiplier is one. The chocolate coin program is effectively free, and the only cost-benefit question to ask is whether, given a million dollars of free government spending, chocolate coin recycling is the best use of the freebie.

Hold on a moment. If we're not printing money, that million dollars has to come from somewhere. If I raise taxes by a million dollars to pay for my chocolate coin program, isn't that going to depress the economy just as much as the government spending stimulates it?

Let's not be hasty. Your government is spending a million dollars more, but is the public spending a million dollars less? Not necessarily. Think about how you might respond to getting a higher tax demand than you'd expected. You might meet it by cutting back your spending—perhaps by canceling a weekend away that you'd planned. Or you might instead decide to raid your savings or turn to your credit card, so that you can go on the weekend away anyway. Instead of taking the hit immediately, you'd cut your spending over a much longer period as you paid off your credit card bill, or rebuilt your savings. And getting people to borrow or raid their savings right now is, of course, precisely what we're trying to achieve to kick-start the economy.

Economists have a fancy term for this kind of thing: consumption smoothing. In one of my first jobs, for example, I was lucky enough to get a signing bonus. I didn't immediately go out and spend it, I put it in a savings account. Then, later, I left that job, and while I was out of work, I didn't immediately move back in with my dad; instead, I spent some of those savings to cover my rent while I looked for another job. That's consumption smoothing. Not everyone will want to smooth their consumption, and some people who want to won't be able to because they have no savings and no overdraft or credit card—but many people can and do. For most of us, it's common sense. That means

that if government spends an extra million dollars, and takes an extra million dollars in tax, citizens may not reduce their spending by the full million.

In reality, you won't see governments increasing taxes to fund their stimulus programs. You'll see them borrowing the money instead, and that will make the multiplier larger.

Why?

In theory, it shouldn't make any difference. Your taxpayers should think to themselves: "It's nice that the government hasn't raised taxes now to pay for all this spending. But taxes will have to go up later, and because of interest payments, the eventual tax bill will be larger. I would be well advised to put some money aside now in anticipation of that tax bill." If that happens, then funding the spending by borrowing instead of by raising taxes will make no difference to anyone. But this is not, of course, what happens in practice—citizens won't put aside the full amount to pay for future taxes, so you will tend to get a higher multiplier from your spending if you finance it through borrowing than if you insist on raising taxes to balance your budget.

But if I borrow the million dollars, won't that drive up interest rates, encouraging people to put off their own spending till later?

If the economy's doing well, then yes, it would. But remember we're assuming that this chocolate coin program is happening in an economy that's in a terrible slump. In a slump, people aren't eager to borrow. And if you're not competing with other potential borrowers, then it's perfectly possible that you could borrow money for your stimulus program without forcing up interest rates.

Ever heard the phrase "There's no such thing as a free lunch"? What you're describing sounds very much like a free lunch.

That's exactly what we're talking about. When Barack Obama's Council of Economic Advisers estimated the multiplier effect of the 2009 stimulus bill, for example, they were working with multipliers as high as 1.6. In other words, they anticipated that for every million dollars the government borrowed and spent, the U.S. economy would grow by $1.6 million.

A multiplier of 1.6 is possible because each dollar you spend hiring chocolate coin workers could, in principle, circulate through multiple transactions, each one of them counting toward GDP. So, for example, one of your newly employed chocolate coin miners—we'll call her Annie—gets her first week's pay, of $100. She takes her family out to a local restaurant to celebrate. The next day, the restaurant owner—call him Bill—uses the $100 to buy a long-coveted painting from Charlie's art gallery. Charlie uses that $100 to pay Diana to fix his leaky roof. And so on.

Come on. There's got to be some kind of catch.

OK, there is a catch. In fact, there are three. We've already met the first one: you'd better be sure that your economy really is in a slump when you implement your chocolate coin program. When your government spends money to try to give the economy a boost, the economy itself can push back. One way is through the financial system: as you spend money, interest rates will tend to rise, which, as you said yourself, will encourage people to delay their own spending. The second way is through a hard limit on what the economy can supply: if you hire good people away from the private sector, burn fuel

that was needed elsewhere, rent office space that others wanted, then the result will not be an increase in the economy's real productive output. It will merely be inflation.

To get a high multiplier, you need to assume that this economic counterthrust doesn't happen. Interest rates are zero and do not rise. Hordes of workers are unemployed, machinery lies idle and buildings are empty. Your chocolate coin mines merely shorten the lines for the dole. The increase in production isn't inflationary—it's perfectly real. In such circumstances the multiplier can be very large. But only in such circumstances.

The second catch is that, if you spend your stimulus money in the wrong place, the eventual multiplier could be less than zero. Suppose you raise a million dollars in taxes, and spend the money entirely on buying fine French wine for the government wine cellar—it is thirsty work running the country, after all. Your citizens have responded to the million-dollar tax increase by spending less—and you've spent their million dollars in France, boosting the French economy and shrinking your own. The multiplier is negative. So buy domestic products.

I thought you economists were all in favor of free trade.

We are big fans of free trade, as that's usually the way to get the cheapest, highest-quality products. But we're assuming very special circumstances here: the economy is stuck in a recession thanks to lack of demand, and the government is trying to stimulate it. In those circumstances, discriminating against foreign products makes sense for the whole economy.

You said there were three catches. What's the third one?

We've been talking about a one-off program. You raise a million dollars by taxing or borrowing, you spend the million dollars, and—boom—your economy gets a much-needed shot of adrenaline. But it's in the nature of government projects that they tend to create vested interests with a strong incentive to keep the cash flowing indefinitely. Before you know it, you have the Union of Cocoa Entombers and Exhumers hiring lobbyists, you have elected representatives in constituencies with abandoned mineshafts calling for the program to be expanded, you have the civil servants who've been put in charge of the program doing everything they can to safeguard their jobs, and so on. It might be a case of "Act in haste, repent at leisure."

What if I borrowed $1 million and used it to cut income tax rather than fund government spending? That would avoid the "Repent at leisure" problem, wouldn't it?

You might still find it hard to raise that tax back up. But in general, there's a reason why it's more effective to stimulate the economy through government spending than by giving people a tax rebate—some of those tax rebates will go straight into savings accounts, or be spent on imports, neither of which will directly boost the economy. The point of stimulus is that the money should be spent, and the best way to guarantee that is to spend it yourself.

On the other hand, tax cuts do have the advantage of being very quick to implement, whereas it might take you months to organize the logistics of burying chocolate coins. And if you cut sales tax rather than income tax, then that will have a more direct effect of encouraging spending. Still, in theory, if you want to make sure money is spent boosting an economy, the best way is to spend it

yourself.

Enough of the theory. Before I hire my army of chocolate coin workers, I want to be able to tell in advance what it's going to do to my economy. Will the multiplier be negative, zero, one, 1.6? What's the real-world evidence?

That's a slightly sensitive question, I'm afraid. I am all in favor of using as much empirical evidence as possible, but when it comes to the multiplier, this is no easy task—in any complex economy, there's just too much going on.

For the sake of being specific, think about the United States. Stimulus attempts began during the presidency of George W. Bush, with a tax rebate for most taxpayers that had a total value of around $100 billion during 2008. After President Obama's election, a further $800 billion stimulus was passed early in 2009. Almost $300 billion of this was in the form of tax rebates and other tax cuts. Other chunks—for instance, $100 billion of infrastructure funding—weren't necessarily spent in 2009. Still other chunks—such as the $50 billion of aid to school districts—were designed to offset spending cuts at a more local level, so they weren't really stimulus but anti-anti-stimulus. Then there was the notorious "cash for clunkers" program: for one month during the summer of 2009, the government gave people an incentive—around $4,000—to scrap old cars and replace them with new, more efficient vehicles. Monetary policy was very loose at the time, with the Federal Reserve printing money, cutting interest rates and providing plenty of support for struggling banks and insurance companies. U.S. export markets were weak. As I say, there was a lot going on. So was the stimulus too big? Too small? Spent at the right time or the wrong time? Likely to increase spending, or directed at other priorities? In the alternative universe in which no stimulus occurred, what would have happened? We can try to look at the path of unemployment and economic growth and compare it to the injection of stimulus; but any conclusions would have to be pretty tentative. You can tell a similar story for the United Kingdom, Brazil, China, France, Greece, Iceland, Ireland, Italy, Japan, Spain and a host of other countries that responded to the financial crisis with a smorgasbord of initiatives against a backdrop of global economic fluctuations. With the best of intentions it is hard to be sure which policies had which effects.

Some credible studies after the U.S. stimulus reckoned the multiplier for the most successful bits of the stimulus (payments to low-income households and to state governments) was around two, which is impressive. But other studies were much more skeptical.[1] And some parts of the stimulus were roundly criticized. For example, an evaluation of the cash-for-clunkers program by Resources for the Future—an environmental think tank with no particular partisan ax to grind—concluded that much of the effect was simply to subsidize purchases that would have taken place anyway.

I always thought that program was a waste of money.

I agree, it does sound daft to try to stimulate the economy by handing out money to people who were planning to buy cars anyway. But those people saved $4,000 when buying a car that they were planning to buy in any case; perhaps they spent the $4,000 on something else.

Anyway, you're getting distracted by those sensible cost-benefit questions that Keynes warned us about. I'm not arguing that governments never back stupid projects. I'm arguing that if your economy's in a slump, then even stupid projects can give it a boost. It might have made perfect macroeconomic

sense for Obama to propose burying the clunkers and digging them up again.

All right, I can see why it's hard to be confident about the size of the multiplier. But still, there must be some estimates out there.

There are. For instance, the International Monetary Fund spent much of the financial crisis arguing that spending multipliers were around 0.5. Then, in late 2012, the people there announced they'd got it wrong and the multiplier was at least 0.7 and perhaps as high as 1.7.

That sounds like a pretty big error. How could they have gotten it so wrong?

Because they were looking at historical experience. Most recessions are not deep and prolonged slumps, so in most cases when government ramps up spending, the economy will push back, as we discussed: prices will tend to rise and so will interest rates. But the recession of 2008 was no ordinary recession—the extreme assumptions we've been making, of weak demand, slack capacity and rock-bottom interest rates, have been all too realistic in the crisis.

The IMF's admission caused such a fuss because many countries had been responding to the recession not by increasing government spending, but by cutting it. It's a debate that has polarized politics in many countries since the crisis began—should the government be borrowing to try to boost the economy, or tightening its belt in a time of crisis? As political leaders and moods have changed since the financial crisis began, stimulus packages and austerity measures have been introduced, denounced, withdrawn and reintroduced. The thing is that, just as borrowing to stimulate the economy is much more effective when the multiplier is 1.7 than 0.5, likewise cutting spending when the multiplier is 1.7 is far more damaging than cutting when the multiplier is 0.5. If you have a multiplier of 0.5, a spending cut of a dollar shrinks the economy as a whole by 50 cents; the government spends a dollar less, while the private sector grows by 50 cents to fill some of that slack. But with a multiplier of 1.7, when government spending shrinks, the private sector shrinks, too.

The IMF was admitting that it hadn't realized how much damage government spending cuts would do to economic growth. The reason the IMF felt it had got it wrong is quite simple: the relatively mild recessions it had been analyzing were a poor guide to the much more serious recessions seen around the developed world since 2008. The IMF's historical evidence simply wasn't terribly relevant.

And the IMF are supposed to be world-leading experts, I assume? It's not very reassuring that they can get things so wrong.

Indeed not, and their error was pretty elementary. At least it wasn't as basic as the mistake that embarrassed two Harvard professors when they weighed into the debate about spending cuts.

Which was?

Carmen Reinhart and Ken Rogoff presented a research paper called "Growth in a Time of Debt" in 2010, at a time when politicians everywhere were fiercely arguing about the wisdom of getting into further debt in the hopes of kick-starting the economy. From a bunch of statistical correlations between countries' growth rates and their debt/GDP ratios—which are a simple way to measure how much money a country's government has borrowed, relative to how big the economy is—Reinhart and Rogoff presented what quickly became a famous result: If a country's debt/GDP ratio rises about 90

percent, economic growth tends to be substantially slower.

Politicians who favored spending cuts jumped on this result, as you might expect. Paul Ryan, later the vice-presidential running mate of Mitt Romney, mentioned the 90 percent growth collapse while arguing the case for the budget proposals that made his name. Olli Rehn, the European Union's top man on economics, also mentioned the 90 percent cutoff. Professors Reinhart and Rogoff were invited to address a group of U.S. senators. And their work was much mentioned by journalists. It was seen as relevant, of course, because efforts to stimulate the economy involved cutting taxes, increasing government spending and borrowing more money in the short term—which for many countries meant approaching or exceeding that dangerous-sounding 90 percent debt/GDP ratio.

Now the story switches to the University of Massachusetts, Amherst, where a graduate student in economics, Thomas Herndon, was set a routine assignment: choose an interesting economics paper, get the data and try to repeat the analysis. This is called a replication exercise, and it's good practice for young researchers. Herndon picked the Reinhart-Rogoff research, and quickly ran into trouble: he simply could not replicate the results from "Growth in a Time of Debt." And of course his heart sank because, well, he was just a student and Reinhart and Rogoff were Harvard professors.

Eventually, Thomas Herndon approached Reinhart and Rogoff directly, and they sent him not only the data that was publicly available from their website, but the actual spreadsheet they had used to crunch the numbers. And he found—after blinking, rubbing his eyes and asking his girlfriend to check—that Carmen Reinhart and Ken Rogoff had made a pretty basic error in Excel: they omitted some of the rows, and thus didn't include the data for Australia, Austria, Belgium, Canada and Denmark.

Oops.

Oops. Actually, Herndon raised other questions about the paper that ended up making a much bigger difference. He found that when more recently available data was included, the results changed substantially. He also picked a methodological fight with Reinhart and Rogoff; who wins that one is more a matter of opinion. Of course, pro-stimulus politicians and commentators milked the discovery of errors in the paper just as enthusiastically as pro-austerity politicians had milked the original paper.

This was overblown on both sides. An Excel spreadsheet full of correlations from wildly different countries in wildly different circumstances didn't prove much in the first place, so discovering errors in that spreadsheet doesn't disprove much, either. The bottom line is that lots of debt seems to be correlated with lower growth, as you would expect, but that eye-catchingly sharp cutoff at 90 percent is imaginary. And finding a correlation is no proof that debt causes slow growth: the idea that slow growth causes debt is at least as plausible.[2]

This skepticism about data is a bit depressing.

Data and evidence are important, but in macroeconomics we just don't have enough data to be conclusive—so for now the data will be only a part of any argument.

Think of it this way. If you really wanted to run a rigorous economic experiment, you'd take every economy in the world, and you'd split them into two groups at random. One group of economies would get a big fiscal stimulus. The other group would get nothing. You'd see what happened to growth rates in each group. That's as close as you could get to a nice clean macroeconomic

experiment, and even then there would be some confusion in the data, because the no-stimulus countries would be trading with countries that had received the stimulus. If you really want to run this kind of experiment, just apply to the United Nations and let me know how you get on. Until then, let's simply acknowledge that the way macroeconomic policy is actually conducted is as far as possible from a robust scientific experiment, and I doubt that's going to change in a hurry.

There are some general things we can say about the likely relative size of multipliers in different kinds of economies. A study by Ethan Ilzetzki, Enrique G. Mendoza and Carlos A. Vegh[3]—which concluded that multipliers are larger in economies that don't trade internationally much—doesn't refer just to North Korea, but also to the United States, because the U.S. economy is so large that the domestic market looms large relative to exports and imports. That makes sense—if you have a large domestic market, it's less likely that your stimulus will end up in the coffers of French vineyards. (An aside here: If you add up U.S. exports and imports, the total will be around 20–25 percent of GDP. That figure is around 50 percent for many European economies, 100 percent for South Korea, more than 150 percent for Estonia and more than 300 percent for Singapore and Hong Kong. Recently economists have been arguing over whether Estonia's austerity was a success story or not; an interesting question in its own right, but one that tells us nothing at all about whether the United States should be engaged in stimulus or austerity.)[4]

Ilzetzki and company also concluded that multipliers are larger in economies with fixed exchange rates, such as those that belong to the eurozone. This also makes sense—we already know that sticky prices are a key explanation for why an economy gets stuck in a recession, and a fixed exchange rate is a very important, very sticky price. Painstaking as this research is, though, it deserves—like the IMF's—to be filed under "best guess" rather than "cast-iron proof."

But I need practical advice. I understand that the facts are murky—just give me your best shot.

OK. Here's my four-step guide to effective fiscal policy in a crisis.

Step one: Start thinking about this when you're not in a crisis. Prepare the ground. If you're going to want to borrow money in a recession, you're going to need people to be willing to lend you that money, so it really helps if you begin the recession without being hugely in debt already. Unfortunately, very few governments take this advice. (I should admit that there are exceptions. Ireland and Spain both had low and falling debt before the crisis, but the recession was so deep and their banks so vulnerable that both countries struggled to find people willing to lend to them. The United States and Japan looked much more profligate, with persistent deficits and higher debt. But neither country has any trouble finding willing lenders. Life can be unfair.)

Another thing you should do when times are good is identify some big public investment projects with reasonable benefits, conduct all your due diligence and then keep them on the shelf. That way, you're not going to waste precious time in a recession dithering about whether to build airports or hire street sweepers or bury chocolate coins. All you have to do is take a plan off the shelf, dust it off and put it into action. There are always big infrastructure projects worth doing sooner or later; best to do them when the economy is depressed. If you've misdiagnosed the situation and your infrastructure fails to provide any stimulus to the slumped economy as a whole, you still have the benefits of having a new road, hospital or power station.

Step two: When the crisis hits, use monetary policy as your first line of defense. Cutting interest

rates is simple, relatively quick, and easy to reverse if the economy recovers and inflation begins to rise. Monetary policy is better understood than fiscal stimulus, and more likely to have been placed under the supervision of technocrats—independent central bankers—who are less influenced by the rough-and-tumble of short-term political expediency. It's also likely to be enough to stimulate the economy out of a recession that's short and shallow.

There will always be people who, for ideological reasons, like the idea of the government spending more money, and they'll be first in line to explain that fiscal stimulus is a no-brainer. Usually they will be wrong. They'll be wrong if the recession is a mild one, if monetary policy has plenty of scope (i.e., if interest rates are well above zero) and if the economy is small and open, with a flexible exchange rate. They'll probably be wrong if even some subset of those conditions applies.

It just so happens that in the most recent crisis, interest rates *were* near zero; the economies involved *were* large and often had fixed exchange rates; the recession was *not* mild. There is every reason to believe that fiscal stimulus was entirely appropriate. But these are lessons applying to an important and recent case. They are not universal truths.

Conversely, there will always be people who, for ideological reasons, hate the idea of government spending and will be first in line to explain that stimulus spending is wasteful and simply gets in the way of more efficient private projects. They are often right about that, but recently—at least according to my reading of the evidence—they've been wrong.

Step three: If the recession is starting to look long and deep, go to the shelf for those projects you identified earlier and start building, quickly. A problem with many stimulus spending schemes is that they take so long to get started that the recession is over before the foundations are laid. If you spend money on less-than-brilliant projects in an economy that has already recovered, all you'll do is fuel inflation while making the economy as a whole work less effectively.

Step four: Make sure your fiscal stimulus projects don't make people nervous about how you're ever going to repay your debts. If that happens, investors will become unwilling to lend you the money you need to borrow, and taxpayers will start to think about saving for future tax hikes.

On the taxation side, you could announce a temporary cut in sales tax. This encourages people to spend money now because they know it will buy less in the future. On the spending side, aim for investment projects that are one-off by their nature—build a new high-speed railway line, fix potholes in the roads, that kind of thing. Unlike burying and exhuming chocolate coins, these kinds of projects will be helpful after the recession is over, and minimize the risk of creating vested interests.

That advice might seem blindingly obvious, but, again, unfortunately many governments don't take it—they tend to cut investment during recessions because it is politically much easier to do that than to cut pensions, civil service salaries and welfare benefits.