Thinking about more than one thing at a time: Eric Leeper on monetary and fiscal policy interactions

Interview conducted by Tim Ng

Eric Leeper, Professor of Economics at Indiana University, visited New Zealand in October and November 2008 as part of the Professorial Fellowship in Monetary and Financial Economics sponsored by the Reserve Bank of New Zealand and Victoria University of Wellington.[1] Professor Leeper is also a director of the Centre for Applied Economics and Policy Research at Indiana University, a Research Associate at the US National Bureau of Economic Research, and an External Advisor to the Sveriges Riksbank (the Swedish central bank), and has been a visiting scholar at the Federal Reserve Board. His extensive publications and expertise cover monetary theory and policy, and interactions between monetary and fiscal policy. In this interview, he talks about how fiscal policy could be improved, the roles of fiscal and monetary policy in stabilising the economy, and some current challenges for fiscal and monetary policy-makers.

Why did you become an economist, and what led you to the research topics you've chosen?

I had an early interest in politics and in public policy issues, dating back to when I was in high school. I got involved in my first political campaign in 1976. I had this naive view – I remember telling people this – that I was going to go into economics, because I wanted to go into politics and politicians need to understand the budget. The irony here is that I haven't gone much beyond that. I'm still trying to understand the government's budget. It's a major focus of my research.

More generally, I think that economics is at its best when it's useful. It doesn't have to be just about macroeconomic policy. There are very interesting microeconomic papers trying to explain phenomena we observe in the world. Like anybody, I admire the beauty of an elegant proof – there may be something perverse about economists in that there's a part of us that really likes clean logical arguments – but at the same time, I also want to be saying something about the world. Not all economists have that little extra burden to carry, perhaps, but it's true for me. Good research has to have very rigorous thinking involved, but primarily I'm interested in that middle ground between research and

Professor Eric Leeper enjoying the Wellington sun. (Tim Ng/RBNZ)

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1 Details about the Professorial Fellowship programme, including past and future fellows, may be found on the Reserve Bank's website at www.rbnz.govt.nz/research/fellowship/fellowship.html. Materials from Eric Leeper's public lecture delivered as part of the programme are also available at links from that web page.

practice. The middle ground often ends up being quite a lot dirtier than the pure research part.

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How should one deal with the communication and perhaps political issues that can arise in the middle ground – the emotional content of the ideas; the risk of oversimplification?

Use the example of monetary policy. As a profession, we've made tremendous progress in thinking about monetary policy, talking about monetary policy and executing monetary policy. It wasn't that long ago that people were using metaphors to talk about monetary policy, like Friedman's famous "one foot on the accelerator, one foot on the brake", "pushing on a string" – all these vague metaphors.

Since then we've made tremendous progress in communicating clearly, but also rigorously, about monetary policy. We talk about expectations formation, we talk about dynamics. These are pretty complicated concepts. It's not just "the demand for some good has gone up, therefore the price rises".

I see no reason why we can't make similar progress with fiscal policy. Now, fiscal policy, almost by construction, is more complicated than monetary policy simply because there are so many more instruments. You have all the different components of government spending and transfers, you have lots of different kinds of taxes. They are emotion-laden. I care a lot more about the taxes I pay than about the price that somebody else is getting. But that doesn't mean we can't talk clearly about this stuff.

There is another issue here. Somehow, we have agreed as a society that we would take day-to-day monetary policy out of the hands of politicians. Obviously, monetary policy is ultimately still in the hands of politicians, but not at high frequency. We haven't done that at all with fiscal policy – it's still very much controlled by the whims of elected officials.

Now, I don't actually think we should take fiscal policy out of the hands of elected officials, but the fact that it is in their hands means that often the arguments for taking certain fiscal actions are more politically driven than economically driven. There often aren't clear economic arguments for the decisions that get made about fiscal policy, whereas there almost always are regarding monetary policy. There's still room for disagreement, but that doesn't mean the decisions aren't economically driven.

One could attribute the strong economic basis of contemporary monetary policy – which I presume you view positively – to the devolution to technocrats of day-to-day monetary policy. So why don't you think that the administration of fiscal policy should be similarly devolved?

For democratic reasons, I'm actually still torn about the idea of taking monetary policy out of the hands of the electorate. And so I'm not comfortable with taking tax and spending decisions out of the hands of elected officials. I can't really articulate why.

I do think that we could, as a society, come up with broad guidelines for fiscal decisions. We haven't done nearly enough of that. Fiscal policy tends to get jerked around a lot. You go through periods where there's lots of government spending and low taxes, then we see government debt build up, so we reverse ourselves to get debt back down again.

New Zealand has made some headway through the Fiscal Responsibility Act and other legislation, but it still has quite some way that it could go. As an electorate, we could come up with some guidelines that could reduce how much fiscal policy fluctuates at low frequencies. However, society as a whole still ought to make the decisions about how much we value education, how much we value healthcare, how much we want to redistribute income. I think those decisions belong in the hands of the public, not in the hands of technocrats.

Now we could, as a public, agree on some broad principles. Just as an example – this is not necessarily my view – a broad principle could be, "the role of tax policy is to maximise the revenue that can be raised while minimising the deadweight loss or the inefficiencies associated with the policy". End of story. Then it becomes a technical issue – you could hand the broad principle to the technocrats and say, okay, estimate the elasticities, design a tax code that will achieve this.

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But then you've taken a lot of discretion out of the hands of policy-makers, because you have stated there is a single objective of tax policy. Now I'm not sure any society is going to buy that, but it is an example of something that society could agree on. Of course, society could change its mind down the road and decide no, we want tax policy to do more things. But, the day-to-day stuff, the high-frequency stuff, would get driven by the technical considerations.

Nobody has seriously proposed that we should be holding referenda on what the setting of the interest rate should be. And yet in effect we do that with tax and spending policies. Every time we vote for a new government, we're voting for a new tax and spending policy. And it's a bit odd that we do that with fiscal policy, but we do.

So we need a way to ensure that the fiscal authorities commit in a better way to fiscal sustainability?

Exactly. There's a fundamental tension stemming from the fact that governments are quite short-lived. The public is, in effect, infinitely lived. I care about my children, and my children's children, and so as a public we should take a long view, but governments never have long views. So the fundamental question is, how do you reconcile this tension?

People tell me "Oh, it's hopeless, because you can't force future governments to commit", but I don't see why we can't. We've chosen not to, but that doesn't mean we can't. You could impose whatever constraints you want on future governments, because it's society doing it. And if people don't like it, then they shouldn't become a government!

There's a lot of room for us to try to reconcile this tension, which is really a principal-agent problem. The principals have an infinite horizon perspective and the agents don't. How do we force the agents to have that long view? You have the same issues with corporate control. The stockholders have an infinite horizon perspective, whereas the CEO is looking at the next profit statement.

We have established ways of trying to reconcile that principal-agent problem in that case. We create contracts and incentives for CEOs to take the long view. Not always successfully, but we try.

So I think that there are things we could do on the fiscal front.

Can we turn now to current circumstances. Countercyclical fiscal policy is now clearly back on the table, as a response to the financial crisis and global recession, in a manner it hasn't been for decades. What does your research tell us about how fiscal policy should be conducted in circumstances like this?

The main message of my research is that if a government tries to offset an economic downturn by increasing spending or reducing taxes and then borrowing to finance it, fiscal policy will have to adjust in the future. There will be more debt to service and so either revenue will have to be raised, or some form of spending cut, in the future to ensure that policy is sustainable.

Now, the effects today of the countercyclical fiscal policy depend critically on how people believe policy will adjust in the future. It's easy to show theoretically that when you do a fiscal expansion – let's say an increase in government spending – that increases the demand for goods today, people will work harder and output will go up.

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The ultimate effect of that stimulus on, say, GDP will depend very strongly on how policy will adjust in the future. There is a scam usually used in theory where we assume that something very neutral does the adjusting, like a rise in lump sum transfers in the future, as opposed to, say, changing a margin through a distorting tax on capital or labour. With that scam, then sure enough, you get the predicted effects that the increase in government spending will raise GDP.

But there's essentially no evidence, at least in US data (and we don't really have evidence from other countries), that higher government spending is typically met by lower lump sum transfers in the future. Instead, higher government spending tends to be met by higher taxes in the future.

Well, if everyone knows taxes are going to rise in the future, then that will reduce the incentive to work, because people will expect the after-tax wage to be lower. That will ultimately offset the beneficial output effects of the initial expansion in government spending.

So the point is that a complete specification of fiscal policy, if you really want to stimulate the economy, is not "let's increase government spending today", it is "we're going to increase government spending today, we're going to finance it by borrowing from the public, and then we're going to adjust some other policy in the future in order to ensure that it's a sustainable policy". Well, we never do that future part.

Individuals in the economy, because they're forward-looking, will form expectations about the future part. The question is whether governments are going to help us form those expectations or not. And the answer in every country, as far as I can tell, is that they typically are not going to help us with that.

By what means could governments help form those expectations?

Governments sometimes have targets for the level of debt in the economy. For example, New Zealand informally has a 20 percent debt-to-GDP target. That at least tells you that some adjustment will occur to bring debt back down if it goes beyond 20 percent, but it doesn't tell you what adjustment. What adjustment is the critical question.

This goes back to the principal-agent problem. We, as the principals, want to know how policies will adjust in the future. Agents – the current government – have no mechanism for forcing future governments to adjust in certain ways. There's a fundamental problem there. If you really want to try to achieve transparency in fiscal policy, you have to solve that problem. And I don't even hear people talking about this as if it's a problem!

The Obama Administration has announced very dramatic fiscal actions that they would like to take. There has been absolutely no discussion about the long-run adjustments that will have to occur. So we're left as ignorant as ever about future fiscal policy.

In New Zealand, we managed to achieve fairly broad-based agreement that the fiscal accounts had to be brought and kept under control. Given what you said about a lack of transparency in fiscal policy, at least compared to monetary policy, should we be surprised that that happened?

I'm really asking for more than the kind of minimalist approach where we say that fiscal policy should not be completely irresponsible. It's not hard to get agreement that we ought to have responsible fiscal policy. I think it's much harder to get agreement on how are we going to achieve it.

Even in New Zealand it's not completely obvious that, ultimately, there's any reason the government has to come back to the 20 percent debt-to-GDP target. The Treasury is now projecting debt to rise from 20 percent of GDP to 30 percent over the next decade. Well, what about after that? If you look at the long-term projections, the debt-to-GDP ratio grows exponentially.

It's one thing to get the broad-based support for the concept for having fiscal policy be sustainable. It's quite another thing to get agreement on what that means, and how you're going to achieve it.

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Is a 30 percent debt-to-GDP ratio a lot worse than 20 percent, or just a little bit worse?

I think the research is almost silent on this question. What happened when New Zealand was at 50 or 60 percent was that you had to start to pay a premium for borrowing from abroad. So there's a risk element that kicks in. But you know that risk premium is something that's endogenous. With other kinds of reforms to fiscal policy in New Zealand you could well be at 50 percent, but not have a premium to pay.

I don't think we understand this element very well. If you look at the Treasury's long-term projections, you're on an exploding debt path right now, and yet you're not paying that risk premium.

This is where I think academics have really dropped the ball in the optimal fiscal policy literature. The message of that literature is keep tax rates smooth, and that taxes on capital should go to zero asymptotically. Therefore, tax rates on labour should be smooth. Well, how do you achieve that? You do it by allowing government debt to be a buffer.

In simple models, that implies that government debt becomes a unit root process. So with positive probability, it can grow infinitely large. That completely contradicts the idea that it's a good idea to have a debt-to-GDP target. Reconciling all these issues is something that the research hasn't done.

Even if you have a smoothing objective on tax rates, why can't you let them wobble around a bit, provided you stabilise debt over the medium term?

But then tax rates won't be smooth – they'll have to move around a lot if government spending is a given. Either debt has to move around a lot or taxes have to move around a lot. There is a government budget constraint that is binding period by period.

If you consciously stabilise debt, that produces more volatility in tax rates than is "optimal", in this literature.

So there's a lot of loopy stuff that comes out of the optimal fiscal policy literature. The other big result is that if something is inelastically supplied, then you should tax the hell out of it. At the beginning of time, government should tax the hell out of everything that is being inelastically supplied, run a massive surplus, use it to lend to the private sector, and then live off the interest proceeds for the rest of eternity.

Well, gee, that's not terribly useful advice to give a government, but that's what comes out of some of this literature.

I think we're only now beginning to make real progress in thinking about fiscal issues. The unfortunate thing is that most of this is being done in isolation from monetary policy. We still aren't really fully integrating monetary and fiscal policy analysis.

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Does the optimal fiscal policy literature say anything about stabilisation policy?

It's actually pretty hard in these formal models to find a rationale for countercyclical fiscal policy. I think part of the reason for that is that we're using models where, basically, fiscal policy is bad, in the sense that it's sucking resources from the economy, it's distorting margins… this kind of thing. In modern models, the old Keynesian argument that you're operating well below potential and there's a need for fiscal policy to stimulate demand – that role isn't very strong, and it gets swamped by the distortions. You can put certain kinds of imperfections like monopolistic competition and so forth into these models, but you still end up finding that the distortions swamp things.

Now, if we had a serious model that could address the current financial crisis, you might find that there's a substantial role for fiscal policy. In an environment where, say, monetary policy has lost its effectiveness, or is less effective than usual, then maybe there is a role for fiscal policy. But we don't have any models like that, so this is conjecture.

There is the argument that, in the Great Depression with the liquidity trap, that's when fiscal policy really comes into its own. And maybe that's the situation that's going on now.

There are really two components to this issue. The first component, which I've talked about, is that you can put certain kinds of imperfections into your models, which fiscal policy could help to offset by taking countercyclical actions. But it ends up doing that by creating distortions. Then there's the second component, which is the inter-temporal aspect. I have a paper making the point that counter-cyclical fiscal policy could actually be counter-productive.

Here's the scenario. The economy goes into an economic downturn. Government spending as a share of the economy rises, maybe because the level of government spending is acyclical. You have transfer payments that also tend to rise during an economic downturn; you have progressive taxation so tax revenues tend to fall and so forth. The consequence is that you have to borrow when you go into a downturn.

Well, suppose that borrowing creates the expectation that taxes on capital are going to be higher in the future. That tells me that today, even though there's an economic downturn, I want to invest even less than I would otherwise. So I shift out of investment into consumption today, and that makes the capital stock still lower than it would otherwise be, so the recession becomes deeper and more prolonged than it would be otherwise.

> " Countercyclical fiscal policy could actually be counter-productive. "

So what we typically think of as automatic stabilisers might actually be automatic destabilisers?

They could be. We don't have a very good understanding of it. There's been very little good research done, that tries to separate these different components out. So we know theoretically that the inter-temporal element could be important. We don't know empirically that it actually is important. I think this is a huge area that needs to be delved into much more deeply.

You know, I was worried about this when the initial discussions about European Monetary Union evolved into talking about inflation targeting, and the idea was that we would have fiscal policy to take care of all the countercyclical stuff, while also taking care of the long-run sustainability stuff. Well this is going to create the tension I was just describing, and I don't think it's a tension that we understand very well. We don't really know how big the inter-temporal component is relative to the short-run component.

So, lots of work to be done there. What other major challenges for macroeconomic policy management spring to mind for you?

(laughs) Well, look out the window! Theoretically integrating the macroeconomy with financial markets is first order. We have no models that help us understand what's going on now. Central banks and treasuries all around the world are just flying by the seat of their pants, making what they think are kind of sensible decisions, but without any kind of model-based rationale. That worries me quite a lot. We don't really know what the incentive effects of these bail-outs will be. In the US, it seems like anyone that is running into problems can go to the government and ask for money. We know there are going to be serious long-run consequences from that, but in our rush to deal with the crisis, we're ignoring it.

> " Central banks and treasuries all around the world are just flying by the seat of their pants. "

The finance literature tends to focus on whether macro variables help predict financial variables, but we need to understand that these are being determined simultaneously. As a central banker, what's really important is whether you read anything at all about the macroeconomy from financial variables. That's something we have very little understanding of. Then I think integrating fiscal policy in a serious way into our models and getting the dynamics right is another high priority.

If policy-makers haven't got a good model of financial system dysfunction, or a good framework to anchor their decisions, how should we behave in terms of policy strategy or tactics?

The way central banks have been behaving is probably sensible in these circumstances. They've been taking bold moves, moving interest rates by quite a lot more than they would usually. If this were a 'normal' recession, they surely would not be moving interest rates by 100 or 150 basis points. It's not that we know nothing about what's going on out there, it's that we don't have good formal models of what's going on out there.

> " We're going to have a lot to mop up after we're all done. "

We have models in our heads about what's going on. Those models are telling us that probably interest rate moves aren't as effective as they would normally be if financial markets were working well. So, we're going to move interest rates by a lot. Will this do the trick? We don't know, but under the circumstances it's the natural thing to do. It's the same thing with fiscal actions. We don't know if fiscal actions will have their usual effects, so we're going to be bold there.

The consequences are that we're going to have a lot to mop up after we're all done. If you look at what's happened to, say, the Federal Reserve's balance sheet, with its dramatic growth, the question is how that's going to get unwound. Is there a way of unwinding it without there being some massive expansion of base money? You know, some people are worried about deflation, but in a few years it's going to be inflation that we're all sweating about. I'm not sure that there's any alternative at this point, because our models are so inadequate.

The other big issue that actually has hit me during my time here is that we really need better ways of understanding uncertainty and of quantifying our uncertainty. You know, there are methods like robust control that help us think about this. At policy organisations, this should be a very high priority. Looking at projections that have plausible uncertainty bands around them is really, really important because so much of the discussion at policy tables is about relatively small differences in projections, two years out. If we had plausible measures of our uncertainty, we would probably realise that there isn't anything to discuss, that the different projections are pretty much equally likely events.

The uncertainty now is not just about sampling error or estimation error or what have you. It's a profound kind of uncertainty about what the nature of the right model is. If I were a central banker right now, I would be asking my staff to produce projections that tell me something about the kind of uncertainty that is really out there – meaning, gee, what if markets don't work? What's your projection then?

You can show me the projection based on historical correlations, but help me think about what the worst case scenario might be. What if I move the interest rate by 150 basis points and nothing happens to the real economy? How would the projections look in that case?

So I think this should be a very high priority. Even before we get to the point of knowing how to model financial markets and integrate them into our general equilibrium macroeconomic models, which could be 20 years down the road, we need to be thinking, what do we do in the interim? How do we take the knowledge that we have and formulate it in a way that's more useful?

When things return to normal, should we just dust off the old macro models and say we're now back to 25, 50 basis point moves?

I'm guessing that we will get back to using these linear approximations around some steady state, and hoping that for small perturbations they work well. But there will still be the mopping up of all the liquidity that's been injected. There's going to be quite a lot of cleaning up that will need to be done with fiscal policy.

In the US alone, the debt-to-GDP ratio out of this crisis could easily grow by 10 percentage points or more. If you look at what's happened over the last decade in Japan, the debt-to-GDP ratio is over 100 percent and it's entirely been a response to this chronic recession they've been in. If we have a few years of the Japanese experience, the fiscal situation's going to be much worse. Remember that in the case of Japan, they're going into the bad long-run fiscal scenario with a much worse fiscal state now, so this could have very long-run repercussions. There will be lots of issues surrounding fiscal policy in the near future.

> " If we have a few years of the Japanese experience, the fiscal situation's going to be much worse. "

What has surprised you most about developments in macroeconomic theory and policy over the past couple of decades?

How ideological people can be. I mean, I've been talking about fiscal and monetary interactions since I came out of graduate school – almost 20 years. And even now, there's tremendous resistance to talking about this.

Very smart people have said, and I'm quoting here from somebody who I think is smart and ought to know better, "I don't want to think about fiscal policy, I just want to think about monetary policy". My response to that is, that's fine, as long as you make certain assumptions about fiscal behaviour. "But I don't want to make any assumptions about fiscal behaviour. I just want to focus on monetary behaviour."

It sounds ridiculous when you put it in those terms, but if you look through the literature on monetary policy in the last 20 years, people have made extremely strong assumptions about fiscal behaviour. The reason they do that is so they can sweep it under the rug and focus on what's important to them.

> " Economists seem to have a hard time thinking about more than one thing at a time. "

There's never any discussion of whether those assumptions are valid, or what happens if they break down. It turns out that very dramatic things happen. The whole nature of the equilibrium changes when those assumptions about fiscal policy break down.

I find it odd that economists seem to have a hard time thinking about more than one thing at a time. At the same time that they insist on using these general equilibrium models, they want to make these extreme simplifying assumptions about some big component of macro policy and act as though this is without loss of generality.

So that has surprised me. And some of it is ideological, I think. That's the only explanation I can come up with. Maybe Milton Friedman at times felt this way – you know, 'I try to get them to talk about monetary policy and all they can talk about is fiscal policy!' Friedman has this wonderful paper, back in the forties in the *American Economic Review* about the need to think about a monetary and fiscal policy framework for stabilisation. It's remarkable how easily we forget something that is 60 years old.

With all the reforms that have taken place in countries with regard to monetary policy, I think they're just crossing their fingers and hoping that fiscal policy will cooperate. Sargent and Wallace described that as a game of chicken, in their famous paper about unpleasant monetarist arithmetic. Perhaps unwittingly, many countries that have gone down the inflation targeting path are playing a game of chicken. They're saying that, well, fiscal policy is just going to have to adjust, because monetary policy has a mandate that it's got to target inflation.

Well, maybe they do, and maybe they don't. It might be a better strategy to think about monetary and fiscal frameworks from the get-go.

One can argue that there wasn't really a consensus, either professional or political, to keep inflation under control until countries went through the sixties and seventies, and in some cases the early eighties, and had very bad experiences with inflation. Not hyperinflation, but just bad moderate inflation. Maybe it's going to take something like that with fiscal policy.

I think the real problem with fiscal policy is that it's so hard to figure out what it's doing in the economy. Whereas with monetary policy, you can look at the inflation record and say, 'OK, monetary policy was poor'. With fiscal policy, what are you supposed to look at? The empirical work in fiscal policy does not lead to any clear message about what the effects are.

> " Perhaps unwittingly, many [inflation-targeting] countries are playing a game of chicken. "

What insights from the profession do you think policy-makers have failed most to grasp?

I sound like a broken record, but I would go back to the fiscal policy issue that we're not talking about the future enough. It's a political failing more than anything else. And it's ironic because policy-makers have bought into the idea that expectations play a critical role in making effective monetary policy. Why they haven't been able to make the wild generalisation to expectations playing a critical role in effective fiscal policy, I don't know.

The expectational effects with fiscal policy are first order. They just hit you over the head. I think it's actually harder with monetary policy to find those effects. But we went through and reformed monetary policy without any real evidence that those effects were there or that credibility or transparency were good things. We all believed somehow in our heart of hearts that they would be important. All of those same arguments apply to fiscal policy, and maybe even more forcefully.

Thanks very much for chatting with me today.

Groovy.