

## Central Banking As A Game of Chicken

I spent most of last week at the National Conference of Economists. The National Conference of Economists is what happens when Economists from all over Australia fly to the same place so that they can speak fluent nerdish to each other for three straight days.

One of the more interesting articles that I saw presented was by an Economist from La Trobe University called Jan Libich. Libich, together with two colleagues (see reference) have constructed an explanation of central banking behaviour based on game theory.

Game theory came into being way back in 1944 by John (Johnny) von Neumann. When Johnny wasn't busy on game theory, he was part of the team for firstly inventing the atom bomb and secondly inventing the hydrogen bomb. Luckily for us on both occasions he was working for our side.

Although Von Neumann invented the theory of games, it wasn't until the 1950's that John Nash provided a mathematical solution. This is called in the literature "Nash Equilibrium". John Nash is best known as the subject of the movie "A Beautiful Mind".

### Central Banking as a Game

Libich, in his paper constructs an interactive game between two players. One is a treasurer. The other is an independent central banker. Should the treasurer run a surplus budget, then the central banker cooperates by keeping interest rates low. However, should the treasurer decide to run a budget deficit in order to get re-elected, then the independent central banker has two choices.

The first is he could do nothing. However, if he does this, inflation will rise. The second is to make it plain to the treasurer that his action in running a budget deficit will have the result of a sharp increase in interest rates.

In terms of the game, the treasurer then has two responses. Either he can back down and return to a surplus budget or he can persist with his deficit and the possible interest rate increase threatened by the central banker. If he doesn't back down and the central banker responds by increasing interest rates, this position is described by Libich as "playing chicken". Von Neumann, in his earlier work, refers to this position as "default" and describes this position as similar to war.

Libich suggests that in practice the central banker can win. He quotes a case study of New Zealand when actions by the then Governor of the Reserve Bank from 1988 to 2002, Don Brash saw the government of the day back down from the proposal to run a deficit budget.

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## Central Banking As A Game of Chicken

This paper promotes intriguing thoughts about what might happen in Australia with a change of government. In opposition, Wayne Swan has promised to balance the budget.

However, in government he might change his mind. He might wish to run a deficit in order to fund projects of special interest to the Labor government. In this case, Libich's paper suggests that a determined Glenn Stevens might counter by threatening to increase interest rates. This might then force Wayne Swan to back down.

Of course, this is entirely hypothetical. We do not know what would happen in practice. However, should the government change, readers of Jan Libich's paper would be likely to think "let the games begin".

### **Footnote:**

The National Conference of Economists was held this year in Hobart from 24-26 September.

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### **References:**

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