

Non-technical summary for ‘MARTIN Gets a Bank Account: Adding a Banking Sector to the RBA’s Macroeconometric Model’

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The banking system and the rest of the economy are inextricably intertwined. But the Reserve Bank of Australia (RBA) currently models them separately. This means that economic downturns in the models do not feed back into the banking system, such that the effect any resulting change in banks’ lending behaviour might have on the economy is not captured. To fill this gap in the RBA’s modelling repertoire, we add a simplified banking sector to the RBA’s macroeconometric model (MARTIN). Our modelling approach is a significant advance on the treatment of financial sectors within existing macroeconometric models.

How can the banking sector amplify macroeconomic shocks in Australia?

How the banking sector in the model interacts with the rest of the economy chiefly depends on the extent of the losses banks face when borrowers default on their loans:

- During small downturns, losses are absorbed by banks’ profits and the resulting effect on the broader economy is limited to that caused by the lower shareholder returns.
- During large downturns, however, loan losses reduce banks’ capital, and banks respond by increasing their loan interest rates and/or reducing the amount they are willing to lend. This response from banks amplifies the downturn. Higher interest rates and reduced lending lead to lower housing prices, lower business investment and lower consumption. The amplified downturn then leads to higher unemployment and a further increase in loan losses. The further increase in losses causes an even larger response from banks and even greater amplification of the downturn. And so it goes on compounding.

How can the banking sector change the effectiveness of monetary policy?

Having a banking sector in MARTIN allows us to explore important policy questions. In this paper, we show how the effectiveness of monetary policy depends on the state of the economy. During large downturns, monetary policy is more effective than usual because it can reduce loan losses and therefore moderate any amplification coming through the banking sector. But when the cash rate is low, further cuts cause smaller reductions in banks’ funding costs due to retail deposit interest rates having a lower bound around zero; monetary policy is less effective as a result.

How might COVID-19 have affected the banking sector if one of the more pessimistic scenarios eventuated? And what feedback would this have had on the economy?

We also investigate how one of the more pessimistic economic scenarios that could have resulted from COVID-19 might have affected the banking sector, and subsequently amplified the resulting downturn. Had the downside scenario from the May 2020 RBA *Statement on Monetary Policy* eventuated – with GDP 12 per cent below pre-COVID-19 forecasts and the unemployment rate surpassing 10 per cent – we estimate that loan losses would have been sufficient to reduce banks’ capital. Without additional policy support, this amplification would have caused housing prices two years after the onset of the crisis to have fallen an additional 3 per cent and 16,000 fewer people would have been employed.

This amplification might seem small given the size of the downturn in the modelled scenario and how much damage the global financial crisis did to the global economy by comparison. But there are two important distinctions between the Australian banking sector and those overseas:

1. Australia’s banking sector has an ‘unquestionably strong’ capital framework, tends to be highly profitable, and is lower risk than other countries’ banking sectors. So it can weather larger storms.

2. Australian banks are able to spread their responses (to a large downturn that affects the entire system) across both new and outstanding loans. This is because the majority of assets held by Australian banks are loans that can be repriced at short notice. Most loans have variable interest rates, and even the fixed interest rate loans tend to have rates fixed for less than three years (far less than the 30-year fixed interest rate mortgages common in the United States). As a result, the downturn amplification is smaller than if banks responded by restricting new loans only (e.g. by tightening lending standards).

That said, our model has the flexibility to explore what would happen if banks restricted new loans only. In the same downside scenario, housing prices two years after the onset of the crisis would have fallen an additional 12 per cent and 59,000 fewer people would have been employed.