Optimal credit, monetary, and fiscal policy under occasional financial frictions and the zero lower bound

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Summary

I study optimal credit, monetary, and fiscal policy under commitment in a model where financial intermediaries face an occasionally binding financial constraint; the monetary authority faces a zero lower bound (ZLB) on the nominal interest rate; the fiscal authority faces a budget constraint. Credit policy is modelled as private asset purchases and fiscal policy sets a labour tax.

The economy equipped with optimal policy features higher output and a stable credit spread. The government's incentive to stabilise the credit spread is stronger when the labour market is more heavily distorted (e.g. by a labour tax). Quantitatively, any realistic labour tax rate (>15%) would imply a virtually constant credit spread under optimal policy. This encourages financial intermediaries to take more risks, which in turn requires the central bank to intervene in financial markets more often and set a lower nominal interest rate on average. That said, the central bank has a precautionary incentive to keep the nominal interest rate relatively higher in normal times to allow more policy space during a financial crisis. To see why this is important, consider an unexpected improvement in productivity, which should improve bank profitability and financial stability thanks to a higher rate of return on bank

assets. However, such as shock could be particularly dangerous when poor monetary policy hit the ZLB in such a way that the ZLB-induced demand shortfall leads to a financial crisis.

Next, I show that financial and productivity shocks can generate a tradeoff between inflation stability and financial stability. For example, upon a negative productivity shock, inflation stability requires policy tightening, which undermines financial stability. Alternatively, a negative shock to the financial system requires policy easing, which can push up inflation. I suggest that optimal policy should maintain financial stability and be more tolerant of inflation.

Finally, I show that the optimal policy cannot be implemented by a familiar set of simple rules. I focus on the rules that let monetary policy respond to inflation and output, let credit policy respond to credit spread, and let the labour tax rate fixed. The best monetary rule echoes several findings in the literature, including a strong response to inflation but a muted response to output. Moreover, the monetary rule is forward looking and close to price level targeting. The best credit rule is found to be modestly persistent, suggesting a slow unwinding of the central bank's balance sheet. Welfare losses associated with these rules are small but the tradeoff between inflation stability and financial stability is prominent. Relative to the optimal policy, simple rules feature too aggressive a credit intervention but insufficient monetary easing.