The general point is that there is much complementary evidence/analysis to the specific studies and uses of a macromodel mentioned by Taylor, so the conclusions should not be deemed exclusively dependent on that model.

First, the theory (Woodford, Simple Analytics paper) suggests that the contemporaneous spending multiplier might well be negative at the ZLB if higher taxes are expected OUTSIDE the expected ZLB period; in 2009, forecasters expected the ZLB to last less than a year.

Second, VARS suggest the multiplier was negative in expansions (Auerbach and Gorodnichenko), if positive for a few quarters, turned negative thereafter (Uhlig and Mountford and others) and when a New Keynesian Model is linked with a neoclassical growth model, the present value multiplier is large and negative (Uhlig AER P&P) which in spirit is what Taylor’s doing in a macromodel as it is extended beyond the short run.

As Taylor points out, there wasn't much of a government purchases increase to multiply times any multiplier, so whatever it was, couldn't have amounted to much.

But as these and other studies show, even if government spending had been larger, as many now claim it should have been, it is unclear it would have increased output much before it then caused output to fall from baseline.