Details of analysis for the Hubbard-Mayer proposal

We compute our estimates of the fiscal effects of low mortgage rates on refinancing activity by dividing outstanding mortgages into two groups – mortgages originated prior to 2000, and those originated in 2000 or after. We have access to two sources of data: property tax records that show the amount of the mortgage taken out at the last sale date, and deeds data that record the amount and date of all mortgages (first liens and second liens, purchase money mortgages and refinancings). While we would prefer to use deeds records for all calculations, as they include second liens and refinancings (whereas tax rolls do not), the geographic coverage of the deeds records is incomplete in earlier years. Thus we split the sample in 2000. Prior to 2000, we use the tax data because many counties' deeds records are not consistently reported before that date. After 2000, we use county deeds records. Since second liens surged in the 2000s, we expect to capture most of the effect of second mortgages in our calculations.

For all these calculations, we use records from 377 counties in 31 states plus the District of Columbia (AL, AZ, CA, CO, CT, DC, FL, GA, IL, KS, KY, MD, MA, MI, MN, MO, NV, NH, NJ, NM, NY, NC, OH, OK, PA, SC, TN, TX, UT, VA, and WI), and we restrict our focus to counties that begin reporting deeds data in 2000 or before.

For the deeds records in 2000 and after, we estimate each homeowner's CLTV. First, we compute an estimate of the current market value of the house by adjusting the property purchase price using county level house price indices. However, the price indexes are current only through August 2008. To be conservative, we further reduce property values by an additional 5% to account for house price depreciation since August. Next, we estimate the current outstanding mortgage balance. Since actual mortgage rates are not recorded in the deeds records, we use the nationwide average fixed mortgage rate at the time of origination as a proxy. Using the recorded mortgage term length (and assuming a 30-year term if the recorded term length is missing), we compute the current outstanding mortgage balance (including second mortgages, piggyback mortgages, etc.).

We assume that the homeowner's current outstanding loan must be below the highest conforming limit of $729,750 in order to qualify for refinancing. Within that group, we assume homeowners with a CLTV below 95% can refinance all outstanding mortgages, whereas those with a CLTV greater than 95% can only refinance their first mortgage. Those who qualify would refinance into a new, 30-year mortgage at the lower rate. We assume only homeowners who save at least $100 per month by refinancing would choose to do so.

We then compute the monthly reduction in mortgage payments each homeowner would receive by refinancing. This reduction is driven by two components: first, homeowners are spreading their outstanding balance across a new 30 year term, which is typically a longer period than the remaining period on their current mortgage; second, they are refinancing into a lower interest rate, which also reduces monthly payments.