Section V: Counterfactual Policy Analysis

In this section, we use the estimated model to study the consequences of several policy changes. Our baseline scenario is based on 2015 lending volumes, as reported in HMDA, together with 2015 regulatory policies.[16] We evaluate the effects of policies on the amount, distribution, and pricing of loans, as well as the resulting market structure. Broadly, we analyze the consequences of policy changes along two dimensions. The first is mortgage origination and redistribution, which analyzes the policy from the perspective of potential borrowers: how many mortgages of each type are originated, at which prices, and to which borrowers. Because policies have a differential impact across borrowers of different incomes, they have distributional consequences and affect inequality. The second dimension is implications for bank stability. Because policies impact bank profits and balance-sheet loan retention, they have implications for bank stability. These counterfactuals also allow us to evaluate how predictions of policy consequences change, once we account for the impact of the balance sheet retention margin and the shadow bank migration margin. The individual counterfactuals are useful because they analyze the consequences of specific policies. We summarize the robust patterns and insights we obtain across counterfactuals in Section V.D.

V.A Changes to Bank Capital Requirements

We first study the consequences of changing capital requirements. The level of the capital requirement is one of the main tools used by policymakers to regulate banks. Our motivating facts in Section III.B suggest that when traditional banks face a higher regulatory capital constraint, they reduce lending on balance sheet. The lending contraction will be lower than implied by a decline in balance sheet lending because banks adjust on the balance sheet retention margin, keeping fewer of the originated loans on the balance sheet. Moreover, shadow banks will step into the gap and provide some loans as well. The extent of shadow bank migration in response to capital requirements is now acknowledged as an important margin to consider in policy proposals.[17] Our counterfactual allows us to quantify the magnitude of the adjustment along these margins. Taking the 2015 market as given, we counterfactually study the impact of increasing and decreasing capital requirements relative to the 6% baseline. Table 9 and Figure 10 show the results.

We first preview the results, which we describe in more detail below. Intuitively, capital requirements tighten the capital constraint, increasing banks' cost of lending on the balance sheet. Therefore, capital requirements increase stability in the banking sector at a cost of substantially fewer jumbo mortgages. The decline in overall lending is much smaller than suggested by balance sheet contraction. The decline is partially offset through the balance sheet retention margin: banks switch from on-balance-sheet jumbo to originating conforming loans that they do not retain on the balance sheet. Shadow

[16] Note that our baseline shadow bank market share (39%) is the fraction of loans originated by shadow banks in the combined conforming and jumbo issuance volume. Accounting for mortgages insured by the Federal Housing Administration, a loan segment in which shadow banks originated about 75% of loans in 2015, increases the overall shadow bank market share to about 50% (see Buchak et al. (2018)).

[17] For instance, the "Minneapolis Plan" of the Minneapolis Federal Reserve proposes substantially increased capital ratios, above 20%. One of the critical inputs involves projections on the amount of activity that could migrate to the shadow banking sector (https://www.minneapolisfed.org/publications/special-studies/endingtbtf/final-proposal/summary-of-the-minneapolis-plan-to-end-too-big-to-fail).