

Effects of QE on Ob Auctions

Dynamic DiD Exposure Analysis

December 7, 2023

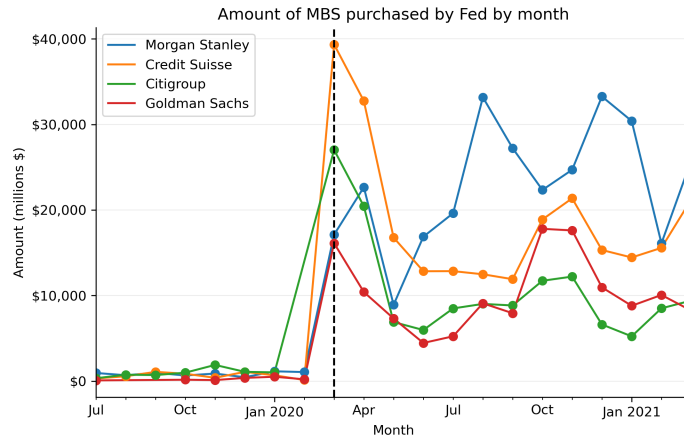
1 FED purchases and investors

Table 1: Sold amount in period Jul 2019 to April 2021

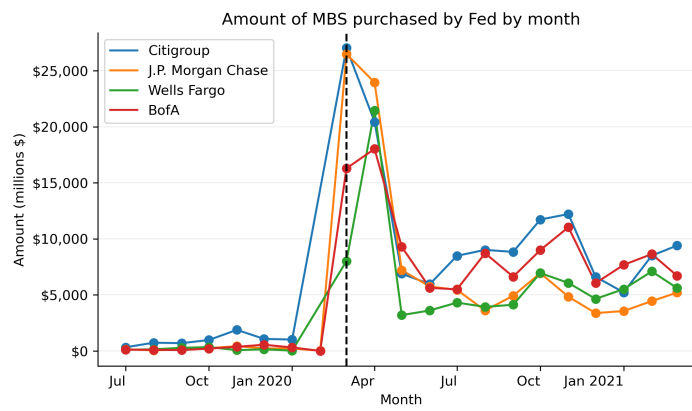
Counterparty	Amount (millions \$)
Morgan Stanley & Co. LLC	304942.000000
Credit Suisse AG, New York Branch	250823.000000
Citigroup Global Markets Inc.	147080.000000
Goldman Sachs & Co. LLC	135429.000000
BofA Securities, Inc.	120978.000000
J.P. Morgan Chase	107276.000064
Wells Fargo Securities	85703.000000
Barclays Capital Inc.	75758.000000
Nomura Securities International, Inc.	72998.999872
Daiwa Capital Markets America Inc.	46478.000000
BNP-Paribas	17412.000000
Mizuho Securities USA LLC	9715.000000
Jefferies LLC	6345.000000

There are 931 from 14873 observations in this period that have a missing counterparty (investor).

Figure 1: FED MBS purchases by month.



(a) Largest 4 investors that sold loans to the FED.



(b) Commercial banks

Notes: The figure shows a time series of FED auction outcomes. The vertical line is March 1.

2 Dynamic DiD Exposure Analysis

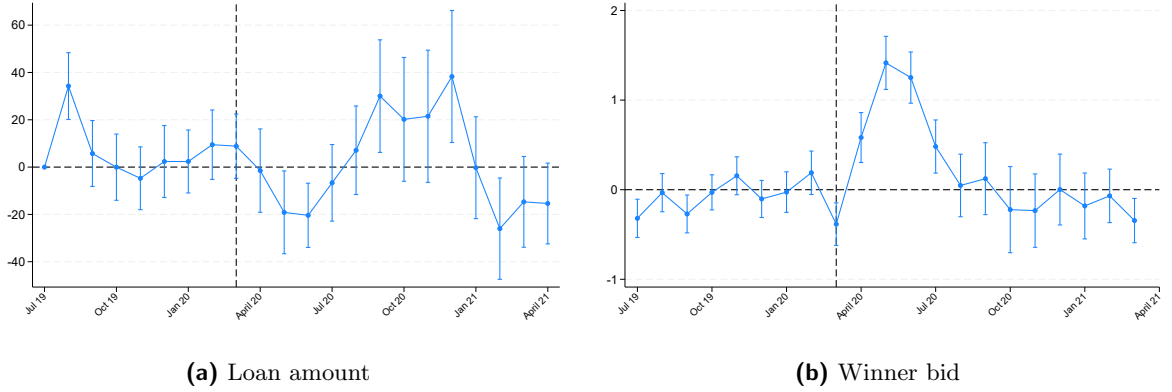
The dynamic DiD analysis is based on the following equation:

$$y_{ijtc} = \alpha + \sum_{\tau} \beta_{\tau} \times 1(\tau = t) \times QE_i + \nu_{t,c} + \nu_{t,i} + \psi_j + \epsilon_{ijtc}$$

where y_{ijtc} is rate of winner bid or loan amount for loans sold to investor i from seller j in month t for coupon segment c . The variable QE_i is either the exposure dummy or the exposure amount. The exposure level is calculated as the amount of MBS purchased by the FED in March 2020. When a dummy is used, the variable takes the value of 1 if the investor has exposure and 0 otherwise.

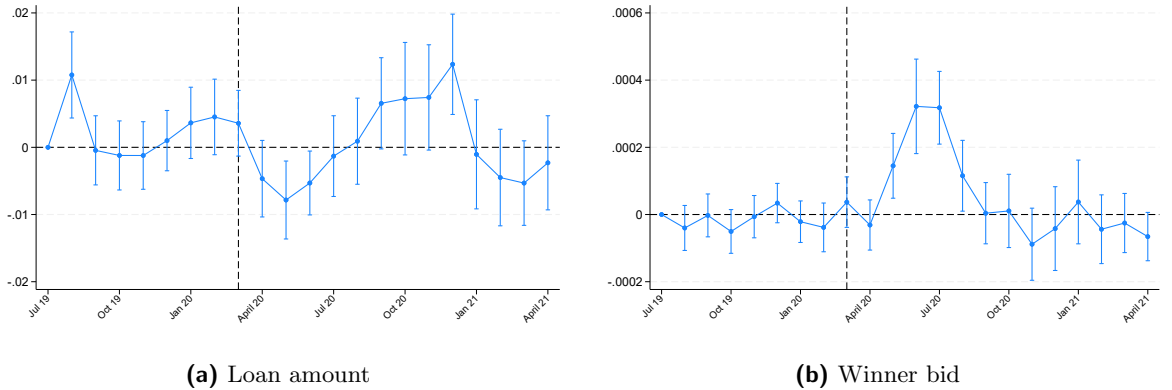
The investors that we could identify as having exposure are: J.P. Morgan Chase, Wells Fargo and Citibank.

Figure 2: Effect of QE on Ob Auctions using exposure dummy.



Notes: The figure shows a time series of auction outcomes for Conforming loans with a 30-year maturity. The vertical line is March 1.

Figure 3: Effect of QE on Ob Auctions using exposure amount purchase.



Notes: The figure shows a time series of auction outcomes for Conforming loans with a 30-year maturity. The vertical line is March 1.