The Federal Reserve, fearing complacency six years after the financial crisis, moved on Tuesday to preserve the efforts that have strengthened large banks. The Fed proposed a rule that would increase capital requirements for the nation’s eight largest banks, including JPMorgan Chase and Goldman Sachs. By increasing the requirements, the Fed aims to make large banks more resilient to shocks. A bank with higher capital depends less on borrowed money, which may cease to be available in times of stress.

The Fed’s push to increase capital may also reduce the chances that a large bank’s problems may weigh on the wider economy. Some economists have said that the size of some banks has made them “too big to fail.”

Janet L. Yellen, the Fed’s chairwoman, said on Tuesday that the proposed rule might persuade banks to shrink. The rule, she said in a statement, “would encourage such firms to reduce their systemic footprint and lessen the threat that their failure could pose to overall financial stability.”

Most of the affected banks have raised billions of dollars of new capital since the crisis, so they will most likely not find the proposed rule onerous to comply with.

Fed officials estimated that nearly all of the eight banks would already meet the new requirements outlined on Tuesday. They added during phone a call with reporters that the eight banks would have to raise a total of $21 billion in
additional capital but declined to provide specific figures for individual banks. JPMorgan, however, may account for most or all of that sum.

At a public Federal Reserve Board meeting on Tuesday, Stanley Fischer, the central bank’s vice chairman, made comments that implied that JPMorgan would be hardest hit by the regulation.

JPMorgan’s capital, calculated under the method that the new rule requires, currently amounts to $163 billion, which is equivalent to 10.1 percent of one measure of its assets.

The Fed officials said that the highest requirement under the proposed rule would lead to a bank having capital equivalent to 11.5 percent of its assets. Increasing JPMorgan’s ratio to that level would in theory require adding just over $20 billion in capital. “The whole shortfall looks to be tied to JPMorgan,” Jason Goldberg, a bank analyst at Barclays, said.

“While we’re still reviewing the Fed’s proposal, we are well capitalized and intend to meet their requirements and time frames while continuing to deliver strong returns for our shareholders,” Andrew Gray, a JPMorgan spokesman, said.

Banks would have to be in full compliance with the rule by the beginning of 2019. Other banks subject to the new regulation would include State Street, Morgan Stanley, Bank of New York Mellon, Bank of America, Wells Fargo and Citigroup.

The Fed’s proposal aims to create a more stringent version of an international rule formulated by the Basel Committee on Banking Supervision, a global bank regulation body.

Under the current Basel rules, large banks are subject to a base requirement that says their capital must be equivalent to 7 percent of their assets, measured according to their perceived riskiness. Like the Basel approach, the Fed’s proposal adds “surcharges” to that 7 percent requirement based on a bank’s size and the nature of its activities. But the Fed’s surcharges are bigger than Basel’s.

Noting that, industry representatives said the Fed’s proposed rule could harm
the competitiveness of American banks. “Holding U.S. banks to a more stringent capital framework than our global competitors could be a misguided economic decision,” Richard Foster, a vice president of the Financial Services Roundtable, said in a statement.

Under the Fed’s rule, a very large bank that operates in many countries and focuses on complex businesses that can be fragile during market routs would face the highest capital requirements. JPMorgan and Citigroup are examples of such banks.

Conversely, the proposal would be much more lenient for a bank that is in relatively stable and simple businesses and operates primarily in the United States. Wells Fargo, which has only a small presence on Wall Street, would fit that description.

Critics of large banks said the Fed may not have gone far enough.

“This is an important step in the right direction,” Senator Sherrod Brown, Democrat of Ohio, said in a statement. “But we must do more to ensure that banks have adequate capital to cover their losses.”

The big question is whether the rule will cause banks to shrink.

A bank that has to have higher capital must get more of its funding — the money it uses for lending and trading — from shareholders. But if the financial return on the higher capital disappoints shareholders, the bank’s shares could underperform. The bank’s management might then decide to pare back its businesses — and even shrink — to bolster its returns.

“The penalty for being big and complex might be going up,” said Mike Mayo, a bank analyst at the brokerage firm CLSA. In his estimation, shareholders of a large bank expect its annual earnings to be equivalent to at least 10 percent of its capital. “If it is not in excess of that, there will be major questions about the business model,” he said.

Unlike the Basel rule, the Fed’s proposal takes direct aim at Wall Street firms that borrow large sums for short periods in the debt markets. This type of
borrowing evaporated in the 2008 financial crisis, depriving large banks of the money they needed to keep going and prompting the Fed to bail out the banks with emergency loans.

According to the Fed’s proposal, a bank that relies heavily on short-term market borrowing would have to hold more capital than one that gets most of its funding from deposits. “Reliance on short-term wholesale funding is among the more important determinants of the potential impact of the distress or failure of a systemically important financial firm on the broader financial system,” Daniel K. Tarullo, the Fed governor who spearheaded the central bank’s proposal, said in a statement.