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Effect of Negative Credit Shocks on Hospital Quality

A recent study from the National Bureau of Economic Research (NBER) indicates that quality and patient outcomes suffer in hospitals that cannot maintain their relationships with banks and their lines of credit.[1] The NBER study measured quality and cost data in Medicare-certified hospitals from 2010 to 2016, during which banks were undergoing annual stress tests.[2] Regulatory "stress tests" are annual assessments from the Federal Reserve, put in place after the Great Recession in 2008, to examine a bank's ability to survive an impending economic crisis.[3] These stress tests caused banks to loan less frequently to risky borrowers, such as hospitals, and when hospitals are extended less credit they must transfer their focus elsewhere to increase profitability.[4] To quickly make up for the credit loss, hospitals look to increase patient volume, which leads to the delivery of less effective care. Other outlets that hospitals consider to stay afloat that may have an effect on quality include seeking investors from private equity firms or merging with large health systems.

Every hospital needs capital to cover their everyday operating costs, to keep up with medical and technological innovations, and to grow their organization.[5] Before starting any new project or program, like any business activity, hospitals must raise the appropriate funding through borrowing or investment. Investor-owned hospitals depend on debt and equity investments, while tax-exempt hospitals rely on partnership and long-term debt in the form of bonds. Banks become less generous to lend money to hospitals when trying to decrease their risk or increase their capital due to hospitals having greater-than-normal yields on municipal bonds.[6] Healthcare municipal bonds, the main source of funding for 70% of hospitals, are the common measure used to study the credit risk of hospitals and help forecast long-term risks.[7]

As noted above, the Federal Reserve completes an annual stress test/assessment of the largest banks to ensure they have a healthy amount of operating capital. Prior to 2008, capital adequacy requirements were fairly lenient – banks only had to hold a minimum level of capital, which was often dependent on the bank's headquarters location. Under the Dodd-Frank Act stress tests (DFAST), large bank holding companies with assets larger than $10 billion undergo assessments that monitor the risk taking and capital adequacy following economic downturns.[8] These regulations were created to assess and disclose to the public a financial institution's ability to survive during credit shocks while absorbing major losses.[9] Institutions that do not pass certain regulations may be penalized by the Federal Reserve due to bankruptcy risks and inability to meet their debt obligations in adverse economic situations. The penalties may be in the form of fines, restrictions from paying dividends, or a moratorium in mergers and acquisitions until they are able to raise their capital requirements.[10] Consequently, the impacts of this "what-if" risk analysis caused banks to reduce credit to some hospital borrowers (who are considered a riskier lending proposition) or increase interest rates.[11]

When the NBER study initially examined hospitals affected by banks undergoing stress tests from the Federal Reserve, large banks held a majority of the market share for hospital lending.[12] In fact, 26 banks were the lenders to over 500 hospitals at the time of the first DFAST in 2012.[13] Due to the banks restricting risky funding after the Great Recession, hospitals had to switch lenders, spread their debt across multiple sources, and/or increase patient revenues.[14] Consequently, these "credit crunched" hospitals that seek to become more profitable through changes in operations tend to see a decrease in quality or performance outcomes.[15] When hospitals are unable to get outside financing, they seek to grow utilization and increase the amount of revenue generated per patient. However, the NBER study did not find changes in hospital staffing or charge ratios, but rather an increase in bed utilization and increases in the number of services and procedures provided to a patient.[16] More specifically, the NBER study looked at occupancy and discharge rates of inpatient beds, medical staff compensation, and intensive care unit (ICU) bed utilization. In times of a credit shock, it was found that among inpatient services, admissions and length of stay increased; for outpatient services, the number of tests and procedures also increased.[17] Lastly, hospitals reduced less lucrative services such as high utilization of ICU beds, and saw an increase in physicians providing more expensive services or billing services at higher amounts.[18] While these shifts in operations may lead to a decrease in quality outcomes, they can also lead hospitals to overall revenue increases following a negative credit shock.[19]

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Lower quality care during a credit shock happens over a broad spectrum of measures, including higher wait times, less effective care, lower patient satisfaction scores, and higher rates of readmission.[20] The NBER study found that hospitals' failure to provide timely interventions increased up to 20%, and almost 1,700 readmissions occurred as a consequence of negative credit shocks.[21] This practice of hospitals increasing their revenues with higher patient admissions and procedure utilization is the antithesis of the movement toward value-based reimbursement models. Further, hospitals have met opposition in trying to cut costs due to the Centers for Medicare & Medicaid Services (CMS) incentivizing quality measures and value based payments under the Patient Protection and Affordable Care Act (ACA).[22] Now, many hospitals have been put in a bind due to Medicare and Medicaid reimbursement becoming more closely tied to quality measures. Hospitals that make up for lost financing from lenders through sacrificing quality will be exposed to Medicare payment reductions and again send them looking for new sources of revenue.[23]

The struggle between hospital financing and quality could ultimately lead hospitals to seek funding from private investors or to merge with other health systems, either of which may also negatively impact quality. Over the past decade, private equity firms have acquired hospitals at an increasing rate, and have strong incentive to improve the efficiency and quality of care, reduce readmissions, and increase patient satisfaction scores.[24] However, studies have found that while private equity-acquired hospitals may experience an increase in net income and charges per inpatient day post-acquisition, only a subset of quality measures improved.[25] Similarly, a study of hospital mergers found that hospital quality post-transaction stayed relatively similar, but "patient experience" satisfaction scores declined.[26] Other researchers have similarly suggested that while consolidation transactions had no effect on quality, prices increased post-transaction, negatively impacting patient satisfaction and access to care.[27]

Ultimately the NBER study concluded that hospitals, like any other business, must manage a multitude of risks including their clinical outcomes, competitive marketplace, regulatory requirements, reimbursement cuts, and financial risks that follow credit trends.[28] Thus, following a credit shock, banks must narrow their loan portfolio and tag higher interest rates to riskier loans.[29] This places hospitals in the middle of a vicious circle: Their mission and purpose are tied to caring for the community and improving quality for their patients, but an increase in financial pressure may cause them to sacrifice quality for the sustainability of their business.

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