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POLICY PRINCIPLES: LESSONS FROM THE FED'S PAST

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EVENTS FOLLOWING THE START OF THE HOUSING, mortgage and credit market crises in summer 2007 opened a new chapter in Federal Reserve history. Never before had it taken responsibility as lender-of-last-resort to the entire financial system, never before had it expanded its balance sheet by hundreds of billions of dollars or more over a short period, and never had it willingly purchased so many illiquid assets that it must hope will become liquid assets as the economy improves. Chairman Ben Bernanke seemed willing to sacrifice much of the independence that Paul Volcker restored in the 1980s. He worked closely with the Treasury and yielded to pressures from the chairs of the House and Senate Banking Committee and others in Congress.

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Events highlighted several flaws in Federal Reserve policy. Current pressures dominated longer-term objectives. The Board had never developed or enunciated a lender-of-last-resort policy. Markets had to observe its actions and interpret the statements as always in the past. Instead of reducing uncertainty by offering and following an explicit lending policy rule, it continued to prevent some failures while permitting others. It failed to give a believable explanation of its reasons and reasoning.

One of the main failings of monetary policy in 1970s was the neglect of longer-term consequences of near-time actions. Whenever the unemployment rate rose to about 7 percent, the members abandoned any concern about the inflationary consequences of their actions. Preventing inflation had to wait. When the right time came, it didn't remain long enough to end inflation. Raising interest rates and slowing money growth raised the unemployment rate, so policy became expansive again. The result: inflation and unemployment both rose.

We seem likely to repeat these mistaken actions. In 2008, the Federal Reserve increased its balance sheet from about \$800 billion to more than \$2.2 trillion. Many of the assets it acquired are illiquid. The market's demand for reserves rose because they were frightened, uncertain, and lacked confidence that financial fragility and failure would end. Once confidence begins to return, the Federal Reserve will have to absorb large volume of reserves. The 1970s problem will return as an exaggerated problem.

Economists and central bankers have discussed policy discretion for many years. Discretion enabled the Federal Reserve to make the many mistakes discussed in this volume and to facilitate the risky loans that are the source of credit and eco-

conomic problems after August 2007. The main lesson of these experiences should be that monetary policy should remain consistent with a rule, not a rigid rule but rule-like behavior that responds to both short-term fluctuations in output or employment while maintaining low inflation. Discretion has made too many errors.

In 2008 Congress approved \$700 billion for the Treasury to use to support banks and financial institutions. The Treasury lacked a coherent plan and frequently allowed its actions to differ from its statement, adding to uncertainty and lack of confidence in policy. By year end the Treasury had helped 206 banks, and the Federal Reserve had lent \$100 billion to support a large failed insurance company. At year-end, President Bush advanced loans to prevent bankruptcy by General Motors and Chrysler, and the Federal Reserve accepted General Motors Acceptance Corporation (GMAC) as a bank so that GMAC could borrow at the discount rate. GMAC immediately offered zero percent interest rate loans to borrowers with less than median credit ratings, precisely the type of loans that caused the crisis.

Financial problems spread to many other countries. Asset owners ran to the dollar and U.S. Treasury securities for safety. This pushed Treasury bill rates to zero or slightly above and lowered longer-term rates. Managing the reversal of these flows will be a major challenge for the Federal Reserve in the future.

Current housing and credit market problems gave rise to expected new claims blaming financial deregulation and hailing the end of American-style capitalism or, in more extreme instances, the end of capitalism. It is hard to ignore such comments, but it is just as hard not to laugh. Despite active criticism

and frequent condemnation, capitalism in one form or another has become the dominant form of economic organization throughout the world because only capitalism provides freedom, improved living standards, and an ability to adapt to cultural and institutional differences.

Those who blame recent deregulation are careful not to cite examples. The most recent major change in 1999 repealed the Glass-Steagall prohibition of combined investment and commercial banking. No other country adopted that rule or had a crisis caused by failure to do so. Many years ago, George Benton (1990) showed that at the time proponents did not make a substantive case when they claimed that combined investment and commercial banking was a cause of the Great Depression.

Members of Congress, as usual, looked for scapegoats whom they could blame for financial failures. Others proposed new regulations to increase governmental control of financial firms. Most proposals of this kind presuppose the reason for the financial failures. In this essay, I discuss seven sources of current problems and how systemic problems can be reduced. Bear in mind that most financial firms borrow short to lend long. That arrangement means that crises will occur when there are sudden changes in the economic environment or expectations. All crises cannot be avoided. Risks will remain, but they can be reduced.

SEVEN CAUSES

Repairing the weaknesses of the U.S. financial system that contributed to the crises requires changes in the practices of the Congress, the Administration, the Federal Reserve, and

managers of financial institutions. To succeed, changes must recognize the incentives they create. This section discusses principal problems that contributed to make the crisis severe. It suggests changes to reduce risk and uncertainty.

Congress and the Administration

Home ownership has long been regarded as a source of social stability, a public good that Congress and administrations of both parties encourage. Intervention takes several forms. Mortgage interest has remained tax deductible through several tax reforms including 1986 when most other interest payments lost that benefit. The Community Reinvestment Act (1977) encouraged home ownership by lower income groups. The Act gave opportunity for citizen groups to pressure banks to increase inner city lending by rating banks according to how much credit they supplied to low income borrowers. The ratings influenced decisions to permit mergers and branches. In 1995, Congress strengthened the Act. The American Dream Downpayment Act (2003) subsidized credit for low income groups. When that act passed, President Bush said that it was in the national interest to have more people own their home. He neglected to add "if they invested in them." Beginning in 1999, the Federal Housing Administration (FHA) developed the down payment assistance program that permitted no down payment loans.

In 1931, Congress urged the Federal Reserve to help the mortgage and housing markets by buying mortgages. The Federal Reserve declined, saying that was not its responsibility. Congress then established the Home Loan Bank System and followed with other agencies to support housing and the mortgage market. The Federal National Mortgage Association

(FNMA) opened in 1937. Its mandate was to increase liquidity of the mortgage market by buying mortgages. It expanded in the 1960s and became a privately held entity in the late 1960s. The market treated its debt as subject to a full faith and credit federal government guarantee, although the guarantee did not become explicit until the Treasury replaced the management and took control in 2007. The Home Loan Banks chartered Freddie Mac to operate like FNMA. It, too, lacked explicit guarantee of its debt until the Treasury assumed control. In addition, the Government National Mortgage Association (GNMA) is a government corporation that guarantees mortgage securities backed by federally insured or guaranteed loans issued by government agencies such as the FHA and other agencies. Unlike FNMA and Freddie Mac, GNMA does not own mortgages or mortgage-backed securities. Its guarantee subsidizes homeownership by lowering the interest rate on the mortgage.

With all the subsidies and assistance, expansion of mortgages and housing should not surprise anyone. Between 1980 and 2007, the volume of mortgages backed or supported by the three government-chartered agencies rose from \$200 million to \$4 trillion, an unsustainable compound growth rate of 36 percent a year. As the volume rose, the quality of mortgages declined. Government encouraged this development; in 2005 the Department of Housing and Urban Development introduced a zero down payment loan, as noted above. Lenders expanded subprime mortgages, mortgages to buyers with relatively poor credit histories. Soon after mortgage lenders began to offer mortgages that did not require a down payment. Then they eliminated credit checks on some mortgages. Such mortgages are called Alt-A.

Purchases and support for these sub-prime and Alt-A mortgages put FNMA and Freddie Mac at much greater risk than in the past. In December 2008 Congressional testimony, the heads of three agencies explained that they were aware of the increased risk but believed it necessary to compete with the private market. They did not add that the Federal Home Loan Banks supplied almost half the funding for two large private lenders, Countrywide and Indy Mac, that later failed. Nor did they add that FNMA and Freddie Mac owned one-half the outstanding sub-prime and Alt-A mortgage-related assets. Prodded by members of Congress and the Clinton and Bush administrations, they lowered the quality of their portfolios to promote home ownership. With the failure of FNMA, Freddie Mac, Countrywide, and Indy Mac, taxpayers will bear a considerable loss.

Edmund Gramlich, a member of the Federal Reserve's Board of Governors, warned about the deterioration of loan quality, but he never presented his case to the Board for action. William Poole, President of the Federal Reserve Bank of St. Louis, did the same and spoke publicly about the taxpayer's risk. Alan Greenspan warned Congress about the growth of FNMA and Freddie Mac. There were many other warnings, including from Senator Richard Shelby, a member of the Banking Committee. Congress declined to act and several members denied that there was a problem. Congressional inaction increased the incentive for FNMA and Freddie Mac to accept very risky loans.

There are homebuilders, mortgage lenders, and real estate agents in every Congressional district. This alone encourages support for mortgage and housing subsidies and delays corrective action. It is very likely that the government will continue to subsidize homeownerships. Reform should seek to put the

subsidy on the budget and subject it to the appropriation process. Government mortgage market operations were a means of hiding the subsidy and often denying it. The subsidy took the form of a reduced interest rate on FNMA and Freddie Mac borrowing. Provision of the subsidy did not require off-budget finance.

FNMA and Freddie Mac are in receivership and under government control. They should be liquidated and terminated. Congress should vote the subsidy directly.

After much hesitation and policy change, the Treasury used most of the money in the first half of the Troubled Asset Relief Program (TARP) to supply capital to banks and other financial institutions. No large bank was allowed to fail. Once the banks received this assistance, many in Congress wanted to influence the banks' lending. Congress urged them to lend even if it meant acquiring risky loans with sub-standard repayment prospects.

A better alternative would have required bankers to borrow part, perhaps one-half, of the additional capital in the market. That would have increased a bank's cost, and diluted ownership, but it would deter some banks from borrowing from TARP and identify banks that the market considered insolvent. Those banks should fail. Failure means that shareholders lose their investment and management loses its job. The reorganized bank should be sold or merged.

The government and Federal Reserve treat all large banks as "too big to fail." That encourages gigantism. Instead, policy should impose a different standard: if a bank is too big to fail, it is too big. The new standard would increase the incentive for bankers to be prudent.

Role of the Federal Reserve

Many politicians, bankers, and journalists blamed the housing and mortgage crisis on the Federal Reserve. The basis of their complaint was that from 2003 to early 2005 the Federal Reserve held the federal funds rate at one percent. This permitted credit expansion, much of which concentrated in the mortgage market. By the end of 2005, the funds rate reached 5 percent.

During these years, Chairman Alan Greenspan believed and said that the country faced risk of deflation. That was a mistake. Deflation is very unlikely to occur in a country with a relatively large budget deficit, a long-term depreciating currency, and positive money growth. Critics are correct about this part of their criticism. Federal Reserve policy was too expansive as judged by the Taylor rule or the Federal funds rate during the time the real short-term interest rate remained negative in an expanding economy.

The next part is wrong. The Federal Reserve did not force or urge bankers and others to buy mortgage debt. That was the bankers' decision. Prudent bankers avoided excessive accumulation of low quality mortgages. Bankers could have purchased Treasury bills or other assets with lower risk. They decided to overinvest in very risky assets and to lower quality standards. They share responsibility and have the largest share.

One plausible explanation of the errors that many made was the so-called "Greenspan put." Whether such a put was available, the belief was widespread that the Federal Reserve would prevent large losses especially for large banks. Several bankers and investment bankers raised the leverage they accepted and invested in risky assets. Whether or not there was a Greenspan

put, prior actions that prevented financial failures, for example protecting Long-Term Capital Management (LTCM), created moral hazard and reduced concerns for risk. Arranging the rescue of LTCM is the most recent example in a long history of preventing failures. Notable examples include First Pennsylvania Bank, Continental Illinois, and most of the New York money market banks during the Latin American debt crisis. Bankers had reason to believe that the Federal Reserve would prevent failures.

One of the criticisms in my *History of the Federal Reserve* is that the Federal Reserve has not announced its lender-of-last-resort strategy in its 95-year history. Sometimes institutions fail, sometimes the Federal Reserve supports them, and sometimes it arranges a takeover by others. There is no clear policy, no policy that one can discern. But there was a firm belief that failure was unlikely at large banks.

The absence of a policy has three unfortunate consequences. First, uncertainty increases. No one can know what will be done. Second, troubled firms have a stronger incentive to seek a political solution. They ask Congress or the administration for support or to pressure the Federal Reserve or other agencies to save them from failure. Third, repeated rescues encourage banks to take greater risk and increase leverage. This is the well-known moral hazard problem.

As financial problems spread in 2008, pressure built on Bear Stearns. The Treasury and the Federal Reserve arranged a takeover. The Federal Reserve contributed by buying—not lending—\$29 billion of risky assets. Markets improved. Many bankers claimed the worst was over. A few months later Lehman Brothers failed. Without prior warning, the Federal Reserve and the Treasury announced that they would not pre-

vent the failure. Next the Federal Reserve prevented the bankruptcy of American International Group by replacing management and providing up to \$80 billion in credit.

What conclusion could a portfolio manager draw? There was no clear pattern, no consistency in the decisions. Uncertainty increased. Portfolio managers all over the world rushed for the safety of Treasury bills. A classic panic of the kind described by Walter Bagehot followed. Officials did not announce or follow a clear strategy, as Bagehot urged. Regulators reacted to each subsequent rush for safety by guaranteeing in turn bank deposits, money market funds, commercial paper and other instruments.

Influenced by Bagehot's (1873) criticism, the Bank of England announced the lender-of-last-resort policy that it had followed in past crises and successfully followed the policy into the twentieth century. Panics and failures occurred, but they did not spread or accumulate. The policy called for lending without hesitation in a crisis at a penalty rate against acceptable, marketable collateral. That policy induced prudent bankers to hold collateral and it reduced uncertainty.

By guaranteeing deposits, money market liabilities, and other instruments, the Federal Reserve prevented bank runs and further breakdown of the payments system. Unlike the Great Depression depositors could not demand gold from banks but they could demand currency and use deposits to buy gold or Treasury bills with the same effect. Because banks and other financial firms were unwilling to lend to other firms, they too bought Treasury bills and held idle reserves. The Treasury and the Federal Reserve supported these demands by paying interest on idle reserves and by exchanging Treasury bills for less liquid assets.

The Federal Reserve acted creatively to establish new lending facilities to accommodate market demands. They put off to the future any consideration of how and when they can reverse these expansive actions.

One lesson from the current crisis is that the Federal Reserve should announce a lender-of-last-resort strategy and follow it without exception. A second lesson is that Congress should dispense with “too big to fail.” Banks and financial firms should not have incentives to become so large that they cannot fail. Too big to fail encourages excessive risk taking and imposes costs on the taxpayers. If banks considered too big to fail are not reduced in size, they should have substantially higher capital requirements including subordinated debt. The very high leverage ratios at large financial institutions responded to the incentives created by earlier rescues and belief in a Greenspan put.

One of the Treasury’s proposed reforms gives the Federal Reserve responsibility for maintaining financial stability. This is a poor choice. The Federal Reserve did nothing about growing savings and loan failures in the 1980s. Ending that crisis cost the taxpayers about \$150 billion. The Federal Reserve worked with the International Monetary Fund to protect lending banks during the Latin American debt crisis. The crisis began to end when Citicorp’s chairman decided to recognize the losses by writing down the debt’s value. Others followed. Soon afterward, the Treasury began a systematic program to write down the debt. The Federal Reserve did nothing.

Although Alan Greenspan warned publicly in 1996 about irrational exuberance in the equities market, neither the Federal Reserve nor the Securities and Exchange Commission tried to prevent rampant stock market speculation. And it followed

by doing nothing to prevent the large expansion of sub-prime, Alt-A and other mortgage loans and the rise in housing prices. This error will cost taxpayers much more than the savings and loan failures.

Reading transcripts of Federal Open Market Committee meetings, one finds very little discussion of regulatory and supervisory credit problems. The Federal Reserve's record does not support a proposal to increase its responsibility for financial stability. More important, regulation of this kind can only succeed if the regulator makes better judgments about risk than those whose wealth is at risk. A better change would make risk takers bear the risks they take. Failure should remove management and cost stock holders, as in the FDICIA rule (discussed below). Companies would not disappear. They would get new management and stockholders.

FDICIA

In 1991, Congress passed the Federal Deposit Insurance Improvement Act (FDICIA). A main reason for the act was to reduce Federal Reserve lending to failing banks, thereby reducing losses paid by the FDIC. FDICIA gave regulators authority to intervene in solvent banks when losses reduced capital below required limits and to assume control before a bank's capital was entirely gone. The bank could then be sold or merged. Stockholders would take the loss and managers would be replaced. The regulators did not apply FDICIA standards to failing financial firms in this crisis. FDICIA should be extended to apply to all financial institutions. It is an explicit rule that, if enforced, is known to all interested parties. Prudent bankers will act to avoid failure and the loss of their jobs.

Regulation

The financial crisis brought many demands for increased regulation. Few recognize that regulation works best if it takes account of the incentives it fosters. The Basel Accords agreed to by developed countries are a timely example. The Accords required banks to hold more capital if they acquired more risk. The rationale seems clear and unassailable. The practice was very different.

Instead of increasing capital, banks chartered new entities to hold the risky assets. The intent was to keep the risk off their balance sheets. When the mortgage crisis occurred, the banks had to assume the risk and responsibility for losses. Regulation failed, and so did circumvention. The cost to the public is very large. This experience shows again that lawyers and bureaucrats choose regulations, but markets circumvent costly regulations.

Successful regulation recognizes that it creates incentives for avoidance or circumvention. Successful regulation aligns the interests of the regulated with socially desirable outcomes. Successful regulation induces market action to eliminate externalities. Successful regulation recognizes that market participants respond to regulation by changing their actions to find a new optimum.

Regulators rarely respond to this dynamic process by adopting regulations in response to market outcomes. Because all countries have some type of deposit insurance, either de jure or de facto, regulation must limit risk taking. FDICIA provides an incentive to avoid excessive risk. Capital requirements also help to align incentives and avoid excessive risk taking. Regulations such as the Basel Accord do not meet this standard.

After the Treasury supported General Motors and Chrysler

with what will be a growing bailout of automobile companies, the Federal Reserve accepted GMAC as a bank, enabling GMAC to borrow at the discount window. As noted earlier, GMAC at once began to offer zero interest rate loans for up to five years to borrowers with below median credit ratings. This appears to be a response to pressure from prominent members of Congress, a further sacrifice of independence. Many members of Congress want the Federal Reserve to allocate credit to borrowers that they favor. This avoids the legislative and budget process just as Fannie Mae and Freddy Mac did. It subverts the principles of an independent central bank.

Independence is not just important. It is a critical part of the institutionalization of a low inflation policy. It prevents Congress and the administration from financing deficits by printing money. And it avoids pressures for credit allocation to politically favored groups.

Compensation and Incentives

MBA's who graduated from the world's leading business schools purchased and sold mortgages that carried a high degree of risk. In many cases they accepted the credit ratings supplied by others without investigating accuracy. At many banks, traders were well rewarded for doing the transactions and likely fired if they failed to do so. Compensation systems at many firms rewarded short-term increases in revenue without regard for long-term losses. Compensation systems of this kind encourage excessive risk taking.

Not all firms behaved alike. We know now that J.P. Morgan Chase, Bank of America, and some others limited risk taking much more than Citigroup, Merrill Lynch, Bear Stearns, and other failures.

Setting compensation schedules is management's responsibility. Congress cannot establish rules that managements cannot circumvent, if they choose to do so. An improved compensation system would spread rewards over time to permit losses to be recognized. This can be done in many ways. Regulators should encourage and monitor the actions that managements take, but should leave the choice of compensation schedule to management.

Rating Agencies

The mix of incentives facing rating agencies is well-known as a contributor to the credit crisis. The agencies applied a rating system that had worked for decades in rating corporate bonds. This may have misled users. More seriously, rating agencies at times adjusted their ratings to satisfy client demands.

All of the fault does not fall on the rating agencies, but they share the blame. The clients did not look at the underlying securities or question the ratings except to ask for more favorable ratings. They, too, share the blame. Using rating agencies' judgments without due diligence is a mistake.

Rating agencies must develop compensation and incentive programs that reward accuracy of rating achieved over time. The aim is to give the agency and its personnel incentives for diligence and accuracy.

Transparency and Risk

More information improves decisions and reduces risk. But transparency and increased information is most useful when interpretation is clear. Better reporting of asset and liability positions is most useful when risk models permit users to interpret the information correctly.

Risk models contributed to the credit crisis. These models use standard distributions. They make no distinction between permanent or persistent and transitory changes. Deciding whether risk spreads had permanently fallen before the crash or would return toward historic averages played a role in the crisis. Similarly risk models were not useful for deciding whether the increase in house prices, or the decline in 2007, would persist. Improving ability to judge persistence can improve judgments and economic performance.

RECOMMENDATIONS OF THE ISSING COMMITTEE

After the November meeting of the international grouping known as the G-20, the German government appointed a committee chaired by Professor Dr. Otmar Issing to recommend changes in policies, regulations, and supervision that would reduce the chance of future crises. The Issing Committee identified three major causes of incentive misalignment: structured finance, rating agencies, and management compensation. It found that the crisis was a consequence of “massive liquidity and low interest rates” in an “environment of inadequate regulation and important gaps in supervisory oversight [and] inappropriate incentive structures” (Issing 2008, 2). Unlike most comments on regulation, the Issing Committee emphasized incentives. This section summarizes some of its main proposals.

The Committee recommended that the accuracy of rating agencies should be monitored and reported to the public. Rating fees should be linked to the accuracy of past ratings.

Many of the main proposals concern increases in transparency by specifying rules of disclosure that improve incen-

tives by buyers and sellers of financial instruments. Securitization transactions should disclose the allocation of loss to the tranche that receives the first loss. Disclosure should be mandatory to permit the market to price risk more accurately.

The Issing Committee did not propose legal limits on compensation as such rules “are expected to backfire” (*ibid.*, 3). Instead they favored full disclosure and the development by rating agencies and auditors of a metric that reports on management incentives.

The Committee also proposed a global credit register to show exposure by lenders and their counterparties. The report recognized that the register would be incomplete in real time.

CONCLUSION

Instead of looking for scapegoats and evil doers, the credit crisis should be used to recognize and correct errors on several sides. This is a first step to market reforms that reduce the risk of repetition. We cannot avoid all risk and should not try. We can reduce risk by better policy choices.

Public and private actions contributed to the crisis. Congress and several administrations encouraged public agencies to accept much greater risk to promote home ownership. The Federal Reserve failed to develop an effective predictable lender-of-last-resort policy. This failure increased uncertainty. Many banks and financial institutions reward risk taking thereby increasing incentives for actions that later produced losses. Rating agencies erred.

The paper suggests some changes to respond to these failings. Unlike the claim that more regulation is needed, I argue that regulation only works well if it takes account of the incentives

it induces. Good regulation aligns public and private interests where there is evidence of market failure. Bad regulation usually requires strong enforcement.

One consequence of the credit and economic crisis is the aggressive response by governments and central banks to restore stability and growth. Eventually the excessive liquidity they created must be eliminated, a task which will not be easily accomplished. The Federal Reserve has not given much thought to how it will avoid inflation after the recovery is underway. And the greatly expanded role of governments and central banks must not become a precedent. A main lesson of this crisis is that societies must reinvent individual responsibility for avoiding excessive risk. This will be neither easy nor popular with many, but the survival and prosperity of a free society requires greater acceptance of individual responsibility for mistakes. We cannot expect a private system to survive if the profits go to the bankers and the losses go to the taxpayers.

We cannot know what will be the future consequence of the crisis and the policy response. We should recognize, however, that despite the severity of the crisis, regulators have not announced a policy or encouraged financial markets to believe that they have abandoned “too big to fail.” In fact, mergers have made the largest firms larger.

The broader lesson of this experience should be that policy misjudgments by Congress and the Federal Reserve helped to bring on the crisis. Discretionary policy failed in 1929–33, in 1965–80, and now. The Federal Reserve should announce and follow a rule for its lender-of-last-resort actions. For monetary policy the lesson should be less discretion and more rule-like behavior. For several years, I have proposed a multilateral arrangement under which major currencies—the dollar, the

euro, and the yen—would agree to maintain a common low rate of inflation, say 1 to 2 percent. That would work to increase both expected price stability and greater nominal exchange rate stability. To implement the policy, the Federal Reserve should commit to the Taylor rule. For the monetary policy to work well, the Congress and the Treasury should agree to limit the budget deficit to a narrow range. A rule of this kind increases stability of both domestic and global economies. And Congress should put its housing subsidies on budget and close FNMA and Freddie Mac. As the Issing Committee showed, the route to less risky financial markets starts with stabilizing incentives.

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