Fed Policy, Inequality, and Equality of Opportunity

JOSEPH E. STIGLITZ
Roosevelt Institute and Columbia University

Revised and extended version of remarks originally presented to the Ninth Biennial Federal Reserve System Community Development Research Conference, Washington, D.C., April 3, 2015. As a result, references are limited. Many of the ideas presented here were originally discussed in Stiglitz 2013, chapter 9, "A Macroeconomic Policy and a Central Bank by and for the 1 Percent." See the references cited there. For a more extensive discussion of the empirical evidence and the theoretical ideas, see Stiglitz 2013 and Stiglitz et al. 2015.

Many are concerned that America has not been doing well in either equality of outcomes or opportunity. Our nation has obtained the dubious distinction of being the country among advanced countries with the highest level of inequality of outcomes and one of the lowest levels of equality of opportunity.

This paper discusses the issue of inequality and inequality of opportunity, how Federal Reserve policies affect inequality, and what implications inequality should have for the conduct of Fed policy. I shall address both its role in macroeconomic management and in the regulation of financial markets. After a brief review of the state of inequality in the United States today, I will discuss the various channels through which the Federal Reserve affects inequality.

The State of Inequality in America

As I wrote in my book *The Price of Inequality* (2012), the American dream is, today, to a large extent simply a myth. The life prospects of a young American are more dependent on the income and education of his parents than in almost any of the other advanced countries.

When concerns about America's growing inequality surfaced a few years ago, some seemed to suggest that we should not be too concerned. What really mattered, it was argued, what really had made America a great country, was its equality of opportunity. But then, upon closer examination, it turned out that we were failing there, too.

For scholars of the distribution of income and wealth, this did not come as a surprise, for inequality of income and inequality of opportunity are closely linked. We can see this if we look across countries, or even if we look across counties in the United States.

As Americans, we should be concerned about inequality of opportunity because it runs so counter to broadly shared values.

Inequality and Economic Performance

But as economists, we should be concerned because inequality and inequality of opportunity is associated with poorer economic performance and higher levels of instability. This was, in fact, one of the central themes of my book—highlighted by the title—*The Price of Inequality*.

The adverse effect of inequality on economic performance is the reason, too, that the International Monetary Fund (IMF) has put the issue of inequality at the center of its economic agenda. The IMF is concerned with helping countries achieve better economic performance, including greater economic stability. It now recognizes that greater equality and equality of opportunity is linked with improved performance and greater stability. The channels through which these effects are realized are an important research topic.

The notion that equality and economic performance can be complementary represents a recent and major evolution in economic thought. Arthur Okun, chairman of the Council of Economic Advisors under President Johnson, wrote a famous book called *The Big Trade-Off* (1975), the theme of which was that we could only have more equality if we were willing to give up on economic growth. The new perspective argues to the contrary—that equality and economic performance can be complementary.

The Meaning and Measurement of Economic Performance: Going beyond GDP

As an aside, I have deliberately been vague about what we should mean by economic performance. The International Commission on the Measurement of Economic Performance and Social Progress, which I chaired, unanimously concluded that GDP was not a good measure of performance (see the commission report by Stiglitz, Sen, and Fitoussi 2010).

There are many ways in which GDP is deficient. It fails, for instance, to reflect changes in security, an important dimension of well-being. The Federal Reserve is often judged on the basis of how well it has done in terms of the growth and stability of GDP. But the societal cost of the failure to maintain stability—of avoiding crises like that of 2008—is not well captured in standard GDP metrics.

The impact of the Fed's failure to ensure economic stability on insecurity should be obvious; but this crisis was particularly costly because so many also faced the risk of losing their most important asset. I will argue in this paper that the Fed has both "negative" and "positive" responsibilities: not only the responsibility of preventing harm, for instance as a result of instability, but a positive responsibility in ensuring that financial markets work like they should. It failed in ensuring that America had a mortgage market that would enable individuals to retain ownership of their homes in the face of a severe economic downturn, and the costs of this failure are obvious.

There is another cost, which research at the Fed has highlighted: a prolonged downturn, such as that which followed the 2008 crisis, has long-term effects on potential future growth. The value of the reduction in the expected present discounted of future GDP is enormous. In our metrics of the cost of the crisis, we should include this. These costs dwarf *any* estimate of the costs of any conceivable increase in inflation. It should be clear that monetary policy should have been more focused on avoiding these huge costs (see Stiglitz 2015).

One of the very important ways in which the standard measure is deficient is that GDP per capita describes only the *average GDP* per capita. It says nothing about what is happening to the typical individual (e.g., median income). GDP per capita could be increasing, yet most individuals could be experiencing a decline in their living standards. Certainly, if an economic system fails to deliver meaningful well-being for significant fractions of its population, it is questionable whether that system should be viewed as a successful economic system.

At its most basic, I claim that central bank policy has significant distributional effects, and in this paper, I will describe the various channels through which the policies of the Fed (or other central banks) affect equality and opportunity.

I should emphasize that these are under-researched topics. Upon close investigation, I am sure some of these will turn out to be more important than others. I am also sure, though, that the overall conclusion—that central bank policy has significant distributional effects—will stand. These distributional effects are not only important in their own right—with significant social consequences—but they can even affect the impacts of monetary policy on GDP as conventionally measured.

The Distributional Consequences of the Failure to Maintain Full Employment

There are two broad categories of channels through which monetary policy affects distribution. The first, the most obvious, and the most closely linked with one of the central missions of the Fed is its role in maintaining full employment and economic stability. These are effects that are mediated mainly through the role of the Fed in controlling interest rates and credit availability. The Fed also plays a critical role in regulating our financial system, and how it performs this function also has important effects on distribution. These effects are discussed in subsequent sections of this paper.

High unemployment hurts ordinary workers in three ways. It does so directly, not just for those who lose their jobs but also through the stress imposed on other workers as they worry about keeping their jobs. It also hurts ordinary workers through the downward pressure on wages that inevitably results, and through the cutbacks in public expenditures, especially at the local and state level, that follow from weak economic performance. Each of these effects—increased unemployment, falling wages, cutbacks in public services—are felt especially hard at the bottom of the income distribution.[1]

Managing the Inflation/Unemployment Trade-Off

Today, there is a wide acceptance of a trade-off between inflation and unemployment, at least in the short run, and perhaps in the long run. But how that trade-off is managed can have important implications for inequality. There are two critical issues.

Uncertainty

One concerns uncertainty: we don't know for sure, for instance, the value of the Non-Accelerating Income Rate of Unemployment (NAIRU), the level of unemployment below which inflation starts to increase. There are risks of targeting too low a level of unemployment—an increase in inflation, and risks associated with targeting too high a level—an unnecessarily high level of unemployment. But those different risks are borne differently by different parts of our society. (The overall risk is more complicated, as I pointed out in my Marshall lectures a number of years ago: the overall societal costs depend on the costs of correcting a mistake made at a later date, and the relationship between expected costs and benefits of a marginally more aggressive policy depends on the concavity or convexity of the augmented-Phillips curve.)

What I want to emphasize here is that an excessive focus on inflation stability rather than output stability itself could lead not only to a larger average output gap but also to an increase in inequality. On both accounts, societal welfare is lowered.

Asymmetries in the Effects of Monetary Policy

The way that monetary policy has been conducted has asymmetric effects: what workers lose in the downturn they do not seem to make up in the recovery. This is related in part to asymmetric effects of monetary policy—which is more effective in reducing output than in expanding production—but it is also related to the aggressiveness with which the objective of avoiding inflation is pursued.

Typically, when the economy goes into a recession, real wages fall. As the economy recovers, wages start to rise. To recover lost ground, and to keep

1 There is an expanding literature on these subjects. For an earlier analysis showing that the brunt of unemployment is felt at the bottom, see Furman and Stiglitz (1998).

up with productivity, wages should rise significantly. But if, as this happens, the central bank, worried about the incipient inflation that this may bring about, tightens monetary policy, workers will never be able to make up in the recovery what they lost in the downturn. There is a downward ratchet effect. There is some evidence that such a process has been in play.

For individuals too, there is an asymmetry—the loss of a job implies a loss of human capital, and therefore expected wages going forward will be lower: hysteresis is real.

Contributing to a Jobless Recovery: Impacts in the Short Run vs. the Long

There is one more effect of monetary policy, as conventionally defined—an unintended effect, but one which cannot be ignored. Lower interest rates have two effects. They are intended to induce more investment. But they change the relative cost of capital and labor. Even though real wages have not done well in recent years, the decrease in the cost of capital (at least for those firms having easy access to funds) has been much greater.

Standard micro-theory would suggest that this would lead firms to invest in more capital-intensive technologies. It may pay (and has paid) them to invest in machines that replace even low-skilled workers—e.g., the automated check-out machines at grocery and drug stores throughout the country. This can have long-lasting (hysteresis) effects, evident most clearly in vintage capital models. It implies, in particular, that if we were able to restore output at time T to a given level Q^*_T, the level of employment at that output will be lower than it otherwise would have been, had we not had this period of super-low interest rates. To put it another way, it means that the level of output that we have to attain at time T to achieve the same level of employment will have to be that much higher. In effect, the low interest rates help create a jobless recovery. And, the jobless recovery has all the adverse effects on inequality that I discussed earlier.

Of course, when there is a deficiency in aggregate demand, as there has been since 2008, it is natural that the Federal Reserve lowers interest rates. This recession has been, as we all know, extreme. If the Fed focused more on increasing credit availability (rather than just lowering interest rates), these adverse effects might be mitigated.

In the current context, the observation of this adverse effect on income distribution is mostly a reminder of the limitations of monetary policy. It would have been far better—for this as well as other reasons—if we had stimulated the economy through fiscal policy. But that is a bigger question, for another paper.

Impacts on the Elderly

There is still another effect of monetary policy, as conventionally defined: lower interest rates have a particularly adverse effect on those retired individuals who have, out of prudential concerns, put much of their savings into short-term government bonds. The representative agent models often used by macroeconomists (or at least used before the 2008 crisis) by definition paid no attention to this and other distributive effects. Whether differences in marginal propensities to consume among different groups are sufficiently large that these distributive effects have *macroeconomic* significance may be debated; but that these policies have distinctly different effects on different groups cannot.

Older theories discussed how low interest rates helped borrowers at the expense of creditors. But that view is too simplistic for understanding the distributive effects of monetary policy in a modern economy. Increasingly, workers are relying on defined contribution pension programs, which means that they are *very* dependent on the returns to their savings for their livelihood.

Similar effects arise, perhaps with even greater strength, with quantitative easing (QE). One of the main channels asserted for its effectiveness was through the wealth effect—the increase in stock prices, the benefit of which went overwhelmingly to the top 1 percent—one of the reasons perhaps for the relative weakness of the effect, and one of the reasons QE contributed to wealth inequality. Data on wealth ownership show clearly that the portfolios of the rich are weighed more toward equity. Lowering interest rates benefits owners of equity—that is those at the top. There is, in effect, a transfer from holders of T-bills to holders of equity, and that transfer is a transfer which increases inequality of income and wealth.

Inequality and Explanations of the Limited Impact of Monetary Policy

From the beginning of the crisis, the Federal Reserve was forthright about its limited ability to restore the economy to full employment. Much of the policy was directed just at saving the financial sector; that was necessary if the economy was to be restored quickly to health, but it was not sufficient.

For the real economy to return to health required the resuscitation of aggregate demand. But if there are differences in marginal propensities to consume (and I believe the evidence is overwhelming that there are), then inequality affects the monetary policy transmission mechanism, and Fed policy has to be sensitive to this. The previous paragraphs explained how lower interest rates could increase inequality, by hurting elderly dependent on returns on T-bills even as they benefited those at the top who own shares. But if the interest elasticity of investment and of consumers who are not constrained is low, then the net effect of lowering interest rates can be negative. This is even more so if many middle-class individuals are target savers—for instance, saving for retirement or to finance the college education of their children; then, lower interest rates imply a higher savings rate.

There are actions that the Fed could have taken, even within its limitations, to increase the effectiveness of monetary policy—actions that simultaneously would have reduced the adverse effects of monetary policy on inequality.

The Importance of Fixing the Credit Channel

One of the criticisms of QE was that much of the increase in liquidity went abroad and into increases in asset prices, and disappointingly little went into an expansion of credit. One of the reasons is that the credit channel was blocked. When the crisis struck, much of the focus of attention was on the big banks, who had engaged in such speculation. They were saved, but hundreds of smaller and regional banks—institutions that were more involved in lending to real businesses and to small and medium-sized enterprises (SMEs)—were let go. (There was a rationale for this behavior: it was natural that the Fed and the Administration focus on systemically significant institutions; but from a macroeconomic perspective, cutbacks in lending to the large number of smaller financial institutions have systemic effects as well. The consequences of this unbalanced program were given short shrift.)

This is one (though only one) of the reasons that lending to SMEs remained so far below its pre-crisis level years after the crisis. And the lack of flow of lending to SMEs is one of the reasons that our recovery remained so anemic for so long.

In short, the Fed (like the Administration) seemed to practice (and perhaps believe in) trickle-down economics. To me, it is not a surprise that it didn't work, and that the recovery was so weak.

The Importance of Making Markets More Competitive

Another channel through which it was hoped that QE would stimulate the economy was lowering the cost of mortgages, and increasing the prices of homes. While it almost surely had some effects along these lines, again the effects were sometimes disappointing, and again because we failed to address underlying problems in the financial system. The mortgage market is now less competitive than it was before the crisis, and the lower interest rates were typically not fully passed through to borrowers. Sometimes, it seemed a major effect of the Fed's actions in lowering interest rates was to enrich the coffers of the banks.

The failure to ensure adequate competition of financial markets leads to higher inequality in several ways: there are transfers from ordinary citizens to well-off banks (as a result of higher interest rate spreads and higher fees charged for services, including those associated with the running of the payments system through debit and credit cards). And if the effects of monetary policy are less effectively transmitted to consumers, the economy is less likely to remain close to full employment.

Preventing the Financial Sector from Harming the Rest of the Economy

Traditional discussions of the Federal Reserve have focused on the role of the Fed in regulating the macroeconomy through its control of interest rates. But in the aftermath of the 2008 crisis, attention has shifted to its *regulatory* roles. It was its failure to adequately regulate the financial system more than its failure to set interest rates correctly that led to the crisis—as both the Fed itself and most academic critics have argued (see, for instance, Stiglitz 2010 and the references cited there).

In recent years, the focus of regulatory reforms has been on preventing the financial sector from imposing harms on the rest of the economy. This is important, and it is especially important to mention this in any discussion of the role of the Fed in inequality. The worst harm that the financial sector has imposed is bringing on crises—many of our major downturns, including that of 2008, arise from financial crises, typically generated by excessive credit and excessive risk taking.

Crises are particularly hard on the poor, and this crisis especially so, as millions of Americans lost their homes, their jobs, and their retirement accounts. The Fed, through its failure to fulfill its responsibility to maintain stability, bears some onus for the enormous increase in inequality that has occurred since 2008. The excessive focus on inflation—which, as I have suggested, contributed to the growing inequality *before* the crisis—had an even more adverse effect: it detracted from a focus on stability.

This was ironic, because the Fed itself was founded in response to the Panic of 1907—not because of a bout of inflation. The losses from the crisis—the deviation from where the economy would have been had the economy continued on its normal path and the output actually experienced—have already mounted to trillions of dollars, far larger than any cost that could have been attributed to mild inflation.

Preventing the Financial Sector from Exploiting Others

Preventing the financial sector from doing harm to our society entails, of course, doing more than ensuring that it does not act in a reckless way. We also have to ensure that it does not act in ways which exploit others—and especially exploit those who are poor. America's financial sector has excelled at this—moving money from the bottom of the pyramid to the top, and thus increasing inequality and reducing equality of opportunity.

We now all know about the predatory and discriminatory lending that was rampant in the run-up to the crisis. But such lending practices, though diminished, still continue, contributing to the impoverishment of large numbers of our citizens through payday loans, subprime auto loans, usurious credit card fees, predatory education loans, and rent-a-center and similar abusive attempts to circumvent the little regulations that we have on usury.

These are problems that have been long with us. When I was in the Clinton administration, we tried to curtail the predatory for-profit education sector, which prospered solely because of government loans and other forms of government support, including government guarantees for student loans from an equally predatory private financial sector. We failed because of the political power of the sector.

But it is not just the poor that the financial sector has exploited in ways that increase inequality. It has also exploited average Americans through noncompetitive practices that have led to high fees imposed on merchants for the use of credit and debit cards. These fees represent, in effect, a tax that is imposed on every transaction—ironically, a transactions tax that is far, far higher than the minimal financial transactions taxes that some countries have proposed and to which the financial sector has objected so strenuously. And it is a tax that does not go to public purposes, but simply to enrich the coffers of the financial institutions. Inevitably, the costs of these fees get shifted to ordinary consumers, and since the benefits of the high-reward, high-fee cards go to the rich, the effect of these noncompetitive practices has been to redistribute income from poor and middle-income Americans to the rich.

Other countries' central banks—most significantly Australia—have taken strong actions to curb these abusive practices, and they seem to have worked. Finally, recent court decisions in the United States provide some hope that they will be curbed here, too. But I cannot but remark that I think the implementation by the Fed of the Durbin Amendment, the congressional provision attempting to curb these abuses—limited as it was to debit cards—was woefully inadequate, as Judge Richard Leon concluded, even if the Appellate Court decided that such a decision was within the discretion of the Fed.[2]

It would have been far better for our economy—and for inequality—if Congress had acted earlier; if when it acted, it had included credit cards as well as debit cards; and if the Fed, when it came to implementing these regulations, had acted more vigorously to ensure competitive pricing.

The Fed's Positive Agenda: Making Financial Markets Serve All Americans

The Federal Reserve, as I have said, has important regulatory responsibilities, besides its macroeconomic management responsibilities, and among those is to ensure that the financial system does not harm the rest of the economy. I have just detailed many of the ways in which the financial sector's actions have increased inequality.

But the responsibility of the Fed is broader. There is a positive agenda: *to ensure that the financial markets serve all Americans.*

Too much of the recent discussions about regulatory reform have focused on preventing the financial sector from imposing harm on the rest of the economy, especially by the excesses of risk taking which brought on the 2008 crisis; too little has been about how to ensure that the financial sector actually does what it should.

Earlier in this paper I have described two examples: making financial markets more competitive and fixing the credit channel. The broader positive agenda entails making the financial system actually act like how a competitive, transparent, financial system should, serving the interests of the country rather than just its own interests and recognizing that the financial system is not an end in itself, but a means to an end—to a more prosperous economy. In particular, this means ensuring that the credit channel works; that, for instance, funds are provided to small and medium-sized enterprises. Access to funds for new entrepreneurs, for ambitious young people striving to get ahead, is an important way in which opportunity is enhanced. Interestingly, when I was in China in the spring of 2015, discussing with the Premier the high level of inequality that afflicted that country, he put particular stress on this aspect of China's agenda.

If the banking system is to do this, its attention needs to be redirected, from the kind of activities that were more recently the focus of its attention—such as

2 As a matter of disclosure, I have served as an expert witness in the litigation against the credit card companies. The most recent court decisions have concurred with my judgment that the practices of the credit and debit card companies have been highly anticompetitive.

trading, speculation, market manipulation, etc. That's why regulations like the Volcker rule, the Lincoln Amendment (which was unfortunately repealed), and similar provisions are so important.

Ensuring Access to Credit

But the Fed and other regulatory agencies overseeing the financial sector have a larger responsibility. They need to affirmatively work to create a competitive and transparent financial sector focused on providing broader access to finance. This was, of course, one of the intentions of the Community Reinvestment Act (CRA), which I believe has, overall, worked.

CRA illustrates how a government mandate to lend to underserved communities can actually focus attention on a critical issue in an effective way. Once its attention was focused on lending to underserved communities, our financial sector figured out how to do it in ways that were profitable. It used its ingenuity to identify good potential borrowers, and to work with them to make sure that the businesses were a success.

Supporting Community and Regional Banks

But there is much, much more that needs to be done and can be done. I mentioned earlier that in the crisis we paid too little attention to our community and regional banks and other financial institutions. These local banks play an important role in the development of the communities of which they are a part. In the years since the repeal of Glass-Steagall, our banking system has evolved into one that is not only more reckless, but more concentrated, with less competition, less concern for providing finance to the small businesses of our country, and in which our community and regional banks play a less important role. But acknowledging the potential role of these banks is not an argument for allowing them to engage in the bad practices of the larger banks.

Helping Create a Housing Mortgage Market That Works—for All Americans

Consider the housing finance market. Our private system clearly failed, at great cost to millions of homeowners and our economy. I was among many who pointed out, at the very beginning of the securitization movement, the inherent flaws, related to problems of imperfect information (see Stiglitz 1992).

It is noteworthy that nine years after the breaking of the housing bubble, eight years after the beginning of the recession, we have not been able to restore the private mortgage market. Part of the reason, I believe, relates to the inherent flaws in the securitization model that I have discussed elsewhere. But we also have to admit that for all the so-called innovativeness of the financial sector, it failed to innovate in ways that would enable ordinary American homeowners to manage the risk of homeownership.

The financial sector's innovation was more directed toward its ability to, as the title of George Akerlof and Rob Shiller's 2015 book puts it, "phish for phools"—to better identify those that it could exploit. There are alternative mortgage products that would be far more efficient in lowering transactions costs and managing risks, but evidently, our financial markets were not interested. In a forthcoming Roosevelt Institute paper, I set out a set of reforms that I believe would lead to a better performing mortgage market.

I emphasize this here because nothing has done more to increase inequality of wealth and decrease homeownership rates, which have markedly decreased (after peaking at some 69 percent in the mid-2000s, it is now at a 20-year low, under 64 percent). The impacts have been particularly severe upon Hispanics and African Americans.

Financing Higher Education

Building up our communities entails not just providing better access to credit for our businesses and families, but also enhancing opportunities for individuals to get ahead. We need a better way of financing higher education. We need to do better than just the modest proposal to provide better access to community colleges that the President has put forward.

We have to provide access to the best education for which each person is qualified. We can't have a system that says that if you are poor, you can go to an underfunded community college; but if your parents are rich, you can go to a higher-tier school. And we especially shouldn't have a system that allows private for-profit schools to engage in their predatory activities, taking advantage of poor Americans—with private lenders and the government complicit in providing loans that will be a noose around their necks. Australia has shown that there is an alternative: an income-contingent loan program can provide opportunity for all, enhancing societal mobility.

Inequality and Central Bank Independence

No matter what the Federal Reserve does, it has an effect on inequality, for good or for bad. Given the importance of inequality in our society, it needs to pay attention to these effects. It would need to pay attention to these effects even if it saw its only mission as macroeconomic performance and stability. We are long past the day when economists could appeal to the Second Welfare Theorem, to use economic jargon, which says that the role of the economists is to maximize GDP and that issues of distribution should be left to others. Today, we understand why both the First and Second Welfare theorems (asserting that markets are always efficient and that every Pareto-efficient outcome is attainable through market mechanisms, with appropriate lump sum redistributions) are of limited relevance.

If monetary policy has these large distributive effects, a question naturally arises: how can we justify delegating fundamental social trade-offs to technocrats? Can we really justify the kind of independence that central banks seem to prize? And especially when central banks are engaged in quasi-fiscal transfers, giving money to some financial institutions and withholding it from others, and even more so when many "independent" central banks seem to have been captured by the financial sector, a kind of capture that might have been more difficult if there was more accountability or more representativeness in their boards.

Was it an accident that many of the so-called "independent" central banks performed far more poorly in the run-up to the Great Recession than those that were more politically accountable? Did their independence make them more easily captured by the financial sector, which saw increased profits in the agenda of deregulation and loose regulation? There are subtle questions in institutional design that I cannot adequately address here; few would want to turn over the conduct of monetary policy to some of the politicians that dot the political landscape. Suffice it to say that once one recognizes the distributive consequences of central bank policy, a more nuanced approach is required.

Overview: Monetary Policy and Inequality

The Federal Reserve was created in recognition of the fact that market economies are not self-regulating. It was created to deal with a problem of financial instability, but over time, its mandate expanded, to include full employment, growth, and inflation. In the years preceding the crisis of 2008, it lost its way: it seemed to focus single-mindedly on inflation, in the mistaken belief that doing so would ensure growth and stability. As we have observed, it even forgot its own history: it was not created in response to a bout of inflation, but in response to the Panic of 1907.

Today, fortunately, it seems to be regaining its footing. Many if not most members of the Fed recognize its responsibility for the broader management of the economy. Whether it likes it or not, what the Fed does has significant effects on inequality. Furthermore, the effectiveness of Fed policy, in turn, depends on many features of the economy over which it has some control, both through its macroeconomic and regulatory instruments: it depends, for instance, on both the level of inequality and on the competitiveness of the financial system.

We have thus come to understand that monetary authorities should recognize that they have more tools and instruments and broader objectives—both intermediary goals and ultimate objectives—than has been traditionally conceived. GDP is itself an intermediary goal—the ultimate objective is increasing the well-being of our society. Within this broader perspective, there should be a concern about inequality both because of how it affects overall economic performance and because it affects the well-being of ordinary citizens.

Central banks have responsibilities both in macroeconomic management and financial sector regulation. It is natural that their responsibility should embrace the latter, for as we have seen, a major source of economic instability is the financial sector.

The issues of inequality are intertwined with all the other issues that the Fed has to deal with. I have highlighted how this is true for the standard policies of macroeconomic management, as the Fed faces the difficult trade-offs that it regularly confronts. But it is especially true in the arena of regulation. For instance, if more had been done to prevent predatory lending, perhaps the economic shock would have been less; certainly, the adverse effect of the crisis on inequality would have been diminished.

It is not an accident that the innovations of the financial sector in the years before the crisis did not lead to stronger economic performance, though they led to higher instability and greater inequality. Much of the financial sector innovation that was not directed at regulatory arbitrage and circumvention was centered on creating better ways of exploiting poor and financially unsophisticated individuals. Such exploitation may succeed in moving money from the bottom of the pyramid to the top, but such innovation does not provide the basis of stronger, sustainable growth. More effective regulations preventing these activities would have led to more stable growth, and more equality.

But we need to move away from just focusing on how we can prevent the financial sector from doing harm, and to a more positive agenda. How can we create a financial sector that actually enhances opportunity? It would be a different financial sector from the one we have today, but I believe it is achievable, and I believe the Fed has an important role in attaining this goal.

The Roosevelt Institute, where I serve as chief economist, has been actively engaged in two research programs, one focusing on how to make our financial markets function better, the other on how to create more shared prosperity—how to reduce the country's high level of inequality and promote equality of opportunity. The two strands of our research programs are, in fact, closely related, because our flawed financial system is part of the reason for the growth in inequality. The Fed is at the center of our financial system, which is why what the Fed does is so important for what happens to inequality.

We need to realize that what has happened in the last third of a century is fundamentally different from what was occurring in the previous third of a century. Then we were in the process of creating a middle-class society based on opportunity for all. Since 1980, we have been creating a society where all the benefits of growth go to a very few at the top. Median income, adjusted for inflation, is lower than it was a quarter century ago. We have moved into a negative-sum world, where the gains at the top have not led to gains for all, but to slower overall growth and stagnation for the majority.

The problems we have created are not amenable to small tweaks or minimalist solutions. They are simply too large. There is a need for a fundamental rethinking of the structure of our economic and legal framework and the policies by which we manage our economy. A re-examination of our macroeconomic and financial policies will be an important part of this rethinking. The Fed can and should play an important role in this process. Our recent book *Rewriting the Rules* (Stiglitz et al. 2015), provides a framework for these reforms.

In short, we can have a better-performing economy, with higher growth and more equality, if monetary policy and financial regulation is conducted with an eye to the impact of policies on distribution. Rethinking monetary policy through this lens will not be easy. Reforming monetary policy will be even more difficult, for those who have done well under the current system have both the incentives and resources to use their influence to oppose these changes.

But it is the only way forward: The only way that we can achieve sustained prosperity is to have shared prosperity, and the only way that we can achieve that is through a monetary policy and a financial system that is not based on trickle-down economics but rather directed at increasing the well-being of all Americans. ■

References

Akerlof, George A., and Robert J. Shiller. 2015. *Phishing for Phools: The Economics of Manipulation and Deceptions.* New Jersey: Princeton University Press.

Furman, Jason, and Joseph E. Stiglitz. 1998. "Economic Consequences of Income Inequality." In *Symposium Proceedings—Income Inequality: Issues and Policy Options.* Jackson Hole, WY: Federal Reserve Bank of Kansas City, 221–63.

Okun, Arthur. 1975. *Equality and Efficiency: The Big Tradeoff.* New York: Brookings Institution Press.

Stiglitz, Joseph E. 1992. "Banks versus Markets as Mechanisms for Allocating and Coordinating Investment." In *The Economics of Cooperation: East Asian Development and the Case for Pro-Market Intervention,* edited by James A. Roumasset and Susan Barr, 15–38. Boulder, CO: Westview Press. (Presented at Investment Coordination in the Pacific Century: Lessons from Theory and Practice Conference, given at the University of Hawaii, January 1990.)

Stiglitz, Joseph E. 2010. *Freefall: America, Free Markets, and the Sinking of the World Economy.* New York: W. W. Norton & Company.

Stiglitz, Joseph E. 2012. *The Price of Inequality.* New York: W. W. Norton & Company.

Stiglitz, Joseph E. 2015. "The Measurement of Wealth: Recessions, Sustainability and Inequality." In *Contemporary Issues in Macroeconomics: Lessons from The Crisis and Beyond—International Economic Association Series,* edited by Joseph E. Stiglitz and Martin Guzman. Houndmills, UK and New York: Palgrave Macmillan; also available as National Bureau of Economic Research Working Paper No. 21327, July 2015, and paper presented at special session of the International Economic Association World Congress, Dead Sea, Jordan, sponsored by the Organisation for Economic Co-operation and Development, June 2014.

Stiglitz, Joseph E. Forthcoming paper. "A Housing Finance System for the Twenty-First Century." New York: Roosevelt Institute.

Stiglitz, Joseph E., Amartya Sen, and Jean-Paul Fitoussi. 2010. *Mismeasuring Our Lives: Why GDP Doesn't Add Up.* New York: The New Press.

Stiglitz, Joseph E., Nell Abernathy, Adam Hersh, Susan Holmberg, and Mike Konczal. 2015. *Rewriting the Rules of the American Economy: An Agenda for Growth and Shared Prosperity.* New York: W. W. Norton & Company.