No. 13-990

IN THE

Supreme Court of the United States

REPUBLIC OF ARGENTINA,

Petitioner,

v.

NML CAPITAL LTD., ET AL.,

Respondents.

On Petition for Writ of Certiorari to the United States Court of Appeals for the Second Circuit

BRIEF OF JOSEPH STIGLITZ AS AMICUS CURIAE IN SUPPORT OF PETITIONER

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March 24, 2014

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INTRODUCTION

Sovereign governments fund themselves to a large extent through public debt markets. The contracts for sovereign debts are thus essential to the operation of governments, and, in turn, the global economy. As with any financial enterprise, the contracts also provide guidance on what will occur in the event that the government cannot pay as promised. But the legal meaning of those contracts is irretrievably intertwined with the economic meaning; governments and bondholders alike care about the law because it guides their behavior. In other words, legal interpretations in this context can have profound consequences for the way that governments fund themselves and develop their economies.

Professor Joseph Stiglitz files this brief to explain how the Second Circuit's decision in this case—if left standing by this Court—will threaten to upend global sovereign-debt markets, harm developing nations, and challenge New York's position as a global financial capital.[1] No rational creditor would participate in a restructuring under the Second Circuit's legal regime. Accepting partial payment initially is foolish when the

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[1] Counsel of record for all parties received notice of Professor Stiglitz's intent to file this brief at least ten days before its due date. The parties have provided blanket consent to the filing of amicus briefs. No counsel for a party wrote this brief in whole or in part, and no counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than amicus curiae or its counsel made a monetary contribution intended to fund its preparation or submission.

In addition to Professor Stiglitz and his counsel, this brief was prepared with the pro bono assistance of Dr. Michael Cragg, Dr. Lisa Cameron, Dr. Toby Brown, and Dr. Daniel Gaynor of the Brattle Group.

law allows, even compels, full payment eventually. At the very least, the Second Circuit's decision severely impedes potential debt restructurings under standard debt contracts and subverts debtors' ability to start anew when they cannot pay back creditors. In the process, a basic principle of modern capitalism—that when debtors cannot pay back creditors, a fresh start is needed—has been overturned. This Court should step in and set things straight.

INTEREST OF AMICUS CURIAE

Joseph Stiglitz is an economist and University Professor at Columbia University. In 2001, he received the Nobel Memorial Prize in Economics. From 1993 to 1997, he served as a member and then Chairman of the White House Council of Economic Advisers. From 1997 to 2000, he served as Chief Economist and Senior Vice President of the World Bank.

As both a policymaker and scholar, Professor Stiglitz has been extensively involved in the formulation of financial and fiscal policy. As a policymaker and adviser, he has participated in numerous sovereign debt restructurings and advised various countries on fiscal issues closely related to those implicated by this case. As a scholar, he has published hundreds of peer-reviewed articles and more than 25 books in theoretical and empirical economics, including extensive publications on the economic implications of financial, fiscal, and monetary policy. A more complete description of his biography is included in the appendix.

STATEMENT OF THE CASE

The problems that gave rise to this case began a dozen years ago, when Argentina had no choice but to devalue its currency and default on its debt. Under the regime in control of Argentina at the time, the country's economy and fiscal position were rapidly declining and unemployment was soaring. The country devalued its currency and simultaneously invited its many creditors to sort through and restructure its outstanding debts.

Devaluation and debt restructuring worked. In subsequent years, until the global financial crisis erupted in 2008, Argentina's annual GDP growth was 8% or higher, one of the fastest rates in the world. Even former creditors benefited from this rebound. In a highly innovative move, Argentina exchanged old debt for new debt—at about 30 cents on the dollar or a little more—plus a GDP-indexed bond. The more Argentina grew, the more it paid its former creditors.

Argentina's interests and those of its creditors were thus aligned: both wanted to see the Argentine economy grow. It was the equivalent of a frequent strategy used in the American corporate-debt context, where, under Chapter 11 of the Bankruptcy Code, a distressed company will swap its debt for equity, with old bondholders becoming new shareholders.

Of course, debt restructurings are not always strictly harmonious affairs; there are often conflicts among different claimants. To address these conflicts in private debt disputes, countries have bankruptcy laws and courts. These courts serve as referees to the restructuring process to ensure that the law is followed, even if some debtors or some creditors would prefer different results. The law sets forth clear criteria for priority of claimants, and, under some circumstances, can force reluctant creditors to accept a restructuring that entails a "haircut" on their claims, in the interests of all the creditors.

There is no such court or referee for distressed governments and their creditors. Once upon a time, such contracts were enforced by armed intervention, as Mexico, Venezuela, Egypt, and a host of other countries learned at great cost in the nineteenth and early twentieth centuries. A peaceful, orderly, predictable, and objective mechanism—of the kind taken for granted in the private corporate context—is simply unavailable for sovereign debt restructurings.

Some countries with large enough economies come to the negotiating table on equal or better terms with their creditors. The poorer the country, the less likely this is to be true. Poor countries are typically at a huge disadvantage in bargaining with big multinational lenders, which are usually backed by powerful home-country governments. Often, debtor countries are squeezed so hard for payment that they are bankrupt again after a few years.

In its currency devaluation and debt restructuring, Argentina sought to avoid this outcome, especially with the issuance of GDP-linked bonds. And economists and other outsiders applauded its effort. But others saw an opportunity to make huge profits at the expense of the Argentine people. They bought the old bonds at a fraction of their face value, and then used the current litigation to try to force Argentina to pay 100 cents on the dollar, including principal and accrued interest—far more than nearly all other creditors and outside experts agreed was required to ensure Argentina's successful exit from default.

The late-coming bondholders' litigation strategy seeks to take advantage of a standard contractual clause (called *pari passu*, Latin for "with an equal step" or "on equal footing"). The Second Circuit has interpreted the clause in this case to mean that if Argentina paid in full the interest on new debt issued in the restructuring, it had to pay the holdouts in full the principal and cumulative interest on debt from before the restructuring that had never been exchanged.

ARGUMENT

I. The Second Circuit's decision subverts the orderly restructuring of sovereign debt.

A. The decision would prevent debtor nations from issuing new debt if even one holdout creditor refuses to participate in the restructuring.

The Second Circuit's decision gives a small group of creditors the incentive to hold out on sovereign debt restructurings. The *pari passu* clause has long been a standard term in sovereign debt contracts. This makes good economic sense: For financial markets to function, participants must have some assurance that one set of bondholders will not be ranked above or below another. The *pari passu* clause provides this type of assurance.

But the Second Circuit's opinion—which builds on its previous affirmance of the district court's injunction—has determined that the clause protects those creditors who refuse to deal, no matter the consequences, no matter the efforts by the debtor to restructure that debt. Under the Second Circuit's interpretation of the *pari passu* clause, the clause becomes a guarantee that *any* future creditor of any future bond issuance will not receive payment before the holdouts of any previous restructuring. So long as these holdouts can outlast the debtor and the debtor's attempts to move on with payment through the restructuring, they can effectively thwart the debtor's ability to issue future debt, whether as part of the restructuring—as occurred here—or at any time thereafter.

In the specific case of Argentina, the vast majority (over 90 percent) of the country's creditors accepted its restructuring proposal, while only a small group elected to "hold out" for better terms. But given the Second Circuit's ruling, the holdout group will receive far better terms than the vast majority of creditors. That is, the holdout group will obtain full payment on Argentina's pre-default obligations—both principal and cumulative interest on defaulted bonds—rather than payment on the (marked down) restructured debt provided to creditors that participated in the restructuring plan.

Indeed, the rule goes further than that: Both the holdouts and the creditors who have accepted restructuring have already received compensation for the risk of default through returns received on the original bonds. Because any loan is a voluntary transaction, lenders' required return for their provision of capital increases with the probability of borrower default. Under the logic of the Second Circuit's ruling, however, holdouts would receive high pre-default returns while never actually bearing the risk of default.

If left in place, the Second Circuit's treatment of holdout creditors will have a severely negative impact on the public interest, in this case and in a wide array of sovereign debt restructurings, past and future.

This disruption will occur for two reasons. First, the decision benefits holdouts at the expense of the majority of creditors who have accepted debt restructuring. Such treatment will discourage creditors from participating in a voluntary restructuring, disrupting the already delicate and complex process of restructuring sovereign debt.

Second, and closely related, because no creditors would opt for partial payment at the beginning of the restructuring process when they can hold out for full payment at the end, restructuring under the Second Circuit's rule would deny debtor nations the benefits of a fresh start. If the Second Circuit's ruling remains the law, attempts at restructuring would simply create new uncertainty about the country's future and the size of its debt burden. This uncertainty itself would impede growth and access to credit, diminishing greatly the benefits of restructuring.

These considerations explain why national governments and organizations have voiced support for Argentina in its continuing struggle with holdout creditors. The governments of France and the United States have supported Argentina's position against the claims of its holdout creditors for policy reasons consistent with the principles that amicus explains here.[2] As recognized by the U.S. Department of Justice, rewarding holdouts "could enable a single creditor to thwart the implementation of an internationally supported restructuring plan, and thereby undermine the decades of effort the United States has expended to encourage a system of cooperative resolution of sovereign debt crises."[3]

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[2] Br. of Republic of France in Support of Petitioner in *Republic of Argentina v. NML Capital,* Ltd., No. 12-1494 (2d Cir. Jul. 26, 2013); Br. of United States in Support of Reversal, in *NML Capital, Ltd. v. Republic of Argentina,* No. 12-105 (2d Cir. Apr. 4, 2012); Br. of United States in Support of Rehearing, *NML Capital, Ltd. v. Republic of Argentina,* No. 12-105 (2d Cir. Dec. 28, 2012).

[3] Br. of United States in Support of Reversal, in *NML Capital, Ltd. v. Republic of Argentina,* No. 12-105 (2d Cir. Apr. 4, 2012), at 5.

B. Sovereign debt restructuring programs are particularly vulnerable to the demands of holdout creditors.

It is well accepted that bankruptcy is essential when changes in economic circumstances leave a firm or household with excess debt. In fact, it is hard to conceive of modern capitalism without bankruptcy laws to prioritize creditors and otherwise govern the allocation of private debtor resources.[4]

Analogously, sovereign debt restructuring is essential when a country becomes encumbered with a non-sustainable debt burden in the wake of various kinds of economic shocks. But the sovereign debt market has long had to manage in the absence of a sovereign debt restructuring mechanism (SDRM) that would specify an orderly restructuring process.[5] This is why the Second Circuit's decision has the potential to cause severe disruption in the sovereign debt market generally and sovereign debt restructuring specifically.

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[4] Of course, the design of bankruptcy law entails complex issues of equity and efficiency and the fact that such laws differ across countries and over time should make it clear that there is not a single right answer to the question of what is the right bankruptcy law. But there are some bankruptcy laws that are *inefficient* and sovereign debt contracts and restructuring processes can also be inefficient. In particular, amicus does not believe that any efficient market would have knowingly incorporated a *pari passu* clause that could be interpreted in the manner provided by the Second Circuit, for reasons explained below.

[5] As discussed in the economic literature, the lack of an SDRM makes the process of restructuring sovereign debt costly and complex. *See* Joseph E. Stiglitz, "Sovereign Debt: Notes on Theoretical Frameworks and Policy Analyses," in Barry Herman, et al., eds., *Overcoming Developing Country Debt Crises* 35-69 (2010).

With an accepted SDRM in place, sovereign debt restructuring programs would be far less vulnerable to the demands of individual holdout creditors. Just as Chapter 11 of the Bankruptcy Code governs the process for restructuring corporate debt, the SDRM itself would govern the restructuring process rather than the specific terms of particular contracts associated with the debt. Recognizing the critical need for an SDRM, the International Monetary Fund pushed this initiative forward in the early years of this century. Although nothing came of the Fund's SDRM initiative, the creation of such a mechanism has remained a top priority for global economic reform.[6]

This reality—that there is not now an SDRM and there is yet little prospect of establishing one in the near future—increases creditors' incentives to act opportunistically in a way that, for example, the U.S. Bankruptcy Code would not permit. The Second Circuit has suggested that the holdout problem can be resolved by simple changes in contract design, such as a collective action clause (CAC) designed to limit individual creditors' ability to initiate litigation. Amicus does not believe that CACs are an effective remedy for the difficulties associated with obtaining agreement on a sovereign debt restructuring program. If it were so easy to resolve such issues by private contract, then bankruptcy laws and bankruptcy courts would not be

[6] For example, in 2010, the President of the General Assembly of the United Nations created a Commission of Experts on Reforms of the International Monetary and Financial System that explicitly discussed the importance of establishing an SDRM. Amicus chaired this commission; its findings are published in Joseph E. Stiglitz, *The Stiglitz Report: Reforming the International Monetary and Financial Systems in the Wake of the Global Crisis* (2010).

such an integral part of the financial system in the United States—private contracting would exist in the corporate-debt context, making bankruptcy courts superfluous. This is not just the case in the United States: As far as amicus is aware, no advanced country has been able to manage efficient restructuring of private debts through exclusive reliance on collective-action clauses.

If CACs are insufficient in the private bankruptcy context, they are even more insufficient in sovereign debt restructurings, which are more complex than private bankruptcies, not least because there is no clear set of assets available to be distributed in the event of restructuring.

The flaws in a CAC model of preventing holdouts are clear in practice as well as in theory. One key factor limiting the efficacy of CACs in debt restructurings is the problem posed by "aggregation." A CAC applies only to a single bond issue. However, when there are many series of bonds, some more senior than others, one must determine how to add up the voting rights of each set of creditors. In one possible set of rules, the problem of holdouts reappears: If every group has to give its qualified majority approval, a majority associated with only one bond issuance could hold up restructuring across all issuances.[7] But if the rules were designed to avoid this problem, some set of claimants could overrule other claimants, perhaps unfairly. For example, when Greece restructured its debt, all of its domestic-law creditors participated in the restructuring under a

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[7] This point is discussed, for example, in a recent report: International Monetary Fund, "Sovereign Debt Restructuring—Recent Developments and Implications for the Fund's Legal and Policy Framework," 31 (2013).

statutory mechanism: there could be no domestic holdouts. By contrast, holdout creditors owning about 30% of the foreign-law debt could not be forced to participate in the restructuring even though these instruments contained CACs; this was because the holdouts obtained blocking stakes in 19 of the 36 relevant bond series.[8]

Recent empirical work confirms the limited usefulness of CACs for addressing the holdout problem. For example, a paper by Bradley, Cox, and Gulati analyzes the effectiveness of CACs in reducing the yield spread between sovereign debt and U.S. Treasuries using a sample of 312 sovereign-bond issuances subject to New York law. This study concludes that "the CAC contractual solution, which was supposed to provide a mechanism by which the markets could deal with the holdout problem on their own, appears to have had provided little confidence, at least within the time frame we examine here."[9]

Of course, even if CACs facilitated sovereign debt restructuring going forward, there are still billions of dollars in outstanding debt contracts without these clauses. Hence, regardless of the utility of CACs in facilitating future restructurings, the Second Circuit opinion, if it becomes the law, would imperil the functioning of sovereign debt markets for the foreseeable future.

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[8] *Id.* at 28-29.

[9] Michael Bradley, James D. Cox, and Mitu Gulati, *The Market Reaction to Legal Shocks and Their Antidotes: Lessons from the Sovereign Debt Market*, 39 J. Legal Stud. 289 (2010).

C. By impeding orderly restructuring, the Second Circuit's decision undermines sovereign debt markets and thereby harms developing countries.

Orderly restructurings are an important aspect of well-functioning sovereign debt markets. In a sovereign debt restructuring, the goal is to balance the benefits of economic recovery and growth (which accrue to both citizens and creditors) with the obligation to pay creditors. Investors in riskier sovereign debt understand that when a credit event occurs, a reduction in the debt burden allows the country to grow GDP and reduce its unemployment rate, while providing creditors with some return on their initial loan. This restructuring allows the debtor nation to break out of the vicious cycle of negative growth and decreasing investment and replace it with a virtuous cycle of positive growth and increasing investment.[10]

In the past, despite the absence of an SDRM, sovereign nations in fiscal distress have been able to restructure their debt in a more or less orderly fashion. After restructuring their debt and pursuing attendant

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[10] As noted, the analog to a successful sovereign debt restructuring in the private context is a corporate bankruptcy. In a corporate bankruptcy, investors typically suffer some losses, but the reduction in debt allows the firm to emerge from bankruptcy as a going concern able to raise finance for its operations in the normal way. Successful restructurings are good for both debtor and creditor, just as a successful Chapter 11 workout returns more value to holders of distressed debt than would a fire sale of corporate assets. From the perspective of efficiency, a sovereign debt restructuring is efficient if the gains of the debtor are sufficiently great that it more than compensates, ex ante, not only for the losses of the creditor, but also for the increased interest charges that might result from the risk of restructuring.

economic reforms, many developing countries have been able to regain a stable footing and once again obtain external financing on regular terms. But where the Second Circuit's decision applies, adverse situations that would otherwise have led to a reasonably orderly restructuring of sovereign debt will instead lead to impasse.

If the Second Circuit's decision is left standing, governments faced with unsustainable levels of debt may try to struggle on with a stagnant or shrinking economy even though a speedy restructuring would have allowed growth to resume.[11] Alternatively, such governments may default but—with no way to overcome the holdout problem—they will have no incentive to offer any recovery to creditors. Unable to restructure, governments that default could be permanently shut out from the debt market, with consequential adverse effects on development and economic growth prospects.

For a developing country, access to financing is particularly important both during an economic crisis and during the subsequent recovery period. Access to external financing enables governments to maintain key

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[11] There are significant costs of default for the debtor country, particularly if restructuring is expected to take a long time. For example: "The absence of a predictable, orderly, and rapid process for restructuring the debts of sovereigns that are implementing appropriate policies has a number of costs. It can lead a sovereign with unsustainable debts to delay seeking a restructuring, draining its reserves and leaving the debtor and the majority of its creditors worse off." Anne O. Krueger, *A New Approach to Sovereign Debt Restructuring* 2 (2002). Even under current arrangements (as they were understood prior to the Second Circuit's decision), the costs of restructuring are sufficiently large that many countries delay excessively restructuring; the decision below will only exacerbate this inefficiency.

spending commitments while the economy is recovering and is temporarily unable to generate sufficient tax revenue to balance the budget. Without external financing, a developing country is constrained to run a balanced budget every year. For many countries, this would be impractical under normal circumstances, and is impossible when the economy is in crisis. Investment programs are, by their nature, a long-term commitment of funds, whereas government revenues are often highly volatile and may be exposed, for example, to the vagaries of international commodity prices.

The less external financing is available, the more a country is required to rely on current tax revenues to fund government spending. The "austerity measures" implemented in Greece and other European countries in the wake of the global financial crisis are informative here: Unsustainable debt burdens were not reduced sufficiently through restructuring, and, as a result, economies have performed very poorly post restructuring, sometimes necessitating further debt restructuring. Recent research by the IMF and others has concluded that austerity programs, including those that are necessitated by lack of access to finance, weaken the economy.[12]

It is also important to recognize that the Second Circuit decision, if not reversed by the Court, could imperil the IMF's and the World Bank's ability to perform essential functions. These institutions have traditionally engaged in crisis lending, with the understanding that they have priority over other

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[12] Jaime Guajardo, Daniel Leigh, and Andrea Pescatori, "Expansionary Austerity: New International Evidence," IMF Working Paper (2011); Robert Chote, "March 2013 Economic and Fiscal Outlook Briefing," U.K. Office for Budget Responsibility (2013).

creditors. The *pari passu* clause has never been invoked, partly because there has been a common understanding that it does not apply to such payments.

But if the *pari passu* clause can be extended in the way held by the Second Circuit—that is, that subsequent debt can never be paid more fully than previous debt, even for different issuances—a private creditor could well challenge such payments to the IMF and the World Bank, as well as to other official lenders. France has already expressed such fears. The system of development and crisis financing that has emerged over the past sixty years could be jeopardized if the Second Circuit's decision stands. At the very least, a new level of uncertainty has been added to global financial markets, at great cost to the global economy.

II. The Second Circuit's decision, if allowed to stand, will harm U.S. financial markets.

When sovereign debt is issued, both the borrower and the creditor hope that the debt will be repaid in full in a timely way as set forth in the contract. But both parties also recognize that events may occur that will necessitate a debt restructuring, a postponement of payments and/or a reduction in the value of the principal. That is why the interest rate paid on developing countries' sovereign debt, for instance, is considerably higher than that paid by the U.S. government. As noted above, the higher interest rate is compensation for the risk lenders face.

In order for sovereign debt markets to function well (with interest rates at reasonable levels), it is necessary to have sensible rules governing the sovereign debt restructuring process. This is because the nature of the restructuring process affects the willingness of both the lenders to lend and the borrowers to borrow, and the equilibrium interest rate charged in the market. Before the Second Circuit's ruling, if restructuring was necessary it could be carried out (in the absence of a clear SDRM) through a process of negotiation. Interest rates on sovereign debt reflected the possibility of future restructuring on that basis.

From the perspective of participants in the global sovereign debt market—creditors and debtors alike—one reasonable response to the problem posed by the Second Circuit's decision could be to stop issuing debt in New York (which is closely tied to the choice of New York law as the governing legal jurisdiction in the bond contracts). A developing country with its citizens' long-term interests in mind will be more likely to issue its debt in England, for example, where individual bondholders are unable to initiate legal proceedings and therefore the holdout problem created by the Second Circuit's decision does not exist.[13]

Currently, the New York financial markets play a vital role in the issuance of emerging market sovereign bonds. Because New York law governs bonds issued through the New York financial market, New York law also plays an important role in debt restructuring. As of March 2009, New York law governed almost 70 percent of all outstanding emerging market bonds issued internationally, with English law accounting for most of the remaining issuances (22.2%). By March 2009, approximately one quarter of a trillion dollars ($272

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[13] *See* Barry Eichengreen, "Restructuring Sovereign Debt," 17 J. Econ. Perspectives 75 (2003); IMF, "Sovereign Debt Restructuring—Recent Developments and Implications for the Fund's Legal and Policy Framework," at 14.

billion) in outstanding emerging market bonds was governed by New York law.[14]

But if the Second Circuit's decision is allowed to stand, borrowers would have a strong incentive to seek other jurisdictions where courts seem less prejudiced against borrowers and where the *pari passu* clause, intended to insure all borrowers are treated equally and fairly, is not reinterpreted to give holdouts preferential treatment. Indeed, amicus believes that if the Second Circuit's interpretation of the *pari passu* clause had been the prevailing interpretation at the time Argentina issued its debts, Argentina would not and should not have been willing to borrow at the interest rate offered by the market. The cost would have been simply too high. Though borrowers and creditors may seek new language to restore what was intended by the *pari passu* clause, inevitably there will be uncertainty about how such language might be interpreted in later litigation.

The Second Circuit acknowledged the problem of sovereign debt flight just described, but does not believe that its decision will steer bond issuers away from the New York marketplace. Rather, the Second Circuit believes that going forward, sovereigns and lenders will be free to devise various mechanisms, including CACs and alternative *pari passu* language, to avoid holdout litigation. As described above, the Second Circuit's opinion relies on an overly sanguine view of the efficacy of CACs, which conflicts with economic logic and evidence. Given the uncertainty surrounding CACs and their efficacy, it is far easier—for creditors and debtors alike—to simply ignore the issue and choose English law

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[14] Udaibir S. Das et al., "Sovereign Debt Restructurings 1950-2010: Literature Survey, Data, and Stylized Facts," IMF Working Paper 41 (2012).

to govern sovereign debt contracts. Doing so removes uncertainty and ensures that the essential process of debt restructuring can still occur. If the Second Circuit's view of *pari passu* is left standing, New York law no longer provides that certainty.

CONCLUSION

The petition for certiorari should be granted.

Respectfully submitted,

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March 24, 2014

BIOGRAPHICAL APPENDIX

Joseph Stiglitz is Professor of Economics and University Professor at Columbia University. From 1993 to 1997, he served as a member of President Clinton's Council of Economic Advisers, and from 1995 to 1997, as Chairman of the Council and a member of the President's Cabinet. As Chairman and Cabinet Member, he was the principal person within the White House responsible for formulating fiscal policy, financial sector regulation and banking policy, and coordinating policy with the U.S. Treasury. From 1997 to 2000, he served as Chief Economist and Senior Vice President of the World Bank, in which capacity he had the responsibility of advising countries around the world on the design of fiscal and monetary policies, competition policies, intellectual property regimes, and trade policy, among others.

Professor Stiglitz has participated in sovereign debt restructurings and advised countries and the World Bank on a variety of issues related to countries meeting their obligations to sovereign debt investors. He has interacted extensively with institutions, like the IMF, that play a critical role in the markets for sovereign debt. As President of the Initiative for Policy Dialogue, he has organized and participated in multiple international conferences on debt restructuring, and has written and published on the topic. He has advised multiple governments on the subject of sovereign debt, including Argentina and Greece. He is currently serving as President of the International Economic Association, in which capacity he organized an international roundtable on debt restructuring.

Over the course of his career, Professor Stiglitz has published hundreds of peer-reviewed articles, written or edited more than 25 academic and popular books, and has written numerous popular opinion pieces for newspapers and magazines. His publications and research extend into many areas, including macroeconomics and monetary theory, development economics and trade theory, public and corporate finance, industrial organization and rural organization, welfare economics, and income and wealth distribution, many of which are germane to this case. Oxford University Press is publishing a six-volume set based on his research, *Selected Works of Joseph E. Stiglitz*. The first two volumes have been compiled and are entitled *Information and Economic Analysis: Basic Principles* and *Information and Economic Analysis: Applications to Capital, Labor, and Products Markets*.

Professor Stiglitz currently serves as a co-editor of *The Economists' Voice* and the *Journal of Globalization and Development*. He was the founding editor of the *Journal of Economic Perspectives*. He has served (or is currently serving) on the editorial boards of numerous journals, including the *World Bank Economic Review*, the *Journal of Public Economics*, the *American Economic Review*, and the *Review of Economic Studies*. He is currently the President of the International Economic Association and served as President of the Eastern Economic Association in 2008. He also served as Vice President of the American Economic Association in 1985.

He has received numerous fellowships and honors over his career. In 2001, he was awarded the Nobel Memorial Prize in Economics for his work on information economics. This work includes the study of how information asymmetries affect economic behavior, the determination of the conditions under which efficient sharing of risk occurs, and the economics of financial markets. In 1979, he was awarded the John Bates Clark Medal by the American Economic Association, given to the economist under 40 who has made the most significant contribution to economics. He was one of the lead authors of the 1995 Report of the Intergovernmental Panel on Climate Change, a group that shared the 2007 Nobel Peace Prize.

Professor Stiglitz has received approximately 40 honorary degrees and has received awards from foreign governments, including the Legion d'Honneur from France. He has been elected to numerous academic and scientific societies in the United States and abroad, including the National Academy of Sciences, the Royal Society, the American Academy of Arts and Sciences, the American Philosophical Society, and the British Academy.

He has served or is serving on a large number of commissions and advisory committees, including the CFTC-SEC Advisory Committee on Emerging Regulatory Issues. At the behest of the President of the General Assembly of the United Nations, he served as Chair of the Commission of Experts on Reforms of the International Monetary and Financial System, to review the workings of the global financial system in the wake of the recent crisis and suggest steps for U.N. member states to secure a sustainable economic future. The Commission's final report was published in September 2009. That report addressed the issues posed by sovereign debt restructuring and the consequences of the absence of an adequate international regime to deal with such restructurings. In 2008, he was appointed President of the Commission on the Measurement of Economic Performance and Social Progress by

President Sarkozy of France. This commission was formed to consider flaws in traditional macroeconomic indicators for measuring economic performance and social progress and to identify what might be the more relevant metrics. The commission's final report was released in September 2009. He now chairs the High Level Expert Group of the OECD on the Measurement of Economic Performance and Social Progress.

In 2000, Professor Stiglitz cofounded the Initiative for Policy Dialogue, for which he continues to serve as co-President. The Initiative for Policy Dialogue is a global network of academics and practitioners to enhance democratic processes for decision-making in developing countries. Additionally, he is Co-Chair of Columbia University's Committee on Global Thought, and sits on the Board of Trustees of Resources for the Future, the Board of the Acumen Fund, and the International Advisory Board of Statoil. Previously, he served for twelve years on the Board of Trustees of Amherst College.

Stiglitz is one of thirteen University Professors at Columbia. He holds joint appointments in the Department of Economics in the Faculty of Arts and Sciences, the Department of Finance in the Graduate School of Business, and in the School of International and Public Affairs. Prior to assuming this position, he held professorships at Stanford, Yale, Princeton, MIT, and Oxford, where he taught a wide variety of graduate and undergraduate courses in economics and finance. He received his Ph.D. in Economics from MIT in 1967.