Ken Rogoff’s excellent and well-written paper offers a window on why the trend toward disinflation over the past two decades is so widespread. The paper is, in fact, an interesting diagnostic exercise in the spirit of an Agatha Christie play—say “Murder on the Orient Express” (or, given the number of possibilities, “And Then There Were None”). In the play, many suspects hated the victim; here, who killed “inflation”? How? Most interestingly, how does this play end?

Means, motive, and opportunity

First, here are some facts. The decline in inflation is global. U.S. economists and policymakers are familiar with inflation’s decline and the crucial role of the Federal Reserve in this process. But inflation fell generally in industrial economies—from an average of 9 percent per year in the first half of the 1980s to 2 percent now. In Latin America and in transition economies, the decline is more dramatic, from 230 percent and 360 percent per year, respectively, in the first half of the 1990s to about 10 percent now. Indeed, perhaps the most concise summary of the change is the fact that deflation is now the fashionable topic of conversation (see Rogoff’s Chart 1).
In a study like the present one, it is worth reviewing why we care about the decline in inflation. First, most traditional analysis of the welfare costs of inflation center on inflation’s tax on money balances and its fostering of inefficient financial transitions. Second, a still larger potential cost—particularly in industrial economies—arises when tax systems are written in nominal terms. High inflation raises the effective tax burden on capital, reducing investment and growth. Indeed, Darrel Cohen, Kevin Hassett, and I found that the largest tax cut for investment in the United States in the past two decades came not from the government, but from the disinflationary policies of the Federal Reserve.¹ Third, variable inflation can disturb relative prices and contracts, and variability is related to the level of inflation. Finally, high inflation rates in the past have been persistent, and Table 3 in the paper shows that the persistence of inflation has declined with its level.

Now, the big question is, of course, why this decline in inflation has occurred. Before reading Rogoff’s paper, my prior was that a number of explanations accounted for inflation’s demise, with different explanations being more important in different regions of the world. More generally, if reducing inflation is the right thing for central banks to do, have there been changes in the benefits of doing the right thing? Have there been changes in the costs of doing the right thing?

Starting with the benefits side, it may appear that the benefits of disinflation have not risen markedly. After all, financial liberalization and reductions in capital income taxation (in most of the industrial world, at least) have reduced the welfare costs of inflation. Nonetheless, the paper perhaps does not take seriously enough the idea that the public’s adverse experience with inflation around the world led to more pressure on central banks to see the benefits of lower inflation. Even more to the point, the period Rogoff studies has witnessed a sea change in central banks’ focus on inflation in the industrial world, with such awareness transferred more broadly through activities of the Bank for International Settlements and the International Monetary Fund.
Rogoff’s paper focuses on assessing changes in the costs of doing the right thing. The leading explanation here (shaped in the profession's mind by Rogoff’s own work) is the emergence of conservative and technically knowledgeable central bankers. Such an explanation is perhaps easiest to comprehend in the United States, where almost all commentaries praise an improvement in the conduct of monetary policy over the past two decades. Even in the industrial world, though, central banks have not performed uniformly well—witness Japan’s persistent deflation.

More generally, have the costs of doing the right thing fallen? Here, Rogoff considers three explanations. First, improvements in fiscal balances and a reduced need for levies to finance conflicts have reduced fiscal pressure for inflation. While this is plausible, at least in the industrial world properly measured fiscal balances incorporating changes in unfunded liabilities of entitlement programs do not reveal much improvement, however. Second, in the United States, productivity growth has accelerated, making it easier for the central bank to pursue disinflation. But this favorable trend has not been witnessed in Europe or Japan or in many emerging economies. The third explanation (and the one stressed by Rogoff) is the advent of greater globalization and competition.

As Rogoff rightly points out, analyzing this explanation requires going beyond the policy chatter that “China is exporting deflation” or that “competition leads to disinflation.” Changes in markups for competitive improvements can alter relative prices, but, in and of themselves, do not change the inflation process. Building on the intuition of the familiar Barro-Gordon model of the political economy of inflation, though, can illustrate that lower markups reduce the gain in output from inflation; this effect is only accentuated by an increase in the weight central bankers place on reducing inflation.

This explanation is intuitive, but it needs to be explored further. First, a reduction in the level of markups is not universal. In Japan, markups remain high, and the economy is experiencing deflation. In some European countries, entry restrictions inhibit competition, though inflation
is low. In studies of U.S. data, Ian Domowitz, Bruce Petersen, and I found evidence to support Rogoff’s hypothesis. Higher imports competition reduces price-cost margins; pricing market changes are procyclical in unconcentrated industries; and price and markups are countercyclical in concentrated, mature, producer-goods industries. Those studies used industry data from the 1950s through 1981. Have further changes in import competition continued this effect globally? There is not much evidence on this front in the paper.

Combining Rogoff’s “productivity growth” and “globalization and competition” explanations may produce a more compelling story. In most of the world, central bankers have put more weight on reducing inflation, and faster productivity growth offers an opportunity for further disinflation. Entry and regulatory restrictions that lead to high markets may limit productivity growth by limiting the diffusion of productivity-enhancing improvements (witness changes, for example, in retail productivity growth in the United States versus Japan or Europe). This explanation suggests the durability of examining variation in entry restrictions, taxation of entrepreneurs, and effectiveness of capital markets in allocating capital. While the paper presents no evidence on these factors, an emerging body of work in corporate finance links such factors to productivity growth—and, hence, the opportunity for disinflation.

But how does the play end?

Having considered the possible causes of inflation’s demise, the paper asks the important question of whether inflation could come back. The answer is, of course, yes, should one of disinflation’s contributing factors recede. On the fiscal policy front, a re-emergence of conflicts could restore the inflation tax in parts of the world. I am less persuaded that the industrial world’s entitlement problems herald inflation. First, such promises are generally indexed for inflation. Second, their scale suggests that such promises are more likely to be renegotiated explicitly. A potential decline in competition—from protectionism or higher security-related transactions costs is more worrisome. Finally, Rogoff
raises the prospect—always possible—of a threat to independent central bankers. This does not strike me as likely. But returning to a point I raised at the beginning, the paper perhaps does not acknowledge enough the role that particular high-quality individuals made in central banking at a pivotal time.

The question of whether inflation will return begs a deeper question on the minds of many at this conference: When is inflation “too low”? The welfare costs of inflation are well examined, but the costs of deflation have been less thoroughly studied. Work at the intersection of corporate finance and macroeconomics suggests that deflation can be costly when the capital positions of entrepreneurs and intermediaries are impaired, but central bank communication about the costs of deflation has been weak and confused. Likewise, communication about the possibility of deflation has not been clear (unflating the chance of a large deflationary shock—which is possible—with the chance a vigilant central bank can address it—which is likely). Finally, little study has been made of whether the occurrence of deflation might change the persistence of inflationary (or deflationary) expectations.

For central banks, a related question emerges regarding how to manage inflationary expectations when inflation and nominal interest rates are very low. Such a period is one in which communication about inflation actually becomes more important, making the Federal Reserve’s decision to avoid mentioning an acceptable range of inflation puzzling. Such a period also is one in which well-timed fiscal action can be potent, as has been the case in the United States.

**Conclusion**

To close where I began, Rogoff’s paper is a superb introduction to the global disinflation drama. The facts are clear: Candidate explanations must be able to explain a global phenomenon, not just the experience in the United States or even of industrial economies generally. I am not persuaded that a single global explanation fits the facts. Better central bankers and conduct of monetary policy lie at the core
of the explanation. Reduced costs of better action, as Rogoff stresses, are likely also important, particularly in taking advantage of productivity growth. Still, one cannot rule out fiscal improvements in some emerging-markets quarters and sluggish demand growth in recent years in many industrial economies as well. Remember, in “Murder on the Orient Express,” all the suspects were in on the crime.

**Endnotes**
