A Policymaker's Reflections on the Recent Business Cycle

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Introduction

It is a pleasure to be here at the University of Delaware. As a member of the Lerner School 's Advisory Board I always enjoy the time I spend on campus, speaking to students and visiting faculty. But today's visit is special; I am here to present to you the Hutchinson Lecture. I plan to use this opportunity to reflect on the recent business cycle and in so doing share my views on the U.S. economy and some of the lessons I have learned from our recent experience.

By way of perspective, it should be remembered that the United States economy enjoyed a remarkable run in the 1990s. Then, it stumbled as we came into the new century and struggled to find solid footing, going through numerous fits and starts early in the new millennium. Now, in 2005, the recession and recovery phases of the current cycle are behind us, and the economy has entered an expansion phase that I expect will carry us forward for some time. As the economy moves along this path of self-sustaining growth, the Federal Reserve is steadily removing the accommodative monetary policy that had been in place over the past few years and is moving toward a more neutral policy stance.

Today's lecture provides a timely opportunity to reflect on the current cycle and the turbulent times surrounding it. I will focus on how recent events, as well as ongoing trends, have affected both the economy and the conduct of monetary policy in this cycle. I will also address how they will influence the economy going forward and how I see the economic expansion progressing.

As you all appreciate, it is important that we learn from the experiences of the past. As the saying goes: "Those who cannot remember the past are condemned to repeat it." So I welcome the opportunity to review the recent business cycle and examine it in some detail. Hopefully, some of the lessons we learned from our recent past will be incorporated into the policy decisions we make in the future.

Nonetheless, before we start, I must remind you that every business cycle is different. Each is the unique product of: (1) a relentlessly evolving economic structure, (2) some surprising new developments, and (3) a sequence of policy actions attempting to stabilize the situation. This most recent experience is no exception.

Examining the context

To discuss the most recent business cycle experience, one must start at the beginning — with the revolution in information and communications technology and its dramatic effect on the economic structure of the U.S. Cheap hardware, sophisticated software, and extensive networking capabilities — both Internet and intranet — began transforming business processes in earnest in the latter half of the 1990s. Of course, this was a worldwide phenomenon, but it clearly had profound effects on the U.S. economy.

History tells us, and our most recent experience reconfirms, that a technological revolution of this magnitude does not produce a smooth economic progression. It is, by its nature, disruptive to the existing order of things. Nonetheless, the application of new information technologies brought real economic benefits to our economy. As these technologies were introduced into organizations and infused into business processes, productivity accelerated measurably.

At the same time, however, it spawned unrealistic expectations that were manifested in a stock market bubble and overinvestment in new capital. When the bubble burst and the investment boom deflated, aggregate demand decelerated rapidly, ultimately driving the economy into recession.

The technology revolution has also been an important contributor to globalization — a second fundamental factor of structural change driving the economy's evolution in this business cycle. By slashing communications costs, new technologies made the markets for financial assets, goods and services, and even labor, more globally integrated. Globalization was driven by other forces as well. Freer trade among nations and, even more fundamentally, the triumph of the market system over centralized planning were both movements that spurred global integration.

Like the introduction of new technologies, the globalization of the marketplace has been and continues to be a good thing. It fosters greater specialization and gains from trade, affording everyone higher living standards. These benefits are genuine and worthwhile, but they do not come without some costs. The adjustment costs are significant, and in an environment of rapid change, they are ongoing.

I will say more about technology and globalization in a few minutes. But first, let me turn to the second ingredient of any business cycle, that is, the arrival of new developments and unexpected events.

Shocks to the economy

There were several new and surprising developments during the most recent business cycle. We often refer to these events as economic shocks. In 2000, the U.S. stock market declined precipitously and the tech bubble burst. The NASDAQ, which was valued at just under 5000 in March 2000, fell to under 2000 in April 2001. This led to a decrease in national wealth and had a negative effect on the economy as a whole. The Dow suffered a similar, if less dramatic, decline, as well.

This was followed by certainly the most profound event affecting the course of the recent business cycle: the terrorist attacks of September 11, 2001. It goes without saying that September 11 stands as one of the most shocking and tragic episodes in our nation's history.

The physical effects of September 11 were readily apparent. We saw the great loss of life, the horrific sights of the collapsing twin towers in New York, the damaged Pentagon in Washington , and the smoldering wreckage of a jet in western Pennsylvania. Yet, in purely economic terms, the immediate impact on the productive capacity of the U.S. was relatively small when measured against our collective resources — our labor force and our capital infrastructure. Longer term, there have been productivity losses that are more difficult to quantify, namely, those created by enhanced security procedures in airports, office buildings, and mailrooms.

In any case, the events of September 11 had an immediate and profound contractionary effect on the demand side of the economy. At first, shock, fear, and uncertainty paralyzed everyone. We were absorbed by what happened, and we tried to figure out what it meant for our country and ourselves personally. Meanwhile, we cancelled air travel and hotel reservations and put all but essential spending on hold.

All things considered, consumer spending came back relatively quickly. But for businesses, it was a much different story. Already left with an overhang of equipment from the investment boom of the late 1990s, businesses confronted these new uncertainties about the future and saw new reasons to defer and delay investment spending.

The events that followed in the aftermath of September 11 — the anthrax attacks and then the wars in Afghanistan and Iraq — only served to heighten these uncertainties. In the case of Iraq, the uncertainties were extended and indeed to some extent still remain. First, there was uncertainty about whether war with Iraq would come, then about how the war would go, and now about whether we can secure the ultimate objective there — a politically stable and economically successful nation.

Meanwhile, as the U.S. economy began on its path to a slow recovery, accounting scandals and corporate governance issues created new uncertainties, and what some referred to as another “soft spot” in the economy. Scandals surrounding Enron and Worldcom, just to name two of the largest, undermined confidence and created mistrust of large corporations in the U.S. psyche. This further heightened investor uncertainty and weakened both households’ and businesses’ willingness to spend. For businesses, this rise in investor skepticism increased risk spreads in credit markets, raising the cost of capital faced by firms at least for a time.

Beyond the financial markets' reaction, these revelations also triggered reforms legislated under the Sarbanes-Oxley Act. The act was designed to boost investor confidence in corporate America by improving the quality of corporate disclosure and financial reporting and increasing the role and responsibility of corporate officers and directors. Compliance with Sarbanes-Oxley focused companies' attention and resources on their audit, accounting, and governance processes, and it remains a topic of conversation in the corporate suites and boardrooms around our nation. While this may have been appropriate and necessary, it also has diverted companies' attention from new investment projects and slowed plans for future expansion.

Completing the list of disturbances buffeting our economy is another shock — a sharp increase in the price of oil. The international benchmark jumped from roughly $30 per barrel through 2003 to over $50 per barrel by the fall of 2004.

Policy during the cycle

Thus far, I have talked about the structural changes and surprising developments affecting the shape of the current business cycle. But how has the third factor, namely, policymakers' actions, affected economic dynamics over the past few years?

Here, I would contend that remarkably aggressive policy action was a defining characteristic of this business cycle. Indeed, monetary and fiscal policy worked together particularly well this time around to provide ample and rapid stimulus during the economic downturn.

The National Bureau of Economic Research has determined that the U.S. economy fell into recession in March 2001. On the monetary policy side, the Fed had begun reducing the fed funds rate two months earlier, in January 2001, and had dropped it 300 basis points by August. On the fiscal policy side, the Bush administration's first round of tax cuts was enacted in the spring of 2001, and the first tax rebate checks were in the mail by July. With the benefit of hindsight, the timing of this fiscal stimulus was quite fortuitous.

I think a case can be made that, had it not been for September 11, this double dose of strong stimulus might have averted a recession by countering the existing weakness and giving the economy the push it needed to return to a positive growth path. I said so then and remain of that opinion.

In any event, the recession occurred, and the recovery was attenuated in its aftermath. In response, both monetary and fiscal policymakers reacted by providing yet additional rounds of stimulus. These policy actions may not have succeeded in turning business investment spending around very quickly, but they certainly helped buoy consumer spending. This kept the economy growing while businesses positioned themselves to re-engage.

In 2004, the U.S. economy had a fairly good year. Output growth of nearly 4 percent and creation of over 2 million net new jobs lend credence to the argument that the economy has regained its balance and is now on a path of sustained expansion. And this occurred without a noticeable acceleration in core inflation.

Looking forward, the economy appears to be on course for a sustained period of solid expansion. I expect real GDP to grow at an annual rate of around 4 percent this year and next, with payroll employment increasing by 150,000 to 200,000 jobs per month.

On the demand side, consumers will continue to spend at a good pace. As I stated earlier, during this most recent recession and recovery, consumer spending held up unusually well, continuously expanding throughout the cycle. Looking forward, steady job growth and rising household incomes will fuel continued growth in consumer spending, replacing the stimulative effects of low interest rates and tax rate reductions, which were key to the earlier period of continued consumption growth.

Going forward, businesses will also help drive the expansion by making a substantial contribution to spending growth. Firms have ample cash flow and have had significant profit growth. They are now well positioned for greater efficiency and will see the need for greater productive capacity as the expansion continues. For all these reasons, I anticipate that the robust growth in business investment spending we have been experiencing will continue for the foreseeable future.

Add to this pattern of private-sector spending moderate growth in government spending on goods and services, and you have solid growth in domestic final sales.

One potential constraint on demand growth that has re-emerged recently is rising oil prices. As I mentioned, we saw oil prices reach over $50 a barrel in late 2004. Subsequently, they fell back a bit, but now the U.S. economy is faced with oil prices in excess of $50 a barrel once again. With gasoline prices rising to substantially over two dollars a gallon, consumers may find that growth in their discretionary spending must slow in order to accommodate the increased cost of filling their gas tanks. Similarly, rising energy costs could curtail businesses' capacity to increase their investment spending. The bottom line is that oil prices persistently in the $50 per barrel plus range could slow the pace of domestic demand growth this year, though they should not jeopardize the expansion itself.

Of course, as we have all become aware, just how much of that domestic *demand* translates into domestic *production* depends on what happens to our international trade balance. Over the past decade, a strong dollar and a relatively strong U.S. economy drove the current account deficit to unprecedented levels. It now represents a sizable percentage of U.S. GDP. In fact, in 2004, the widening trade gap or current account deficit — take your pick — drained more than one and a half percent from domestic output growth.

Over the past year or so, at least partially in response to the large trade deficits, the dollar has steadily depreciated. A lower dollar should eventually help stabilize our net export position. Though economic growth has been somewhat uneven among our trading partners of late, continued global economic expansion should help as well. As the trade deficit begins to stabilize, solid growth in spending by U.S. consumers and businesses will translate directly into solid growth in real GDP for the U.S.

Having emphasized the output growth in the current expansion, I want to turn to another development that has received considerable attention over this entire cycle and, more recently, as the economy has moved from recovery to expansion. This is the issue of the dynamics of inflation and the potential for price pressures developing as the economy moves along its path of continued growth.

As an economist, I recognize that price pressures are an inevitable part of any business expansion. I think we all recognize that as the economy continues on its path of expansion, price dynamics are prone to shift.

As productivity growth returns to trend, unit labor costs will probably start to rise, potentially putting pressure on prices. We already saw some indications of a shift down toward long-run productivity growth at the end of last year. In addition, higher prices for oil and other commodities may lead producers to try to pass on some of their higher input costs, potentially exacerbating latent price pressures. Moreover, the recent decline in the value of the dollar may lessen the competitive pressure on domestic producers that has until now limited their pricing power. Recently I have been hearing from my contacts around the District that price pressures are building and there has been some evidence of firms passing on higher costs into final product prices.

It is incumbent upon the Fed to make every effort to keep price pressures well contained. As long as the public remains confident in the Fed's commitment to essential price stability — and the Fed conducts its policy in a manner consistent with that commitment — transitory adjustments in prices will not generate persistently higher inflation.

The Federal Reserve has already begun the transition from an accommodative policy stance to a neutral one, more consistent with sustained non-inflationary economic growth. If the economy evolves as I have suggested here, then I expect we will continue on our present course of moving the federal funds rate toward neutrality. However, the precise course that we take depends on the precise course the economy takes. If signs of heightened price pressure emerge on a consistent basis, we will need to consider quickening the pace at which we move toward policy neutrality.

Lessons learned

With that, let me summarize. The U.S. economy experienced a period of extraordinary growth over the decade of the 1990s, followed by a sharp slowdown in spending on new information and computer technology. Then it was pushed into recession and a tenuous recovery by the September 11 attacks and their aftermath, as well as a series of corporate scandals and other events. Now with these events behind us, I believe the economy is on a course for steady growth at a sustainable pace. This pattern of growth should foster continued job growth and a relatively stable price environment. So, all in all, economic prospects are reasonably good in the U.S.

Having said that, now is probably a good time to look back at the past few years and try to extract some lessons that policymakers can carry forward to the next business cycle, whenever it may come. In that spirit, allow me to offer the audience five distinct lessons that I garnered from the experiences of the recent past.

Lesson #1: Technological innovation can drive a cycle

The first lesson that I take away from an examination of our most recent economic episode is that new technologies and investment in new technologies can be powerful drivers of business cycle dynamics. The most recent business cycle, from the historic 10-year expansion of the 1990s to the recession of 2001 and the subsequent recovery, was an investment-driven one. Growth in investment spending strengthened and sustained the expansion of the 1990s. Then the collapse in business investment spending generated the recession and attenuated the recovery. Finally, the return of business investment spending ushered in the broader economic recovery beginning in 2003.

At the same time, the increased productivity experienced in the late 1990s, due to the large investment in information and communication technology, or ICT, allowed the United States economy to produce high levels of output while not experiencing inflationary pressures.

The dynamic at work was that the new, profitable investments being offered in ICT created an increase in productivity, which translated into increased profits, and thus more investing and consuming. At the same time, the increase in productivity growth helped keep down unit labor costs and prices. This led to a period of strong growth and low inflation.

In retrospect, business technology spending in the late 1990s represented a mix of both good and bad business judgments. Some of the ICT spending turned out to be wise and even prescient investment in productive new capital. Some of it was just investment pulled forward for fear that legacy equipment would malfunction in Y2K. And some of it — often associated with ill-conceived "dot-com" business plans — reflected "irrational exuberance" about the viability of new business models.

However, much of this over-investment can be explained by rational behavior. It may be that in the 1990s, firms were rationally forecasting huge gains in productivity due to the ICT revolution. Firms were very optimistic about the future, so they built up large amounts of capital. This led to increases in output, employment, and investment. However, when these expectations were not fully met, and it became evident there was an over-buildup in capital, firms stopped investing.

In any case, it took the business sector three years, from 2000 through 2002, to digest those investments. From an accounting perspective, it took three years to depreciate accumulated stock of hardware and software. From an economic perspective, it took three years to put existing capital to its most productive use by reallocating it across firms and fully exploiting its capabilities to boost productivity and cut costs within firms.

The time it took for firms to begin investing again may have been amplified by the large negative shocks I spoke of earlier, and businesses may have been reluctant to increase investment in this environment of uncertainty. But whatever the cause, variation in business spending caused variation in economic activity.

Now, the forces are aligned for strong growth in business investment spending. Firms have had time to fully digest their previous acquisitions of capital. Profits have been strong. The economic outlook is positive, and some of the previous risks and uncertainties are dissipating. Indeed, firms are again investing in everything from high-tech equipment and software to warehouses and equipment, positioning themselves for greater efficiency and greater productive capacity going forward. The U.S. economy is again on a path of sustained expansion.

Lesson #2: Globalization is an important factor in economic dynamics and inflation

A second lesson this most recent business cycle brought into focus is that global dynamics play an important role in the path our domestic economy will follow. There has been considerable discussion concerning the increased role of globalization and its effect on developed economies. This cycle has spotlighted three distinct but interrelated effects the global economy has had on our domestic economy.

The first of these is the traditional one that focuses on the competitive pressures that globalization has brought to the market for goods and services. Here, the impact of the current account on domestic production has been an essential ingredient of the dynamics of the U.S. economy.

In this cycle the debate expanded to a second area, namely, the labor market, to include the “outsourcing” or “off-shoring” of labor services. This trend is tied to the technology revolution. Improvements in information and communications technology are creating a globally integrated marketplace — not only for goods and services but also for labor.

Of course, such "off-shoring" has been the trend in much of the production activity associated with manufacturing for a long time. But it seemed to intensify in this cycle, particularly with the opening of several newly developing economies. It also seems to be spreading to the service sector.

Increasingly, then, U.S. firms compete with firms around the world in the markets for raw materials and final goods and services, while U.S. workers compete with workers around the world for positions in a widening array of occupations and industries. From the macroeconomic perspective, this globalization of the marketplace and the increased degree of competition it brings are powerful forces that can alter the wage and price dynamics of the U.S. economy and, indeed, have done so over this cycle, persistently dampening upward price pressures.

The third important aspect of globalization from a U.S. policymaker’s perspective is the globalization of capital markets. Indeed, globalization of capital markets has substantively affected both the dynamics of trade and domestic production in this cycle.

Investors, believing the return on capital in the United States to be relatively attractive on a risk-adjusted basis, funneled a large fraction of global wealth into the U.S. capital market. Global investors purchased large quantities of dollar-denominated assets, keeping the dollar’s exchange value high through the tech boom — even while the economy went into recession and the current account turned decidedly negative.

The trade-weighted exchange value of the dollar appreciated 35 percent from 1995 to 2001 and stayed strong through 2002. This had a two-prong effect on the U.S. economy. First, it drove up our trade deficit to record levels. Second, it kept a relatively tight lid on inflation by putting low-priced goods on the market in the U.S.

Now, it seems that investors are becoming less willing to channel so much of their savings into additional dollar-denominated instruments going forward. And some have suggested that they are beginning to diversify into other currencies, like the euro. This has caused the dollar to depreciate against other currencies.

Gradually, the depreciation of the dollar will translate into lower prices for exports from the U.S. and higher prices for imports into the U.S. Thus, the pattern of output and prices in the U.S. in this cycle has been, and will continue to be, affected by the global economy.

Lesson #3: Counter-cyclical policy can be an effective demand force

The shape of this business cycle was substantively affected by counter-cyclical government policies. Aggressive use of both monetary and fiscal policy clearly reduced the severity of the recession and accelerated the course of the recovery.

On the monetary policy side, the Federal Reserve reduced its target federal funds rate by 475 basis points – from 6.5 percent to 1.75 percent — in the recession year of 2001. When the recovery threatened to stall, the Fed once again reacted, dropping the target fed funds rate to just 1 percent, its lowest level since the 1950s.

The counter-cyclical monetary policy the Fed implemented gave consumers the opportunity to borrow at relatively low interest rates, and they certainly seized it. Households increased their purchases of homes and durables at record rates, dampening the breadth and depth of the past recession. They also sustained that growth, which gave business investment both time to recover and a reason to invest into a better future. The precise channels through which monetary policy operates may vary from cycle to cycle, but its use in this cycle clearly showed its effectiveness.

Fiscal policy also played a key role in the dynamic of this cycle. Well-timed tax cuts and tax rebates helped sustain consumer spending during the recession and the early stages of the recovery. However, the application of fiscal stimulus is notoriously hard to time properly. The tax cuts enacted in this cycle had been proposed not as counter-cyclical measures but as part of a long-term shift in tax policy. Their timing was fortuitous.

Moreover, as we are now seeing, it is extremely difficult to remove fiscal stimulus once the economy is on the road to recovery. Indeed, it remains to be seen whether expansive fiscal policies can be reversed, and the federal budget can be returned to balance as we move through the expansion phase of the cycle. As an economist, I see the value of fiscal integrity, and this requires a cyclically balanced federal budget.

Lesson #4: Monetary policy works best in a stable price environment

The next lesson I would like to offer is that we have learned that monetary policy works best in a stable price environment. In such an environment, the central bank can reduce interest rates without the fear of increasing inflation expectations. Consumers and businesses perceive the reduction in real interest rates as temporary, and so see it as an opportune time to shift spending forward. By doing so, they dampen the recession. Then, as the recovery proceeds, the private sector can anticipate the actions of the central bank and its plan to return short-term rates to more normal levels.

This played out quite well in the recent cycle. The core PCE was within a 1.5 percent to 2 percent band heading into the recession and has remained in that range during the recovery. This was true even while the Federal Reserve reduced the fed funds target rate in the aggressive manner I have laid out. Not only did the Federal Reserve reduce rates to these historically low levels, but it sent the message that it would keep these rates low for the foreseeable future. And, in fact, we did, keeping the target fed funds at 1 percent for an entire year.

Lesson #5: Expectations matter

This discussion brings me to my last lesson, something I have been saying for some time. Expectations matter, and they play an important role in the conduct of national monetary policy.

Let me explain why. The goal of the Federal Reserve is to create financial conditions that foster maximum sustainable economic growth. To achieve this, the Fed must make two important contributions to the economy. First, it is charged with providing essential price stability — meaning little or no inflation. Second, it attempts to offset shifts in demand that deter the economy's ability to reach its potential. These goals are compatible, but each receives different emphasis as the situation warrants.

As a central banker, I recognize that long-run price stability is always of utmost importance. This means not only a stable price level in the near term but also the expectation of stable prices over the long term. This implies that optimal monetary policy is not simply a matter of establishing a stable price level *today*, but of ensuring stable prices — and expectations of price stability — into the *future*. Only then can consumers and investors be confident in the environment in which they must make decisions that have implications far into the future. For this reason, central bankers often talk about the need to establish credibility and the public's confidence in our long-run commitment to price stability.

The Fed can maintain the credibility of its commitment to price stability and avoid sharp changes in public expectations about monetary policy by being as transparent as possible about its own decision-making. As a result, information about the Fed's policy goals, its assessment of the current economic situation, and its strategic direction are increasingly a part of the public record. For some time, the Federal Open Market Committee has released statements after every FOMC meeting. But, very recently, the FOMC has begun releasing the minutes of each meeting prior to the next meeting. They report not only our decisions concerning immediate action but also our sense of the key factors driving near-term economic developments and the strategic tilt to our actions going forward.

Increasing the degree of central bank transparency is one reason I and some of my colleagues have spoken in favor of an explicit inflation-targeting program. I believe we have reached a point where institutionalizing inflation targeting simply makes good sense from an economic perspective. In short, it is a reasonable next step in the evolution of U.S. monetary policy, and it would help secure full and lasting benefits from our current stable price environment.

Evolving to explicit inflation targeting from our current implicit target has significant potential benefits, and the costs may be minimal if we can implement it in a constructive manner. Clearly, proper implementation of inflation targeting is crucial to its success. That, in turn, requires more research and analysis about how and when to introduce it. But while it requires more public debate and discussion, it may be an idea whose time is approaching.

Conclusion

With that let me conclude. I hope I have convinced you that there are useful lessons to be learned from the dynamics of the recent business cycle in the U.S. While every cycle is unique, each also highlights some enduring realities that bear remembering. Indeed, it is careful attention to both aspects of our experience that moves forward both the science of economics and the art of economic policymaking. If we keep learning, then both the practice of macroeconomic policy and the theory of central banking taught at great universities such as this one will advance.

I recognize that no matter how much we learn, the central bank’s power will always be limited. I do not think we will ever reach a point where we will eliminate the business cycle! But we may be able to move closer to conducting optimal monetary policy in a world where change is relentless and surprising new developments continue to unfold.

Thanks for listening.