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Remarks by  
Alan Greenspan  
Chairman, Board of Governors of the Federal Reserve System  
before  
the Gerald R. Ford Foundation  
and  
the Economic Club of Grand Rapids  
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When President Ford invited me to deliver the Simon Lecture, the question I asked myself was not whether I could do it but how I could arrange my affairs to be here. This should not surprise those of you who had the privilege of serving in the Ford Administration. Turning down President Ford is not something that comes easily to any of us.

It is difficult to overestimate the extraordinary loyalty and affection that developed for this man, and I might add Betty, over that all too short period of the Ford presidency. The considerate way in which he treated his staff, as he carried the nation through very troubling times, created a sense of family that is not easy to convey to those who have not had the privilege of working with him.

Even though it was only little more than two-and-a-half years out of our lives, working with the 38th president of the United States was an experience that none of us, no matter what we have done since, will forget or, indeed, fail to cherish.

But in addition to being able to applaud the man, I am pleased to be able to stand here today and say that many of the causes that Gerald Ford championed in his long career as an elected official now are in the ascendancy, both in the United States and around the world. The spread of democracy to countries long oppressed by authoritarian rule has proceeded faster and gone further than even the most optimistic observer might have anticipated a generation ago. Similarly, respect for

free-market institutions has gained renewed vitality in the United States, and countries abroad have sought increasingly to restructure their economies around similar institutions.

At the same time, doubts persist about whether the changes that are underway can be sustained to the point where they will bear full fruit. Hardly a day goes by without an article appearing in the national press about the process of economic and political reform in foreign countries being at risk, in large part because economic disruptions associated with reform have proved to be more painful than many had expected. In the United States as well, one senses in the general populace moments of doubt and hesitation. Enormous technological changes are sweeping through our economy, vastly altering our living and working arrangements, and although these changes are leading to improvement in our material well-being, they also have spawned dislocation and widespread feelings of insecurity, even as broad measures of economic performance have been almost uniformly favorable. Evidence that the distribution of income in this country has widened somewhat over the past few years has added to the sense of dissatisfaction. The current economic recovery, we are told, has been good for "Wall Street," but has not brought prosperity or optimism to "Main Street."

In the course of my remarks today, I would like to address these concerns, in the context of more general comments about key economic institutions that have served this country well and whose preservation, I believe, is central to the future

vitality of our economy and other economies that now are undergoing reform. Along the way, I also plan to do some sifting and winnowing of recent events in an attempt to separate the transitory effects of the changes that are taking place from what I see as the more permanent effects.

There is one key element that is required for the successful long-run performance of modern economies and in which there appears to be fairly broad consensus, both on Wall Street and on Main Street. I am speaking of financial stability, or, more particularly, general price stability. If you go back twenty or, certainly, thirty years, the goal of price stability had not acquired the eminence in macroeconomic thinking and economic policymaking that it has today. One still heard arguments back then about inflation being needed to grease the wheels of commerce or to paper over conflicts regarding the distribution of income. Today, by contrast, price stability is widely recognized as a key ingredient of successful economies, a necessary pre-condition to the achievement of other economic objectives.

What has changed is that, over time, the American people have become much more aware of the dangers of inflation and of the degree to which the normal business of the society can be disrupted by inflation. Price stability clearly is cherished on Wall Street, much as it always has been, but it is fair to say that price stability now is highly desired on Main Street as well.

With strong public backing, efforts of the Federal Reserve to bring inflation to heel have met with considerable success. Indeed, the inflation rates of recent years have been the lowest in a generation. So great has been the progress against inflation that some observers have said that the job is now complete and that central banks can relax. However, I do not sense that it is a view that is widely held either on Wall Street or on Main Street. Price stability is an ongoing objective, and past successes will not count for much if we mistakenly let down our guard.

Critical as it is to the future of our economy, price stability is not a sufficient condition for ensuring economic vitality and growth. For that, institutions are needed that give free play to the inventive capacities of people and effectively promote the translation of conceptual innovations into increased output of goods and services that are the lifeblood of material progress. What these particular institutions should be has not always been as clear as it is today. Much of this past century, in effect, has been a test of whether capitalist institutions or more centrally planned socialist institutions would work better, over the long run, in serving the needs of human society.

Specifically, on November 9th, 1989, the Berlin Wall came down, symbolizing the end of an experiment in social policy that began more than four decades earlier with the division of the states of Western and Central Europe into market economies and those governed by state central planning. At the end of

World War II, as Winston Churchill put it, "From Stettin in the Baltic to Trieste in the Adriatic an iron curtain...descended across the Continent." The economies on the Soviet side of the "curtain" had been, in the prewar period, similar to the market-based economies on the western side. Over four decades both types of economies developed with limited interaction across the dividing line. It was as close to a controlled experiment in economic systems as could ever be implemented.

With the books now open on this experiment, we of course have learned much about how communist economics works, or, more exactly, does not. How highly inefficient prior to 1989 the economies of Eastern Europe and the former Soviet Union were is best illustrated by the fact that energy consumed per unit of output was as much as five to seven times higher than in the West. Moreover, the exceptionally large amount of resources devoted to capital investment, without contributing to the productive capacity of these economies, suggests that these resources were largely wasted.

In addition, such gaps in efficiency actually understated the gap in performance because they failed to take into account the impact of industrial activity on the environment. The market economies of the West have expended resources to minimize the adverse impact of industrial activity on the environment. No such resource allocation was made in the Soviet bloc, and the cumulative effect of this neglect is appalling.

At least for the foreseeable future, the experiment seems to have been concluded overwhelmingly in favor of the free-market capitalist institutions.

The appeal of socialism originated largely out of concern about economic inequalities that arose in the early stages of capitalist economies. Socialism promised to bring both increased wealth and greater equality, but in the end it stymied the growth of wealth almost everywhere it was tried and, from all appearances, was not altogether successful in bringing about greater equality either. When it ostensibly succeeded in leveling standards of living throughout a society--as one socialist once commented with enthusiasm--it came with "all people being equally shabby." Meanwhile, the economic institutions of capitalism brought about vast increases in wealth and, in addition, spread the benefits of that wealth widely across the population, although, to be sure, not so widely as to fully eradicate pockets of poverty that have persisted to this day.

Innovation and entrepreneurship, attributes that were stunted in the centrally planned economies, have been powerful driving forces behind growth of material wealth in the United States, and our competitive market economy--through the ways in which it links incentives and rewards--has provided an effective framework in which these qualities of innovation and entrepreneurship can flourish. Wall Street, the center of finance, occupies one important node of that framework, for it is

on Wall Street (and in other similar financial centers) that the prospective income flows and profit opportunities of various businesses are continually being reassessed, with investment flows channeled toward ideas and innovations that seem likely to be successful in the marketplace. Meanwhile, Main Street occupies other important nodes in the framework, for Main Street is basically the place where "real" economic activity--the production and consumption of goods and services--takes place.

The consumers on Main Street, through their decisions to buy or not to buy particular goods, ultimately determine whether the financial decisions made on Wall Street really were the right ones, that is, those that are perceived to contribute to the economic well-being of the society. Products that are well received generate profits for the companies that produce those goods and favorable returns for the financial institutions that helped to pull together the productive assets that the firm required. So interwoven are these processes of production, consumption, and finance that it scarcely could be true that Wall Street would remain healthy for very long if Main Street were ailing--and vice versa. That is why I think that a bit of healthy skepticism is in order when we hear it said, for example, that a new piece of economic information was "bad news" for Main Street, but brought cheer to Wall Street. The truth of the matter is that, in a long-term context, the interests of Wall Street and Main Street are congruent. Both will do well in a

growing economy with little or no inflation. Neither can prosper for long if the opposite conditions hold.

What has given rise to current perceptions of inequality in economic progress and to widespread expressions of dissatisfaction are side-effects that have accompanied the processes of technical change and economic advance. These negative effects are not solely a phenomenon of our time. Schumpeter, writing more than a half-century ago, aptly described the dynamic processes that go on in capitalist economies as "creative destruction." Old technologies get swept away by the forces of innovation. Businesses that may once have been so dominant as to possess almost unrivaled power see their positions undermined by new products of human ingenuity. Working arrangements that may have seemed lasting are discarded, as technical innovation provides new ways of overcoming previous limitations of time and space.

The creative-destructive tendencies of the capitalist process have recently been nowhere more evident than in the computer industry. It is hard to imagine a more innovative and entrepreneurial environment than that which developed around the scores of computer "hackers" working originally out of garages and basements. These firms advanced PC and workstation technologies and created the software that was needed to make computers more useful and "user friendly." Many of the firms failed after an initial burst of energy and fell by the wayside, and even the most successful remain vulnerable to the next wave

of innovation. But, taken as a whole, they have created an industry that is the envy of our trading partners. They have done so, one might also note, without direction from central planners and in the absence of regulations that might have stifled the process.

Structural changes flowing out of these innovations reach well beyond the computer industry itself. Computers, together with advanced telecommunications technologies, have enormous potential for reordering economic arrangements that have been in place so long as to have been thought permanent. More direct links between consumers and producers are being established everywhere in our economy, both in finance and nonfinancial business. Banking from the home has become more of a reality in recent years, and home shopping, factory direct, may become more of a phenomenon as we move ahead. In the business sector, the traditional practice of holding inventories of generic products at a wide range of locations in the chain of distribution is being revolutionized, and lines of demarcation between retailer, wholesaler, and manufacturer are being blurred, as the potential grows for custom design of products suited to the particular tastes of individual consumers. Through these innovations, old ways of doing business are being overturned, and traditional jobs in some lines of business are fast disappearing. But, at the same time, one need not be much of a futurist to see a wide range of potential benefits coming out of the changes now in process.

To be sure, the vitality evident in so many parts of the business world that have been touched by the computer revolution have not yet shown through in the form of a convincing step-up in the rate of growth of our aggregate measures of productivity change. One reason for the absence of such a step-up may simply be that our existing measures are not fully capturing the broader range of products that have become available or the improved attributes of products that have long been available but that have undergone recent improvements in design or accessibility. More fundamentally, it may be that the big increases in productivity growing out of the introduction of computers and communications equipment still lie ahead. Past innovations, such as the advent of electricity or the invention of the gasoline-powered motor required considerable infrastructure before their full potential could be realized.

Electricity, when it substituted for steam power late last century, was applied to production processes suited to steam. Gravity was used to move goods vertically in the steam environment and that could not initially change with the advent of electric power. It was only when horizontal factories, newly designed for optimal use of electric power, began to dominate our industrial system many years after electricity's initial introduction that productivity clearly accelerated.

Similarly, it was only when modern highways and gasoline service stations became extensive that the lower cost of motor vehicle transportation became evident.

To be fully effective, innovations also require a considerable amount of human investment on the part of workers who have to deal with these devices on a day-to-day basis. On this score, I sense that we still may not have progressed very far, relative to potential. Compared to the facility with which the average citizen handles another complex device--the automobile--most workers and consumers still appear to possess only rudimentary skills when it comes to making computers do what is wanted of them. Mass acceptance and full exploitation of computer technologies--the analogue of what was accomplished in making cars that were affordable, standardized, and easily operated--probably still lie ahead.

In the meantime, we have a situation in which there are some serious mismatches between the skills of workers and technologies that have changed considerably and still are advancing rapidly, and these mismatches are affecting pay differentials between the skilled and the unskilled. During the past fifteen years, the earnings of college graduates have increased relative to those who are high school graduates, and, in turn, high school graduates have continued to open up their advantage over those who are high school dropouts. In fact, a significant minority of our labor force has experienced real wage decreases, and this development surely is one factor in the unease that is evident, as well as in the apparent stretching of the distribution of incomes that has been cited in recent years.

Clearly, we must be alert in coming years to the need

to improve the skills and earning power of those who appear to be falling behind. In the long run, better child-rearing and better schools are essential. But in the shorter run, on-the-job training is a critical necessity--to overcome the educational deficiencies of all too many of our young people, and to renew the skills of workers who have fallen behind the rapidly rising curve of technological change. It has become quite apparent that many firms have concluded that it makes more sense to invest in such training than to bid up wage scales in a zero-sum competition for the existing limited pool of well-qualified workers. As a bottom line, though, workers in many kinds of pursuits probably had better look forward to a lot of hard work acquiring and maintaining the skills needed to cope with a rapidly evolving economy. Over time, as workers acquire new skills and as computer applications continue to become evermore user friendly, the present mismatches should diminish--and, I would predict, some of the recent stretching out of the income distribution will diminish as well. Looking back across the past several decades, there has been a very strong tendency for the real hourly compensation of workers to move up in step with increases in labor productivity, and although a small, perhaps cyclical, gap has opened up in this relationship in recent years, competitive forces in the labor market almost surely will bring about a re-emergence of the long-established trends at some point in the not-too-distant future.

Historically, a factor that has made the temporary dislocations and anxieties that accompany major technical advances acceptable to the general populace is the demonstrated relationship, over many decades, between technical advance and sustained increases in general living standards. As free-market economies developed historically, innovation and entrepreneurship made available to the broad public a variety of goods and services that once were the stuff only of royalty. More recently, each new generation has been able to count on having available an increasingly wide range of goods and services, calibrated more and more precisely to the specific needs and preferences of individuals. The benefits of creativity, in short, have more than compensated for the disruptive side-effects that almost always accompany technical advance.

I have little doubt that the long-run impact of the computer revolution on our society will turn out the same way. At present, computers and related communications technologies are spearheading strong advances in corporate profits and large increases in the values of corporate stock. In the long-run, however, technological advance is a force almost certain to lift the economic well-being of all citizens, so long as we do not mistakenly impede its diffusion throughout the economy.

We do not know, of course, the precise directions in which technological change will take us, but we do know that if the past is an accurate guide, new possibilities for the human race will continue to open up that may make today's possibilities

seem quite restrained in comparison. Again drawing on the past, it is fair to say that we know the types of economic institutions that can best ensure that the fruits of technical progress are effectively transformed into increased production of goods and services, widely shared among the populace. They are free-market institutions, and their basic operating principles, in purest form, are remarkably simple, namely that leaving humans free to pursue their own self-interest and linking rewards to initiatives are powerful ways of organizing the economy and the society. Deep down, I think that both Wall Street and Main Street have faith in these institutions and their ability to serve our hopes for the future, even if the short-run outcomes produced by these institutions at times are not satisfactory.