

## Maine Policy Review

---

Volume 3 | Issue 3

---

1994

# From Cold War to Microchips: Stepping From the Past into Our Future

Malcolm Forbes Jr.

Follow this and additional works at: <https://digitalcommons.library.umaine.edu/mpr>



Part of the [Growth and Development Commons](#), and the [Technology and Innovation Commons](#)

---

### Recommended Citation

Forbes, Jr. Malcolm. "From Cold War to Microchips: Stepping From the Past into Our Future." *Maine Policy Review* 3.3 (1994) : 12-17, <https://digitalcommons.library.umaine.edu/mpr/vol3/iss3/3>.

This Article is brought to you for free and open access by DigitalCommons@UMaine.

# **Governor's Economic Development Conference: A vision of opportunity**

## **Maine Policy Review (1994). Volume 3, Number 3**

*Malcolm "Steve" Forbes Jr., editor-in-chief of FORBES Magazine, looks often to history to explain the present and to predict the future. In an address to the 21st annual Governor's Economic Development Conference at the University of Maine last fall, Forbes identified two important trends -- one grounded in the past (the Cold War); one symbolic of the rapid change experienced at present (the microchip) -- in suggesting that the economic future for Maine and the nation is only limited by our willingness to give in to our fears about what that future holds. The following represents an edited version of his remarks to the Governor's Conference.*

## **From Cold War to microchips: Stepping from the past into our future**

*Malcolm Forbes Jr.*

When we look beyond the cross-currents, the turbulence and the uncertainty of the present moment, we see two trends coming together that will not only fundamentally alter the way we live and the way we work but should also usher in one of the most extraordinary economic expansions in history.

The first trend is one with which we are all familiar. Whether we call it the "Microchip Age," the "Information Age," or the "Hi-Tech Age," it is the microchip that symbolizes this new era. The microchip is extending the reach of the human brain the way machines extended the reach of human muscle in the last century. This will have a profound impact on the way we live and work.

One example of this is Wal-Mart. How was it that a regional retailer was able to overcome giants such as Sears and Kmart? Wal-Mart did it with technology. Not only did it put in very sophisticated inventory technology before anyone else, but more important, Wal-Mart had management systems that forced response to that information on a daily and weekly basis. By contrast, until Sears got its act together a couple of years ago, its information might come to Chicago, go to the first floor of the Sears towers, then work its way up 80 or 90 stories. Finally, a decision would be made. Then the information went down the building again, and a couple of weeks later the decision might be effected in the field. It was the more rapid information response — far more than Sam Walton's riding around in a pick-up truck, far more than his putting stores where there was no competition — that enabled a regional retail company in a multi-billion dollar industry to overcome and humiliate two once-respected retail giants. Sears apparently has since gotten its act together, but Kmart is still struggling to do so.

George Gilder, who is a hi-tech guru, likes to tell a story to help people understand what lies ahead. Keep in mind that the microchip doubles in power every 12 to 18 months. That kind of exponential growth will really change the landscape. Gilder tells the story of the Chinese

emperor who loved the game of chess. The Chinese emperor decided, as emperors are wont to do, to invite the inventor of the game of chess to the palace. When the inventor came, the emperor offered the inventor anything in the kingdom because he was so taken with the game. All he wanted was one grain of rice. The emperor said, "Is that all?" The inventor said, "I'd like you to put it on the first square of the chess board. On the second square I'd like you to put two grains, the third square four grains, the fourth square eight" ..., and so on, doubling the number each time. The emperor, who was not too quick with his arithmetic, readily agreed with the seemingly humble request. After about 20 or 25 squares on the chess board, the emperor realized that he was about to lose all his grain. There are two endings to this story. One ending is that the inventor walked away with all the grain in the Chinese empire. The more likely ending is that the inventor lost his head when the emperor found out what was going on.

### **Microchip power**

In terms of the microchip, we are at about the 20th square on the 64-square chess board. That means that 10 to 12 years from now, your PC will have 1,000 times the power that it does today. Not five or ten times, but 1,000 times! It also means that this exponential growth continues as compounding of this power doubling continues. By the time a baby born today finishes college, he or she could be operating machines with half a million to a million times the power of today's.

We hear a lot about the convergence of televisions, telephones, and computers. It is not a convergence; the personal computer is obliterating these old-time instruments, not converging with them. Because of computers' exponential growth and power, the ability to use them become easier. For example, think of an automobile. It is a very sophisticated piece of machinery — thousands of parts, lots of computer chips. Anyone reading this can get into one of these machines, turn a key, and the thing will start. The same thing is happening more and more with PCs. Not only are young people regarding PCs the way they regard telephones, but also people who did not grow up with them are finding them easier to use. So the PC will continue to fundamentally change the way we live and work.

Of course, even imagination has its limitations. We can only extrapolate from the past. When the automobile was invented, most people thought of it as a faster version of the horse. Obviously, it was a lot more than that. When the telephone was invented in 1876, a noted Englishman said that the telephone would work in the United States but would fail in England. His reasoning was that the U.S. was a continental nation, then underpopulated, and, therefore, the United States suffered from a shortage of messenger boys. By contrast, he said, England is a very compact country. There is no shortage of messenger boys, and, therefore, there is no need for this machine to transfer messages from one party to another. So much for our predictive powers.

Examples of technological change and our limited perspectives abound. Japan spent over 10 years and \$3 billion-plus developing the high definition television technology. One American company, General Instruments, spending about \$40 million to \$50 million, absolutely blew the Japanese away by making the technological breakthrough from the digital side. Fiber optics, which is one of the highways of the future, will have increasing capacity into the early part of the next century. A typical strand of fiber will have at least 100,000 times the capacity it has today. To put that into perspective, consider the busiest day of the year for the telephone company,

Mother's Day. That is the day of the year everyone gets over their guilt trips for what you did to each other when you were growing up by making phone calls to each other. A decade or so from now, a typical strand of fiber optic cable will handle all of the volume of Mother's Day telephone calls. If you combine that with digital technology, in the future you will be able to watch sporting matches on your flat screen in three dimensions, and you will be able to do your own camera angles as the event takes place to see those players' expressions up close when they get in a tiff with the referee. But because our perspectives are limited by our experience, we can only imagine what this will do to traditional industries in terms of creating new industries.

### **Why we have big government**

There is also another trend that we are only beginning to recognize — the true implications of the end of the Cold War. When you look at the history of the twentieth century United States, a very big question arises: How did this country, which was the most anti-statist, anti-government, pro-individualistic country ever created, end up with a government that has the size, the power and the reach that it has today? The simple answer is, warfare. Governments cannot fight wars without a strong, central government. A nation cannot fight a major external threat without a strong government. A look at the history of this country shows that for the last 80 years we have faced a major external threat or a major internal emergency. First there was World War I, which forced us to mount the most intensive mobilization in this country's history. In a matter of months, we nationalized railroads, telegrams, and telephones. We took over many businesses. This mobilization caused a huge expansion of the government. World War I was followed by the world trade war of 1929-1930. That was a critical contributing factor to the Great Depression. Next, we got the New Deal in response to that trade war and to the resulting Great Depression.

But the real expansion of American government happened with the Second World War, because a major world war cannot be fought without such an expansion. No sooner had World War II ended and we began to demobilize than the Cold War had to be faced. Obviously, a cold war is not of the same intensity as a hot war, but it did mean that we continued to have the power placed in government and to have the mobilization that we had become accustomed to in World War II. This lasted over 40 years. For 80 years, we've had either external threats or internal emergencies. Now, for the first time in a long time, we can concentrate on internal issues that have not been shaped by external events in a fundamental way. We are beginning to realize that things that were tolerated when we faced a major external threat are not tolerable when that threat disappears. This is not only true in this country, but in others. In Italy, for example, most of their business and political leaders have ended up in jail. In France, the governing party has been decimated. In Japan, the governing party is fractured, barely holding on to power. Japan now has a Socialist prime minister, something unthinkable five years ago. Canada held a parliamentary election earlier this year. The dominant party before that election was the so-called Progressive Conservative Party. It had absolutely no platform to run on except to say, "Vote for us." Canadian voters were not going to tolerate politics as usual in Canada. Conservatives went into that election with 155 seats, they came out with two. One of the oldest parties in the Western world was wiped off the map in one election.

Similarly, in this country, we had the Perot protest movement in 1992. Ross Perot received a greater percentage of votes for an independent candidate than any other independent presidential candidate in history, with the exception of Teddy Roosevelt in 1912. Roosevelt, as a popular

former president, was already a well-known national political figure. Ross Perot came out of nowhere and did well in 1992's election — not because he had a coherent philosophy and not because he had blown-dry hair. The reason he got twenty percent of the vote was that he was obviously the antithesis of what people consider a typical politician in public life today. You knew he was an outsider just by looking at him. The Perot vote was a vehicle of protest. We also see the protest in the term limits movement. People feel that incumbents make it very hard for others to challenge them because of the amount of money necessary to conduct a successful campaign.

All of these protests relate to the end of the Cold War and the entering of a new era. The combination of these trends — the technology trend and the post-Cold War-era trend — should not only change this economy, but change it in a very positive way. An examination of the fundamentals of the U.S. economy today supports this notion: There is an investment boom in this country, briefly interrupted by the 1990-1991 recession. The investment base has grown faster than consumption in this country, contrary to a lot of myth. In manufacturing, the travail that traditional manufacturers are going through has not been in vain. Today, at current exchange rates, American manufacturers are now the most efficient in the world, including Japan and Germany. Germany is already beginning to discover that it will have to downsize as the U.S. did in the late 1970s and early 1980s. The most dramatic example, of course, is the automobile industry. American cars are starting to work again. As you know, four or five years ago, Chrysler Corporation was on the financial ropes. Today, Chrysler makes more money than all the Japanese auto manufacturers put together. In capital availability, one can actually go to a bank now and get a loan, which was not true three or four years ago. In trade, the U.S. is now the largest exporter in the world. We are now becoming more competitive. World-class companies, whether it is Hewlett-Packard, or Microsoft, or Xerox, are now the world-class producers in more and more parts of the world.

### **Why don't we feel better?**

All of this, of course, leads to a very basic question: Why, if we are strong in some economic fundamentals do we not feel better about ourselves? Something has happened in this country on the social side. People are recognizing that even though we have achieved material advances over the years, something has gone dreadfully wrong in the quality of life in this country. We are on the eve of a series of reform movements like those that have punctuated our history. We had the progressive movement that Teddy Roosevelt symbolized at the turn of the century and before that, in the 1820s, we had a reform movement. It is hard to believe today, but in the 1820s, the United States was a nation of alcoholics. We had three to five times the per capita consumption of liquor — hard liquor — that we have today. Reformers argued that if we wanted a self-governing nation, we needed self-governing individuals. The first temperance movement in this country was, in effect, our first public health movement. Despite the lack of sophisticated communication, within the period of a dozen years or so, per capita consumption of alcohol in this country fell almost in half.

We have had these reform movements before, and today we see the makings of them again. For example, the best-seller list for more than 40 weeks has featured a book called *The Book of Virtues* by former Education Secretary Bill Bennett. This type of book would not have been a best seller a few years ago. Another example: a New York Times story earlier this year said that

Yuppies in the New York metropolitan area are starting to go to church and to temple again, something they have not done for a generation. Another indicator is the concern about crime. People are saying violent crime is not tolerable anymore. Violent crime per capita was on a downward trend in this country in the 1960s. Suddenly, violent crimes have grown five-fold and people are saying "this is intolerable, we are going to do something about it one way or another." With the interest in welfare reform, you know people are recognizing that there is a problem. Somebody said about our current welfare system that it punishes you if you work, punishes you if you save, and punishes you if you get married — all the things we want to encourage. The two states that are on the cutting edge of welfare reform proposals are not conservative states like Utah, but the more liberal states of Wisconsin and Massachusetts. You know if welfare reform proposals are coming from states like those that something is starting to happen. You can see the signs that people are starting to really pay attention, something that we did not do when our lives were being shaped by the Cold War.

### **Why aren't we doing better?**

This leads to another very basic question: If our economic fundamentals are strong, if we are on the eve of a series of reform movements that should fundamentally change the quality of life to the positive side, why aren't we doing better today? On the economic side, there are some obstacles that are policy-made that probably will be changed. We have a tax code that has been drawn up over 80 years, and it is absolutely incoherent intellectually. It wastes gobs of money and gobs of time. We spend five and a half billion hours a year filling out 480 different kinds of tax forms. For what? Nothing. It doesn't do anybody any good. The tax system is a huge absorber of human capital, it is a huge creator of political corruption. Contributions are made to always amend the tax code in someone's or some interest's favor. Under today's tax code, the U.S. has one of the highest capital gains taxes in the industrial world. This hurts us because it keeps money tied up in old investments. It stands in the way of money flowing to new investments that spawn innovation and jobs. Between 1982 and 1986, for example, this country created 18.5 million jobs nation-wide, including a record number of high-paid jobs. Out of those 18.5 million jobs, 14 million came from new companies. After the capital gains tax was kicked up in the late 1980s we lost the traditional oomph and energy from new and innovating businesses. That is why recovery has been so slow, too. New businesses and corporations still haven't reached the levels they did in the mid-1980s.

In the next couple of years, we will hear more about the flat tax. Under one flat tax proposal, Dick Armey, a Republican congressman from Texas and the new majority leader, wants to eliminate all the old deductions. By doing away with old deductions, a family of four would pay no federal income tax on its first \$36,000 of income. The family of four that makes \$36,000 or under would pay absolutely no federal income tax. Then, when income rises above \$36,000, the family would pay a 17 percent flat rate. There would be no tax on dividends, no tax on interest, no tax on capital gains, no tax on the states. On the business side, there would be the flat rate of 17 percent. A company would be able to write off all its investments. If a company had a tax loss, it could carry it forward until that loss was made up. By doing that, the static revenues (that is, assuming no economic growth results from this great simplification,) would be just about what they are today. Just by wiping out the tens of thousands of pages of taxes by having two tax forms, both postcard size, you would have that kind of system. Will we get it? It probably won't be that simple, but people will realize that if one has that kind of simplicity with those kinds of

huge personal allowances — \$36,000 for a family of four — this economy would take off like a rocket.

Another obstacle to prosperity is the Federal Reserve Bank, headed by Alan Greenspan. Contrary to its press releases, the Fed is not fighting inflation. It is doing something it has not done since the late 1970s. While the Fed is increasing the cost of money and interest rates, it is simultaneously pumping money into the banking system. That is a prescription for inflation and high interest rates. The Fed is feeding incipient inflation by what it is doing, and it has done it since 1993 when it started to ease interest rates aggressively to soften the impact of the Clinton tax increase on the economy. A year ago interest rates plummeted. People refinanced their mortgages, companies refinanced their debt, it was a huge boom to the economy. The Fed then realized that it had overdone it and so has been trying to compensate for that mistake ever since. But if this strategy were working, we would see short-term interest rates go up and long-term interest rates go down. In other words, the gap between short-term rates and long-term rates would narrow. That has not happened because the Fed is still pumping in money. Currently both short-term and long-term interest rates are rising. Those of who have variable mortgages are paying a higher rate of interest now than a year ago. Last October, the government borrowed 30-year money at around 5.8 percent, and that is now about 7.5 percent or 8 percent. This will create a lot of turbulence for the economy.

The third obstacle to prosperity is regulation. Unfortunately, Washington is in for one of its periods of regulatory binges. It is evident in a number of areas:

- Dealing with wetlands: today a puddle on someone's lawn gets declared a wetland. That is going way beyond the original intent of the statute.
- At the Federal Communications Commission, which still thinks it's 1934 instead of 1994 in terms of capacity and the atmosphere.
- In the anti-trust division at the Justice Department, which still thinks it's the 1890s, not the 1990s.

### **Good news for Maine**

The federal government's posture of more aggressive regulation is putting a damper on the economy. Given all of this, it is a miracle that the economy is doing as well as it is. Of course, these obstacle are simply short-term, transitory obstacles that will be changed fundamentally for the positive. When that happens, I think the full potential of this economy will be unleashed. This will be good news for a state like Maine. Maine has good intellectual resources, which is the ticket for the future. But if Maine wants to fully realize that resource it better change its tax code to make it attractive for people to move to Maine, rather than pushing them away. Then the state would feel the impact of the technology revolution. Location is no longer an obstacle in high-tech enterprises. We will soon be able to access more and more of the databases and libraries around the world, wherever we are. But Maine should stop taxing human capital and do what Hong Kong did 40 years ago: Slash taxes and keep them low. As a result, Hong Kong's government revenue gushed and people were trying to move into Hong Kong instead of moving out, even though it is the most densely populated speck of real estate on earth.

With the retirement of Senate Majority Leader George Mitchell, Maine won't get as many federal dollars as it has. The retirement of Senator Mitchell will be an opportunity for this state to say, "We cannot count on federal largesse to keep this economy going." That will force the state to recognize its assets and to consider how to mobilize those assets given the technology trends that I have talked about. That is where the real future lies. Dependence on federal funds is not the way for long-term prosperity. Senator Robert Byrd in West Virginia brings in more pork than there are pigs in the country, but West Virginia remains, for a variety of structural reasons, one of the poorest states in the Union. The South may have benefited from the post World War II buildup of military bases, but there were several other things that really enabled the South to rise again. One was the invention of the air conditioner, which made Texas tolerable in the summertime. And there was the advancement in civil rights. When a society spends a lot of energy trying to suppress one group, it doesn't develop economically, which was the case in the South. The Civil Rights movement opened up the South economically. The South also became very aggressive in terms of pursuing foreign investments. Every one of those states has offices in Europe and Japan. That is why the South rose again.

So, yes Maine is vulnerable if something happens to the trees or if there is a potato blight, or if George Mitchell goes out. But if you recognize that the true source of economic success rests in the brains of Maine people and the state's ability to adapt to a changing environment, Maine should be able to have a renaissance.

## **Conclusion**

Technological trends are positive for this country and for this state. But if we don't do things correctly, if we make mistakes, bad things can continue to happen. We have also had some really ugly trends in this country. In the 1850s, for example, we had the Know-Nothing movement in reaction to Irish and German immigration. We had two Klu Klux Klan movements, one after the Civil War and one in the early Twenties. At the 1924 democratic convention in New York City, one of the front-running candidates for the presidential nomination was openly backed by the Klu Klux Klan; that is how powerful it was then. So we just can't lay back and let the good times roll. We have to look for the positive side of trends. Thanks to the personal computer, we can have an impact in a way that we haven't been able to have in the past.

I am convinced that when historians look back on this period that they will see that we did not give in to fears and anxieties, for all the turbulence and turmoil that we are going through now. The U.S. will resume its place as the economic and political leader of the world.

*Malcolm Forbes Jr. is president and chief executive officer of Forbes, Inc. He also is chairman of Forbes Newspapers and American Heritage Magazine. He appears frequently on several national news programs, including Wall Street Week and The MacNeil/Lehrer Newshour.*

**Full cite:** Forbes Jr., Malcolm. 1994. *From Cold War to microchips: Stepping from the past into our future*. Vol. 3(3): 12-17.