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Executive Summary

These words are being typed in a plane at 33,000 feet en route to St. Louis. The computer I am using is about the size and weight of a small box of Tide but has the internal memory of the University of Maryland's entire computer center when I was a graduate student there two decades ago. I carry in my shirt pocket enough disks to conduct the business of a modest-sized firm. Yet any such observation about the small size but great power of modern computers is remarkable only because it is no longer astounding.

Nonetheless, the computing power on my lap represents an immense, not fully recognized, threat to the economic and political power of the U.S. government and other governments around the world. At the same time, my computer represents a liberation of "people power," because technology is changing the nature of capitalism. Capital is being freed from the strict confines of arbitrary national boundaries; it is becoming internationalized to an extent never before imagined. As a consequence, the power of government to tax and regulate may be in its twilight years.

Technology and Capital Liberation

I am sure no one worries that I, or anyone else with a laptop computer, will plot and orchestrate the overthrow of any particular government. On the contrary, the machine represents a threat to governments precisely because it, along with so many other, similar technological wonders, makes governments marginally less valuable, even as an object of overthrow. Technology is gradually eroding the monopoly power of government and is thereby reducing people's incentive to control governments (or the people who run them). This is the case because the capital in capital-ism is becoming far more elusive and far more difficult to control--by governments.

With similar (or even more powerful) laptop computers (and portable telephones), modern entrepreneurs have the country, and the world, at their command. With modems, they can send production orders throughout the globe. More important, they can pit producers around the world against one another in a competitive struggle for their business. They can call up on their computer screens alternative bids for jobs that often can be done with equal ease in St. Louis, Missouri; Camden, South Carolina; or Trincomalee, Sri Lanka.

The political impact of today's technological advancements is substantially different from that of past decades. In the not-too-distant past, perhaps one or two hundred years ago, industry was beset with advancing technology that spawned "economies of scale," that is, progressively higher production levels with larger and often more geographically concentrated plants and equipment. The symbol of economic progress became the assembly line,

winding like a maze through plants that covered hundreds of acres. Managers were then (as some remain today) painfully aware that their vast amounts of capital were more or less fixed in place by prohibitively high relocation costs. Governments saw in the unmovable plants (and the people tied by employment to the plants) a source of power, more or less on a par with an oil field that could be tapped with a variety of tax and regulatory drills. The powers of government to regulate and tax were largely unchecked, except by the rules of everyday politics. Politicians could readily ask, "What do I want the political process to do for you (and me)?" without much regard for the international consequences of their favored policies.

When capital could not move, except at great expense, legislators did not need to worry very much about "capital flight" or "runaway plants" (terms that did not become popular until the industrial-policy debates of the late 1970s and early 1980s). Capital could not fly off or run away in response to overly aggressive governmental efforts to extort the value of capital through fiscal and regulatory policies. Firms could then only grin and bear it, or pay the political-influence piper.

However, governmental power over capital and, for that matter, over people has hardly faded away. Some capital is still difficult to move or is altogether immobile. Government expenditures in real-dollar terms have continued to rise in the United States in spite of professed efforts by a conservative Republican president to "slash" the budget.

Nevertheless, growth is waning. Rhetoric is changing. Economic powers of governments are dissipating, at least on the margin of policy formulation. The trends are self-evident in the expanding view that government cannot be the solution to all social ills. Legislators must now be concerned with the "competitiveness" of businesses--which translates into a concern about the fading ability of government to contain and control the stream of tax revenues channeled through the nation's business and people tax base.

The concern of legislators is well-founded. In important respects, capital is going through a metamorphosis.

The "Miniaturization" of Capital

Capital is becoming "miniaturized." The computer power that once filled a room now sits neatly on my lap. A knitting loom that used to be the size of a car now takes up the floor space of a birdbath but is several times more productive than its forerunner. Firm records that once were crowded into file drawers can now be etched on chips or the back of credit cards. Plants that once rose several floors, spanned hundreds of acres, and employed thousands fit today in one story on a one-acre concrete slab and employ fewer than a hundred. While the Fortune 500 firms lost 2.8 million jobs between 1980 and 1986, the economy added 10 million jobs. Virtually all the employment growth on a net basis occurred in companies with fewer than 100 employees, not the industrial giants.(1)

Everywhere, the economy is downsizing (that is, firms are reducing the size and scope of operating units). According to a Business Month (formerly Dun's Review) survey, 39 percent of the chief executive officers interviewed indicated that over the past two years they have downsized their companies, and 50 percent of the CEOs who have downsized said that they expect to continue the process over the next two years.(2)

In no uncertain terms, the trend is now toward "de-economies of scale," meaning a much more productive bang in smaller sizes, plants, and equipment. The trend is so pronounced that a Texas computer manufacturer boasts of its tailor-made computers and its slogan, "Mass production in runs of one."

In contrast to the past, capital-ism is literally collapsing--but only in the sense that capital is becoming smaller and less visible, less tangible, and harder to control. With progressive reductions in size, capital has become vastly more mobile, a fact that must, and does, strike fear in the hearts of the unreconstructed New Dealers of the 1980s, who are beginning to lose their political grip on the country's economic base. The miniaturization of capital has decreased the attractiveness of governmental controls by increasing the cost of control.

The Changing Nature of Capital

The nature of capital is changing drastically, in ways other than size. With machinery being replaced by circuit boards and with production becoming far more sophisticated and complex, specialization of capital and labor has escalated.

Knowledge of how specialized subsystems work together has replaced steel as the critical tie that binds many production processes. Human capital, protected from government abuse by fundamental constitutional rights, has become a relatively more important source of economic power. In addition, the spread of human capital through education means that capital under democratic capital-ism has been given more votes and, therefore, more protection from abuse by majoritarian politics.(3)

Information, now no more physical than the electronic blips on a computer disk or tape, has become a decisive capital asset. But information remains fluid, easily converted to electromagnetic fields, difficult to contain in any one place, and ready to leap whole continents via satellites.

The Changing Nature of Firms

Technology is, of course, altering the internal nature of the business firm by changing the ease of information flows. The firm has always been useful because it enables people to work together with relative ease in mutually productive endeavors. When communicating at a distance was difficult, or rather costly, people had to be in close proximity, even in the same building and on the same floor. Personal contact was then the cheapest way to maintain the constant and necessary interchange of information. Cooperative efforts between the managers and the managed to insure against individuals' shirking their assigned responsibilities and blaming others for their own failures then required personal contact. With communication and transaction costs high, hierarchical firm structures based on commands were substituted for market exchanges.

People still need and want to work together, and "togetherness" (on some scale) in the workplace is not about to disappear. However, modern technology that eases communication and transaction costs also enables firms to rely (at least marginally) less on internal command structures and more on external market transactions. Such a technology geographically permits firms to break up and spread their production units across governmental jurisdictions in this country and abroad. The new technology of information flows permits the emergence of the "hollow (or more hollow) corporation," a highly mobile firm that itself owns little capital but "produces" goods by relying exclusively on outside suppliers.

Now, with the stroke of a few keys in an office, on a boat, or in a mountaintop retreat--and for the cost of a telephone call--modern managers can, via satellites, send hundreds of pages of crucial firm-specific information on design specifications or production costs or schedules to virtually any point on the globe at almost the speed of light. They can shift the world's physical capital stock (or the use of it) across national boundaries at the speed of light. In doing so, modern managers can escape the reckless authority of governments to regulate and control. And in doing so, they force legislators to think carefully about the economic, as well as the political, constraints on their governing roles. The emerging technology enables managers to say, if so inclined, with so many words and deeds, "I'm mad as hell, and I don't have to take it anymore."

Economic Constraints on Democracy

Democratic governments are necessarily constrained by the rules of politics. For example, these rules require that a majority of the voting representatives approve fiscal and regulatory policies. Rules of democracy also force politicians to face periodic elections and to be held accountable, within limits, for what they do. If politicians raise taxes and expand business regulations, they have to consider the possibility of being turned out of office.

Nonetheless, politicians are not immune to economic forces. They must understand that legislated policies can influence the willingness of people to work, save, and invest in their districts. In addition, legislated policies can affect people's inclination to earn their incomes and to keep their capital stock within the confines of the politicians' governmental jurisdictions.

To that extent, politicians must reason that their political aspirations (seemingly played out solely within the confines of the rules of ordinary politics and untainted by economic constraints) must be tempered by the electorate's propensity to respond to political outcomes by moving elsewhere, or "voting with their feet"--or even more to the point, by removing their income and capital from taxation. Obviously, policies that tax and regulate nonexistent income and

capital bases are not politically expedient, no matter how democratic the votes may have been.

Economists have long maintained that business firms must consider the responsiveness--or elasticity--of consumer demand to price changes. Depending on the elasticity of demand, a firm's total revenues can go up or down in response to a price increase. If consumers are unresponsive to price changes (that is, if the demand is inelastic), firm revenues can be expected to rise along with the price. Alternatively, if consumers are responsive to price changes (or if the demand is elastic), firm revenues can fall when the price is raised.(4)

A central message of modern constitutional economics is that governments are also constrained by the elasticity of demand for income earned within their jurisdictions.(5) People have a demand for earning their livelihood and holding their capital in any given governmental jurisdiction; how much income they (demand to) earn and how much capital stock they (demand to) hold in any given jurisdiction are dependent upon a host of considerations, not the least of which is the "tax-price" imposed on income and capital by explicit tax rates or implicit costs of regulations imposed by legislators.

How responsive people are to any given change in the tax- price (or how elastic their demand is) depends partly on the ease with which they can move themselves and/or relocate their capital. Governments must now understand an important economic principle: the greater the ease of relocation, the greater the elasticity of demand.(6)

In the past, when people and capital faced technological (and economic) barriers to relocation, legislators could reasonably assume that higher tax-price rates on earned income and capital in their jurisdictions would result in more revenues. Legislators faced inelastic demands, at least up to a point.(7) Legislators' central concerns became whether the additional revenue was needed and whether their supporting coalition of voters would be sufficiently upset by a tax- price increase to turn them out of office.

Today, legislators face a growing economic constraint, reflected in an increase in the elasticity of demand. Escalating technological changes that increase the mobility of people and capital cause legislators to worry that a tax increase will drive people and capital away--and that a tax increase will fail to increase tax revenues (especially in the long run). Indeed, legislators have to fear that the demand for earned income and capital in their jurisdictions has become so elastic that an increase in taxes or an increase in the cost of regulations will actually decrease the amount that government can spend on constituent services.

The growing economic constraints on politicians have emerged because people (who hold a great deal of capital on their person) can move more readily at lower costs and because the knowledge (capital) people have is difficult to confiscate before movement. People, and their plants, are not as bound by geography in the conduct of business as they once were. As noted before, people have telephones, computers, and fax machines at their disposal. People can more easily pack up and ship out their capital, the critical components of which may be on disks or chips that can be manipulated with a computer no bigger than the one on my lap. If people cannot take their computers with them, they can easily have duplicate disks shipped to their new locations. Production orders can be readily switched through "out-sourcing," at virtually the speed of light and with the stroke of a few keys, to suppliers in other governmental jurisdictions that offer capital more favorable treatment.

To be effective in tempering the power of governments around the world, the accelerating human and physical capital mobility need not actually result in more movement. (Of course, many legislators may actually have to be confronted with a significant amount of movement before they believe that economics must count in political decisions.) World legislators need only recognize the threat of mobility and recognize that in the absence of offsetting changes in political rules, their past political tendencies must be changed. They need only realize that they must make businesses competitive by making their policies competitive. The political result should be less enthusiasm from politicians for expanded government services funded by higher taxes.(8)

Current Policy Trends

The growing containment of government power is most obvious in the postal service. As late as the 1960s, the U.S. Postal Service had a virtual stranglehold on the delivery of first-class mail. Entry into that business was simply barred by law, even though postal service involved much waste and inefficiency, and prices and subsidies were spiraling

upward.(9) As a consequence, the price of a first-class stamp in constant (1987) dollars rose irregularly from about 10 cents in 1950 to 28 cents in 1975.

Today, the monopolistic grip of the post office as a way to communicate has been loosened by the reduction in long-distance phone rates created by the breakup of the telephone industry, giving rise to increased substitution of calls for letters.(10) Furthermore, the postal monopoly is in danger of being broken altogether by the advent of overnight delivery services. Federal Express, United Parcel Service, Purolator Courier, and several other air express companies have focused on providing better and faster, albeit more expensive, mail service.(11) They have also been effective government trust busters. As a consequence of expanding diverse forms of competition, the real price of a first-class stamp had fallen to just over 22 cents in 1987.

Yet in the near future, government control over mail will likely vanish as a policy concern because people and businesses will probably send much of their correspondence via electronic mail services and facsimile machines.(12) The Postal Service's current policy of raising rates (including the price of a first-class stamp back to 25 cents) and reducing service at the same time can only hasten the collapse of the first-class postal monopoly.(13)

However, other trends fundamental to current economic policy exist in the United States. Notable mainly because they are the types of policy movements expected in a world of growing human and physical capital mobility, they include recommendations to

-- Incorporate supply-side incentives in government policies, such as calls for lower marginal tax rates on individual and capital income,

-- Ensure the cost-effectiveness and efficiency of government bureaucracies and regulations (including workplace, health, and environmental regulations),

-- Curtail government regulations of industries (specifically airlines, trucking, and banking) that unnecessarily restrict the adaptability of capital to market needs,

-- Privatize government services wherever possible, and

-- Devolve federal services to state and local governments, where the level and quality of services can be determined by competition among governments.

In general, a growing number of policymakers see a need to make America "competitive" again, mainly by releasing government constraints on capital and income.

Clearly, the general policy trend in the United States may be partly attributable to the intellectual heritage and/or political dogma of particular public personalities, not the least of whom are Ronald Reagan and his early economic advisers. Many are dedicated "free marketeers," followers of Adam Smith and Milton Friedman. Just as clearly, the substance of proposed policy reforms is grounded in decades of experience with flawed, overly aggressive government policies to solve every social ill.

Nonetheless, concern for the country's competitiveness appears to be too broadly grounded in all segments of the political spectrum for us to believe that politicians and policymakers do not sense that their very own livelihoods and power bases, achieved through government, can be secured by making government policy more competitive. Constant talk of the "globalization of markets" and the "integration of the world economy"--in which, at present, the U.S. economy is gradually becoming a smaller component--speaks to the loss of government's control (and monopolistic power) over what is produced where.

Translated, such talk means that more policymakers must realize that people, capital, and production are much more mobile and that government policies must adjust accordingly. Policymakers must adjust their authoritarian inclinations --downward. Interestingly, the calls for policy changes heard in the United States are transatlantic echoes of policy proposals heard from Prime Minister Margaret Thatcher in the United Kingdom and former general secretary Deng Xiaoping in China.

Even General Secretary Mikhail Gorbachev in the Soviet Union is calling for a more competitive economy, one built to a greater extent on what amount to more pervasive supplyside incentives, including the elimination of "wage-leveling" and the introduction of greater risk of failure, unemployment, and lost fortunes and privileges.(14) He insists (now!) that the country can no longer pay homage to the Communist adage "From each according to his ability, to each according to his need." Instead, he says, the new, more vibrant Soviet economy must abide more carefully by the social dictum of Lenin (and Reagan), "From each according to his ability, to each according to his work."(15) He goes so far as to say that the Soviet economy needs to restructure because "amazing things happen when people take responsibility for everything themselves. The results are quite different, and at times people are unrecognizable. Work changes and attitudes to it, too."(16) Ronald Reagan could not be more eloquent.

Technology and the Federalization of the World

More than two centuries ago, several of the Founding Fathers understood the restraining influence of competition among governments. Indeed, in The Federalist, Madison reasoned that governments had to be contained by strict constitutional precepts regarding what they could and could not do. He saw the two houses of Congress as necessary--for restricting the policymaking process, not for facilitating the process. At the same time, he also recognized that the delivery of most government services by the states and local government would be an additional economic check on government's propensity to legislate, tax, and control. By ensuring the political independence of the states, the forces of competition would restrict all states in exactly how much tax revenue they could collect and therefore how expansive government would become.(17)

Granted, governments have grown, in spite of the constitutional protections against government growth that Madison and the other Founders tried to install. Succeeding governments have had the luxury of increases in demand for government services and the growing economies of production scale that have effectively immobilized capital and people.(18) That, however, is no longer the trend.

The message buried in modern technological developments is that the world, in effect, is becoming federalized, relentlessly, in a rough and ready way. Because countries are now forced (or soon will be forced) to compete with one another, they must search for ways to retain and expand their tax bases. They will probably have to compete more fiercely than Madison could have ever imagined states and communities would have to compete. Already, modern capital can probably jump national boundaries with far greater ease than capital could jump state boundaries when Madison wrote essays for The Federalist. The elasticity of demand for income in each governmental jurisdiction should continue to rise, as it has risen in the immediate past.

The overall tax-price of government here and abroad should rise less than otherwise for the near term and may even fall at some point. The most taxing policy question in the future will likely be exactly where or how the tax-price will fall. How much of the fall should be in explicit tax collections and how much in the cost of government controls and regulations is one of the main questions to be resolved by the political process.

Preliminary Evidence on the Waning Growth of Government

As noted, support for the central thesis of this commentary can be found in the rhetoric of government policymakers around the world. They talk a great deal about "competitiveness," which, properly translated, means the competitiveness of their own government's policies. However, additional supporting, albeit preliminary, evidence can be found in the decreasing rate of growth of governments in the Organization for Economic Cooperation and Development (OECD). Consider Figure 1, which depicts the combined growth of all governments (federal, state, and local) in the United States.

The cost of government is ultimately realized through government outlays, because government expenditures (not merely taxes) divert resources from the private sector. The bars in Figure 1 record total outlays of all governments as a percentage of gross national product (which may be construed as the average tax rate).(19) The top, longer straight line plots the trend in the ratio of government outlays to GNP based on data from 1960 to 1970. The lower, shorter straight line plots the trend in the ratio based on data from 1970 to 1987.

Obviously, government expenditures as a percentage of GNP grew throughout most of the period, but it is equally obvious (from the lower slope of the bottom trend line) that the growth of government relative to national production began to slow in the 1970s. Indeed, in the 1970-87 period, the average annual rate of growth (0.8 percent) was cut to virtually half the rate of growth in the 1960-70 period (1.5 percent).(20)

Obviously, government in the United States is not yet getting smaller in absolute terms. Furthermore, the decline in the growth of government outlays as a percentage of national production may be consistent with alternative hypotheses (for

Figure 1

(Graph Omitted)

example, the controlling majority in Congress has shifted, resulting in more conservative governments, or government has shifted the burden of government from its own expenditures to regulations). Nonetheless, the data in Figure 1 at least offer preliminary evidence, and some hope, that competitive pressures on governments are building and may in fact cause a continuing relative, if not absolute, decline in government at some point.

Interestingly, the trends of government outlays in other major industrial countries around the world are very similar to the trend in the United States. Consider Figure 2, which includes bar graphs on government outlays as a percentage of the gross domestic product (GDP, as computed by the OECD) in Japan, West Germany, the United Kingdom, and Canada.(21) Outlays in Japan peaked in 1984 at 34.1 percent of GDP, only to fall (slightly) to 32.7 percent by 1985 (the last year for which the necessary data are available). Outlays in Canada as a percentage of GDP were virtually flat, 46 to 47 percent between 1982 and 1984. In the United Kingdom, the trend was also flat (or ever so slightly downward) in the early 1980s, declining from 48.7 percent in 1981 to 47.7 percent in 1985. The trend in West Germany was flat between the middle of the 1970s and the middle of the 1980s, moving between 48 and 50 percent. Australia and even almost all smaller European countries (not shown) follow much the same path for government outlays observed in the countries represented in Figure 2. Of the major OECD countries, France and Italy are notable for not tempering the growth in outlays as a percentage of GDP.(22)

Apparently, many major governments around the world are taking note of past marginal tax rate reductions in the United States and are responding accordingly, that is, are making their tax policies competitive.(23) Consider Table 1, which contains the changes in the range of marginal tax rates between 1985 and 1986 (or later years, depending on when the new, lower marginal tax rates take effect) in several major countries.

Significant rate reductions are evident in all countries included in the survey other than the United Kingdom. (The lack of rate reductions in the United Kingdom is actually a result of the time period covered by the study.(24)) For example, Denmark lowered its highest marginal tax rate from 73 to 68 percent (which means that the percentage of additional income that could be kept after taxes rose from 27 to 32 percent), and Japan reduced its highest marginal tax rate from 70 to 50 percent. Overall, the 9 countries reduced their highest tax rates by over 17 percent, from an average of 63 percent to 52 percent. As is evident from the table, the

Figure 2

Total Government Outlays in Selected Coutries as a Percentage of Gross Domestic Product, 1966-1985.

Source: Organization for Economic Cooperation and Development, OECD Economic Outlook, December 1987, p. 187.

(Graph Omitted)

Table 1
Recent and Proposed Changes in Lowest and Highest Personal Income Tax Rates (National Levels; Percentages)

Country	Tax Rates in 1985	Tax Rates in 1986 or Later

Australia	30-60	24-49 (from 1987)
Denmark[a]	50-73	50-68 (from 1987)
France	5-65	5-50 (from 1988)
West Germany	22-56	19-53 (from 1990)
Ireland	35-65	11-56 (from 1988)
Italy	18-65	11-56 (from 1988)
Japan	10.5-70	10-50 (from 1988)
New Zealand	20-66	15-48 (from 1986)
United Kingdom[b]	30-60	27-60 (from 1987)
United States[c]	11-50	15-28 (from 1988)
Average	23-63	21-52

Source: Based on data in Vito Tanzi, "The Response of Other Industrial Countries to the U.S. Tax Reform Act," National Tax Journal, September 1987, p. 344.

[a] Includes tax to primary and county authorities and church tax.

[b] Up to 1979 the top tax rate had been 83 percent for earned income and 98 percent for investment income.

[c] The table was developed on the basis of data presented in the source. However, the highest marginal tax rate is actually 33 percent in 1988 for a range of high income.

countries listed lowered their lowest marginal tax rates by about the same amounts as they lowered their highest marginal tax rates, and 9 of the countries either have reduced or have planned to reduce tax rates on corporate income.(25)

In recent years, tax competition has been extended to many less-developed countries. For example, economist Alan Reynolds reported significant marginal tax rate reductions in Singapore, South Korea, the Philippines, Indonesia, Turkey, Jamaica, Colombia, Bolivia, Mexico, Grenada, Botswana, Ciskei, Mauritius, India, Israel, and China.(26) Why did these countries lower tax rates? Reynolds captured the theme of this study when he wrote,

Countries, like companies, must compete in producing the most value at the lowest possible cost. Taxes are an important part of the cost of production, as well as the cost of living. Since people have to produce more in order to earn more, a tax system which penalizes added income will also penalize added output. It is relatively insignificant whether taxes are direct or indirect, corporate or personal. Capital and labor bear all taxes, either through lower incomes or higher prices. . . . Any country in which the marginal cost of government is not competitive will experience a loss of both real capital (a capital outflow) and human capital (a "brain drain").(27)

Concluding Comments

Admittedly, the foregoing analysis is replete with optimism. Perhaps it is too optimistic. After all, the flattening of the growth in government outlays relative to national production may be a temporary phenomenon, attributable more to a rapid expansion of production on a worldwide basis than to discretionary fiscal restraint on the part of world governments. Clearly, words of caution are in order. Economic nirvana is hardly just around the corner of technological development. The world will likely be beset with an enormous power of government to tax and regulate for as long as can be imagined.

At the same time, the point of this commentary is that theory and evidence appear to be reinforcing one another. The enormous power of government may actually be in the process of being checked, albeit marginally, by fundamental economic forces that transcend national boundaries. Governments may very well become weaker, at least relatively and marginally, and for good reason. Politics will likely become less important, albeit slightly, in shaping the affairs of

people. The political process will be constrained by the growing mobility of people, capital, and goods and services. These economic forces suggest that in the future, fewer resources may well be used in private efforts to manipulate government policies; more resources will then be available for producing the goods and services people around the world need and want. More and more, politicians' ambitions to do good, or bad, will be checked not by ideology (or the lack thereof) but by the threat of shifting income bases.

Obviously, world governments cannot be expected to "lie down and play dead" in the face of growing constraints in the internalized economy. Much political "bashing" of Japan, Taiwan, Korea, Bangladesh, and many other countries will continue to be the natural rhetorical game in Washington. Politicians can be expected to seek ways of disguising the costs of new and expanded programs (for example, mandated benefits in the form of required parental leave, child-care facilities, minimum-wage hikes, and health insurance). They can also be expected to seek methods of "international cooperation" in policy formulation. (International control of financial markets has already been seriously tendered.) Such efforts, properly interpreted, suggest that governments around the world will seek to cartelize their policies with the goal of containing the growing mobility of capital across national boundaries--and, once again, fortifying government powers. Nonetheless, governments will likely be swimming against the more powerful undercurrent of technological development. This means that governments may mitigate, but not totally negate, their net loss of the political power to tax and control.

Therein lies a technological liberation of sorts: people will then be able to do more of what they want to do with their incomes.

FOOTNOTES

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(1) David L. Birch, "The Booming Hidden Market," Inc., October 1987, p. 15. According to Birch, the top 5 percent of the firms with the highest growth rate accounted for 83 percent of the net jobs added by all firms.

(2) As reported in Ben Wattenberg, "CEOs Optimistic about Future of Business," Greenville (S.C.) News, March 5, 1988, p. 4A.

(3) Human capital may be assessed in part by the prevalence of college-educated adults. In 1950, 6 percent of the U.S. population had completed four or more years of college. Twenty years later, in 1970, the percentage had risen to 11 percent. Sixteen years later, in 1986, the percentage had practically doubled again, to over 19 percent. In other words, a growing share of the population held tangible stock in "human capital." Of course, a college education is not the only form of human capital. Skilled workers possess a good deal of human capital, and all workers have some human capital. One of the most interesting and unrecognized political distinctions between human and physical capital (a conceptual distinction that, by the way, did not become prominent in economic jargon until the 1960s) is that human capital can pick up and walk out on its own, whereas physical capital cannot always move so readily.

(4) For example, if the price of a product rises from $1 to $2 and the quantity sold falls only from 100 to 90, revenues rise from $100 to $180. The demand is then inelastic. On the other hand, if the price jumps by the same amount and sales fall from 100 to 40, revenues fall from $100 to $80. The demand is elastic.

(5) The public-choice/constitutional economic theory underlying these comments had its modern redevelopment in Geoffrey Brennan and James M. Buchanan, The Power to Tax (Cambridge: Cambridge University Press, 1980).

(6) The technical, theoretical argument undergirding this brief review of how capital mobility affects the elasticity of the demand for earned income is developed in Dwight R. Lee and Richard B. McKenzie, "The International Political Economy of Declining Marginal Tax Rates," Economics Department, University of Georgia, Athens, June 1988.

(7) If the government chooses to raise the tax-price far enough, the percentage increase in the tax-price will at some point be lower than the percentage decrease in sales, resulting in a decrease in total tax collections. The so- called Laffer curve, which is fundamental to supply-side economics, is based on the argument that there is a range of tax-

price increases beyond which tax collections fall.

(8) Given increases in human and physical capital mobility, the tax-prices charged by governments may not actually fall, although declines at some point should not be surprising. The increase in the elasticity of demand for earned income need only result in reductions in the increase in the tax- prices from past trends, meaning that tax-prices are then lower than they otherwise would have been.

(9) See James Bovard, "The Slow Death of the U.S. Postal Service," Cato Institute Policy Analysis no. 102, April 3, 1988.

(10) Continuing the count of phone calls into the mid- and late 1980s is made difficult by the breakup of AT&T in 1983. However, it is worth noting that the average count of daily conversations that required a toll rose by 73 percent between 1980 and 1986. The volume of first-class mail rose by 26 percent during the same period. Of course, much of the increased usage of both telephones and mail drops can be attributed to the extended economic recovery that began back in 1982 as well as to other factors.

(11) Federal Express's overnight delivery business expanded by more than 26 percent in 1987, to a daily average of 925,000 overnight deliveries. James Bruce, "Fax Machines Generate 'Faxplosion' in US," Journal of Commerce, March 24, 1988, p. 3A.

(12) Contrary to popular belief, the federal government is no longer the only provider of post office boxes. More than 3,500 storefront shops across the country rent mailboxes and act as private post offices. The Mail Box, a retail franchise that provides postal boxes and services, now has over 600 outlets around the country and, according to its head, expects to be the future McDonald's of postal service. "Postal Services Minus the Post Office," New York Times, March 22, 1988, p. 27. MCI, AT&T, and Western Union also lease mailboxes--electronic mailboxes--to which letters, manuscripts, and data can be sent, albeit via the 30 million personal computers in the country's offices and homes. These services often have a minimum monthly charge, but the marginal cost of sending a letter electronically is now as low as 18 cents--28 percent below the cost of a first-class stamp.

This year, approximately two million fax machines are in the hands of people in businesses, governments, and private homes. Sales of fax machines are booming--more than 400,000 were sold in 1987 (many of which were installed for less than $1,000). Given expected price decreases, annual sales of those technological wonders are expected to jump by more than 60 percent in 1988 and to more than double their 1988 level by 1990. Calvin Sims, "Coast-to-Coast in 20 Seconds: Fax Machines Alter Business," New York Times, May 6, 1988, p. 1. Use of such equipment can be expected to rise exponentially to machine sales, since owners will then have more places to send more messages.

(13) Obviously, the U.S. Postal Service will be around for a long time to come. Not much doubt about that. Ongoing federal subsidies will ensure its survival. At the same time, it is not unreasonable to expect the concept of a "post office" and that of a "post office box" to change dramatically. The post office box of the future will, to a growing extent, be a personal computer or a fax machine, the latter weighing 5 to 10 pounds (or even less), about the size of an answering machine, and doubling as a household telephone, personal copier, and text and image scanner for computerized desktop publishing in homes as well as offices.

(14) Mikhail Gorbachev, Perestroika: New Thinking for Our Country and the World (New York: Harper and Row, 1987).

(15) Ibid., p. 31.

(16) Ibid., p. 97.

(17) Alexander Hamilton, John Jay, and James Madison, The Federalist (New York: Modern Library, 1937), nos. 45 and 51 (written by Madison).

(18) Several crucial court decisions have also centralized government powers in Washington and dampened competitive tendencies among state and local governments. See Bernard H. Siegan, Economic Liberties and the

Constitution (Chicago: University of Chicago Press, 1980).

(19) The outlays of all governments are depicted because of the ability of outlays to be shifted among the various levels of government. An increase in federal outlays may be offset by a decrease in state outlays because of a shift in responsibility of programs, with no necessary change in the net burden of government on the economy.

(20) When the time periods for the two trend lines are changed to 1960-75 and 1975-87, much the same findings are revealed. Also, note that there was virtually no growth in outlays as a percentage of GNP in the 1980s, as evidenced by the fact that the bars in Figure 1 are more or less level.

(21) All figures relating to government outlays as a percentage of GDP are from Organization for Economic Cooperation and Development, OECD Economic Outlook, December 1987, p. 187.

(22) French government outlays as a percentage of GDP rose from 46.4 percent in 1980 to 52.4 percent in 1985.

(23) See Vito Tanzi, "The Response of Other Industrial Countries to the U.S. Tax Reform Act," National Tax Journal, September 1987, pp. 339-55.

(24) Between 1979 and 1985, the United Kingdom lowered its highest marginal tax rate on earned income from 83 to 60 percent and on investment income from 98 to 83 percent (ibid., p. 344). In addition, the Thatcher government proposed in early 1988 to lower the highest marginal tax rate to 40 percent.

(25) Only two countries expected corporate tax rate increases (ibid., p. 348). The tax competition among governments is also evaluated, with similar but not identical findings, in Joseph Pechman, World Tax Reform: A Progress Report (Washington: Brookings Institution, 1988), chap. 1 especially. Pechman also found widespread reductions in corporate income taxes, mainly to reduce the disincentive effects on investment of "double taxation" of corporate income taxes.

(26) For example, after Rajiv Gandhi became prime minister of India, the highest marginal tax rate was reduced from 65 to 50 percent. Colombia lowered its highest rate from 56 percent in 1979 to 30 percent in 1988. In 1986, Bolivia substituted a 10 percent flat tax and a 10 percent VAT tax (deductible against the income tax) for the progressive income tax rate system. Israel has reduced its highest marginal tax rate from 66 to 48 percent since 1985. Turkey reduced its income tax rate range from 40-75 percent before 1985-86 to 25-50 percent today. In 1986, Jamaica lowered its marginal tax rate, which was 57.5 percent on $700 of earned income, to 33 percent on $1,500 of earned income. See Alan Reynolds, "International Tax Competition," a paper prepared for delivery at a conference on taxes and growth sponsored by the Manhattan Institute for Policy Research, Frankfurt, West Germany, May 30, 1988.

(27) Ibid., p. 8.