SMOKE AND MIRRORS: TAX LEGISLATION, UNCERTAINTY AND ENTREPRENEURSHIP

Linda A. Schwartzstein†

I. INTRODUCTION

Imagine you are exploring a new region, one in which, if you lose your way, you are likely to lose everything. You packed carefully before you left, and you have some idea of what your ultimate destination will be and of how long it will take you to get there. Before leaving, you evaluated the materials you own, the skills you have, and you acquired whatever else you thought you would need to complement these materials and skills.

Although you may be the first to take this particular path, the territory is not completely uncharted. There are certain landmarks you will use to guide your way. You know the climate, the vegetation, and know you can rely on the position of the stars to guide your way. You carefully calculate your costs of taking this journey, and the benefit you think you will gain if you are successful. You know that if you are successful, not only will you benefit, but also your entire community will benefit. Deciding it is worth the risk, you begin. You are executing your plan, and although unanticipated events occur, you manage to overcome any obstacles. Sometimes you need to deviate from your plan. But because of the stable signposts, there are boundaries you can rely on to help you choose your course of action.

Now imagine that suddenly the stars change position. In addition, for the first time in recorded memory, the always sunny climate turns frigid; instead of grasslands, there is desert. Everything you relied on to remain stable has become unstable.

I posit that our protagonist is analogous to the entrepreneur in our society. By entrepreneur I mean someone who takes market risks to ad-

† Professor of Law, George Mason University; AB, 1973, Brandeis University; JD, 1976, University of Michigan; LL.M in Taxation, 1977, New York University; Ph.D. Economics, 1994, George Mason University. I would like to thank Richard Wagner, Stephen Crafton, Karen Vaughn, Don Lavoie, Maxwell Stearns, and Erin O'Hara for their helpful comments. I would also like to thank the participants at the Austrian Economic Workshop at New York University, including Israel Kirzner, Mario Rizzo, and Peter Boettke. Anne Fraser and Siyatha Bagal provided exceptional research assistance. The generous funding provided through the Law and Economics Center of the George Mason University School of Law is gratefully acknowledged.
The entrepreneur may do this by developing new products, devising new production processes, or by finding new organizational processes or trading opportunities. In creating or exploiting opportunities, entrepreneurs constantly have to make decisions regarding how to best utilize their tangible assets and their skill base. This necessitates reliance upon relatively stable societal institutions, since knowledge of the boundaries within which they are operating is necessary for entrepreneurs to be able to calculate their expected returns.

I posit that the last fifteen to twenty years of tax legislation are analogous to stars that constantly change their relative positions, unexpected landscapes, and unpredictable climactic changes. The Internal Revenue Code has, in recent years, become the antithesis of a stable societal institution. Instead, its constant state of flux has created many impediments to entrepreneurship. Entrepreneurs are no longer able to depend on a stable tax environment; thus, they find it difficult to plan and to predict returns on business activities. In all, this lack of tax code stability ultimately results in less investment, lower returns to investment, and slower economic growth for the economy as a whole.

This Article proceeds as follows. Section II provides an overview of recent tax legislation, highlighting several ways in which federal tax law has increased in complexity. Section III presents a more detailed discussion of the challenges of entrepreneurship, using Austrian economic theory. Section IV then argues that revenue estimation, used to shape and justify proposed tax legislation, has been relied on too greatly. This section then discusses reasons, including methodological limitations and political interference, why such revenue estimates must be viewed more critically. Finally, Section V suggests a course for future tax legislation.


2 Id.

3 Austrian economics is a school of economic thought that has developed from the work of Carl Menger, Ludwig von Mises, and Friedrich A. Hayek, among others. Austrian economics is more interpretative and less mathematically driven than neoclassical economics. Market process, entrepreneurship, and the evolution of institutions have been major foci of the Austrian school. For a comparison of law and economics, critical legal studies, and Austrian economics, see Linda A. Schwartzstein, Austrian Economics and the Current Debate Between Critical Legal Studies and Law and Economics, 20 Hofstra L. Rev. 1105 (1992). See also Linda A. Schwartzstein, An Austrian Economic View of Legal Process, 55 Ohio St. L.J. 1049 (1994) for the development of an evolutionary theory of legal institutions based on Austrian economics. Israel M. Kirzner, Austrian School of Economics, in 1 The New Palgrave: A Dictionary of Economics, at 145 (John Eatwell et al. eds., 1987) provides a brief history of the Austrian school. For an account of the Austrian school as it has developed in the United States, see Karen I. Vaughn, Austrian Economics in America (1994).
II. THE CHANGING FACE OF TAX LEGISLATION

An explosion of tax legislation has occurred over the last fifteen years. After Congress enacted the Internal Revenue Code of 1954, consolidating tax law into a coherent code, there were relatively long periods of time between significant tax bills. Major tax legislation was contained in the Revenue Act of 1962,\(^4\) the Tax Reform Act of 1969,\(^5\) and the Tax Reform Act of 1976\(^6\).

Between 1980 and 1996, however, Congress passed six major tax bills — the Economic Recovery Tax Act of 1981,\(^7\) the Tax Equity and Fiscal Responsibility Act of 1982,\(^8\) the Deficit Reduction Act of 1984,\(^9\) the Tax Reform Act of 1986,\(^10\) the Omnibus Budget Reconciliation Act of 1990,\(^11\) and the Omnibus Budget Reconciliation Act of 1993\(^12\). Each of these bills affected myriad Internal Revenue Code (IRC) sections.\(^13\) Especially striking about the more recent tax legislation is that Congress keeps making changes, then makes changes to the changes, and sometimes undoes what it did earlier.\(^14\) A few examples will suffice to

\(^7\) Pub. L. No. 97-34, 95 Stat. 172.
\(^12\) Pub. L. No. 103-66, 107 Stat. 312.
\(^14\) Several theories have been suggested regarding the reason there has been such an increase in the amount of tax legislation in recent years. Professors Richard Doernberg and Fred McChesney argue that politicians are maximizing the "rent seeking" potential of serving on the Ways and Means Committee. They further suggest that more rapid turnover on the tax legislative committees leads members of Congress and special interests to form short term "contracts" for legislation, thus giving rise to more tax legislation. Richard L. Doernberg & Fred S. McChesney, *On the Accelerating Rate and Decreasing Durability of Tax Reform*, 71 MINN. L. REV. 913 (1987). But see Daniel Shaviro, *Beyond Public Choice and Public Interest: A Study of the Legislative Process as Illustrated by Tax Legislation in the 1980's*, 139 U. PA. L. REV. 1, 63-80 (1990) (criticizing the contractual model as simplistic and adding nothing in terms of a causal explanation). Although Jeffrey Birnbaum and Alan Murray generally saw the Tax Reform Act of 1986 as a triumph of reform in the public interest over the special interests, they did note the large contributions that were made to members of the tax writing committees. Jeffrey H. Birnbaum & Alan S. Murray, *Showdown at Gucci Gulch* 181 (1987). For a criticism of their book, see Richard L. Doernberg & Fred S. McChesney, *Doing Good or Doing Well? Congress and the Tax Reform Act of 1986*, 62 N.Y.U. L. REV. 891 (1987). Sheldon Pollack argues that tax reformists should be seen as having their own political view they are trying to implement, but also criticizes the interest group literature. Sheldon D. Pollack, *Tax Reform: The 1980's in Perspective*, 46 TAX L. REV. 489 (1991). Professor Alan Blinder, former vice-chairman of the Federal Reserve Board of Governors, suggests that the way the agenda was set allowed tax reform to pass. First, by presenting tax reform as a whole package, interest groups that would have objected to one part in isolation, could see how they benefited from other aspects. Second, by requiring that any revenue losing amendment specify
demonstrate the extent of these tax law changes over the past sixteen years.

A. Taxation of Net Capital Gains

Net capital gains are measured by the excess of net long term capital gains over net short term capital losses. For taxpayers above the low marginal brackets, net capital gains have historically been taxed at a lower rate than other taxable income. This reduction in tax rates was accomplished by providing a deduction for net capital gains which in effect excluded a portion of net capital gains from taxation. A deduction for net capital gains was historically part of the revenue laws since 1922, and from 1922 to the middle of 1981 remained at 50 percent. Thus, half of a taxpayer's net capital gain would be included in taxable income.

In 1981, the capital gains deduction was increased to 60 percent of net capital gains, thus making the tax treatment of capital gains even more favorable relative to ordinary income. Due to the well-established favorable treatment for capital gains, most taxpayers had strong preferences for realizing capital gains instead of ordinary income. This favorable treatment had many planning implications. For example, most high bracket taxpayers would prefer to have successful corporations retain earnings so that stock prices would rise, creating capital gains, rather than distribute dividends which would be taxed at the higher rates imposed on ordinary income.

In 1986, however, Congress repealed the deduction for net capital gains, but capped the maximum tax that would be imposed on net capital gains at 28 percent. This change had two major effects. First, the maximum effective rate of taxation on net capital gains after mid-1981 was 20 percent. After the repeal of the deduction, the maximum effective rate to replace the lost revenue, it became harder to advocate for tax breaks. ALAN S. BLINDER, HARD HEADS, SOFT HEARTS 206-12 (1987). Other theories suggest that legislative procedures are poorly suited to the tax writing process. See e.g., Paul McDaniel, Federal Income Tax Simplification: The Political Process, 34 Tex. L. Rev. 27 (1988). Similarly, the suggestion has been made that reform of the procedures used for consideration of tax legislation has actually destabilized the process, making well reasoned tax legislation more difficult to produce. See Catherine E. Rudder, Tax Policy: Structure and Choice, in Making Economic Policy in Congress 196, 196-220 (Alan Schick ed., 1983). Another theory is that the system of revenues and expenditures has become so complex that legislators can only comprehend short term legislation. See generally CAROLYN WEBBER & AARON WILDAVSKY, A HISTORY OF TAXATION AND EXPENDITURE IN THE WESTERN WORLD (1986). In ALFRED L. MALABRE, LOST PROPHETS 175-201 (1994), Malabre recounts the role of the media in promoting supply side economics during the Reagan era.

was 28 percent. Second, there was now less reason for a taxpayer to prefer capital gains to ordinary income. This change in tax regime meant that many investment decisions no longer produced the returns that were expected based on the prior tax law, and many allocations of capital needed to be rearranged.

In addition, although Congress was now taxing net capital gains at the same rates as ordinary income, capital losses could only be deducted against capital gains and a maximum of $3,000 of ordinary income. Although no longer justifiable, given that there was no benefit to realizing capital gains relative to ordinary income, Congress did not want to repeal the limitation on capital losses because it feared the revenue loss would be too great. Thus, the risk/reward ratio for capital gains and losses was changed dramatically.

B. MARGINAL RATES OF TAXATION ON INDIVIDUALS AND CORPORATIONS

In planning what business form to adopt, one factor to consider is the marginal rates of taxation on corporate income compared to the marginal rates on individuals. Historically, the highest corporate rate has always been lower than the highest individual rate. This relationship between the corporate and individual rate was maintained consistently until 1986. The relative rates of taxation were one reason why entrepreneurs would choose to operate their business in corporate form. In 1986, Congress changed this relationship for the first time so that the highest corporate marginal rate was now higher than the highest individual rate. Once again, business expectations were disrupted. This change in the relative rate structure meant that for many businesses, unincorporated business forms such as limited partnerships were preferable to the corporate form. Many businesses, including some fairly large corporations, were driven to change their legal structure. In fact, a new business form, master limited partnerships, quickly developed. Unlike the typical limited partnerships, whose interests are not publicly traded, master limited partnerships interests are traded on the stock exchanges like shares in a corporation. This allowed publicly traded corporations to transform themselves into master limited partnerships so that income would be taxed at the individual rates of their partners, as opposed to at the corporate rates. Congress was so concerned about this development that it responded by amending the Internal Revenue Code to require master limited partnerships to be taxed as corporations.19

18 I.R.C. § 1211(b) (1986).
19 Id. § 7704.
Ironically, given the disruption caused by the change in relative marginal rates, this change was short-lived. In 1993, Congress raised the highest marginal rates on individual income above that of the highest marginal corporate rate.20 Now, once again, it is more advantageous for profitable businesses, especially if they expect to retain earnings, to be in corporate form. Entrepreneurs had to readjust their expectations and reformulate their plans to factor in the latest shift in the structure of taxation.21

C. DEPRECIATION

The deduction for depreciation allows a business to recover their capital investments in long lived assets such as factories and equipment. Because these assets are productive over periods of more than one year, Congress has provided for their costs to be recovered over time so as to more accurately reflect income. If, for example, a widget making machine has a useful life of five years, deducting the entire cost of the machine in the first year against the income produced from making widgets would overstate costs and understate income in the first year, and understate costs and overstate income in the following years. Conversely, not allowing any deduction for the cost of the widget making machines would overstate the income from the widget making business. The depreciation deduction, which allows part of the cost of the machine to be deducted each year, theoretically more accurately matches income with the costs of producing that income.

Congress has recognized, however, that allowing businesses accelerated recovery of their costs lowers the ultimate cost of capital investment. As a result, Congress has allowed businesses to utilize certain methods of accelerated depreciation, which allows more of the cost of investment to be deducted in the early years. In the Economic Recovery Tax Act (ERTA) of 1981,22 Congress decided to greatly accelerate the depreciation rates and shorten the recovery period that businesses could use to recover their capital investment. For example, the recovery period for real property under prior law had ranged from forty years to sixty years.23 Under ERTA, the recovery period for real property was shortened to fifteen years, although the taxpayer could elect longer recovery

23 The forty year recovery period applied to apartments; the sixty year period to warehouses. The average period claimed was between 32 and 43 years. INTERNAL REVENUE ACTS 1980-1981 at 1442 (citing Rev. Proc. 62-21, 1962-2 C.B. 418).
periods. Recovery periods on personal property were also shortened. Congress, however, soon decided that it had been too generous. Partly because of the recession that began in 1981, and partly because the accelerated depreciation greatly reduced tax revenue, Congress repealed the more rapid depreciation it had legislated for personal property in future years in Tax Equity and Fiscal Responsibility Act of 1982. In 1986, Congress again modified the depreciation rates and recovery periods, especially for real estate. Real estate was limited to straight line methods of depreciation and the recovery period was increased to 31.5 years.

In addition, the value of deductions varies with changes in tax rates. The higher the marginal tax rate the more of the cost underlying the deduction is shared with the government. Thus, the rate changes that have occurred over the last fifteen years have continually changed the economic consequences of investments that have already been made. The instability in the tax laws makes it almost impossible to predict with any confidence what the return on any investment will be.

D. **ADDED COMPLEXITY**

In 1913, when Congress enacted the first income tax law, it envisioned that taxpayers would "willingly and cheerfully" comply with the income tax law and that it would require merely a part of one day to fill out the necessary forms. Today, however, it is estimated that as a country we spend five billion hours and $200 billion on compliance with the income tax laws.

Every time the tax law is changed, information costs are imposed on the taxpayers. Every amendment to the tax law requires that all those who are affected learn of the change, gain sufficient knowledge to under-

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24 Id. at 1450.
26 Pub. L. No 99-514, 100 Stat. 2085 (1986). Real estate was hit especially hard by the Tax Reform of 1986. Not only were the greatly accelerated depreciation repealed, but Congress also enacted the passive loss rules, which limited the deductions passive partners in real estate limited partnerships were allowed. See I.R.C. § 501 (1986). The result was that real estate investment went from a traditionally tax favored activity to a much less attractive investment. In addition, the passive loss rules were applied to investments that had already been made, not just to future investments. Taxpayers who had made their investments based on economic calculations formulated on the prior tax regime were left holding investments that no longer made economic sense. These changes in the taxation of real estate are believed to have been a major factor in the decline in the real estate market, which led to the savings and loan debacle. Carl Felsenfeld, *The Savings and Loan Crisis*, 59 FORDHAM L. REV. S7, S32 nn.164-65, S43 (1991).
27 H.R. Rep. No. 5, 63d Cong., 1st Sess. 3 (1913). The first income tax had a top marginal rate of four percent on taxable income over $100,000.
stand its application, and determine how to respond to it. Sweeping changes in the law, such as the Tax Reform Act (TRA) of 1986, impose enormous information costs on taxpayers. After the Tax Reform Act of 1986, one accounting firm advised: "Describing [the TRA] and suggesting ways to tackle and master its stunning breadth and depth are tasks that will challenge the taxpayer and tax adviser . . . The magnitude of change cannot be overstated." Only a few years later, taxpayers were asked to absorb further significant changes in tax law.

Most statutory language is subject to a variety of interpretations, and so it will not always, and perhaps not usually, be clear how the tax law will be applied. Treasury regulations and other official guidance can often lag years and sometimes decades behind amendments to the law. It can take years of IRS rulings and litigation before an interpretation of a tax statute is settled. In the meantime, taxpayers must deal with the uncertainty of their tax position.

These costs of tax legislation are not included in the estimates of revenue gains and losses expected to be generated by changes in the tax laws. It would probably be very difficult to find a way to measure the productivity lost from resources used to learn and comply with the new legislation. Intuitively, however, it seems clear the loss must be substantial. An indication of how much tax complexity costs can be made based on the amounts spent for professional tax assistance.

Sheldon Pollack, in reviewing modern tax legislation, concluded:

The result is tax "laws," such as the passive activity loss rules, that defy the very notion of "rule by law." These are not laws in the traditional sense that the citizenry can take notice of, and accordingly plan their actions. Quite the contrary, it is unclear what activity or behavior is forbidden . . . and which are sanctioned . . . —the very essence of the rule of law. In many ways, it appears as if the rule of law, a principal central to our liberal political

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31 See discussion in section B, supra.
33 Sheldon Pollack characterizes the Treasury's attempt to provide regulations to implement the broad scheme Congress enacted regarding passive activity losses in 1986 as follows: "The resulting passive activity loss regulations are comprehensive and complicated (which means incomprehensible to taxpayers, the judges who actually adjudicate disputes over the interpretation of the federal statute and even many tax lawyers who deal with them on a frequent basis)." Pollack, supra note 14, at 527 (footnotes omitted).
culture, has been largely abandoned in the realm of tax law.\textsuperscript{35}

The abundancy of major changes in the tax laws over the past decade means entrepreneurs have less confidence in the tax laws. Also, such frequent changes will tend to focus entrepreneurs' efforts on more short term planning, as they find that modifications of the tax laws upset their expectations.\textsuperscript{36}

III. THE MARKET PROCESS AND ENTREPRENEURIAL DECISIONMAKING

Entrepreneurs must constantly make decisions in the context of uncertainty.\textsuperscript{37} An entrepreneur includes anyone who tries to capture market opportunities and who makes decisions within a business about the allocation of resources, about what product to develop and how to develop it, or a person who develops a new organizational structure, or new methods of doing things.\textsuperscript{38} Entrepreneurs can be found at many levels in any organization. Entrepreneurial ability is becoming more and more important in the global economy. Professor Rosabeth Moss Kantor explains why:

In a sense, every business today, not just those in the garment trade, is a "fashion" business. To compete effectively, companies must innovate continually and in ever shorter cycles. Keeping customers as well as attracting new ones requires constantly offering new and better products, with design innovations based on new technologies. To be truly customer oriented, managers


\textsuperscript{36} A recent example occurred when the Clinton Administration proposed disallowing the interest deduction on any corporate issued debt instrument that had a term of forty years or more. Deals involving hundreds of millions of dollars were suddenly put into limbo and some were torpedoed completely. Tom Herman & Anita Raghuvan, \textit{Derailment of Several Bond Offerings by New Tax Plan Considered Likely}, \textit{Wall St. J.}, Dec. 11, 1995, at A3. Eric M. Zolt, \textit{Corporate Taxation After the Tax Reform Act of 1986: A State of Disequilibrium}, 66 N.C. L. Rev. 839 (1988), argues that the Tax Reform Act of 1986 and the Revenue Act of 1987 upset the balance between individual and corporate tax resulting in unanticipated consequences and could affect taxpayer decisions regarding fundamental business decisions such as choice of business form, financing, and dividend policy in undesirable ways. \textit{See also} Douglas A. Kahn, \textit{Should General Utilities be Reinstated to Provide Partial Integration of Corporate and Personal Income—Is Half a Loaf Better than None?}, 13 J. Corp. L. 953 (1988) (arguing that Congress should reinstate the General Utilities doctrine which was repealed in 1986 and which had provided nonrecognition for corporate income tax purposes for gains on corporate property distributed to shareholders in certain distributions).

\textsuperscript{37} \textit{See} Libecap, \textit{supra} note 1, at 69.

\textsuperscript{38} \textit{Id.}
must be concerned about what they do not yet see. Where there is a customer wish but no way yet to fulfill it, there is an opportunity for innovation. Fulfill it yourself, or someone else will. Surrounding every business are both invisible opportunities—customers’ hopes and dreams—and invisible enemies—new companies outside the country or outside the industry possessing capabilities better able to fulfill these hopes.  

The Austrian school of economics theory of capital provides insight into the process of entrepreneurial decision making. Although focused on decisions regarding capital, the decision making process illustrated by Austrian capital theory can be applied to any aspect of entrepreneurial decision making. Viewing the production process from an Austrian economic perspective, the impact of uncertainty becomes apparent.

Beginning with Friedrich A. Hayek’s *The Pure Theory of Capital* and continuing with Ludwig Lachmann’s work on capital structure, Austrian economists have been concerned with examining the structure of capital, specifically with respect to how entrepreneurs will decide what capital investments to make at any given time and how best to utilize the capital stock that they currently own. Capital stock is not a static concept. The capital stock of an entrepreneur at any given point in time reflects the outcome of past activities and also represents the basis of plans for future activity.

Choices regarding the capital stock must be viewed at the level of the individual firm. At this level it is possible to observe the production plans of the entrepreneur. Different plants even in the same industry will have different combinations of capital because of differences in expectations of the future over time and because of product differentiation. It is in these individual plants, with their particular combinations of buildings,

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equipment, property, and working capital, that the individualized nature of the capital stock is evident.\textsuperscript{44} Each firm, as Lachmann stated, reflects "the mark of the individuality of its leading minds."\textsuperscript{45} Determining depreciation and the timing of new capital investments is a difficult process, which can easily lead to malinvestment. Further, any malinvestment by a firm will very likely have ripple effects in other parts of the economy, due to the interrelationship of the various sectors of the economy. The more rapidly the world is changing, the more likely malinvestment will occur.\textsuperscript{46}

Capital resources can be utilized in a multitude of ways. However, any individual capital asset has a limited number of uses.\textsuperscript{47} Economic theories and models that treat capital as homogenous hide the reality that entrepreneurs have to make choices regarding how to combine and use capital assets. The composition of the capital stock and the difficulty often encountered in attempts to disinvest are never considered in economic theory that looks at capital as homogenous.\textsuperscript{48}

An owner of capital goods will attempt to use each good in its optimal capacity. What that optimal capacity is will change as circumstances change. Some goods will end up being used for purposes other than for which they were designed because they no longer are useful for their original purpose. Such uses may be more or less profitable than the original one.\textsuperscript{49} Until the entrepreneur determines how to use assets in order to produce income, the assets are just things, not capital. They become capital as the entrepreneur employs them to produce income.\textsuperscript{50}

In addition, most capital resources must be used in conjunction with others in order to be productive. Although there is complementarity with respect to capital resources, capital resources are not combined arbitrarily. Only certain combinations are technologically possible. The entrepreneur must discover which of these combinations are possible and try to choose the optimal combination available at a given time.\textsuperscript{51} Any such choice, however, will have a limited life, as circumstances will undoubtedly change, whether from new discoveries, technological changes, or other changes in the economy.

In order to analyze how capital responds to unexpected change, one has to look at capital not as a homogenous aggregate, but as a structure made up of capital combinations that will develop, dissolve, and emerge

\textsuperscript{44} Lachmann, \textit{supra} note 42, at ix.
\textsuperscript{45} Id. at ix.
\textsuperscript{46} Id. at x.
\textsuperscript{47} Lachmann refers to this as the multiple specificity of capital goods. Id. at 2.
\textsuperscript{48} Id. at 49.
\textsuperscript{49} Id. at 3.
\textsuperscript{50} Id. at xv.
\textsuperscript{51} Id. at 3.
in different structures as change occurs. At some point, the entrepreneur makes a production plan for a given period of time and employs capital goods in pursuit of that plan. This capital combination will be maintained as long as the envisioned goal is being met.

Rather than modeling the future based on past experience in a deterministic manner, an entrepreneur's own experience and viewpoint will lead him or her to take different actions based on his or her particular observations, beliefs, and conclusions. Lachmann argued that the most interesting part of entrepreneurial interpretation of past experience is the formation of expectations:

Expectations, i.e., those acts of the entrepreneurial mind which constitute his "world," diagnose "the situation" in which action has to be taken, and logically precede the making of plans, are of crucial importance for process analysis. A method of dynamic analysis which fails to allow for variable expectations due to subjective interpretation seems bound to degenerate into a series of economically irrelevant mathematical exercises.

Entrepreneurs make subjective judgments about what information is useful and important to their decision making process. These judgments will be confirmed, refuted, or modified by their experience and their interpretation of that experience.

Because the production process takes time, a fact emphasized by Austrian capital theory, the businessperson is actually facing a series of production processes that are in various stages of completion at any given time. No given group of resources will automatically produce a particular flow of output. One cannot simply take a present value of future income streams for such resources and expect it to be a meaningful. While formulating and implementing a production plan, the entrepreneur has opportunities to reshape his or her plans and to respond to his or her perceptions of changes in the market. What any particular group of resources will produce will always depend on what use the entrepreneur

52 Id. at 13.
53 Lachmann refers to this method as Plan-Period Analysis. To the extent we need to look beyond the given period, to the next period, to see what happens in that period as a result of what happened in this one, Lachmann refers to this as Process Analysis. Id. at 13.
54 Lachmann further observed, "The econometricians have thus far failed to explain why in an uncertain world the meaning of past events should be the only certain thing, and why its 'correct' interpretation by entrepreneurs can always be taken for granted." Id. at 15.
55 Id.
56 Id. at 22.
decides to make of them.\textsuperscript{58} Any aggregate measure of capital as a basis for predicting the performance of an economy will fail to take into account plan failures. As there is more specialization in the market, there is also a need for more coordination among individual production plans if the economy is to be productive.\textsuperscript{59} Often, one firm produces the raw material, another manufactures the equipment that is used in a particular process, a third actually uses the raw materials and the equipment to produce a good for sale, and other firms may act as wholesaler or retailer. Although this coordination generally takes place in the marketplace, the market process cannot make all plans interlock perfectly except in an ideal state of equilibrium with all tastes, technology, and other factors held constant.\textsuperscript{60} More realistically, some plans are carried out as expected, some firms suffer disappointments, and some plans are more profitable than expected. The more complex and specialized the economy, the less likely it will be that anywhere near perfect coordination will result.

Austrian capital theory suggests why changes in the tax regime can have an extremely disruptive effect on the market process. Contrary to neoclassical economic theory, which tends to treat capital as homogeneous, Austrian capital theory stresses the heterogeneity of capital resources.\textsuperscript{61} Any particular capital good can be used only for a limited number of purposes. The entrepreneur attempts to employ capital resources to their highest and best perceived use. Any unexpected change in the market environment can alter what that use should be. The origi-

\begin{footnotesize}
\textsuperscript{58} KIRZNER, supra note 43, at 18.
\textsuperscript{59} HAYEK, supra note 57, at 48-49.
\textsuperscript{60} KIRZNER, supra note 43, at 29. Kirzner further notes:

Careful reflection on the matter will, it is believed, reveal that the aggregate concept of capital, the “quantity of capital available to the economy as a whole,” is for a market economy, a wholly artificial construct useful for making certain judgments concerning the progress and performance of the economy. When using this construct one is in fact viewing the economy in its entirety as if it were not a market economy but instead a completely centralized economy over which the observer himself has absolute control and responsibility. When, for example, one is concerned with the size of the stock available to society in a forward-looking sense, what one is really thinking is as follows. Supposing one were to be able to draw up a complete social listing of output priorities and supposing one were in command of all the information necessary to formulate centralized production plans for the future, what is the additional flow of this “social output” during future years, that is to be ascribed to the presence of the nation’s stock of capital. One is thus not merging the plans of all the individual capital owners who participate in the market economy, one is conceptually replacing these plans by a single master plan that one imagines to be relevant to the economy as a whole, and against which one gauges the performance of the economy as a whole.

\textit{Id.}

\textsuperscript{61} LACHMANN, supra note 42, at 2.
\end{footnotesize}
nal plan of the entrepreneur will then have to be changed. These disruptions to the plans of the entrepreneur have an impact not just on him, but on all the other industries with which he interacts. Lachmann described this process as follows:

Unexpected change, whenever it occurs, will make possible, or compel, changes in the use of capital goods. It will thus cause the disintegration of existing capital contributions. Even where it opens up new and promising possibilities for some resources it will open them up for some, not for all. The rest will have to be turned to second-best uses.

All unexpected change causes capital gains and capital losses.

Tax law changes can be expected to create a drag on the economy, as entrepreneurs have to reformulate their plans to accommodate new tax consequences. Dislocations in the form of unanticipated opportunities or foreclosed possibilities will occur, creating windfall gains and windfall losses. In effect, maladjustments are being continually created through legislation.

In addition, as entrepreneurs face increasing instability in the tax regime in which they operate, one could expect them to reduce the specificity of the capital resources they invest in and produce in order to provide more options in the event of a change in the tax laws. In examining the tax legislative process, it is also important to consider the effect of tax law changes on the subjective cost evaluations of the taxpayer/entrepreneur. Tax legislation is a disequilibrating force in the decision making framework of the individual. By changing the environment in which the individual operates and changing the relative prices in the economy, tax legislation creates the need for adjustments.

Entrepreneurs must make predictions about future prices, consumer demand, capital investment, which forms of capital to use, production process, and labor availability, under conditions of uncertainty and rapidly changing information. The true opportunity cost of tax legislation is the alternative entrepreneurial plans that were precluded or abandoned.

62 Id. at 3.
63 Id. at 3-4.
64 Id. at 52.
66 James M. Buchanan, Introduction: L.S.E. Cost Theory in Retrospect, in L.S.E. ESSAYS ON COST 14 (James M. Buchanan & G. F. Thirlby eds., 1973) ("Cost is that which the decisionmaker sacrifices or gives up when he selects one alternative rather than another.").
These costs are hidden because they represent the path not taken and they cannot be observed or measured.67

Understanding the difficulty of entrepreneurial decisions makes it clear why constant changes in a legislative institution such as tax law can be damaging to the market process in ways that are impossible to quantify. When tax laws are changed, economic agents must learn what those changes are, predict the economic impact on their industry and interrelated industries, on consumers, and on their production plans, and modify their course of action accordingly. Not all market participants will do this successfully.68

Econometric models draw attention away from opportunity costs. Models tend to disregard or assume away facts that cannot be measured or quantified in any way and about which only imprecise or general knowledge is available.69 These omissions can create real problems in revenue estimation.70 When tax law modifications change relative prices, resources are diverted from the use to which they would have been put absent the change. The opportunity cost of the modification of the tax law is measured by the foregone use of these resources in their

67 Jonathan Hughes suggested:
If a business firm is "nothing but a production function," then the student of business will, perforce, have no interest in entrepreneurial action. It isn't necessary to determine efficient and inefficient inputs, outputs, costs and revenues. The student can do all that at the blackboard without knowledge of entrepreneurial decisions. But there is a deep problem here. In the world of the economist's formal model of the firm, there is no development, no evolution. If anyone believes the model to be a model of reality, or a reasonable facsimile thereof, the study of the model is misleading. The model itself yields no information about the real world. The model is a model of itself.

Jonathan Hughes, American Economic History and the Entrepreneur, in 6 ADVANCES IN THE STUDY OF ENTREPRENEURSHIP, INNOVATION AND GROWTH 1, 3 (Gary D. Libecap ed., 1993) (footnotes omitted). Hughes also commented that it was no surprise that graduate economic students were not interested in the real world, finding it "too messy, time consuming to study and too ephemeral." Id. Hughes states that he was greeted with skepticism and the accusation that he had "given up economics" when he wrote The Vital Few, which describes the role of early entrepreneurs in American history. See also JONATHAN HUGHES, THE VITAL FEW (1966).

68 GERALD P. O'DRISCOLL & MARIO RIZZO, THE ECONOMICS OF TIME AND IGNORANCE 133 (1985). O'Driscoll and Rizzo discuss the difficulty the airlines had in moving from a regulated to an unregulated environment.


70 One commentator states:
Many academic researchers failed to get involved in detailed structural issues, partly because they were ignorant of the many details of tax and expenditure law and often couldn't incorporate such details into their simple models of the economy, even if they were aware of them. In a self-deceptive way, issues became defined as unimportant because they weren't in one's economic model.

C. EUGENE STEUERLE, THE TAX DECADE 84 n. 11 (1992). Steuerle held numerous positions in the Treasury Department for most of the 1980's, including head of the economic staff analyzing domestic tax policy, Economic Tax Coordinator of Treasury's 1984-86 Project for Fundamental Tax Reform, and Deputy Assistant Secretary of the Treasury for Tax Analysis.
highest alternative use. Opportunity cost should be an extremely important consideration in tax policy. However, since it is impossible to know \textit{ex ante} what the alternative uses of resources would have been, opportunity costs are largely ignored.\textsuperscript{71}

For example, when Congress is considering enacting an incentive, econometric models will be used to provide estimates of the overall revenue effect of the incentive. This estimate will provide an indication of the extent to which the incentive is expected to attract resources to the targeted activity given the underlying assumptions used in the model. This estimate, which will look like a concrete amount, is in reality an estimate of objective costs. However, it will not be possible to know exactly from where the resources will be drawn. Without knowing the subjective valuations of taxpayers, it cannot be clear which of the activities that are now relatively more expensive will be sacrificed in the pursuit of the targeted activity. There is no way of knowing the value of alternative investment opportunities without the actual investment. Thus, the opportunity cost of the incentive will be unknown and largely overlooked. However, the shift in investment that occurs will be crucial to the overall revenue impact of the tax legislation and its effect on the economy.\textsuperscript{72}

Tax legislation upsets existing relative prices, whether the legislation is in the form of incentives, disincentives, or wealth transfers. Given the inherent limitations of econometric models, the disequilibrating effect of tax legislation, and the disregard of opportunity cost, it is perhaps not surprising that more frequent tax legislation is being promulgated. As the results are not what was anticipated, or as new problems arise because of the way resources are reallocated, further intervention is necessary to "correct" the economy. Further, as increasing reliance has been placed on econometric models, the frequency of tax legislation has also increased.

Societal institutions should provide a stable framework to help entrepreneurs function in the midst of so much uncertainty.\textsuperscript{73} Tax law, a legislatively created institution, affects both entrepreneurial decision-


\textsuperscript{72} Israel Kirzner discusses the effects of two types of tax incentives. \textit{Kirzner, supra} note 43, at 93-118.

\textsuperscript{73} See generally Ludwig Lachmann, \textit{The Flow of Legislation and the Permanence of Legal Order} (1979) (reprinted in \textit{Expectations and the Meaning of Institutions} 249 (Don Lavoie ed., 1994)); Mario J. Rizzo, \textit{Rules versus Cost-Benefit Analysis}, in \textit{Economic Liberties and the Judiciary} 233 (James A. Dorn & Henry G. Manne eds., 1987) ("If the law cannot systematically achieve specific goals, then the best it can do is provide a stable order in which individuals are free to pursue their own goals.").
making and the profitability of a chosen course of action.\textsuperscript{74} To the extent the tax law is stable and certain, entrepreneurs can make useful predictions concerning the impact of taxation on their production plans. When tax law is changed frequently, however, the result is to add significant uncertainty to the planning process and to cause unexpected gains or losses simply due to changes in the incidence of taxation.\textsuperscript{75} Frequent change in tax legislation increases entrepreneurial uncertainty and, as a result, makes it more difficult for entrepreneurs to formulate plans and develop strategies.

IV. REVENUE ESTIMATION

In the Congressional Budget Act of 1974,\textsuperscript{76} Congress imposed a requirement that all new tax legislation had to include an estimate of revenue gains and losses projected over five years. Since then, the tax legislative process has been increasingly shaped by these estimates. Congressional concern over the large deficits that followed the Economic Recovery Tax Act of 1981 due to the large tax reduction provided in that Act, the recession, high interest rates, and a slowing of inflation led to the perceived need to raise revenue. The Gramm-Rudman-Hollings Act (formally the Balanced Budget and Emergency Deficit Control Act),\textsuperscript{77} which set deficit targets and automatic spending cuts if those targets were not reached, and the Omnibus Reconciliation Act of 1990,\textsuperscript{78} which replaced the deficit targets with spending targets and potential sequestration of entitlements, have made revenue estimates extremely important.\textsuperscript{79} In addition, tax acts such as the Tax Reform Act of 1986 were formed under political agreements that the bill would be revenue neutral.\textsuperscript{80} The concept of revenue neutrality (that is tax legislation that neither raises nor lowers overall tax revenues) has continued to be important. Thus, most proposals for legislation must be accompanied by estimates of revenue gains or losses, and if losses are expected, then the proposal must indicate how the shortfall will be recovered.

As a result, estimates of revenue gains and losses currently dominate the tax legislative process and have determined the shape of much

\textsuperscript{74} Libecap, \textit{supra} note 1, at 70.

\textsuperscript{75} Todd J. Zywicki, \textit{A Countervailing Model of Efficiency in the Common Law: An Institutional Comparison of Common Law and Legislative Solutions to Large-Number Externality Problems}, 46 \textit{CASE WESTERN L. REV.} 961 (1996) (asserting that the only way individuals can accurately estimate costs is when the framework in which those costs were estimated is preserved).

\textsuperscript{76} Pub. L. No. 93-344, 88 Stat. 297 (§ 403).


\textsuperscript{78} Pub. L. No. 101-508, 104 Stat. 1388.


\textsuperscript{80} Id. at 460.
tax legislation. These concepts mean that more and more reliance is being placed on econometric models. Congress and the Executive Branch generally base their econometric studies on data from different government offices. The official Congressional revenue estimates for tax law changes are made by the Joint Committee on Taxation (JCT). This function gives the JCT enormous influence in the tax legislative process.\(^{81}\) The Congressional Budget Office (CBO) estimates federal receipts under current law. CBO also provides JCT with the revenue baseline to use in making its revenue estimates.\(^{82}\) The baseline serves as a benchmark for estimating the effect of proposed changes in tax laws. This is an estimate of the Federal revenues that would be generated over the next five years assuming no changes in the law. In making its revenue estimates, JCT relies on tax return data provided by the IRS, along with nontax data from other government agencies, as needed. When government data is unavailable, JCT uses data from "leading" economists, consultants, or research organizations among others.\(^{83}\) Infrequently, the only data available is from the proponents of the legislation.\(^{84}\) The Executive Branch relies on the Office of Tax Analysis (OTA) within the Treasury Department to prepare revenue estimates. The baseline for these estimates is provided by macroeconomic assumptions generally formulated by the Office of Management and Budget (OMB), along with the Council of Economic Advisors and the Office of Economic Policy in Treasury. These three groups are often referred to as the Troika.\(^{85}\)

Generally, there are three types of econometric studies that are used to analyze tax legislation: cross-sectional, time series, and longitudinal or panel studies. Cross-sectional studies examine data regarding capital gains realizations on a large group of taxpayers, including taxpayers at each marginal tax rate over a single taxable year. The drawbacks of cross-sectional studies is that because they look at one year in isolation, they do not reveal whether changes in realizations are temporary or permanent and thus do not reflect macroeconomic effects, such as GNP growth or inflation.\(^{86}\)

\(^{81}\) Conlan et al., supra note 30, at 90, 244. Conlan, Wrightson, and Beam quote an unidentified member of the Ways and Means Committee as saying, "If I had really wanted to influence the way the actual law was written, I would have applied for a job on the Joint Tax or Ways and Means staff." Id. at 244.

\(^{82}\) Joint Comm. on Taxation, 102d Cong., 2d Sess., Discussion of Revenue Estimation Methodology and Practice 3 (Comm. Print Aug. 13, 1992, JCS-14-92) [hereinafter Revenue Estimation].

\(^{83}\) Id. at 6.

\(^{84}\) Id.

\(^{85}\) Steuerle, supra note 70, at 52.

\(^{86}\) Explanation of Methodology Used to Estimate Proposals Affecting the Taxation of Income From Capital Gains Prepared by the Staff of the Joint Comm. on
Panel studies use data on a cross-section of taxpayers but follows them for two to three years. Few panel studies have been made, and most of them suffer from poor data, or poor technique or a poor choice of tax years to study.87

Finally, time-series studies uses data relating to many years, but for aggregate groups of taxpayers, not for the same group. These studies are limited, however, because there is no data for any individual taxpayer. As a result, the tax rate variable used will be some sort of average or hypothetical tax rate that may not have actually applied to any specific taxpayer; and any individual specific tax attributes, such as the amount of interest and dividends received by a taxpayer in a given year, cannot be taken into account.88 With time series data it is difficult to determine the independent effect of any single variable and much information on variation across individuals is lost. Also, time-series studies tend to be based on relatively few observations.89 However, time-series studies can better reflect changes in macroeconomic variables.90

The JCT and the Treasury Department will often produce significantly different revenue estimation for proposed legislation. Much of the difference is driven by the underlying assumptions of the models used. In their economic models, CBO and the Troika use different assumptions regarding major economic variables such as inflation rates, interest rates, unemployment and gross national product (GNP).91 In addition, in any revenue estimate of the provisions of a tax bill, the assumptions about the interactions of the various provisions are important. The order in which the revenue estimates are made, which determines which provisions are deemed to be in place when estimating other provisions can make a

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87 Id. at 100. In addition, many law firms have hired economists, and often use their own revenue estimates in lobbying for a proposal.
88 Id.
90 THE CAPITAL GAINS CONTROVERSY, supra note 15, at 100. For a review of several studies of the impact of changes in capital gains taxes, see Eric Toder and Larry Ozane, How Capital Gains Tax Rates Affect Revenues: The Historical Evidence, CONGRESSIONAL BUDGET OFFICE REPORT (1988) (reprinted in part in THE CAPITAL GAINS CONTROVERSY, supra note 76, at 117). See also Jane G. Gravelle, Can A Capital Gains Tax Cut Pay for Itself?, 48 TAX NOTES 209 (reprinted in THE CAPITAL GAINS CONTROVERSY, supra note 15, at 129). Another concern is that projections are made for a limited number of years, but most of the effect of a tax expenditure may occur in years that are beyond the projections. See, e.g., Ryan J. Donmoyer & Eben Halberstam, House Bill’s Tax Expenditures Vary Dramatically in Long-Term Impact, 69 TAX NOTES 807 (1995).
91 Sunley & Weiss, supra note 79, at 460, 463. See also STEUERLE, supra note 70, at 52.
significant difference in the outcome of the estimate.\textsuperscript{92} Similarly, the way in which proposals are grouped can affect the revenue estimates.\textsuperscript{93} Usually the assumption is made that a tax change would not affect macroeconomic variables such as total investment and gross national product.\textsuperscript{94}

There is often little information on which to base revenue estimates, so that revenue estimators must use a great deal of judgment in designing the analytic framework and deciding what assumptions to make in forming their model. Because of this lack of information, the models on which the revenue estimates are made reflect the creativity and insights of the economic forecasters.\textsuperscript{95} Revenue estimators have to make many judgment calls in deciding what assumptions are appropriate. These assumptions then often drive the model. One former Treasury estimator reportedly said:

You look at an effect that you know is significant, and there is no good data, and yet you are responsible for producing an estimate by a given deadline. So you say “Let’s call it, let’s call it, uh—20 percent.” That’s why the estimators don’t want to be second guessed—we all know that many of the decisions we have to make are indefensible.\textsuperscript{96}

The accuracy of these forecasts are seldom checked, as evidenced by JCT’s recent answer to a Congressional inquiry. On May 7, 1987, the Republicans on the House Ways and Means Committee sent a letter to JCT requesting information on the accuracy of revenue estimates that were made in connection with major tax bills over the prior ten years. Three years later, on June 6, 1990, the Joint Committee responded as follows:

For two reasons, the Joint Committee staff does not undertake the evaluation of prior revenue estimates. First,

\textsuperscript{92} Sunley & Weiss, supra note 79, at 461. Steuerle, in defense of the OTA estimates, claims that OTA solely had the ability to make revenue estimates based on the economic assumptions it was given. Others who wanted to show additional feedback effects “simply needed to present to the public two sets of economic assumptions—one with the policy they favored and one without. Revenue as well as expenditure effects would have followed.” Steuerle, supra note 70, at 55-56 n.12.

\textsuperscript{93} Sunley & Weiss, supra note 79, at 462.


\textsuperscript{95} Sunley & Weiss, supra note 79, at 462-63.

\textsuperscript{96} Hoerner, supra note 94, at 75.
as you know, our revenue estimating responsibility—to provide revenue estimates and distributional analyses on proposed or pending legislation—more than fully occupies the time of our relatively small staff of revenue estimators. Second, evaluations of most prior year estimates would themselves constitute estimates and, therefore, in many instances an after-the-fact evaluation would not be inherently any more reliable than the original estimates.

As you are aware, a revenue estimate attempts to predict the changes in tax receipts that will result from a particular proposed change in the tax law. In preparing our estimates, we utilize the macroeconomic assumptions provided to us by the Congressional Budget Office. It is likely that differences between a prior year’s estimate and a current reestimate would be attributable in large part to differences between the economic assumptions projected at the time of the original estimate and the actual performance of the economy during the years in question. It also would be necessary to take behavioral responses into account in any reestimate. It is not possible in most instances to simply compare an aggregate dollar number drawn from subsequent years’ tax return data with the original revenue estimate because, as you know, virtually all estimates take into consideration taxpayer behavior. For example, a reestimate of the limit on the deductibility of personal interest expense included in the Tax Reform Act of 1986 would have to include not only a comparison of the amount of interest actually claimed on tax returns following the 1986 Act but also estimates of (1) how much otherwise nondeductible personal interest has been converted by taxpayers into deductible interest under the home equity loan and investment interest provisions of current law, (2) how much previously deductible personal interest was rendered nondeductible, not by the personal interest rules, but by the 1986 Act passive loss rules, and (3) how any change in interest deductions claimed by taxpayers was influenced by the alternative minimum tax. Thus, because of the dependence of any reestimate on economic
and behavioral assumptions, it is unlikely that we would learn very much about the estimating process.  

The letter goes on to say that the Joint Committee was advised that CBO did perform some analysis of overall revenue effects of tax legislation, but did not make that analysis public. The OTA also calculated estimates of the net effect of major tax legislation. However, it appears that no specific forecasts were checked.

In addition to the difficulties mentioned in this letter, it is also impossible to know what activities were not undertaken or were abandoned because of the tax law change. Further, the magnitude of even predictable effects is difficult to determine. For example, changes in corporate tax rates can be expected to alter choice of business form and thus, while a corporate rate cut may increase corporate tax revenue, it would be expected to decrease tax revenue from other business forms. This would require what is called "off model adjustments," an adjustment that cannot be made within a model. JCT acknowledges that these are some of the most difficult adjustments to make, and must often be based in large part on the judgment of the economists. Also, as the letter indicates, it is very difficult to check the accuracy ex post for any revenue estimate of a tax change that will be affected by macroeconomic variables or by taxpayer behavior. JCT, in its discussion of revenue methodology states, "Unfortunately, cases frequently arise in which reliable data are not available. In these situations, the estimating staff must rely on their cumulative experience, guided by relevant economic theory to assess possible behavioral responses resulting from proposed legislative changes."

Despite these difficulties, some attempts have been made to determine the accuracy of revenue estimates. The research and development tax credit enacted by the Economic Recovery Act of 1981 was expected to reduce tax liabilities by approximately $800 to $900 million a year. The actual reduction in corporate tax liability ranged from $1.2 million to over $1.6 million. When the maximum tax on earned income was reduced from 70 percent to 50 percent in 1972, it was believed the revenue loss would be about $170 million. Ex post, the revenue loss was estimated to be $271 million. The liberalization of the Individual Retirement Account (IRA) deduction enacted in 1981 estimated that

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97 Letter from Ronald A. Pearlman to the Honorable Bill Archer, June 6, 1990 (on file with author). See also Revenue Estimation, supra note 82.
98 Sunley & Weiss, supra note 79, at 464.
99 Revenue Estimation, supra note 82, at 8.
100 Sunley & Weiss, supra note 79, at 465.
101 Revenue Estimation, supra note 82, at 6.
deductions for IRA contributions would increase about $6 billion in 1984. The actual increase was $15 billion.\textsuperscript{102}

Sunley and Weiss, after citing several examples where revenue estimates were significantly inaccurate and discussing the underlying problems of estimates, reject the idea that revenue estimators should give a range of accuracy or a confidence level, or indicate the importance of the accuracy of some of the underlying assumptions. Their reason is interesting:

We are not persuaded that information of this sort would serve any useful purpose, and \textit{it would be very subjective} anyway. Among other factors, the accuracy of an estimate depends on the accuracy of all the assumptions as to other economic quantities used to derive it, as well as the correlations among these variables. Thus it would be virtually impossible to derive a meaningful measure of accuracy.\textsuperscript{103}

Sunley and Weiss are also concerned that making the process of revenue estimation more open to scrutiny would decrease frank discussion. Furthermore, they suggest that the models employ assumptions based on “educated judgment” that may be difficult to support.\textsuperscript{104}

A. CAPITAL GAINS: AN EXAMPLE

One area that clearly demonstrates the difficulty of forecasting the effects of a change in tax laws is that of the rate of tax on capital gains. Despite the fact that the tax has varied over time, so that historical information is available, there is no consensus among economists about whether a cut in the rate of capital gains taxation will raise or lose revenue. Even within the government, the revenue estimates clash. Treasury suggested that the administration’s 1990 proposal to reduce the tax on capital gains would increase tax receipts by $12.5 billion for fiscal years 1990-95, while JCT estimated that it would reduce tax revenue by $11.4 billion over that time frame.\textsuperscript{105} Hearings before the Senate Finance

\textsuperscript{102} Sunley & Weiss, supra note 79, at 465. Estimation of the deficit is no more precise. OMB increased its five year projection of deficits in 1991 by over $200 billion. The reasons were at least partly due to events that were not foreseen and thus not built into their model. One of these was the savings and loan debacle which created the need for revenue to cover bank guarantees. The original projections were optimistic and would hold, if at all, only barring such unseen revenue demands. Steuerle, supra note 70, at 174. See also Malabre, supra note 14, at 205.

\textsuperscript{103} Sunley & Weiss, supra note 79, at 470 (emphasis added). Sunley and Weiss also argue that revenue estimation imposes some discipline on the tax legislative process. Id. at 469.

\textsuperscript{104} Id. at 470.

\textsuperscript{105} Id. at 467.
Committee revealed that these differences were the result of different assumptions about three aspects of taxpayer response to a capital gains tax reduction.\textsuperscript{106} C. Eugene Steuerle, former Deputy Assistant Secretary for Tax Analysis, said, “If anyone tells you he knows what the revenue consequences of a capital gains tax cut will be, don’t believe him.”\textsuperscript{107}

With respect to the capital gains tax, the arguments for and against a capital gains exclusion have remained constant while Congress has tinkered with the treatment of capital gains. What has also remained constant is the inability to achieve any consensus on whether a capital gains exclusion will raise revenue or lose revenue.\textsuperscript{108} For example, one argument in favor of decreasing the tax on capital gains is to overcome what is known as the “lock in effect.” This effect occurs when taxpayers stay in investments longer than would be efficient if there were no tax simply because when they sell the asset, they will have to pay tax on their gain. Thus, one question is to what extent realizations of capital gains will increase as a result of a decrease in the tax on those gains. OTA has argued that it is not enough to look at what has happened historically after tax reductions on capital gains; one also must estimate what would have happened to realizations and tax revenue if the tax law had not changed. The analysis is, as a result, very sensitive to what assumptions are made as to what would have happened.\textsuperscript{109} In addition, one has to consider both transitory and permanent changes. While there may be a temporary increase in the number of realizations and a resulting increase in tax revenue from capital gains as a result of a reduction in the tax, this effect may not be permanent. The number of years after a tax change that are considered in any study may make a difference in the outcome of the study.\textsuperscript{110} In addition, other taxpayer behavior that may affect a revenue estimate is usually left out of revenue estimates. For example, a capital gains tax reduction may induce taxpayers to shift their investments from financial assets that produce interest and dividends to those that produce capital gains.\textsuperscript{111}

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{106}] Id. at 467. These differences involved the short run and long run elasticity of capital gains realizations—that is, to what extent taxpayers would increase selling capital assets because of the reduction in tax, and how long it would take to reach the long run.
\item[\textsuperscript{107}] See generally The Capital Gains Controversy, supra note 15.
\item[\textsuperscript{108}] For a summary of the arguments for and against a capital gains exclusion regardless of the revenue effects, see Jane Gravelle and Lawrence Lindsey, Capital Gains, in The Capital Gains Controversy, supra note 15, at 17; Gerald E. Auten & Joseph J. Cordes, Policy Watch: Cutting Capital Gains Taxation, 5 J. Econ. Persp. 1 (1991); Walter J. Blum, A Handy Summary of the Capital Gains Arguments, in The Capital Gains Controversy, supra note 15, at 31.
\item[\textsuperscript{110}] Id.
\item[\textsuperscript{111}] Hoerner, supra note 94, at 75-76.
\end{enumerate}
\end{footnotesize}
As a result, when President Bush proposed that the tax on capital gains be reduced on a sliding scale based on how long the taxpayer had held the asset by excluding a certain percentage of the capital gain from taxation, the revenue effect of his proposal was hotly contested. Under the proposal, assets held for one year would receive a 10 percent exclusion, for two years, 20 percent, and for three years or more, 30 percent. For an individual in the 28 percent bracket, the result would be a tax rate of 25.2 percent for assets held for one year, 22.4 percent for two years, and 19.6 percent for three years.\textsuperscript{112} OTA estimated the proposal would raise tax revenue by $12.5 billion, while JCT predicted the proposal would lose $11.4 billion over the same time frame — a difference of $23.9 billion. Both agencies appeared before Congress to try to explain the large difference in results. OTA argued that the difference was partially due to the assumptions of the elasticity of tax revenues from sales of capital assets from a change in the tax rate. OTA claimed that the revenue maximizing rate was 23 percent and asserted that the JCT estimate suggested that JCT thought it was 35 percent, higher than the then maximum rate on ordinary income.\textsuperscript{113} In addition, the JCT estimate assumed a large increase in capital gains recognition even without a change in the tax rate.\textsuperscript{114} JCT responded that they believed the difference in the two estimates was almost entirely because of different assumptions regarding elasticity—taxpayer responsiveness to changes in the tax rates.\textsuperscript{115}

Further, JCT said that their model suggested a revenue maximizing rate of 28.5 percent, not 35 percent.\textsuperscript{116} The JCT report stated, "While the choice of an elasticity is ultimately a judgment call, the Joint Committee staff believes its elasticity assumption is more consistent with past

\textsuperscript{112} \textit{STATEMENT OF KENNETH W. GIDEON, supra} note 89, at 86.

\textsuperscript{113} \textit{Id. at 81.} Elasticity measures the responsiveness of taxpayers to a change in tax rates in terms of the percentage change in capital gains realizations divided by the percentage change in tax and indicates how much tax revenue would increase or decrease as a result of an increase or decrease in the tax rate. If the elasticity is less than one, a tax reduction would lose tax revenue because the increase in realizations would not be sufficient to offset the loss in revenue. If the elasticity is greater than one, a tax reduction would increase revenue.

\textsuperscript{114} \textit{Id.} OTA uses baseline assumptions of capital gain realizations derived from data provided by OMB, but officially the assumptions are treated as OMB's, while JCT uses baseline assumptions provided by CBO. \textit{See EXPLANATION OF METHODOLOGY, supra} note 27, at 90; J. Andrew Hoerner, \textit{A Tale of Two Revenue Estimating Bodies: The Capital Gains Debate, 47 Tax Notes} 378 (1990).

\textsuperscript{115} JCT used a revenue elasticity of 1.10 for the short run and 0.66 for the long run, and assumed that the long run was reached after two years, while Treasury assumed an elasticity of 1.20 for the short run and 0.80 for the long run, and that the long run was reached after three years. \textit{EXPLANATION OF METHODOLOGY, supra} note 86, at 93.

\textsuperscript{116} \textit{Id.} at 94.
history, and more likely to be an accurate predictor for the future than the assumption used by the Treasury."\(^{117}\)

The JCT also accused OTA of using a different method of analyzing the distributional effects of the proposed capital gains reduction. The distributional effect indicates which taxpayer groups, ranging from high income to low income, will most benefit from a change in the law. The report states, "The Joint Committee staff does not believe this so-called dynamic analysis presents a theoretically correct measure of the relative tax benefits of the Administration proposal to taxpayers at different income levels."\(^{118}\)

The JCT report went on to criticize the Treasury's presentation of the academic and empirical literature.\(^{119}\) Treasury in turn criticized the JCT report for not revealing the details of their models as Treasury had done. Further, Treasury said the report confirmed that JCT had changed its elasticity estimates from what it had used in prior years. Treasury also criticized JCT from choosing its elasticity estimate based on time-series studies while rejecting the results from cross sectional studies, which produce higher elasticities. The Treasury testimony indirectly accused the JCT of only relying on studies which supported their biases.\(^{120}\)

Jane Gravelle, an economist at the Congressional Research Service, argued that both Treasury and JCT might be too optimistic.\(^{121}\)

The differences in the elasticity indicated by various studies result largely from differences in the types of studies used — cross section, time series, or panel studies. Gravelle examined the shortcomings of the models used for revenue estimation and has remarked:

> There is a host of both econometric and theoretical problems associated with these studies, many of which are detailed in the studies themselves. Many of these problems are common to both types of studies. For example, none of the studies really captures well the basic theory of realizations behavior, in part because that theory itself is not really developed. Individuals may realize gains for consumption purposes which would require an extremely complex overlapping generations life cycle model. They may wish simply to switch assets either

\(^{117}\) Id.

\(^{118}\) Id.

\(^{119}\) Id. at 99-103.

\(^{120}\) Statement of Kenneth W. Gideon, supra note 89, at 107-08.

\(^{121}\) J. Andrew Hoerner, JCT and Treasury Both Off Mark in Estimating Revenue Effects of Capital Gains Cut, CRS Finds, 50 Tax Notes 1329 (1991). This article examines both the strengths and weaknesses of Gravelle's report and concludes that more attention should be paid to developing the underlying theory of realizations, macroeconomic implications of a capital gains tax cut, and ways to check the consistency of the assumptions with the data.
because they have changed expectations or they wish to rebalance their portfolios. These theories do, however, tend to suggest that the major source—in some models, the only source—of permanent changes in realizations is the selling of assets otherwise held until death. If individuals are not very willing to sell assets that they otherwise intend to hold until death, then a cut in the capital gains tax might yield a temporary response, but not a permanent one . . . . Yet, none of the studies really capture these dynamic elements, and with one exception they did not include changes in accrued unrealized gains as an explanatory variable.122

She further explained that a portfolio response, resulting in a shifting of assets, may occur both because of a change in relative rates between capital gains and ordinary income and because of changes in depreciation and inflation rates, among others. The simplifications required by the studies are problematic, given the complexity of the question.123

B. THE POLITICS OF REVENUE ESTIMATION

Politics clearly affect economic forecasting as well. The huge budget deficit that arose in 1982 was partially the result of policies enacted by the Reagan Administration which were supported by econometrics based on unrealistically high predicted growth in GNP.124 One of the forecasts by Murray Weidenbaum, chairman of the Council of Economic Advisors, predicted significant GNP growth, as did the other two factions in the core of Reagan’s economic advisors, the supply-siders and the monetarists.125 Table 1, taken from David Stockman’s The Triumph of Politics,126

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123 Gravelle, supra note 122, at 132.


125 When Weidenbaum was asked what model his forecast had come from, he reportedly “slapped his belly” and replied, “It came right out of here. My visceral computer.” Id. at 106.

126 Id. at 108
SELECTED GNP FORECASTS AND ACTUAL OUTCOME

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<td>-5.3 percent</td>
<td>-5.5 percent</td>
<td>0.9 percent</td>
</tr>
</tbody>
</table>

suggests how misguided these estimates of real GNP growth were.

Stockman writes, "We were betting the fiscal house of the United States on our ability to predict the precise shape and composition of a $4 trillion economy all the way out to 1986." Even a small error in the estimate of baseline spending levels created major problems for the fiscal policy. The political abuse of economic forecasting was, of course, not limited to the Republicans. The Democrats, in their attempt to forestall the Reagan budget, artificially raised their revenue estimates, suggested phantom savings, and "fudged" defense spending.

Shortly after Congress passed the Economic Recovery Tax Act of 1981, the administration and the CBO developed new budget estimates. These estimates suggested an $80 billion deficit for 1982. However, the CBO's economic assumptions were overly optimistic. Eventually, Martin Feldstein, as chairman of the Council of Economic Advisors, was reportedly successful in making the administration use more realistic economic assumptions.

Although efforts are made to shield the revenue estimators in the OTA from political pressure, there is enough leeway in assumptions and decisions that affect the technical analysis that often these can be tinkered with to obtain results that are defensible while ultimately supporting the Administration position. There is evidence that such action was taken to reconcile the 1985 OTA report, which suggested that a capital gains reduction increases revenue or only marginally decreases revenue, with the 1986 revenue estimates supporting a revenue increase if the

127 Id. at 145. Stockman was reported to have said, "None of us really understands what's going on with all these numbers." Peter Carlson, The Truth . . . But Not the Whole Truth, WASH. POST MAG., June 4, 1995, at 13-14. This article is an amusing but disheartening account of one reporter's attempt to understand various statistics that were being bandied about in Washington.

128 STOCKMAN, supra note 124, at 163.

129 Id. at 188. However, Stockman contends that the Democrats were right in the realization that the Reagan budget would create permanent large budget deficits in the future and that the Democratic budget should have won. Id. at 188, 192.

130 STEUERLE, supra note 70, at 58.

131 Id. at 66.
tax on net capital gain was increased from a maximum of 20 percent to a maximum of 28 percent.\(^ {132}\)

Another form of political pressure was evidenced by the fact that although OTA had completed their analysis of the 1978 capital gains reductions in 1983, the study was not released until 1985. Several former Treasury economists reported that the release was stopped by Treasury's Office of Economic Policy (OEP) because it did not show a sufficiently big increase in revenue from rate reduction to satisfy the supply-siders.\(^ {133}\)

"It was the difference between saying that you might be better off with a slightly lower gains rate and insisting that the cuts are a major engine of economic growth" said Ballantine [Dr. Gregory Ballantine, deputy assistant secretary for tax analysis in 1983]. "The 1983 version of the report was ambiguous about the 1981 Act. The OEP was unhappy with that."\(^ {134}\)

Another Treasury source reportedly said, "The report didn't go far enough for them. It was a cautious document and they wanted to see something more like cheerleading."\(^ {135}\)

While the differences in revenue estimates regarding a capital gains rate reduction may have been based on legitimate professional differences, the fact that Treasury's estimates supported the President while JCT's supported the opposition of the Democratically controlled Congress, the great disparity in the estimates (not just in amount but also in direction), and the sparring between the two agencies, makes one skeptical about the reliability of the entire process. In addition, the revenue estimators are not entirely free to choose all their underlying assumptions, which may bias the results even given independence with respect to the rest of the model.\(^ {136}\) As one reporter stated:

In Washington, there are no right or wrong numbers; there are Democratic numbers or Republican numbers, Treasury Department numbers or Congressional Budget

\(^ {132}\) Hoerner, supra note 94, at 77-78.

\(^ {133}\) Id. at 76.

\(^ {134}\) Id.

\(^ {135}\) Id.

\(^ {136}\) Eugene Steuerle, Estimates and Guesstimates—How Much Can the Numbers Change?, 69 Tax Notes 1141 (1995). Mr. Steuerle argues that revenue estimators have a great deal of integrity with respect to their estimations, given the economic assumptions they must use in their models. He also suggests that while there is some room for manipulation of economic assumptions, there is less ability to do this than popularly thought, given the need for consistency. However, he also ponders, "I wonder what our Founding Fathers would have thought of raising the inexact science and blunt art of economic prediction, along with expenditure and revenue estimating, to such an extraordinary pinnacle." Id.
Office numbers. Washington is a place where three governmental organizations calculate personal income in three different ways, thus producing three conflicting sets of numbers that are then extrapolated to create the conflicting statistics that are used to “prove” conflicting political points.\(^{137}\)

In addition, the revenue estimates often have to be made under tremendous time pressure. Tax legislation can produce a tremendous workload that has to be done under tight deadlines, and those responsible for the revenue estimates are not given the time or the resources that they need.\(^{138}\) In some instances, the quality of the data available has actually declined.\(^{139}\) As one observer summarized, “The answer is that the current system requires too few revenue estimators to produce too many estimates in too short a time frame, with too few opportunities for input from unbiased private sources of information.”\(^{140}\) One JCT staffer reportedly said that on two days notice, JCT staff was asked to complete revenue estimates on over 150 old and new requests for revenue estimates needed for a markup of tax proposals.\(^{141}\) Private businesses, even with fewer time and resource constraints, have decreased their reliance on economic forecasting.\(^{142}\) Perhaps it is time for Congress to do so also.

V. THE ROAD AHEAD

Where do we go from here if the consequences of frequent tax legislation are disruptive to the market, revenue estimation is an imprecise tool, but yet there is a great deal of dissatisfaction with the current tax system? I recommend a return to “principle” centered legislation. First, Congress should take seriously the impact that its frequent tinkering with the tax laws has on entrepreneurs and realize that it is imposing significant costs on the economy as a whole from its legislative activity. Second, Congress should realize that it is not able to accurately predict the effect that the changes its makes will have. These two facts should result in Congress slowing down the pace of tax legislation, and making and keeping a public commitment to that end. Such an action would accomplish two goals. Business could absorb the changes already made and adjust, and Congress could wait and see what happens to the economy.

\(^{137}\) Carlson, supra note 127, at 13-14.
\(^{138}\) Hoerner, supra note 94, at 77.
\(^{139}\) Malabre, supra note 14, at 206.
\(^{140}\) Rob Bennett, Every Number tells a Story, 50 Tax Notes 91 (1991).
\(^{142}\) Malabre, supra note 14, at 210-13.
In addition, tax policy should be based on a set of chosen principles so that any suggested change or wholesale reform can be evaluated according to whether it advances the underlying goal or not. Before the tax laws are changed yet again, serious consideration needs to be given to what our goals are, and then efficiency and equity criteria should be used to evaluate means for reaching those goals.\textsuperscript{143}

Any statement of a goal for the tax system is by its nature a normative one.\textsuperscript{144} With that caveat, tax policy must take into account three fundamental principles: 1) respect for the market process; 2) the need for the United States to be able to compete effective in the ever increasingly global economy; and 3) the need for the tax system to conform to an articulated concept of fairness.\textsuperscript{145}

Congress must understand that the market process is a discovery process. Entrepreneurs must make complex decisions in the midst of rapidly changing technology and increasing global competition. Information is disseminated in the market through price signals. If the tax system creates noise in the signals, it will disrupt the allocation of resources to their most highly valued uses.

Congress must also take into account the need for American businesses to be internationally competitive. Rosabeth Moss Kantor comments, "Today, the world economy is in a period of rapid and dramatic change, and the question of just how we will connect to this new world is the single most important issue of our lifetime."\textsuperscript{146}

The American tax system was designed in an American economy that was isolated from the rest of the world and did not have to compete with foreign countries that have now caught up and in some instances surpassed U.S. industries.\textsuperscript{147} Meanwhile, American industrial plants and equipment have aged, along with its work force.\textsuperscript{148} Also, as the global marketplace continues to grow, the need to be in any particular geo-

\textsuperscript{143} Sheldon Cohen, a former IRS Commissioner, argues that it would be impossible to have a simple system of taxation in the complex world we live in and that Congress should work to improve the system we have now. Sheldon S. Cohen, Taming the Tax Code, 68 Tax Notes 1495 (1995).
\textsuperscript{144} Pollack, supra note 14, at 499.
\textsuperscript{145} The difficulty of the fairness criteria arises because of the subjectiveness of what is fair. Even the contours of the generally accepted principles of horizontal equity and vertical equity are subject to widespread debate. For example, if two taxpayers have the same amount of earned income, but the first has a mortgage and can take a deduction for interest paid on that mortgage, is it equitable or not that the second taxpayer will pay more taxes?
\textsuperscript{146} Kanter, supra note 39, at 17.
\textsuperscript{147} Id. at 17, 26-28.
\textsuperscript{148} Id. at 21.
graphical area diminishes. In fact, many companies have centers in many different countries. At the same time, as the competitive ability of other countries increases, domestic businesses find more of a global market open to them. This is true not only for large companies, but even for small ones. In fact, Rosabeth Kantor suggests that to be successful, companies will have to become engaged in the global economy. Both capital and labor have become more globally mobile.

If the United States is going to be competitive in the global market, the tax structure must not discourage businesses from locating here and must not impose tax burdens on domestic companies that make it impossible to compete in the world market. This should be the overarching tax policy issue. Any reform measure and any amendment to the Internal Revenue Code should be judged by whether it promotes or impedes U.S. companies from being competitive. In the short run, this concern may simply mean freezing tax bills so that the tax structure is stable. In the long run, it may necessitate comprehensive tax reform which takes into account the tax structures of the countries with which the U.S. must compete for business.

The fairness criteria is, in many ways, the most difficult due to the subjectiveness of what is fair. Even the use of the generally accepted principles of horizontal equity and vertical equity has no real prescriptive value due to different ideas of what is fair. For example, if two taxpayers have the same amount of earned income, but the first has a mortgage and can take a deduction for interest paid on that mortgage, is it equitable or not that the second taxpayer will pay more taxes? Is progressivity in tax rates “fair,” and if so, how much progressivity? While there may be no hope for agreement on these issues, any proposal for tax reform should be able to articulate what fairness criteria it is based on and why the proponents believe that system is at least as fair, and hopefully, more fair than the current one.

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149 Id. at 29.
150 Id. at 46. Kantor provides many examples. One of them is Hewlett-Packard, which "has its corporate headquarters in Palo Alto, California, but its world center for medical equipment in Boston; for personal computer business in Grenoble, France; for fiber-optic research in Germany; for computer-aided engineering software development in Australia; and for laser printers in Singapore." Id. at 47.
151 Id. at 28, 53.
152 Id. at 42. The United Nations Center on Transnational Corporations reported that over the last twenty years the number of multinational companies has grown from 7000 to 35,000. United Nations Center on Transnational Corporations, World Investment Report (1994) (cited in Heilbroner and Milberg, The Crisis of Vision in Modern Economic Thought 121 (1995)).
153 Interestingly, Heilbroner and Millberg argue that one of the reason there are so many "warring camps" in economics today is that there is no fundamental consensus regarding the "justice and reasonableness of the social order." Id. at 9, 15. See also Geoffrey Brennan &
Viewing the market as a discovery process and the United States as a competitor in a world market for capital and for highly skilled labor provides a framework for tax reform efforts. At the same time, any tax reform effort should conform to a clearly articulated fairness criteria. No major tax reform bills should be passed until it can be analyzed according to these principles.

VI. CONCLUSION

American business needs a tax system that will provide a stable environment that supports the market process, not an ever-changing institution that creates another element of uncertainty and that interferes with entrepreneurial decision-making. Austrian capital theory provides insight into the market process that should be taken into account in the tax legislative process. Recent tax legislation has created instability without any ability to measure the economic impact of that instability. Less reliance should be placed on revenue estimation and more on underlying principles. Most importantly, with respect to our tax system, we need to provide American entrepreneurs with better maps and a more stable landscape.