The Economic Burden Caused by Tax Code Complexity*

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* The authors wish to thank Chris Chocola, J.P. DeGance, Brian Domitrovic, Chris Edwards, Joseph Haslag, Kevin Hassett, R. Glenn Hubbard, Dan Mitchell, Brooke Rollins, Alan Smith, and Jonathan Williams for helpful comments and suggestions. All remaining errors are the responsibility of the authors.

Executive Summary

Government doesn't create wealth, it redistributes wealth. Government has a tax base from which it receives its tax revenues. It has constituents to whom it provides benefits. And, government has a vast tax collection infrastructure that collects the money, processes the money, and disperses the money.

The costs taxpayers actually incur are far greater than the net sums the government collects in taxes. Looking at the world from the taxpayer's perspective, the difference between what a person receives for work net of all taxes and what the worker is paid gross is the tax wedge. The government tax wedge changes the market outcome dramatically from the pre-government equilibrium. This tax wedge decreases output and raises prices. Beginning with the tax collection process and extending through the benefit disbursement process, there are inherent costs associated with the government's vast tax collection infrastructure.

Individuals and businesses as taxpayers must pay substantially more than $1 in order for government beneficiaries to receive $1 of federal government services. Before individuals and businesses pay their tax liability (TB in Figure ES 1), they must first spend time collecting records, organizing files, and wading through the tax code to determine exactly what their tax liability is (B in Figure ES 1). Second, individuals purchase products and services, such as tax software or an accountant, to assist them in determining their tax liability. These are tax compliance outlays (C in Figure ES 1). Third, taxpayers must also pay the administrative costs of the IRS, which are needed to run the IRS etc. solely for tax collection purposes (D in Figure ES 1). Fourth, the government must spend money on overhead and other administrative costs to simply reallocate the resources from the tax collection process to the appropriate disbursement venue (E in Figure ES 1). Still there is more.

Businesses, large and small, hire teams of accountants, lawyers, and tax professionals to track, measure, and pay their taxes. This tax infrastructure is also used to optimize the tax liability of the business. Individuals and businesses also change their behavior in response to tax policies, hiring tax experts to discover ways to minimize their tax liabilities. The efficiency costs from both legal tax avoidance, including going out of business or being unemployed, and illegal tax evasion are difficult to quantify, but could be the highest costs of all (A in Figure ES 1).

Even at the tail end of the process where beneficiaries actually receive their benefits, there are usually lots of hurdles the potential beneficiaries must overcome to "qualify" for the money. As anyone who watched the FEMA fiasco following Hurricane Katrina in New Orleans can tell you, qualifying costs can represent a significant reduction in the value of government benefits (F in Figure ES 1). Accounting for these costs to provide $1 of net government services, individuals and businesses must pay the $1 plus their own time costs, the IRS administrative costs, government overhead costs, direct tax compliance outlays by individuals and businesses, efficiency costs, and the costs of qualifying. This is their story.

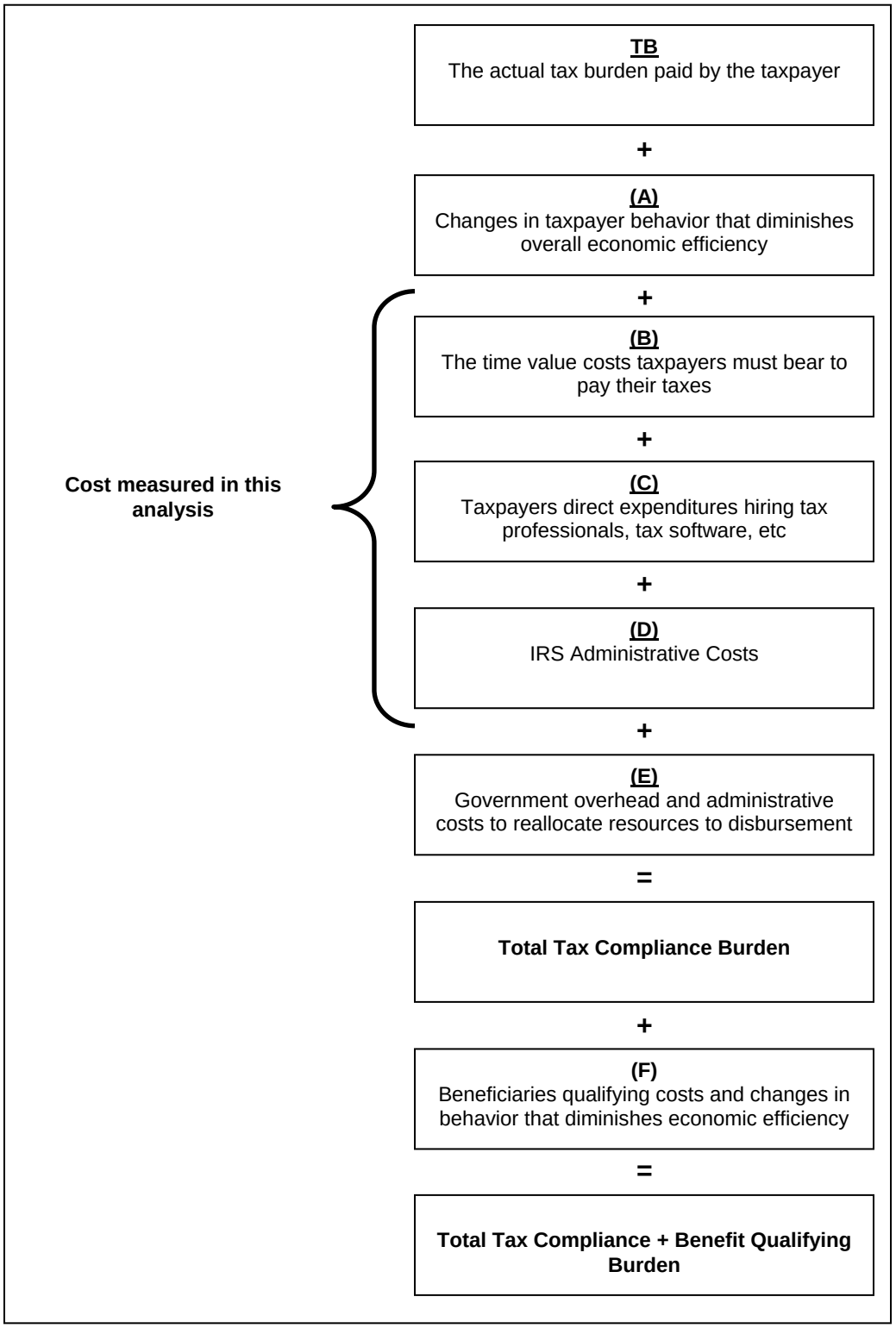
This study creates a comprehensive estimate of the total administrative costs, time costs, and direct tax compliance costs created by the complex U.S. federal income tax code. This paper deals only with Segments B, C, and D from Figure ES 1. One can only imagine what the full burden of government on the well-being of society might be. In our analysis we estimate that U.S. taxpayers pay $540.4 billion annually, or 39.2% of total income taxes collected, just to comply with and administer the U.S. income tax system. This cost estimate includes:

- Approximately *$31.5 billion in direct outlays* (e.g. paying a professional tax preparer such as H&R Block or purchasing tax software) (2010 data).
- Total IRS *administrative costs of $11.3 billion* (2008 data).
- The Taxpayer Advocacy Service of the IRS estimates that i*ndividuals and businesses spent 7.6 billion hours complying with the filing requirements of the U.S. income tax code. We estimate the cost of these hours to be $490.1 billion* as of 2006. This 7.6 billion hours number was estimated by multiplying the number of copies of each form filed in tax year 2006 by the average amount of time the IRS estimated it took to complete the form.
    - Individuals spent 3.94 billion hours complying with the income tax code, which weighted by time spent by income group, costs the U.S. economy $289.0 billion annually.
    - Businesses spent 3.66 billion hours complying with the income tax code; complying with the business income tax code costs the U.S. economy $201.1 billion.
- Comprehensive *audits impose an additional taxpayer burden of at least $7.5 billion annually*.

People will also alter their combinations of work and leisure, savings and consumption, as well as how they allocate their investments in response tax incentives. The estimated $540.4 billion in tax compliance costs does not include these behavioral changes that misallocate resources from their most economically-efficient uses toward their most tax-efficient uses. Nor do these costs account for the lost economic opportunities caused by the uncertainty and

confusion of our complex tax code. Goodness knows what the costs would be if pain and suffering were included. Think of how you feel when you go to your mailbox and there is a letter for you from the IRS.

Figure ES 1
Total Compliance Burden of U.S. Federal Income Tax System



This study also portrays the potential benefits to economic growth from a reduction in tax code complexity. Large drops in compliance costs could be feasible under comprehensive tax reforms, namely a low rate flat tax on either income or consumption or some combination of each. The administrative costs, time costs, and compliance outlays would plummet drastically, while the inefficiencies caused by tax code complexity would be greatly reduced. As a result, overall economic efficiency would increase, capital and labor would flow to more highly valued uses, and the growth in income and wealth in the U.S. would increase substantially. Over 10 years, an increase in our *annual* economic growth rate between 0.57% (the low-end estimate from a 50% reduction in tax complexity) and 1.2% (the high-end estimate from a 90% reduction in tax complexity) becomes significant. Over the full ten years, cumulative per capita incomes would become $18,000 to $36,000 higher. Not too shabby.

Of course, higher economic growth benefits tax revenues as well. Due to the enhanced economic growth, the increased tax revenues at current rates over the entire 10 year period are between $820 billion and $1.7 trillion in net present value terms. For perspective, based on President Obama's FY2011 budget, the estimated FY2010 national debt is $9.3 trillion. Thus the benefit from reduced complexity would have a significant impact on reducing our national debt.

The Economic Burden Caused by Tax Code Complexity

Tucked away in a footnote of the recent Healthcare Reform Bill is a mandate forcing all companies to submit a 1099 form to the IRS for all annual business-to-business transactions over $600. Attempting to raise an estimated $17.1 billion, this mandate is the poster-child for the economic burden caused by the tax code. This new 1099 requirement covers all the basics of bureaucratic inefficiency: increased time, administrative, and overhead costs, as well as uncertainty over future tax liabilities. Any revenue gained from this mandate will surely be offset by compliance costs and efficiency losses. The 1099 mandate is but a drop in the bucket that is the US tax code. Such complexity in taxation makes the US less appealing relative to our global competitors.

In the intense global race to attract factories, jobs, cutting edge technologies, and corporate headquarters, the winners are determined by the attractiveness of their economic environment. The friendliness, or hostility, of a country to labor and capital as reflected in its tax, regulatory, and legal environment play a key role in a business' resource allocation decision. Among these, tax policy is one of the most important factors, directly impacting after-tax income, profitability and return on invested capital. Many factors contribute to the level of taxation in any particular country, one of which *should not be* the self-inflicted and largely unproductive cost of complying with the tax system.

Individuals and businesses can change the composition of their income, the location of their income, the timing of their income, and the volume of their income in order to minimize their tax liabilities. But each of these strategies to minimize tax liabilities comes at a cost. In order to be worthwhile for the individual, the costs can rise up to, but cannot exceed, the level of the tax savings. The more complex a tax system is, the higher the compliance costs will be. Higher compliance costs increase the returns from tax minimization strategies. It's hard to range these costs, but they most likely represent a sizeable percent of the taxes the government actually collects. One thing is sure, the magnitude of the taxpayers' actual cost is far greater than the net taxes the government collects.

Individual and business taxpayers must pay more than $1 in order for government beneficiaries to receive $1 of federal government services. First, individuals and businesses must devote a significant amount of time collecting records, organizing files, and wading through the tax code in order to determine their actual tax liability. They must also spend time to physically pay their taxes. Including these costs, taxpayers must pay $1 plus the time costs in order to create $1 of government revenues.

Second, taxpayers must also pay the administration costs of the IRS. The greater the administration costs, the higher taxes must be in order to provide $1 in government services to the ultimate beneficiaries. There is, in effect, an internal government tax collection wedge separating tax receipts from the government's usable funds. Incorporating these government tax collection costs, taxpayers must pay $1 plus their own time costs and the government's administrative costs in order to create $1 of government services.

Third, consider that before any government service can be provided, government must devote considerable resources on overhead to simply reallocate the resources from their receipt from taxpayers to their disbursement to ultimate beneficiaries. These costs include all the costs of the government save the actual monies disbursed to the intended recipients. Taxpayers must pay, consequently, $1 plus their own time costs, government tax collection administrative costs, and government overhead costs in order to create $1 of government services. One could additionally argue that part of this overall regulatory complexity expense should also include all the costs government service recipients have to spend to receive those services. To get unemployment benefits you do after all have to be unemployed. That's one heckuva cost to one and all.

Still there is more. It has become commonplace for taxpayers to spend money, on products and services such as tax software or an accountant, to assist them in determining their tax liability – tax compliance outlays. These tax compliance outlays are clearly undertaken for the sole purpose of paying taxes and would not exist otherwise. Our running total is now the actual $1 spent on the government service plus taxpayers' time costs, government tax collection costs, government administrative overhead costs, and tax compliance outlays by individuals. Businesses face tax compliance costs as well. Businesses, large and small, hire teams of accountants, lawyers and tax professionals to track, measure, and pay their taxes. This tax infrastructure is also used to optimize the tax liability of the business. Considering only the *compliance* aspect of the job, in order to provide $1 of government services the private sector must spend $1 plus taxpayers' time costs, government tax collection costs, government administrative overhead costs, and direct tax compliance outlays by individuals and businesses.

Finally, Individuals and businesses change their behavior in response to tax policies. Individuals and businesses change the composition of their income, the location of their income, the timing of their income, and the volume of their income in order to minimize their tax liabilities. Individuals and businesses spend money hiring tax experts to discover ways to minimize their tax liabilities. While such actions are often perfectly legal, they come with a cost to economic efficiency and growth. Other actions, either intentional or accidental, employ tax evasion strategies that are

not legal which creates both economic and social costs for the country. The efficiency costs from both legal tax avoidance and illegal tax evasion are difficult to quantify, but could be the highest costs of all. Accounting for these costs to provide $1 of government services, individuals and businesses must pay the $1 plus their own time costs, tax collection costs, government administrative overhead costs, tax compliance outlays by individuals, tax compliance outlays by businesses, and efficiency costs. All in all these additional costs are undoubtedly huge and may well over time swamp the actual tax payments as impediments to progress.

If the compliance costs for an income tax are minimal, then they won't impact gross output. However, as is the case with the United States, when compliance costs compose 39% of the income taxes collected and these taxes are inefficiently collected, they represent a totally unproductive economic force that drives down the returns on labor and capital while producing *no* additional revenue for the government. This paper analyzes the total cost of income tax complexity in the United States and examines the impact it is having on the U.S. economy.

A reduction in the tax burden, including the cost of compliance, reduces the cost of doing business in a country. Lower costs of doing business increase the demand for the now less-expensive goods and services produced within the country. This higher demand will result in increased profitability for businesses located within the country. Business failures will decrease in countries with declining relative tax burdens and business starts will rise. If all else remains the same, a reduction in the tax burden increases the return to capital and work effort, leading to increases in the supplies of capital and labor within the country.

Symmetrically, every country that raises its relative tax burden will find it more and more difficult to keep or attract businesses and workers. Economic growth will, as a consequence, suffer. New business starts will decline and business failures will increase. A country's economic growth depends on the quantity and quality of its fiscal policies. Countries overburdened with complex tax codes will restrain economic growth; while countries with low and relatively less burdensome tax codes will encourage economic growth.

Complex tax systems not only create burdens on the taxpayers at least equal to if not a lot more than the amount of taxes paid, but they also create additional costs that tax collectors do not receive. Complex tax systems increase the costs of doing business and diminish the incentive to work, produce and invest. The costs incurred by tax complexity are similar to the costs of actual taxes, burdening workers, savers, and investors, only without the tax revenues. Tax complexity, per se, is detrimental to a country's economy and every individual adhering to the tax code. The consequence of this "complexity tax" is a diminished ability to compete in the global economy. The complexity tax is particularly problematic because it creates all of the negative incentives of a high tax burden, but nets the government no additional tax revenues.

We estimate that the annual compliance cost of the U.S. tax code is approximately $540.4 billion. These annual expenditures could be directed toward productive activities, but are currently being wasted. The growing tax complexity problem in the United States is literally "de-stimulating" the economy at the same time that the government has been spending hundreds of billions of dollars in an attempt to stimulate the economy. Below, we illustrate the adverse economic impact on the U.S. economy caused by unnecessary tax code complexity. Our results indicate the enormous power a tax simplification, ideally a flat tax, would have on tax-burdened economies.

SECTION I: AN OVERVIEW OF TAX COMPLEXITY IN THE U.S.

Few would disagree with the proposition that the U.S. tax code is too complex. Consider the following:

- According to the IRS Taxpayer Advocate's 2008 report to Congress tax complexity is the ***number one problem*** facing taxpayers. In fact due to this excessive complexity, "The National Taxpayer Advocate recommends that Congress substantially simplify the Internal Revenue Code."[1]

- In the 2009 report to Congress, the IRS reiterated the tax complexity problem: "In several prior reports, I have designated the complexity of the tax code as the most serious problem facing taxpayers and the IRS alike. The need for tax simplification is not highlighted as a separate discussion in this year's report to avoid repetition, but the omission of a detailed discussion in no way suggests the lessening of its importance."[2]

- Between 2001 and 2008 there have been ***more than 3,250 tax code changes***.[3]

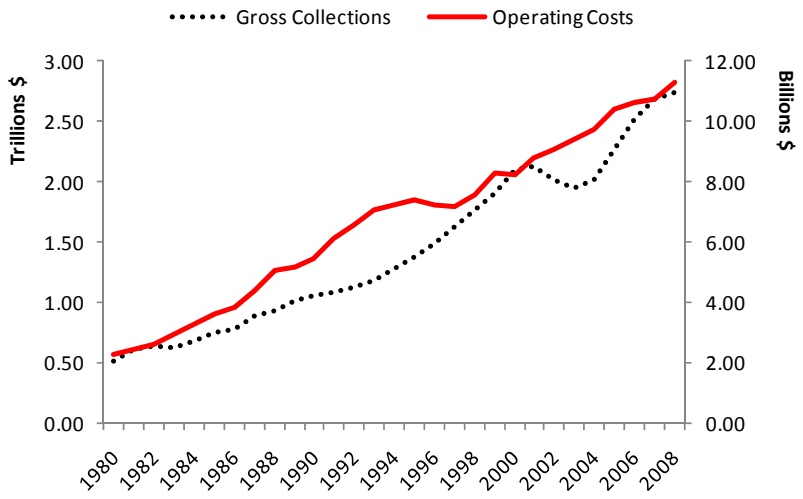
[1] (2008) "2008 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31.
[2] (2009) "2009 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31.
[3] (2008) "2008 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31.

- The U.S. tax code alone, not including the text of the federal regulations designed to explain the code, is now approximately ***5 times as large as the Bible***, including both the old and new testament.[4] With the federal regulations designed to explain the tax code, the tax code is ***10 times as large as the bible***.[5]

- As of 2009, the tax code contained 3.8 million words, which is dramatically higher than the 1.4 million words the tax code contained in 2001.[6]

Tax code complexity also negatively affects overall taxpayer compliance. The tax gap is the amount of taxes the government believes it should have collected but didn't and is viewed as a proxy for declining voluntary compliance with the tax code. Despite one hundred thousand IRS workers employed to enforce the tax code with a 2008 budget of $11.3 billion (Figure 1),[7] the latest estimate of the tax gap was $345 billion (as of 2001).[8]

Figure 1
Total Administrative Costs and Gross Tax Collections[9]



It should be noted that there is a great deal of controversy surrounding the concept of the tax gap. If the tax gap were completely eliminated, then collecting the tax revenues would imply extracting an additional $345 billion out of the private economy – a positive for government revenues. But, if the reduction in the tax gap is not offset by lower taxes elsewhere, extracting an additional $345 billion out of the economy would imply a larger government tax and expenditure burden and would become a net negative for the economy.

On the other hand one could argue that closing the tax gap would allow for other tax cuts of equal magnitude leading to a more efficient tax code. If taxes (and tax rates) are higher elsewhere due to the existence of the tax gap, then eliminating the tax gap could be associated with reducing the higher than necessary tax burden being imposed elsewhere. Eliminating the tax gap under these circumstances could become a net efficiency gain for the economy.

But whether or not any potential gain could be realized, assuming the tax gap even exists, is simply unknown. While the ultimate economic impact from eliminating the tax gap is unknown, the controversy surrounding the tax gap is symptomatic of the problems created by the current complex tax system.

The U.S. tax code is so complex that even experts disagree on the correct tax liability. The "correct answer" to questions about the liability of any specific tax return is becoming difficult to define. In 2002, the IRS help centers

[4] According to the Taxpayer Advocate the tax code has 3.7 million words; (2008) "2008 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31. The bible's word count is 774,746; "Top Ten Reasons to Scrap the Code" *FreedomWorks, http://www.freedomworks.org/scrapthecode/topten.php*.
[5] "Top Ten Reasons to Scrap the Code" *FreedomWorks;* http://www.freedomworks.org/scrapthecode/topten.php. Data is as of 2005.
[6] Keating, David (2010) "A Taxing Trend: The Rise in Complexity, Forms, and Paperwork Burdens" *National Taxpayers Union*, 127, April 15.
[7] IRS Chief Financial Officer, Corporate Performance Budgeting, Corporate Policy and Labor Analysis.
[8] (2007) "Tax Compliance: Multiple Approaches Are Needed to Reduce the Tax Gap" *GAO,* Statement of Michael Brostek Director, Tax Issues Strategic Issues Team, GAO-07-391T. The tax gap estimate does not include any estimate for taxes due from illegal sources of income.
[9] IRS Chief Financial Officer, Corporate Performance Budgeting, Corporate Policy and Labor Analysis

provided wrong answers to taxpayers 29% of the time.[10] And, it is not just the IRS that does not understand the tax code. Because of the tax code's complexity, even hiring a tax professional does not guarantee that your tax returns will be filled out correctly. In the 1990's, when the tax code was less complex than it is today, Money Magazine conducted an annual survey of professional tax preparers. In the 1996 survey, the magazine asked 45 different professionals to prepare a tax return for the same hypothetical family. The financials for this hypothetical family were not simple – for instance, the husband received both self employment income and retirement income during the year – but not necessarily uncommon for many families. The details on the hypothetical family were:

> *[Curt Baker, the husband, made]… $30,831 in 1996. He also received a $60,000 lump-sum payout from his 401(k) when he retired. Ann, a lawyer, switched from one corporate job to another in '96. Her income for the year: $80,900. She also inherited $30,500 from her uncle. The Bakers' investments include a mix of stocks, bonds and mutual funds that threw off $21,298 in interest, dividends and capital gains. The couple, whose joint income put them in the 36% tax bracket, own their own home, which they refinanced in February 1996.*[11]

The 45 different professional tax preparers estimated 45 different tax liabilities that this hypothetical family would owe that ranged from $36,000 to $94,000. This was the largest range in the 7 years of the survey. USA Today did a smaller survey in 2007 of only five professionals asking these professionals to calculate a hypothetical family's tax bill. Consistent with the Money Magazine survey of the 1990's, each of the 5 tax professionals provided different personal income tax liabilities for the exact same family. USA Today's commentary from their experiment says it all: "As the Tax Code turns ever more unwieldy, deciphering it has become more art than science…"[12]

The Root Cause of Complexity

Our tax system is complex because taxes are not levied simply to raise the necessary revenues for the government to operate – ostensibly the purpose of taxes. Instead, policymakers use tax policies to achieve other goals that are, ultimately, unrelated to the revenue needs of the government and that create significant vagueness.

According to the Government Accountability Office (GAO), "the goal of tax policy is ***not to eliminate compliance and efficiency costs***. The goal of tax policy is to design a tax system that produces the desired amount of revenue and balances the minimization of these costs with other objectives, such as equity, transparency, and administratability."[13] Gale and Holtzblatt put the problem as a basic conflict between simplicity and fairness: "Simplicity and common approaches to fairness in taxation often conflict".[14]

This desire to alter people's behavior and advance social agendas pervades the tax code. For instance, as of 2008 the tax code had at least 11 different education incentives and 16 different retirement incentives.[15] To advance social and equality causes, the tax code now contains the Alternative Minimum Tax (AMT), the Earned Income Tax Credit (EITC), numerous tax advantages for home ownership, as well as progressive tax rates. Each one of these provisions increases the complexity, and thus the compliance costs, associated with our tax code. At the intersection of individual tax provisions and business taxes, which is the situation of most small businesses, the complexity is even more daunting.

Complexity also arises because new amendments and changes to the tax code are made every year. The last time Congress passed major tax simplification was in 1986. "Since the adoption of 1986 tax reform, Congress has passed 14,400 amendments to the tax code. That's an average of 2.9 changes for every single working day in the year for 19 years."[16] These constant changes increase the overall complexity of the tax code. As of 2006, 100 provisions are set to sunset impacting over one-half of all individual income tax returns.[17] Also, federal tax laws sometimes conflict with state tax laws, other federal laws (securities law, labor law, GAAP Accounting Standards), or even foreign tax treaties.

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[10] (2002) "Management Advisory Report: Taxpayers Continue to Receive Incorrect Answers to Some Tax Law Questions" *Treasury Inspector General for Tax Administration* April; 2002-40-086

[11] Tritch, Teresa (1997) "Why Your Tax Return Could Cost You A Bundle: We Asked 45 Tax Preparers to Fill Out One Hypothetical Family's Tax Return – And We Got 45 Different Answers. Here's What You Can Learn from the Pro's Many Mistakes" *CNN Money.com*, March 1; http://money.cnn.com/magazines/moneymag/moneymag_archive/1997/03/01/222962/index.htm.

[12] Block, Sandra (2007) "A taxing challenge: Even experts can't agree when preparing a sample tax return" *USA Today*, March 26; http://www.usatoday.com/money/perfi/taxes/2007-03-25-tax-preparers-hypothetical_N.htm.

[13] (2005) "Tax Policy: Summary of Estimates of the Costs of the Federal Tax System" *Government Accountability Office,* August, GAO-05-878.

[14] Gale, William G. and Holtzblatt, Janet (2000) "The Role of Administrative Factors in Tax Reform: Simplicity, Compliance and Enforcement"

[15] (2008) "2008 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31.

[16] Rossotti, Charles O. (2006) *Commissioner of Internal Revenue, 1997-2002 Testimony before the US Senate Finance Committee* September 20.

[17] Ibid.

Consequences of Tax Code Complexity

As the analysis demonstrates below, tax complexity is diminishing the potential economic growth of the U.S. The aforementioned GAO study proposes that our complex tax code is a necessary evil if we want to achieve other societal goals, this justification is specious. In fact, tax complexity often works against the very groups and societal goals it intends to assist.[18] Some criteria for judging the efficiency of a tax system were summarized by the 19th century American Economist Henry George:

> *The best tax by which public revenues can be raised is evidently that which will closest conform to the following conditions:*
>
> *1. That it bear as lightly as possible upon production—so as least to check the increase of the general fund from which taxes must be paid and the community maintained.*
>
> *2. That it be easily and cheaply collected, and fall as directly as may be upon the ultimate payers—so as to take from the people as little as possible in addition to what it yields the government.*
>
> *3. That it be certain—so as to give the least opportunity for tyranny or corruption on the part of officials, and the least temptation to lawbreaking and evasion on the part of the taxpayers.*
>
> *4. That it bear equally—so as to give no citizen an advantage or put any at a disadvantage, as compared with others.*[19]

Complex tax systems violate all four of Henry George's principles. Complex tax systems impose large burdens on taxpayers in excess of their tax liability, thus violating the first two principles. Complex tax codes also create opportunities for individuals to hide their taxable income in ways that may or may not be legal. As Krause (2000) illustrates, tax "complexity undermines the IRS's ability to distinguish among intentional evasion, honest misinterpretation of the tax code, and legitimate tax avoidance."[20] Therefore, tax complexity violates principle three. Complex tax codes contain provisions that favor one constituency over another. For instance, our current tax system offers a tax break to homeowners but not to renters. As a consequence, a homeowner can pay less tax than a renter even if both individuals earn the exact same income and face the exact same expenses. Complex tax systems, therefore, violate principle four, which is also referred to as horizontal equity or the notion that the tax system should treat similar taxpayers in a similar manner.

The President's Advisory Panel on Federal Tax Reform found evidence that the complexity of the current U.S. tax code actually hurts low-income individuals as opposed to helping them.[21] For instance, low-income individuals must file tax returns in order to receive the Earned Income Tax Credit (EITC) payments, but, nearly three-fourths of the families claiming an EITC had to hire a tax preparer in order to receive their payments because the EITC is one of the most complex parts of the tax code.[22]

A 2001 study by the Joint Committee on Taxation that identified four adverse consequences from tax complexity:

- Decreased levels of voluntary compliance
- Increased cost for taxpayers
- Reduced perception of fairness, and
- Increased difficulties in tax administration.[23]

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[18] As an example of the many studies that also document the excessive costs of the current U.S. tax system see: Edwards, Chris (2006) "Income Tax Rife with Complexity and Inefficiency" *Cato Institute*, April No. 33; Slemrod, J. & Sorum, N., (1984) "the Compliance Cost of the U.S. Individual Income Tax System" *National Tax Journal* 461; Blumenthal, M. & Slemrod, J, (1992) "The Compliance Cost of the U.S. Individual Tax System: A Second Look After Tax Reform" *National Tax Journal* 185; Slemrod, J. & Blumenthal M. (1996) "The Income Tax Compliance Cost of Big Business" *Public Finance Quarterly* 441; Bankman, Joseph (2003) "Who Should Bear Tax Compliance Costs?" Berkeley Program in Law and Economics, Working Paper Series, Berkeley Program in Law and Economics, UC Berkeley; http://www.escholarship.org/uc/item/2tt3c5dr.

[19] George, Henry (1879) *Progress and Poverty*.

[20] Krause, Kate (2000) "Tax Complexity: Problem or Opportunity" *Public Finance* Review, Vol. 28, No. 5, 395-414.

[21] (2005) *Report of the President's Advisory Panel on Federal Tax Reform*, November.

[22] Forman, Jonathan (2001) "Simplification for Low Income Taxpayers" *Joint Committee on Taxation: Study of the Overall State of the Federal Tax System*; and, Nellen, Annette (2001) "Simplification of the EITC through Structural Changes", *Joint Committee on Taxation: Study of the Overall State of the Federal Tax System*.

[23] Staff of the Joint Committee on Taxation (2001) "Study of the Overall State of the Federal Tax System and Recommendations for Simplification, Pursuant to Section 8022(3) (B) of the Internal Revenue Code of 1896, Volume III: Academic Papers Submitted to the Joint Committee on Taxation" *Joint Committee on Taxation* April.

Other organizations have also expressed concern. For instance, according to the American Institute of Certified Public Accountants (AICPA), "many tax professionals believe that ***significant simplification is needed to ensure the continued viability of our self-assessment*** approach."[24]

The AICPA illustrates how tax complexity undermines the principles of a sound tax system. Specifically, excessive tax complexity erodes the following principles:

> ***"****Equity and fairness: Complexity contributes to public perceptions that the tax law is unfair.*
>
> *Certainty: Complexity due to constant change and lags in administrative guidance heighten taxpayer uncertainty.*
>
> *Economy of collection: Complexity increases the costs of tax administration, including the costs associated with collecting taxes, examining returns, and resolving disputes.*
>
> *Neutrality: Complexity may cause similarly-situated taxpayers to pay different amounts of tax.*
>
> *Economic growth and efficiency: Complexity diverts resources from productive activities and investments to excessive and nonproductive compliance costs.*
>
> *Transparency and visibility: Complexity leaves taxpayers perplexed about how the tax law applies to them and others.*
>
> *Minimum tax gap: Complexity increases the size of the tax gap by making taxpayers less willing and able to comply. The tax gap is the difference between taxes that are owed and taxes that are voluntarily paid."*[25]

Both the actual tax burden and the costs associated with tax complexity diminish the after-tax returns to work, savings, and investment. Often, tax complexity and the size of the tax burden will go hand in hand. As a result, we can apply our understanding of the impact on the economy from the tax burden to create an estimate of the economic costs created by tax complexity. The negative economic consequences from excessive taxation arise because taxes create a wedge between what it costs to hire a worker and how much that worker receives. A tax wedge occurs anytime there is a separation of effort and reward. It is intrinsically an economic variable that operates at the margin where incentives come into play and the decisions are made to, say, allocate capital between one project and another or work one more hour. Consequently, understanding the economic impact of the tax wedge provides the proper framework in which to assess the economic costs created by the complexity of our tax system.

SECTION II: THE MACROECONOMIC THEORY OF TAX WEDGES

The adverse economic impact created by tax wedges begins with the basic tenets of classical economics. The essential tenet of classical economic analysis is that people alter their behavior when economic incentives change. If the incentives for doing an activity increase relative to alternative activities, more of the now more attractive activity will be done. Likewise, if impediments are imposed upon an activity, less of the now diminished-incentive activity will be forthcoming. Basically, people have both time and resource constraints. With limited resources and time, the explicit attainment of objectives necessitates prudent management within the structure of constraints imposed by nature and man. Thus, government, with its full power of enforcement, has the ability to alter the constraints affecting economic factors. Changes in the structure of these governmentally imposed constraints alter the economy's behavior.

Firms base their decisions to employ workers or acquire capital assets, in part, on the total cost to the firm of employing workers or acquiring capital, always with an eye to enhancing the value of the firm. Holding all else equal, the greater the cost of employing each worker, the fewer workers the firm will employ. Conversely, the lower the cost per worker, the more workers the firm hires. Incorporated in the decision making process are all costs associated with each worker's employment, including payroll taxes and fringe benefits. For the firm, the decision to employ is based upon gross wages paid, a concept which encompasses all costs borne by the firm.

In a recent Wall Street Journal editorial, Michael Fleisher, President of Bogen Communications in Ramsey N.J., eloquently made these exact points when discussing the incentives for his firm to expand:

[24] The American Institute of Certified Public Accountants, "Guiding Principles for Tax Simplification"
[25] The American Institute of Certified Public Accountants, "Guiding Principles for Tax Simplification".

When you add it all up, it costs $74,000 to put $44,000 in Sally's pocket and give her $12,000 in benefits. Bottom line: Governments impose a 33% surtax on Sally's job each year...

As much as I might want to hire new salespeople, engineers and marketing staff in an effort to grow, I would be increasing my company's vulnerability to government decisions to raise taxes, to policies that make health insurance more expensive, and to the difficulties of this economic environment.

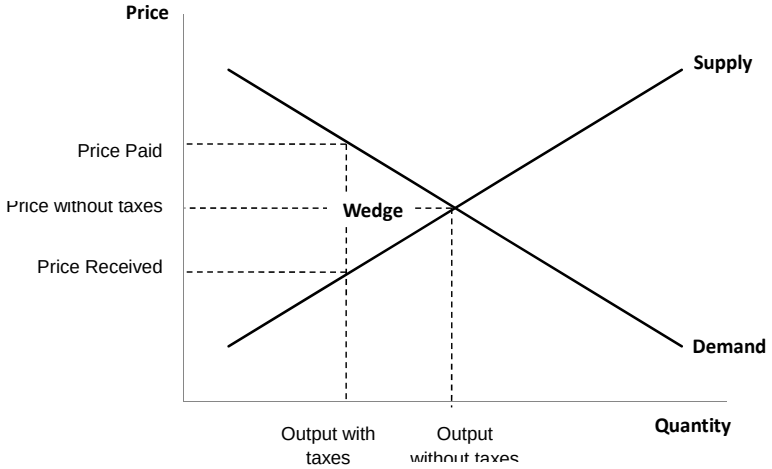
A life in business is filled with uncertainties, but I can be quite sure that every time I hire someone my obligations to the government go up. From where I sit, the government's message is unmistakable: Creating a new job carries a punishing price.[26]

A similar set of criteria can be applied when contemplating weather or not to acquire capital. Again, from the perspective of the firm, the explicit objective is to create surplus value from each decision by choosing investments whose returns exceed the cost of capital. The tax wedge reduces return and thus reduces the number of attractive investment opportunities.

The worker and the saver, on the other hand, care little about the cost of either employing a new worker or acquiring new capital. The worker's primary concern is how much he receives for providing his work effort, net of all deductions and taxes. Conversely, the savers abstain from consuming in order to earn an after tax return on that savings. Within the classical framework, workers concentrate on net wages received, while savers are preoccupied with their yields after tax. The greater net wages received, the more willing the worker is to work; the higher the net yield on savings, the greater total savings will be. Conversely, if net wages received fall, workers will find work effort less attractive and they will do less of it. Savers will also save less if the net yield to savings declines.

The difference between what it costs a firm to employ a worker or acquire a unit of capital, and what that worker or saver receives net, is the tax wedge (Figure 2). From the standpoint of a single worker or a single unit of capital, an increase in the wedge has two effects. An increase in the wedge raises the cost to the employer in the form of higher wages paid for workers or higher costs paid for capital. Clearly, firms will employ fewer workers and acquire less capital. On the supply side, an increase in the wedge reduces net wages received and the net yields savers receive. Again, less work and savings will be supplied.

Figure 2
The Tax Wedge



In sum, an increase in the wedge reduces the demand for, and the supply of productive factors. An increase in the wedge, therefore, is associated with less employment, less investment and lower output. In dynamic formulations, as the wedge grows, output growth falls, and vice versa. Within the context of classical economics, regulations, and restrictions, along with explicit taxes, are all parts of the wedge. This is the theoretical foundation to our empirical assessment of the costs imposed on the U.S. economy from excessive tax complexity.

The government finances itself in different ways leading to various estimates of the tax wedge created by our current tax system. On the most general level, the U.S. federal government can finance its spending by imposing a tax on

[26] Fleisher, Michael P. (2010) "Why I'm Not Hiring" *Wall Street Journal*, August 9.

people working today. Alternatively, if the federal government is running a budget deficit then only a portion of the spending is financed by taxes on people working today. The remainder of this spending is financed by shifting resources from the future into the present. This deficit spending is empowering current workers to levy a tax on future workers – some of which will still be current workers (i.e. the younger current workers) while others will not (i.e. the older current workers).

As a consequence, the broadest measure of the total tax burden being created by the government is the government tax and expenditure wedge.[27] This wedge measures the total value of the current government taxes on current and future workers (total current federal, state and local government spending) relative to the private sector's current ability to finance that spending. The private sector's ability to finance that spending is the value of the production of all private businesses – an approximation of the private business contribution to GDP.

As of 2009, total government expenditures were $5.0 trillion. The value of the production of all businesses (corporate and non-corporate income adjusted for depreciation) for 2009 was $9.0 trillion. Dividing the value of the production of all businesses in 2009 ($9.0 trillion) by the total government expenditures ($5.0 trillion) results in the government tax and expenditure wedge for 2009 of 55.2% (numbers do not add due to rounding).

Figure 3 tracks the growth in this government tax and expenditure wedge between 1950 and 2009 (the latest full data set available). Figure 3 also labels the sub-periods where changes in the path of the government tax and expenditure wedge are evident. Total government expenditures were relatively flat to slightly growing between 1950 and 1961. Between 1961 and 1965 (the Kennedy era) the slight growth in expenditures that had been occurring since 1950 was arrested for 5 years. Beginning in 1966, there is a dramatic change in the rate of expenditure growth that continued until 1983. The growth in government expenditures then slowed until 1989. A renewed, but short-lived, pick-up in government expenditures occurred between 1989 and 1993. The trend toward lower government expenditures then resumed until 2001, following which there has been a renewed increase in total government expenditures.

[27] The government tax and expenditure wedge is defined as the cost of government relative to the size of the private sector economy. The size of the private sector economy is based on the production of all businesses in the domestic economy – or net domestic business income adjusted for inflation. The cost of government is defined as total federal, state and local government expenditures. The government tax and expenditure wedge is calculated by dividing total government expenditures by net domestic business output.

This measure of the tax wedge is a measure of the average tax burden. While an accurate measure of the marginal tax burden is ideal, in practice accurately measuring the marginal tax burden is difficult. However, when the total costs of the tax system are above the cost minimizing level, as they are in our current tax system, the marginal costs of the system will be higher than average costs – the further above the cost minimizing level, the greater marginal costs will be over average costs. As a consequence, our calculations based on the average cost burden will likely understate the estimated economic impacts based on the marginal costs.

Figure 3
Total Federal, State and Local Government Tax and Expenditure Wedge 1951 - 2009[28]

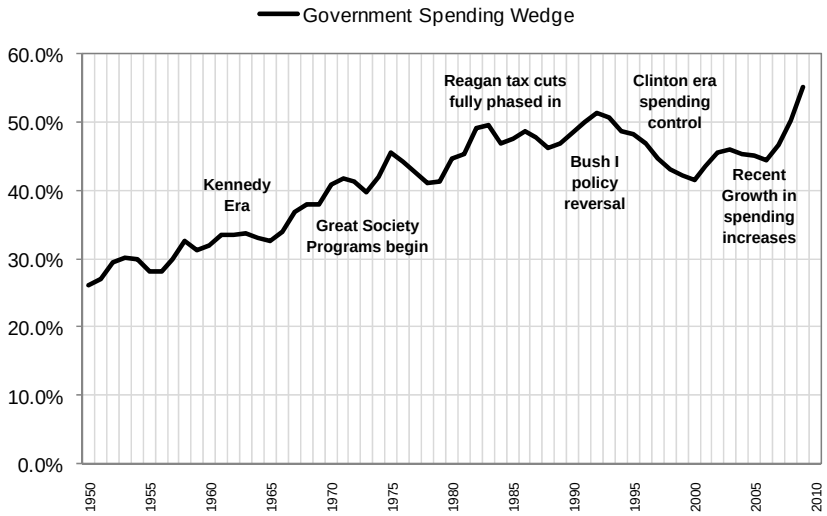


Table 1 summarizes the primary negative impact that a high and growing government tax and expenditure wedge has on private sector activity, as well as the positive impact of a lower and declining tax and expenditure wedge. Of course, missing from these data are the indirect costs born by the private sector that have never been collected via taxes past, present, or future. Table 1 combines the 1950 – 1965 and 1983 – 2000 eras in order to create three relatively similar time periods in which to judge the relationship between the government tax and expenditure wedge and economic growth. We break out the noteworthy sub-periods as sub-bullets.

- During the first period (1951 – 1965) the government tax and expenditure wedge is relatively low (32.5% in 1965) and growing slowly (rose 5.5 percentage points during the entire period). Total business output (adjusted for inflation) grew, on average, 3.5% per year during this period.
    - During the 1961 to 1965 period the relatively low government tax and expenditure wedge fell 0.9 percentage points and total business output adjusted for inflation grew, on average, 5.8% per year during this period.
- In the second period (1966 – 1982), the government tax and expenditure wedge grew robustly by 16.5 percentage points to 49.0% by 1982. Total business output (adjusted for inflation) grew a much slower 2.2% per year.
- In the third period (1983 – 2000) the government tax and expenditure wedge fell by 7.4 percentage points ending at a low of 41.5% in 2000. Total business output (adjusted for inflation) grew a robust 3.9% per year during this period.
    - Following the full implementation of the Reagan tax cuts in 1983 the tax and expenditure wedge fell 3.3 percentage points and total business output adjusted for inflation grew, on average, 5.0% per year during this period.

[28] Laffer Associates calculations based on Bureau of Economic Analysis data.

Table 1
Negative Relationship between Tax and Expenditure Wedge and Private Sector Growth 1950 - 2000

	% Change Net Inflation adjusted Business Output (CAGR)	Government Tax and expenditure wedge @ end of period	Change Wedge (peak to trough, trough to peak)
1950 – 1965	3.4%	32.5%	6.4%
1961 – 1965	*5.8%*	*32.5%*	*-0.9%*
1966 – 1982	2.4%	49.0%	16.5%
1983 - 2000	3.9%	41.5%	-7.4%
1983 – 1988	*5.0%*	*46.2%*	*-3.3%*

Source: Laffer Associates calculations based on Bureau of Economic Analysis data

Since 2000, the government tax and expenditure wedge has once again been on the rise (not shown in Table 1 due to its shorter time frame). Expectedly, average real business output growth has been only 1.9% per year. One can conclude that during periods of rising government tax and expenditure wedge the growth in the private sector is below average. During the periods when the government tax and expenditure wedge was either low or declining, growth in the private sector is above average. Below we provide a more rigorous analysis that provides further support for this relationship.

SECTION III: ESTIMATING THE TOTAL COMPLEXITY COSTS CREATED BY THE U.S. TAX SYSTEM

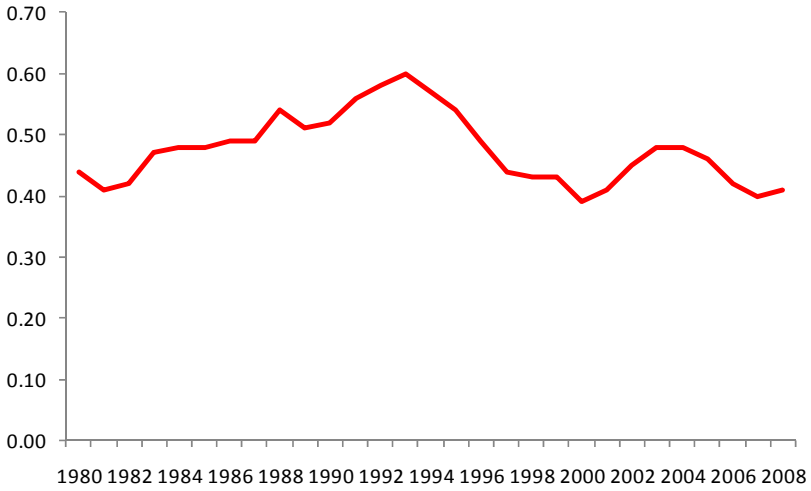
The total government tax and expenditure wedge is an accurate proxy for the total current and future tax burden on the private sector. But, these figures do not address the additional negative impact created by the tax code's complexity.

The first step to estimating the complexity tax wedge is a definition of the dollar payments (including the monetary value of time). Remember that this wedge only estimates the impact from the federal income tax system and as such is a lower-end estimate of the total complexity burden. The total tax burden can be broken down into four categories: actual tax payments, government administration costs, compliance costs and efficiency costs.

The most straightforward portion of the total tax burden is the actual tax payments made by taxpayers. In the wedge model of Section II we use total government spending as the measure of all current and future tax liabilities created by government actions.[29] Also straightforward are the administration costs of the income tax system – the cost to physically administer the IRS. Figure 1 illustrated that these costs have been steadily growing since 1980. Of course, total tax revenues collected by the IRS have also been growing. As a result the administrative costs relative to total tax collections have been fairly constant. Between 1980 and 2008 total administrative costs have been around $0.48 per $100 collected; and a lower $0.43 per $100 collected between 2000 and 2008, see Figure 4.

[29] These costs do not include an important future tax cost looming on the financial horizon. The U.S. government has promised to make payments to individuals in the future without having either the current resources or future taxes in place to pay for these promises (unfunded liabilities). Unfunded liabilities include things like Social Security, Medicare, retirement benefits for federal employees, as well as the explicit backing given to the Pension Benefit Guarantee Corporation and Fannie Mae/Freddie Mac. While some of these obligations, such as the cost to backing Fannie Mae, are not known, the known unfunded liabilities already total over $65 trillion – every household in the U.S. today owes $557,745 due to the current federal unfunded liabilities. And, this does not even include the unfunded liabilities of state and local governments.

Figure 4
The Administrative Costs per $100 of Taxes Collected[30]



The last two components of the tax burden are the compliance costs – the cost a taxpayer incurs in order to pay his or her taxes – and the efficiency costs – the lost economic opportunities resulting from the complexity of the tax code. These components directly measure the economic costs created by the overly-complex tax system.

Many studies have directly measured the compliance costs associated with our complex tax system. Compliance costs measure the time spent conforming to the tax system and the actual dollars spent complying with the tax system, which include the cost of hiring tax preparers and the purchase of computer software. As we mentioned earlier, the efficiency costs that occurs due to taxpayers changing their behavior in response to tax complexity is not included in this analysis, but may actually be the largest economic impact of all.

With respect to the actual dollars spent complying with the tax code, the National Taxpayers Union estimates that total out of pocket costs are approximately $31.5 billion annually as of April 15, 2010.[31] These costs include the 60% of individuals who pay a professional tax preparer to assist in filing their taxes compared to 38% of individuals who paid a professional in 1980.[32] An additional 22% buy tax software to help them complete their taxes.[33] A vast majority of Americans now must spend money in order to file their income taxes as a direct result of the large and growing complexity of the income tax code.

With respect to the time spent complying with the tax code, the IRS Taxpayer Advocate calculated in 2008 that individuals and businesses spent 7.6 billion hours a year complying with the filing requirements of the U.S. income tax code as of 2006. The IRS Taxpayer advocate "arrived at this estimate by multiplying the number of copies of each form filed in tax year 2006 by the average amount of time the IRS estimated it took to complete the form." [34] And, "that figure does not even include the millions of additional hours that taxpayers must spend when they are required to respond to an IRS notice or an audit… If tax compliance were an industry, it would be one of the largest in the United States. To consume 7.6 billion hours, the 'tax industry' requires the equivalent of 3.8 million full-time workers."[35]

David Keating of the National Taxpayers Union provides a perspective on the hours we dedicate to complying with the U.S. income tax code. As of 2009, the income tax industry employs "...more workers than are employed at the five biggest employers among Fortune 500 companies – more than all the workers at Wal-Mart Stores, United Parcel Service, McDonald's, International Business Machines, and Citigroup combined."[36]

As we all know, time is money. Estimates of the dollar value on all these hours vary by researcher depending upon the estimated hourly rate that is used. Based on the average hourly cost of a civilian employee, the IRS Taxpayer

[30] IRS Chief Financial Officer, Corporate Performance Budgeting, Corporate Policy and Labor Analysis
[31] Keating, David (2010) "A Taxing Trend: The Rise in Complexity, Forms, and Paperwork Burdens" *National Taxpayers Union*, NTU Policy Paper 127 April 15.
[32] (2008) "2008 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31.
[33] Ibid
[34] Ibid
[35] Ibid
[36] Keating David (2009) "A Taxing Trend: The Rise in Complexity, Forms, and Paperwork Burdens" *NTU Policy Paper 126,* April 15.

Advocate Service "…estimates that the costs of complying with the individual and corporate income tax requirements in 2006 amounted to $193 billion – or a staggering 14 percent of aggregate income tax receipts."[37]

While excessively high already, the IRS estimated compliance costs do not adequately account for the biased nature of the tax complexity burden of which higher income individuals bear the majority. Higher income individuals pay the majority of federal income taxes; see Figure 5, thus skewing the tax complexity burden considerably.

Figure 5
Share of Federal Income Tax Paid by Income Earning Percentile[38]

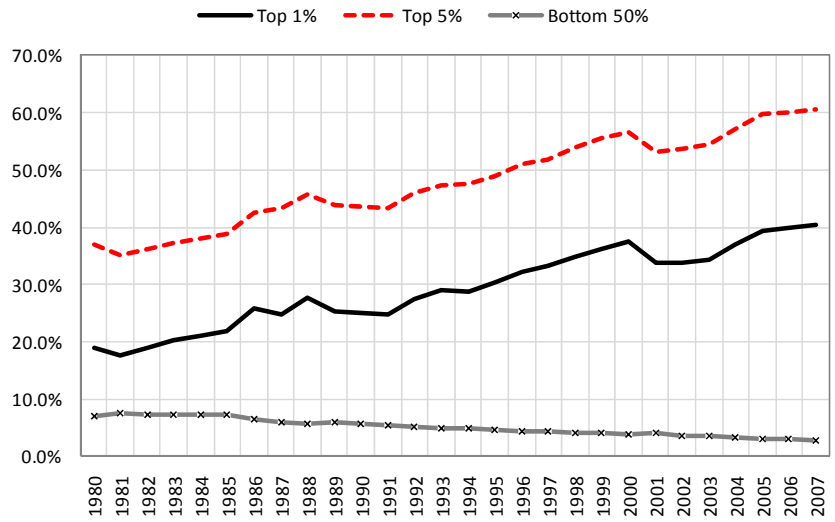


Figure 5 illustrates that in 2007 the top 1% of income earners paid 40% of all federal taxes and the top 5% paid nearly 61%. The share of income taxes paid by these groups has been growing over time despite the fact that the top marginal tax rate – the rate these individuals pay – has changed over this period. For instance, in 1980, the top tax rate was 70%. Today, the top rate is 35%. Compare the share of income taxes paid by the top 1% and 5% of income earners to the income taxes paid by the entire bottom half of income earners. As of 2007, the bottom 50% of income earners paid less than 3% of total income taxes.

Not only do the top income earners pay the majority of federal income taxes, their share of the income tax burden is disproportionate to their share of income. In 2007 the top 1% of taxpayers earned 22.8% of total AGI but paid 40.4% of total federal income taxes. The top 5% of taxpayers earned 37.4% of total Adjusted Gross Income (AGI) but paid 60.6% of total federal income taxes. The bottom 50% of income earners, on the other hand, earned 12.3% of total AGI but paid only 2.9% of total federal income taxes.

The data also illustrates that higher income taxpayers spend more time and resources complying with the tax code, and face greater tax complexities. Consequently, the value of the hours spent complying with the tax code should account for the skewed nature of the tax complexity burden, for which the IRS estimate presented above does not adequately consider. As we demonstrate below, a more realistic valuation of time value creates a larger estimated compliance burden – *around twice as much*. Additionally, the estimated burdens above do not include the time and costs created by IRS audits, which we estimate separately. Below, we estimate the hourly value of time spent complying with the tax code for both individuals and businesses. Total compliance costs can be estimated by including the direct dollar costs of complying with the tax code, along with a proxy we estimate for the additional costs of audits.

[37] (2008) "2008 Annual Report to Congress" *National Taxpayer Advocate*, Volume 1, December 31.
[38] Source: The Tax Foundation. According to the Tax Foundation because the definition of AGI changed following the 1986 tax reform the data before and after 1986 may not be strictly comparable.

Individual Income Tax Compliance Costs

To calculate a weighted average hourly cost for tax compliance we relied on two major data sources. First, we used data from the IRS Table 1.1--Selected Income and Tax Items, by Size and Accumulated Size of Adjusted Gross Income, Tax Year 2007.[39] These data, detailed in Table A-1 in the Appendix, summarize total tax returns filed by Adjusted Gross Income (AGI). The second major source was based on Guyton et.al (2003) and provides estimates for total hours spent on tax compliance sorted by AGI.[40] Table A-2 in the Appendix is reproduced from Guyton et.al.

Combining the hours per return in Table A-2 with the number of returns in Table A-1, we calculated the total number of hours spent complying with the tax code by AGI.[41] These values are summarized in Table A-3. Using the mid-point for each AGI category as the dollar value of AGI in each category ($50 million was used as a proxy for the top category) the total weighted dollar value of compliance costs can be calculated by multiplying each categories number of hours by the average wage. The results of this calculation are presented in Table 2.

Table 2
Weighted Average Dollar Value of Time Spent Complying with the Tax Code

	Dollar Value of Hours Spent in Compliance
Weighted Average Hourly Income	$73.28
Weighted Average Annual Income	$146,550.42

One additional adjustment to the above calculation has been made. AGI is less than total market wages. The Bureau of Economic Analysis tracks total personal income minus government transfer payments, which is a proxy for total earned income of residents in the U.S. In 2004, the latest data available, total personal income minus government transfer payments was 23% higher than total AGI. The $73.28 hourly value ($146 thousand annual value) of time uses this 23% scalar applied to AGI.

The weighted average income calculated in Table 2 is significantly higher than the median income figure that the IRS estimate cited above relies upon. However, as we illustrated above, the bottom half of income filers only paid less than 3% of the tax revenues. The median income of the U.S. is, consequently, not representative of the average income of the average taxpayer. Based on this higher value of income, these results indicate that the 3.94 billion hours spent complying with the individual tax code have a value of $289.0 billion.

Business Income Tax Compliance Costs

The IRS has estimated that the total time spent complying with the U.S. tax code is estimated to be 7.6 billion hours. Because individuals spend 3.94 billion hours complying with the individual income tax code, the balance – 3.66 billion hours – is spent by businesses complying with the tax code. These hours are valued at $55 per hour, based on a weighted average salary for a tax accountant, with bonuses and benefits, of $102,184.50.[42] Including the employer portion of Social Security and Medicare taxes, the total annual costs per tax accountant is a bit more than $110 thousand a year, or $55 per hour. Based on a rate of $55 per hour and a total of 3.66 billion hours, a total of $201.1 billion is spent by businesses complying with the tax code.

Total Income Tax Compliance Costs

Adding together these estimates, the value of the time that individuals and business spend complying with the tax code, not including any direct expenditure, is a total of $490.1 billion. This equates to a blended hourly rate of $64.48. Including the estimated direct outlays of $31.5 billion and the administrative costs of the IRS of $11.3 billion, the total annual costs that U.S. taxpayers must endure to pay their Federal income taxes are $532.9 billion – again this estimate only includes the federal income tax compliance costs.

But, what about audit costs? Tax audits vary in complexity ranging from a letter asking for further explanation about certain items on a tax return to the Taxpayer Compliance Measurement Program (TCMP), which is the IRS's most comprehensive tax audit. According to the IRS Data book, 1.0% of taxable tax returns were examined in 2008.[43]

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[39] http://www.irs.gov/taxstats/index.html
[40] Guyton, John L., O'Hare John F., Stavrianos Michael P., Toder, Eric J.(2003) *"Estimating the Compliance Cost of the U.S. Individual Income Tax"* Presented at the 2003 National Tax Association Spring Symposium.
[41] The total number of hours spent complying with the tax code in Table 4 reflects the latest IRS dataset available as of this writing (2007).
[42] Salary and bonus information is from www.payscale.com; benefit costs are based on data from the Bureau of Labor Statistics, which states that on average wages and salaries comprise 70.7 percent of total compensation, http://www.bls.gov/news.release/ecec.nr0.htm.
[43] IRS Data Book, http://www.irs.gov/taxstats/article/0,,id=102174,00.html.

Also, the chances of an audit for higher income taxpayers are higher than the chances of an audit for lower income taxpayers.[44]

Table A-4 in the Appendix presents the examination coverage rates from the 2008 IRS Data Book. Based on this data and the total number of returns filed by AGI we can estimate the total number of audits by AGI class. Relying on the same hourly estimate per return – assuming an audit requires a doubling of the filing effort of the taxpayer – taxpayer audits in 2007 added an additional taxpayer burden of $7.5 billion.

Pulling these numbers together, to simply pay their income taxes and deal with IRS audits, we estimate that the costs U.S. taxpayers must bear just to comply with the provisions of our income tax code is $540.4 billion.

In addition to these costs, the aforementioned $345 billion tax gap is a manifestation of the problems created by our overly-complex tax system. These problems are not reflected in our estimates. Additionally, as noted above, the $345 billion does not include potential tax revenues from the underground economy that avoids the federal tax system. Estimating the size of the underground economy is difficult by definition (these people don't want you to know what they are doing). According to the Wall Street Journal (2009), "a range of reports estimate the underground economy's size at $1 trillion or higher."[45] This $1 trillion represents a substantial amount of potential revenues. During the entire post-WWII period, total federal tax revenues have been around 19% to 20% of GDP even though the highest tax rates and the number of income tax brackets have fluctuated dramatically. W. Kurt Hauser and David Ranson (Hauser, 1993 and Ranson, 2010) go so far as to argue that this level of taxation in the U.S. (19.5% of GDP) will hold regardless of the tax rates or other tax changes – what they term Hauser's law. In 2009 total federal tax revenues were 15.6% of GDP, significantly below this historic rate. Using this historically low average tax collection number, if the underground economy were taxed, then the federal government would gain at least an additional $156.1 billion in tax revenues. Tax reforms that would address the complexity of our current system, such as a national sales tax, would tax part of the income from the underground economy when this income is spent in the measured economy, thereby raising revenues for the federal government. However, due to the unknowns regarding this process, we do not attempt to estimate these impacts.

SECTION IV: APPLYING THE TAX WEDGE LESSONS TO TAX COMPLEXITY

While some level of compliance costs are a necessary evil, the evidence presented above describes an income tax system that is excessively complex. To estimate the potential gain from simplifying our current income tax system, we relate the complexity tax burden to its impact on GDP based on the historical relationship between tax burdens and GDP growth. We measure an economy based on the total growth in Gross Domestic Product adjusted for inflation as reported by the Bureau of Economic Analysis. The government tax and expenditure wedge discussed in Section II should have a negative impact on GDP growth (i.e. when the tax and expenditure wedge grows, economic growth should weaken).

One common predictor of economic growth is the slope of the yield curve.[46] As the yield curve becomes flatter (short-term interest rates approach long-term rates), the market is predicting slower economic growth in the future, and vice versa when it steepens. The steepness of the yield curve can be measured by subtracting the annual federal funds rate from the annual rate on a 10-year treasury bond. This variable predicts the rate of economic growth in the following year. A large positive value (steep yield curve) in the current year should be followed by strong GDP growth in the next year.

A negative relationship between economic downturns and the relative size of government spending is also expected. The government expenditure wedge should increase during economic downturns due to decreased private sector growth and persistent government spending. Because of this relationship, the government expenditure wedge should be expected to increase during economic downturns (a negative relationship). We control for this expected negative relationship by incorporating a recession variable (what is called a dummy variable) into the analysis.

Table 3 displays a simple model relating the slope of the yield curve, the recession variable, and the government tax and expenditure wedge to economic growth. The results confirm our expectations.

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[44] Gillen, Michael A and Packer, Steven M (2009) "New IRS Strategic Initiative: Increased Audit Activity on Its Way?" *The Legal Intelligencer Duane Morris,* September 1.

[45] Barta, Patrick (2009) "The Rise of the Underground" *Walls Street Journal,* March 14; http://online.wsj.com/article/SB123698646833925567.html.

[46] Many other variables are used as forward looking indicators such as changes in the stock market or the current value of the credit spread between borrowers of different credit worthiness (interest rates on Moody's Baa rated companies - interest rates on Moody's Aaa rated companies). Because the yield curve specification illustrated the highest explanatory power of the variables tested, this specification was used in the analysis.

Table 3
Least Squares Regression Results
Dependent Variable: Percent Change in Real Gross Domestic Product

	Coefficients	***Standard Error***	***t Stat***	***P-value***
Tax and exp. wedge	-0.211812	0.047482	-4.460935	1.00E-04
Slope (-1)	0.613324	0.186001	3.297422	2.10E-03
Recession	-0.013701	0.006234	-2.197633	0.0338
Intercept	0.124807	0.020286	6.152434	0.0000
AR(1)	0.081204	0.156234	0.519761	0.6061
Adj. R-Square	0.629429			
F-Statistic	1.97E+01			
Durbin-Watson	2.010316			

The first row in Table 7 provides the statistical relationship between the tax and expenditure wedge and GDP growth. The second column (the Coefficient) is negative; indicating that a higher tax and expenditure wedge reduces GDP growth or alternatively that a lower tax and expenditure wedge encourages GDP growth.[47] This is consistent with what we expected a priori. The next three columns indicate that the negative relationship between the tax and expenditure wedge and GDP growth is statistically significant.

The second row in Table 7 provides the same information with respect to the steepness of the yield curve in the prior year (Slope (-1)). In this case, the second column (the Coefficient) is positive; indicating that when the yield curve is steep, GDP growth is strong and when the yield curve is flat or inverted (when short-term rates are higher than long-term rates), GDP growth is slow or declining. This is also consistent with what we expected a priori. The next three columns indicate that the positive relationship between the slope of the yield curve in the prior year and GDP growth is statistically significant.

The third row in Table 7 provides the same information for the recession variable. When the economy is in a recession real GDP growth is lower, which conforms to the common definition of a recession. The next three columns illustrate that this relationship is statistically significant. Notably, when the impact of a recession is taken into account, the tax and expenditure wedge still has a statistically significant negative relationship to changes in real GDP growth.

The next two rows in Table 7 provide basic data on a constant and techniques used to correct for autocorrelation in the data (which if not corrected reduces the accuracy of the results). Finally, the last 3 rows have information about the overall equation. These values illustrate that the estimated equation has the power to explain the observed changes in GDP, resolving the aforementioned problem..

Using the coefficient from Table 7 and the current government expenditure level, every $100 billion reduction in the compliance costs tax burden will increase economic growth (GDP growth adjusted for inflation) between 0.21% and 0.24% annually or between $30 billion and $34 billion. Many other studies have confirmed this negative relationship between government spending and economic growth including: Barro (1991), Gwartney, Lawson, and Holcombe (1998), Laffer (1971), Laffer (1979), Landau (1983), Mitchell (2005), and Scully (2006).

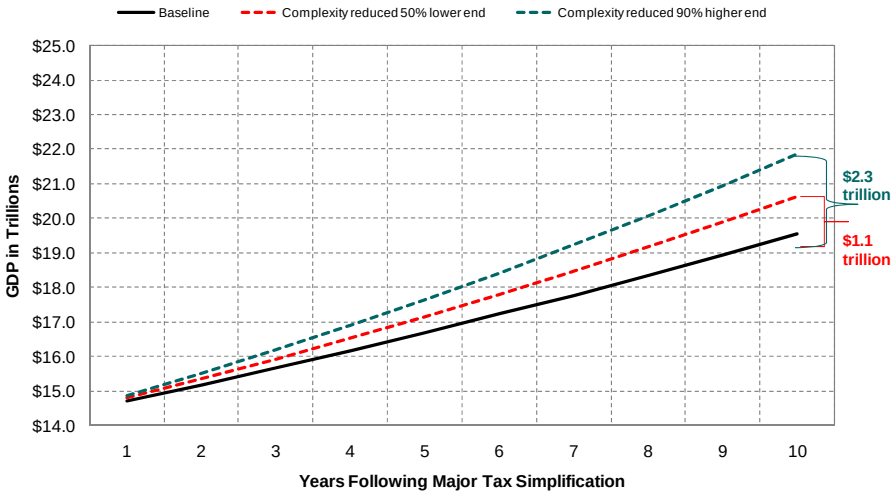
Halving our current estimated compliance costs of $540.4 billion would increase total annual economic growth between 0.57% and 0.65%. A 90% drop in compliance costs, equal to a $486 billion reduction in tax complexity,[48] would grow GDP between 1.0% and 1.2%.

[47] Many other studies have also found a significant and negative relationship between higher government burdens/taxes and lower rates of economic growth including: Scully, Gerald W. (2006) "Taxes and Economic Growth" *National Center for Policy Analysis*, NCPA Policy Report No. 292, November; Robert J. Barro (1991) "Economic Growth in a Cross Section of Countries," *Quarterly Journal of Economics*, Vol. 106, No. 2 May; Landau, Daniel L. (1983) "Government Expenditure and Economic Growth: A Cross-Country Study" *Southern Economic Journal*, 49: January; Mitchell, Daniel J. (2005) "The Impact of Government Spending on Economic Growth" *Heritage Foundation,* Backgrounder #1831, March 15; Gwartney, James, Lawson, Robert and Holcombe, Randall (1998) "The Size and Functions of Government and Economic Growth" *Joint Economic Committee, U.S. Congress*, April.

[48] According to FairTax.org, "With a national retail sales tax, the Tax Foundation has estimated that compliance costs drop more than 90 percent." (2007) "A FairTax White Paper: The FairTax reduces complexity, compliance costs, and noncompliance" *FairTax.org.*

Between 1950 and 2009, the compound annual growth rate in real GDP was 3.2%. If the tax complexity burden were cut in half, the historical average annual growth rate of 3.2% would increase to between 3.77% and 3.85%. Over 10 years, the U.S. economy would become approximately $1.10 trillion to $1.26 trillion larger, see Figure 6. The U.S. would be approximately $3,600 to $4,100 wealthier per person in the 10th year following a major tax simplification.

Figure 6
Yearly Increase in Economic Growth Due to Reduced Tax Complexity



Increased economic growth would immediately follow a major tax simplification and would continue each and every year. The discounted present value of the increased cumulative economic growth over the first 10 years following a major tax simplification is around $4.1 trillion to $4.7 trillion; this equates to an increase of approximately $13,300 to $15,200 per person.

If the tax complexity burden was reduced by 90%, the historical average annual growth rate of 3.2% would increase to between 4.22% and 4.37%. Over 10 years, the U.S. economy would become approximately $2.0 trillion to $2.3 trillion larger, see Figure 6. The U.S. would be approximately $6,600 to $7,600 wealthier in the 10th year following a major tax simplification per person.

The discounted present value of the cumulative increase in economic growth over the first 10 years following a 90% reduction in tax complexity is around $7.5 trillion to $8.5 trillion, equal to an increase in wealth of approximately $24,300 to $27,800 per person.

Of course, higher economic growth benefits tax revenues as well. Due to the enhanced economic growth, the discounted present value of the increased tax revenues at current rates over the entire 10 year period is between $820 billion and $930 billion for a 50% reduction in tax complexity and between $1.5 trillion and $1.7 trillion for a 90% reduction in tax complexity. For perspective, based on President Obama's FY2011 budget, the estimated FY2010 national debt is $9.3 trillion.

Relating these figures to the $780 billion stimulus program the Obama Administration and Congress passed in February 2009, a total of $495 billion in grants, loans, entitlements and tax rebates had been spent through July 30, 2010.[49] Research by Christina Romer (Chair, President Obama's Council of Economic Advisors) and Jared Bernstein (Vice President Joe Biden's Chief Economist) estimated that for every $1 of the stimulus package, $1.60 in economic activity will be created.[50] Based on this arithmetic, the Obama Administration was hoping that the stimulus money already spent should have boosted GDP by nearly $792 billion.

Disregarding the debate about whether the stimulus is actually having a positive impact on GDP, a 50% reduction in tax complexity reduces costs on taxpayers by $270 billion. Reducing tax complexity can have an impact on the economy that is similar to the desired stimulus package and *this stimulus package would occur on an annual basis without reducing any government revenues and without requiring any new government spending program*. Consequently, efforts at curtailing tax complexity have the potential to significantly impact total economic activity in the U.S.

[49] See: http://www.recovery.gov/Pages/home.aspx; accessed August 9, 2010.
[50] Romer, Christina and Bernstein, Jared (2009) *the Job Impact of the American Recovery and Reinvestment Plan*, January 9.

How to Reduce the Complexity Burden

Much of the complexity of the current tax code centers on the definition of income. Consequently, the significant reductions in complexity discussed above could not likely be achieved without comprehensive tax reform, like a flat tax or a national sales tax. A properly designed flat income tax or a national sales tax would simplify the definition of income and curtail complexity.

For a flat tax there should be only one tax rate for all taxpayers, and it should apply to the first dollar of income earned. Income thresholds, while well intentioned, introduce a significant amount of complexity into a flat tax system. Also, a flat income tax should minimize all exclusions and deductions and have a simple definition of income. An appropriately structured flat tax creates significant pro-growth incentives for the economy while eliminating unnecessary complexity.

Similar to the flat income tax, the national sales tax should be designed so that there is only one true flat tax rate. The definitions of income and exemptions are automatically eliminated under a national sales tax because income is no longer taxed, consumption is. Therefore, all of the complexities regarding income and expense definitions disappear. A national sales tax also reduces complexity by limiting the number of residents that actually need to physically interact with the tax collectors – only final providers of newly produced goods and services.

Concluding Thoughts

While some compliance time is necessary under any tax system, reducing the annual compliance costs of our tax system provides an effective stimulus to our economy that recurs each and every year without the need for federal government spending. The benefits from such a boost would be greater income and job growth for all Americans.

The potential benefits to reducing tax complexity go beyond the dollar impact as well. As the AICPA has noted, the U.S. income tax system relies on taxpayers to self-report their income – the system only works if most taxpayers view the outcomes as fair and accurately self-report their income. As such, excessive tax complexity is undermining the very foundations of our current tax code. Ultimately, what we do about complexity is a political and social issue. This study is intended only to calculate the direct and measurable costs of complexity; it does not, for instance, guess at the economic benefit which would flow from improved allocation of capital undistorted by tax considerations.

The bottom line of tax complexity is as simple as our current tax code is complex: simplifying the tax code should be a top priority. Regardless of the reform approach taken, the U.S. economy will be enhanced greatly by significantly reducing the complexity of the current tax code. In a time of global economic competition the US cannot afford the luxury of a Byzantine tax system.

Appendix

Table A 1
Number of Returns by AGI

Size of Adjusted Gross Income	Number of Returns
Total	**142,978,806**
No adjusted gross income	1,907,836
$1 under $5,000	11,930,752
$5,000 under $10,000	12,114,741
$10,000 under $15,000	11,914,564
$15,000 under $20,000	11,061,903
$20,000 under $25,000	9,963,693
$25,000 under $30,000	9,005,338
$30,000 under $40,000	14,740,806
$40,000 under $50,000	11,150,798
$50,000 under $75,000	19,450,744
$75,000 under $100,000	11,744,133
$100,000 under $200,000	13,457,877
$200,000 under $500,000	3,492,353
$500,000 under $1,000,000	651,049
$1,000,000 under $1,500,000	166,363
$1,500,000 under $2,000,000	70,733
$2,000,000 under $5,000,000	108,641
$5,000,000 under $10,000,000	28,090
$10,000,000 or more	18,394

Table A 2
Compliance Burden by Taxpayer Characteristics

	Hours per Return by Adjusted Gross Income
Negative AGI	35.6
$0 < $15,000	14.4
$15,000 < $30,000	17.3
$30,000 < $45,000	22.1
$45,000 < $60,000	28.0
$60,000 < $90,000	38.1
$90,000 < $120,000	48.4
$120,000 or more	70.8

Table A 3

Total Number of Compliance Hours by AGI

Size of Adjusted Gross Income	Number of Hours Spent in Compliance
Total	3,943,924,539.0
No adjusted gross income	27,472,838.4
$1 under $5,000	171,802,828.8
$5,000 under $10,000	174,452,270.4
$10,000 under $15,000	171,569,721.6
$15,000 under $20,000	191,370,921.9
$20,000 under $25,000	172,371,888.9
$25,000 under $30,000	155,792,347.4
$30,000 under $40,000	325,771,812.6
$40,000 under $50,000	279,327,489.9
$50,000 under $75,000	642,847,089.2
$75,000 under $100,000	507,933,752.3
$100,000 under $200,000	802,089,469.2
$200,000 under $500,000	247,258,592.4
$500,000 under $1,000,000	46,094,269.2
$1,000,000 under $1,500,000	11,778,500.4
$1,500,000 under $2,000,000	5,007,896.4
$2,000,000 under $5,000,000	7,691,782.8
$5,000,000 under $10,000,000	1,988,772.0
$10,000,000 or more	1,302,295.2

Table A 4

IRS Examination Coverage by AGI

	Examination Coverage*
No adjusted gross income	2.15
$1 under $25,000	0.90
$25,000 under $50,000	0.72
$50,000 under $75,000	0.69
$75,000 under $100,000	0.69
$100,000 under $200,000	0.98
$200,000 under $500,000	1.92
$500,000 under $1,000,000	2.98
$1,000,000 under $5,000,000	4.02
$5,000,000 under $10,000,000	6.47
$10,000,000 or more	9.77

Examination Coverage is defined by the IRS as the number of returns examined for each AGI class as a percentage of the total number of returns filed.