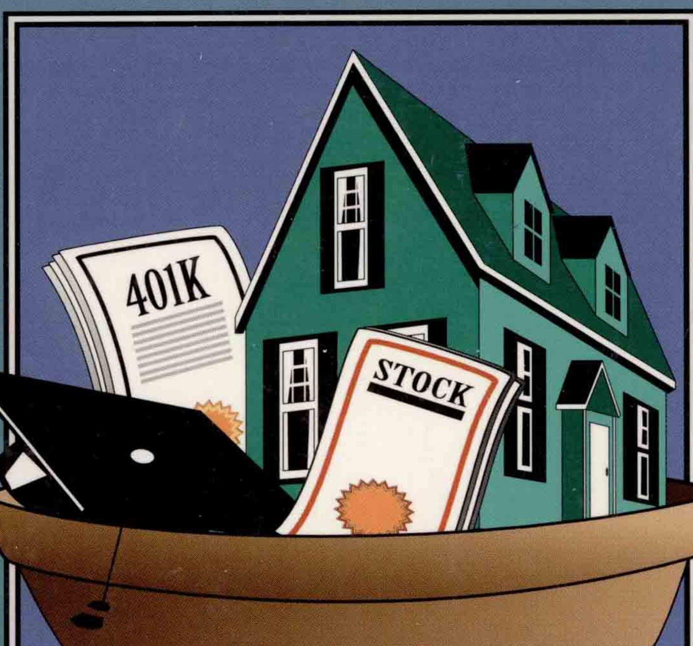
TRANSITION COSTS OF FUNDAMENTAL TAX REFORM



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Kevin A. Hassett and
R. Glenn Hubbard

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Introduction

Kevin A. Hassett
and R. Glenn Hubbard

In 1986, congressional Democrats and Republicans came together to produce the Tax Reform Act of 1986, a sweeping reform that lowered marginal tax rates and broadened the tax base. Although many economists felt that the law, given its broad bipartisan support and sound economic underpinnings, would stand for many years, events soon proved them incorrect. Significant increases in marginal tax rates were passed in 1990 and 1993; subsequent reforms have narrowed the tax base and have increased effective marginal rates in a particularly crazy hodgepodge. The tax system is now probably further from the economic ideal than in 1985, and economists are again calculating and debating the potential gains to the economy from another fundamental tax reform.

Many fundamental reform proposals, such as Hall and Rabushka's flat tax or other forms of a consumption tax, promise economic benefits by lowering marginal tax rates and by changing the tax base to bypass those areas of the economy that are particularly costly if taxation distorts them. The key sector is capital formation, which has long and widely been acknowledged as especially impaired by taxation. Most economists concur on the potential magnitude of economic benefits from excluding capital from taxation.

But economists do not agree that a sudden switch to a consumption tax would be an obvious improvement. Many have argued that the severity of the problems of managing a smooth transition would preclude even contemplating such a change. In particular, the current tax system distorts behavior in many ways; yet the removal of those distortions would hurt those who played by the old rules. Building in transition relief to help those hurt most by the reform would diffuse the benefits of the reform. In their introduction, Henry J. Aaron and William G. Gale conclude that "the gains from realistic reforms may not be as large as advocates have hoped, and ... the process of adjustment to a new system will not be easy" (1986). By realistic, they mean reforms that would provide relief to the short-term losers. In many simulations presented in Aaron and Gale 1996, apparently reasonable transition relief often would almost completely exhaust the potential benefits of tax reform.

This volume has collected three essays prepared for an AEI conference on the transition costs of fundamental tax reform. Each chapter begins by relaxing a simplified assumption employed by the previous literature and proceeds to explore how the relaxation of that assumption affects the calculus of tax reform. The authors challenge the perception that we cannot get there from here in two ways. They suggest that the benefits of fundamental tax reform are likely to be significantly greater than previously believed and that the transition costs would be significantly less.

In chapter 2, "The Impact of Tax Reform in Modern Dynamic Economies," Kenneth L. Judd argues that tax reform analysis by and large has ignored issues of imperfect competition, risk, and human capital and has significantly understated the benefits from fundamental tax reform. Judd lays out the basic economics that underlies the claims that the current tax system is particularly pernicious to the national economy. Most important, he points out that a tax system that distorts the savings and investment decision causes a deflection that grows over time. Because even a small distortion becomes enormous over time, only a zero tax on savings and investment is optimal.

Our current system of taxation is clearly not optimal. But what would happen if we switched to a tax system that did not tax savings? To answer this question, Judd incorporates several important real-world features into existing models used to study tax reforms. The first is imperfect competition. Most models used for studies of tax policy assume that firms have no market power. In such a world, the market's competitive equilibrium in the absence of taxation would be highly efficient. If firms have market power, which seems likely, then the equilibrium in the absence of taxes is inefficient. Firms with market power increase profits by cutting back production. Introducing taxes in such a world would exacerbate existing distortions because the economy is already out of competitive equilibrium. Indeed, an optimal tax would *subsidize* capital formation to counteract the output reductions caused by the profit-maximizing firms. When Judd calculates the switch to a consumption-based tax in the presence of imperfect competition, he finds that benefits are much greater than previously forecast.

Judd then adds two layers of complexity. First, he incorporates risk. The current tax system discriminates against risk taking: risky investments that pay off are taxed, but losses do not lead, at least in all cases, to tax refunds. Second, he introduces the formation of human capital, which is important for growth but is taxed heavily when income taxes are steeply progressive. Each of these steps contributes significantly to Judd's measure of the gains from switching to a flatter consumption-based tax.

In his final section, Judd uses the lessons derived from the more general approaches to investigate the impact on the distribution of tax reform. The wage increases attributable to higher amounts of capital in the postreform economy would have an important impact on the distribution of the benefits of tax reform, but most analyses uniformly ignore this key point.

Critics of tax reform proposals often argue that lower capital taxation would lead to a stock market crash. The mechanism for that event would be quite simple. Because the reform would lower the cost of capital, new investment would create competition that would destroy the profits of existing firms. Compensating existing capital for such damage is a primary demand for transition relief. In the third chapter, "Asset Price Effects of Fundamental Tax Reform," Andrew B. Lyon and Peter R. Merrill question Judd's view.

Lyon and Merrill argue that a significant portion of the value of existing firms is attributable to goodwill and other intangibles. Value attributable to these assets would actually increase after a tax reform of the type considered here because the taxes on the future economic profits of such firms would be lowered. The authors demonstrate that even if firms did not have intangible assets, the effects on asset prices from fundamental reforms would be less than previously estimated if actual tax depreciation rules were used in the calculations, instead of the simplified patterns employed in previous research. Lyon and Merrill show that the effect on asset prices would be less if firms adjusted their capital slowly in response to the reform. Finally, they review empirical evidence from past reforms and conclude that stock prices have generally increased after fundamental tax reforms; that result confirms their analysis and undermines the case for transition relief to existing firms.

Owner-occupied housing is perhaps the most favored asset under the current tax system, with the deduction for mortgage interest the most lucrative tax benefit for most taxpayers. What would happen to housing prices if the mortgage interest deduction were removed? Many have argued that an Armageddon could occur in the housing sector. The demand for housing would plummet, and housing prices would follow suit. Transition relief for homeowners or the continuation of the current system of deductions for mortgage interest would be the other major complications to a transition. But would housing prices really drop after a tax reform?

Donald Bruce and Douglas Holtz-Eakin explore this issue in the final chapter, "Will a Consumption Tax Kill the Housing Market?" They develop a rigorous supply-demand model of the housing market and link the transitional and long-term impact of tax reform. Although some analysts have argued that declines in housing prices would be short-lived because housing starts would drop and thus lower the overall stock of housing capital, Bruce and Holtz-Eakin go a step further. In their setup, the elimination of the deduction for mortgage interest need not lead to a sharp decline in housing prices, even in the short run.

They present a simple, intuitive example for such a result. Suppose that the United States switched to a 20 percent national sales tax and—just to keep the example clean—nobody claimed the deduction for mortgage interest under the old system. When the sales tax went into effect, individuals would pay a 20 percent tax when they bought a new house, but no tax if they bought a "used" house. The price of "used" houses must then rise by 20 percent. Whether such an effect would be empirically important would, of course, depend on the magnitude of the effect on mortgage interest and the impact on the existing stock of housing. Bruce and Holtz-Eakin conclude that the two effects approximately cancel each other and that housing prices would probably not decline significantly after a fundamental tax reform.

Although commentaries on each chapter outline important qualifications, taken together the essays suggest that the case for transition relief to homeowners and firms may be weaker than expected. In that case, even if the complications explored by Judd were ignored, the gains from fundamental tax reform would be significant. If imperfect competition, risk, and the formation of human capital were also important real-world considerations, then the gains of fundamental reform might be even higher.

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2

The Impact of Tax Reform in Modern Dynamic Economies

Kenneth L. Judd

Since World War II, the tax policy in the United States has been based on the principles of an income tax. Its intellectual foundation lies in the Haig-Simons approach to the taxation of income: define income properly and tax it. However, economists over the past thirty years have increasingly argued for moving away from the taxation of income and toward the taxation of consumption. Debates on tax reform often focus on the choice between taxing income and taxing consumption

The key issue is the taxation of savings and investment.[1] Many theoretical analyses have argued for a zero long-run tax rate on capital income. Early arguments—such as those made by Feldstein (1978), Atkinson and Sandmo (1980), Auerbach (1979), and Diamond (1973)—relied heavily on assumptions of separability and on identical agents in each cohort. Judd (1985b) proved that the optimal long-run tax rate on capital income is zero even when tastes are not separable and when agents have different tastes and abilities. Others have explored taxation issues in models of economic growth. Eaton (1981) showed that taxation of capital income reduces an economy's long-run

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growth rate; Hamilton (1987) demonstrated that the asymmetric treatment of different kinds of investment has a high efficiency cost. Judd (1999) generalized the Judd (1985b) analysis to include investment in human capital, government expenditure, and various forms of growth. All these analyses argue strongly against taxation of asset income in the long run.

Estimates of benefits to the economy from tax reform have supplemented the increasingly robust theoretical case against the taxation of asset income. Studies such as Jorgenson and Yun 1990 and Auerbach 1996 show that switching to consumption taxation would significantly increase savings and the labor supply and would improve productivity. Computed examples in Jones, Manuelli, and Rossi 1993 show that the effects on asset income should be minimal even in the intermediate run. Both theoretical and empirical work demonstrates that a pure income tax system is far from the best for aggregate output.

The U.S. tax system has evolved into a hybrid system combining features of income and consumption taxation,[2] but the corporate income tax and the limited nature of savings incentives still give the current system a strong income tax flavor. Most economists agree that moving completely to consumption taxation would improve aggregate productivity and income in the long run. Problems arise concerning issues of the transition process and distribution. Some critics have argued that considerations of equity and problems of transition related to changes in asset prices blunt the case for a complete move to consumption taxation and make it politically less viable. In particular, the elimination of many middle-class tax deductions reduces middle-class support for tax reform. Possible adverse impacts on asset prices may make some individuals, particularly the elderly, worse off than under the current tax system. Any debate on tax reform will consider the trade-offs between the long-run benefits and the short-run problems of transition.

This study examines the conceptual basis for a consumption tax and introduces many features of a modern economy that have been ignored in analyses of tax reform but substantially strengthen the case for switching completely to consumption taxation. Despite the theoretical literature, some authors (for example, Gravelle 1994) still assert that the efficient taxation of capital depends on the relative elasticities of consumption demand and the labor supply. This chapter reviews the theory behind the consumption tax and shows that the case against capital taxation and for consumption taxation is surprisingly robust and does not depend on unknowable, technical details of the economy. The conceptual foundation leads to other aspects of consumption and capital taxation, in particular the implications of adding imperfect competition, risky assets, and the formation of human capital to the standard analysis. Any analysis, including this one, must make many simplifications: ignoring those elements was natural for the initial analyses of tax reforms. Now that we understand the implications of tax reform in a competitive economy, we should extend our models and make them more realistic. It is natural to include imperfect competition, risky assets, and human capital in tax analysis—it is difficult to imagine a modern dynamic economy without these features.

Unsurprisingly, adding imperfect competition, risky assets, and human capital affects our results, but this study argues that incorporating these elements substantially strengthens the case for a consumption tax. First, including these elements of a modern economy materially increases the estimates of the gains to long-run productivity. Interactions between taxation and imperfect competition increase the welfare cost of income taxation. The current U.S. tax system discriminates against risky assets; this study shows that any tax reform that would eliminate this feature would produce significant gains in efficiency. Including human capital in the analysis increases the welfare gains from eliminating the taxation of income on new investment.

Second, the extra considerations reduce problems during transition. The incorporation of imperfect competition moderates, possibly even reverses, adverse movements in asset prices. That change, plus a detailed view of U.S. demographics, reduces the problems of protecting older individuals who may not live long enough to enjoy the long-run benefits of tax reform. The incorporation of human capital also suggests new ways, consistent with the principle of a consumption tax, to compensate the middle class for the elimination of current deductions.

Some basic ideas from public economics and industrial organization prompt those considerations. In particular, this study presents basic results from optimal tax theory, uses them to analyze the inefficiencies of conventional income tax, and discusses interactions between taxation and imperfect competition. The usual discussions focus on the distinction between income and consumption taxation. But there is no distinction between income and consumption taxation: income taxation is really a special pattern of consumption taxation. More precisely, income taxation is a particularly inefficient form of consumption taxation, one that violates basic rules for a sound tax system. The focus should instead be on the taxation of consumption today relative to consumption tomorrow and on the taxation of intermediate goods relative to final consumption goods. The change in focus helps to explain old results and to point in useful new directions.

First, many taxlike distortions exist in the private sector. When teaching competitive economic theory, economics professors often use the example of the hundreds of thousands of farmers producing an agricultural product and correctly argue that no individual producer has any impact on the price of his crop. Tax reform analysis usually employs this competitive paradigm. Although the competitive model may have been a valid simplification in 1800, it is certainly not in the modern industrial high-technology U.S. economy of 2000. Today imperfect competition and oligopolistic interactions provide a more appropriate description of much of the economy and are particularly appropriate when discussing capital goods and innovations that are sources of economic growth.

Parts of competitive theories still hold. In particular, competitive forces in oligopolistic sectors may reduce profits to competitive returns and prices to average cost. However, we expect prices to exceed marginal cost. The relationship between price and marginal cost, not price and average cost, determines efficiency and welfare. This wedge between price and marginal cost is essentially a tax, even when generated by the private economy.

This chapter shows that the presence of imperfect competition strengthens the case for consumption taxation because it increases the estimates of the aggregate gains in efficiency from tax reform. In fact, estimates of the discounted welfare gains from switching to a consumption tax are at least doubled for central estimates of the critical parameters, and the estimates of the long-run gains are even greater.

Second, tax analysis usually ignores risk. Such neglect can become a major problem because the current income tax discriminates against risky equity investment in favor of safe debt investments. Such discrimination appears to violate principles of optimal taxation: if both risky and safe assets produce income for future consumption, why should the tax system discriminate between alternative investment strategies? Consumption taxation would eliminate this discrimination and would thereby improve both the allocation of capital and the incentives to save. Even some partial reforms would have substantial value. This study shows that eliminating the debt-equity distinction in the tax code may by itself achieve half the benefits of moving completely to a consumption tax.

Third, tax analyses usually focus on the labor supply and the formation of physical capital. Because human capital is more important than physical capital in a modern economy, the limitation is serious. Many economists argue that the current tax and education systems put little tax burden on the formation of human capital; that position would seem to justify the focus on the taxation of physical capital. This chapter makes two points. First, adding the formation of human capital to the analysis increases the estimated benefits from tax reform even if the incentives for investment in human capital are undistorted. Second, the study argues against the conventional view by pointing to the large amount of educational expenditures, both private and public, that most proposals for tax reform would include in the tax base. The inclusion violates the principle of a consumption tax because a true consumption tax would define the tax base as output minus all investment expenditures.

These three considerations—imperfect competition, risk, and the accumulation of human capital—all indicate that consumption taxation is even more beneficial, both in the long run and during transition, than generally argued. Such presentations initially ignore the impact of distribution. Two important points relate to concerns about distribution. First, some analyses argue that the elderly may lose from tax reform. A switch to consumption taxation may cause them to pay new taxes on their wealth either directly or implicitly through a decline in asset values. In particular, Gravelle (1995) predicts a

20–30 percent fall in stock prices if the Hall-Rabushka flat tax is passed. Such arguments typically assume perfect competition, whereby no firms earn any economic rents. Although farms and other small businesses may be competitive, they are not part of anybody's stock portfolio. It is difficult to view firms such as Microsoft, GM, and Boeing as perfectly competitive price takers. Their CEOs would not last long in their jobs if they were satisfied with normal profits and did not pursue opportunities to earn extranormal profits for their shareholders. Thus, this study argues that any predictions of collapses in asset prices are blunted, possibly even reversed, when an analysis includes imperfect competition. The presence of imperfect competition implies that firms earn pure profits on extra production and that the increase in future output induced by the flat tax (or any other consumption tax) would cause asset prices to rise immediately. The increase in asset prices would allow elderly asset holders to participate at once in the future benefits of tax reform and would make tax reform more uniformly beneficial across the generations.

Second, many middle-class families would lose from tax reform because of the loss of deductions for home mortgage interest and for state and local taxes. Some economists propose keeping the deduction for mortgage interest to avoid middle-class losses and to get that group to join the political coalition for a consumption tax. But retention of those deductions would substantially reduce the potential gains in efficiency from tax reform because the current bias against nonresidential business investment would continue. An alternative adjustment in tax reform proposals would allow the deductibility of some educational expenditures. The deduction would mitigate the issue of distribution since the adjustment could be aimed at middle-class taxpayers but would not deviate from the principle of a consumption tax.

Many proposals for a consumption tax have been put forward, including those described in Bradford 1986, Hall and Rabushka 1983, McLure and Zodrow 1996, and Weidenbaum 1996. Consumption tax principles also apply to any proposal for a value-added tax (VAT) or a national sales tax (NST) because either would eliminate the taxation of income on new investment. This analysis does not focus on any one proposal since the arguments for consumption taxation made here apply to all of them. Other proposals argue for eliminating the double taxation of equity income through the integration of individual and corporate taxation, thereby eliminating the asymmetric treatment of equity and debt assets (see Treasury 1992). Many of the results here also apply to those proposals because the focus is on the taxation of capital income. Similarly, the arguments in this chapter apply to features of more conventional tinkering with the tax code, such as the reintroduction of the investment tax credit. The results here show the importance of including imperfect competition, risk, and the formation of human capital to the analysis of any tax reform proposal.

The case for consumption taxation is strong and is even strengthened by including those features that make our economy a modern and technologi-