THE EFFECTS OF TAX REFORM ON HOUSING

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1. INTRODUCTION

Tax reform is concentrating more and more on consumption taxes. The wedge of the income tax raises the price of later consumption relative to the price of current consumption. A basic goal of consumption taxation is to remove that wedge. The rationale is deep and general—in an intertemporal economy, capital is an intermediate product and it is undesirable to tax intermediate products at all.

A tax reform that replaces an income tax with a consumption tax has a key intertemporal effect. Under an income tax at rate τ with marginal product of capital r, the relative price of consumption this year is distorted by the factor

$$\left\{\left[1-(1-\tau)r\right]/\left[1-r\right]\right\}^i$$ relative to consumption i years from now. The cheapening of current consumption relative to future consumption caused by an income tax is the source of its disincentive for saving. Under a consumption tax, there is no distortion at all between present and future consumption. The incentive to save is at its efficient level.

There are many ways to set up a consumption tax but all of them have the same fundamental effect on the economy. The only distortion present under a consumption tax is between the household's internal use of time and time spent in the market. At the most basic level, different forms of consumption taxes cannot be judged by their effects on relative prices. Still, it is important to

understand the various ways that value-added taxes, sales taxes, and personal consumption taxes differ. The immediate effects of tax reform can differ because of wage rigidity and because there are one-time wealth effects associated with the before- and after-tax distinction.

To give some organization to the discussion, I will proceed in the following way. I start by describing the various consumption tax systems that are under consideration. These are three variants of the value-added tax, the sales tax, and the personal consumption tax. Then I lay out the basic effects of the taxes on atemporal relative prices and draw certain conclusions about the transition. Next I consider the implications of nominal wage rigidity in order to describe the effects of tax reform on nominal prices and the value of nominal debt. I *move on to the more difficult territory of intertemporal effects, particularly* interest rates. Then I consider the effects of tax reform on housing.

2. TAXES CONSIDERED

A *value-added tax* (VAT) is a tax on firms on the difference between total revenue and purchases of intermediate products from other firms. Purchases of capital goods are counted as intermediate products. I will assume that firms quote their prices inclusive of the VAT. With respect to foreign trade, the VAT may be on an origin or destination basis. The *origin-basis VAT* includes revenue from foreign sales in the base and permits deductions for purchases of intermediate products from foreign sources. The *destination-basis VAT* excludes exports and imports, or, equivalently, imposes an import duty at the VAT rate and pays a rebate on exports. Finally, the *Hall-Rabushka VAT*[1] is a variant of the origin-basis VAT in which the firm deducts the wages it pays and there is a personal wage tax at the VAT rate. The motivation for this complication is that it permits easy administration of an exemption, in order to make the VAT progressive. The Hall-Rabushka proposal is usually called the "flat tax," although it really has two brackets, one at zero and the other at a single positive rate. Many popular discussions of the flat tax do not refer to the Hall-Rabushka proposal and may not even refer to consumption taxes.

A *consumption sales tax* is a tax imposed on sellers of consumption goods at the point where they go into the hands of final consumers. Again, I assume that firms quote prices inclusive of tax. I will also assume that the tax is on the destination basis—it is imposed on imported consumption goods and all exported goods are free from tax.

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[1] Hall and Rabushka (1995).

A *personal consumption tax* measures consumption at the household level on a cash-flow basis. It is a personal income tax with an unlimited deduction for saving.

With respect to houses, I will assume that the VATs and the sales tax are imposed on the sellers of new houses and that the purchase of a new house is treated as consumption under a personal consumption tax. The latter assumption is probably not realistic, but it does not seem worthwhile to track down the complexities in the way that housing would actually be handled under a personal consumption tax.

All of the taxes described above are consumption taxes. The tax base for the destination VAT, the consumption sales tax, and the personal consumption tax is literally consumption as measured in the national income accounts, except that housing is treated as a consumer durable.

3. BASIC ATEMPORAL EFFECTS

To explain the basic effects, I will make the simplifying assumption that there is only one kind of output. Absent taxes, all types of output would have the same price. As numeraire, I will take the consumption good after VAT or sales tax but before personal tax. I assume competition in all markets. I denote the marginal product of labor by λ. The prices I will consider are:

1. The wage paid by the firm,

2. The wage received by the worker,

3. The price of traded goods paid by the export customer or received by the import supplier,

4. The price of investment goods received by the seller,

5. The value of investment goods to the owner net of tax, and

6. The value of housing to the owner net of tax.

Table 1 shows the effects on these relative prices of the various taxes.

TABLE 1.

Prices Relative to Domestic Consumption Goods

	Destination-basis VAT	Origin-basis VAT	Consumption sales tax	Hall-Rabushka	Personal consumption tax	Personal income tax
Cost of labor to firm	$(1-t)\lambda$	$(1-t)\lambda$	$(1-t)\lambda$	λ	λ	λ
note	a	a	a	b	b	b
Benefit of work to worker	$(1-t)\lambda$	$(1-t)\lambda$	$(1-t)\lambda$	$(1-t)\lambda$	$(1-t)\lambda$	$(1-t)\lambda$
note	c, e	c, e	c, e	d, e	d, e	d, e
Traded goods	$1-t$	1	$1-t$	1	1	1
note	f	g	f	g	g	g
Price received by seller of investment goods	1	1	$1-t$	1	1	1
note	h	h	i	h	h	h
Value of investment goods to owner	$1-t$	$1-t$	$1-t$	$1-t$	$1-t$	1
note	j	j	k	j	j	m
Houses	1	1	1	1	1	1
note	n	n	n	n	n	n

Explanations of the entries in the Table 1:

    a. For the two VATs and the sales tax, the goods-work wedge occurs within the firm. The equilibrium wage at zero profit is equal to the net after-tax selling price, $1 - t$, multiplied by the marginal product of labor, λ.

    b. For the three taxes where the wage component is collected at the personal level, there is no tax wedge at the firm level.

    c. For the two VATs and the sales tax, the wage paid and the wage received are the same.

d. For the three taxes where the wage component is collected at the personal level, there is no tax wedge at that level.

e. Hence all six taxes drive the same wedge between the benefit of working and the price of consumption goods. The wedge is the inescapable inefficiency of taxation when it is impossible to tax the consumption of time at home.

f. The destination VAT and the sales tax raise the price of consumption goods above traded goods, because the tax is levied on imports and rebated on exports.

g. Consumption goods and traded goods have the same price for taxes without border adjustments.

h. For the VATs including Hall-Rabushka, purchasers pay the same price for investment goods as for consumption goods; they receive the tax incentive for investment through a deduction against their own taxes. The personal consumption tax provides the incentive on the saving rather than the investment side, so it has equal prices for consumption and investment. Finally, the personal income tax does not have an incentive, so it too keeps the prices the same.

i. Under the consumption sales tax, the market price of investment goods is below the price of consumption goods so as to provide the incentive for investment.

j. Under the three VATs and the personal consumption tax, the sale of investment goods incurs a tax.

k. Under the sales tax, the price of investment goods is already less than the price of consumption goods. Thus, all consumption taxes drive the value of investment goods to $1 - t$.

m. Under the income tax, with depreciation allowances that track market value, existing investment goods sell at par with new ones.

n. Given the assumption that the sale of an existing house has no tax consequences for any of the six taxes, the prices of new and existing houses will be on par. I have assumed that all of the consumption taxes treat new houses as consumption goods, so the prices of new houses are on par with consumption.

4. TRANSITION ISSUES INFERRED FROM EFFECTS ON RELATIVE PRICES

As I noted in the introduction, the immediate effects of a move to a consumption tax involve not only the relative price effects displayed in Table 1, but also issues of wage rigidity and changes in interest rates. Still, some important inferences follow from the table.

First, under either the destination or origin VATs or under the sales tax, the real product wage must fall by the amount of the tax. Under the existing income tax, wages are set on a pre-tax basis, whereas under the VATs or sales tax, wages are set on an after-tax basis. Most of the issues associated with the lowering of the real product wage have to do with wage rigidity, so I will defer further discussion of this point until the next section.

Second, all of the consumption taxes depress the price of existing capital goods. Whereas, under an income tax, the owner of capital goods can convert them to consumption without paying additional taxes, the same conversion incurs the consumption tax in all cases. Under the VATs, the tax is paid directly by the business if sales of existing capital are counted as negative investment. If not, the same effect occurs because used capital will not qualify for the tax deduction given to newly produced capital. Under the sales tax, both the prices of new and existing capital are depressed by the amount of the tax. And under a personal consumption tax, the sale of capital goods is taxed as negative saving. The depression of the price of existing capital is a more precise statement of a point made frequently in different language: The move from income to consumption taxation imposes double taxes on existing saving. It was taxed first under the income tax and now will be taxed again under the consumption tax. The statement is clearly true for direct ownership of capital goods. Its truth for savings in nominal financial claims depends on the price level issues to be considered in the next section.

Finally, Table 1 reveals no transition issues for housing. Both the income tax and the consumption tax in all its variants leave the price of houses on par with goods consumption. This conclusion is over-reaching for two reasons: (i) it considers housing to be a completely produced good and does not consider the price of land, and (ii) it looks at housing only from the supply side; in the short run, the demand for housing will affect the prices of existing houses. I will take up the housing demand issues later.

4.1 Stock Prices

As a simplification, think of equity as direct ownership of capital goods. The consumption tax depresses the purchasing power of the existing capital stock. Domestic equity holders suffer capital losses from consumption tax reform. The destination VAT and the sales tax keep foreign equity holders whole because these taxes lower the price of traded goods in terms of domestic consumption goods by the same amount.[2] The origin VAT and Hall-Rabushka impose the same loss on foreign equity holders as on domestic ones.

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[2]This point may be easier to see if one supposes that the price of domestic consumption goods rises by the amount of the tax. Neither the price of equity nor the price of traded goods changes at all. Domestic shareholders suffer a loss of purchasing power, but foreign equity holders can still buy the same volume of goods with their shares as they could before tax reform.

5. NOMINAL PRICES AND PRICE MEASUREMENT

Prediction of the effects on nominal prices as the result of the transition to a consumption tax enters the tricky territory of price-level economics. Under monetary neutrality, the price level is chosen unilaterally by the central bank. An event such as tax reform affects the price level only to the extent that it makes the central bank choose a different target.

With monetary non-neutrality, there is more to say, though of course the central bank unambiguously chooses the price level in the longer run. The biggest issue is how nominal prices and wages achieve the decline in the real product wage required under a VAT or sales tax. Either the price level must rise or the wage level must fall. If the latter is ruled out as impractical, then the economy needs a quick burst of inflation. If the inflation triggers indexation, there may be further problems. British adoption of the VAT in 1979 put the economy through this type of cycle.

The central problem is the wage contract. Under the income tax, wages are set on a pre-tax basis. Workers pay taxes out of their earnings. The taxes that put wages on an after-tax basis—the VATs and the sales tax—call for either a price change or a wage change to accommodate the switch. One way is for wages to fall by the amount of the tax. Except for effects caused by changes in tax rates, there would then by no change in after-tax wages, and prices would not have to change. Evidence on the nature of the wage contract suggests it would be difficult to bring about the immediate wage cut. The other way to accommodate the change is for prices to rise. Then the wage contract is honored in nominal terms, but real after-tax earnings are kept stable in the face of tax reform by the price increase. In order for a price increase to work, it is essential that there be no feedback from prices to wages. In an economy with full cost-of-living escalation of wages, no price increase would be large enough to get the real after-tax wage back down to its appropriate level.

The best answer would appear to be to encourage firms to reset prices on the day the tax become effective by the amount of the tax, and then to define the cost of living index to exclude the VAT or sales tax. The goal is to get the price level to rise immediately but not to develop any momentum, and to prevent wages from changing at all.

The taxes that leave wages on a pre-tax basis—Hall-Rabushka and the personal consumption tax—do not encounter this problem at all. The existing wage and price levels remain the appropriate levels after tax reform.

The assumption I will make in the remainder of the paper is that the standard VATs (but not Hall-Rabushka) and the sales tax cause a one-time increase in the prices of consumption goods and the other taxes leave the price level unchanged. This assumption is stated in the first line of Table 2.

5.2 Nominal Exchange Rates

As I noted in the previous section, the destination VAT and the sales tax drive wedges between domestic consumption goods prices and the prices of traded goods. As a result, they affect real exchange rates in the same way. If, as suggested above, the right accommodation to a VAT or sales tax is an immediate jump in the nominal price level, then nominal exchange rates need not change. However, it will not be possible to introduce a VAT as a complete surprise and raise the price level by 20 percent in the same millisecond. The foreign exchange market will be perturbed by expectations.

These conclusions are summarized in the second and third lines of Table 2.

5.3 Value of Debt Claims

With respect to debt, the issue is the change in the price level. It is both realistic and desirable for the domestic price of consumption goods to rise by the amount of a VAT or sales tax. Thus, debt holders suffer a loss of purchasing power over domestic consumption goods equal to the amount of the tax, for the these taxes. Foreign debt holders come out even in relation to traded goods for the destination-basis VAT and the sales tax and lose under the origin-basis VAT. No changes in any of these nominal variables or in the purchasing power of debt would need to occur under Hall-Rabushka or a personal consumption tax.

The conclusions about the purchasing power of debt are summarized in the fourth and fifth lines of Table 2. They shed some more light on the issue of the double taxation of existing saving as a result of a move from income to consumption taxation. Under the standard VATs and the sales tax, where a one-time rise in the price level is needed to accommodate the tax, the loss in purchasing power of nominal debt creates double taxation. Under the personal consumption tax, there is no change in the purchasing power of debt, but the act of consuming will be taxed, so again there is double taxation. Only under Hall-Rabushka, among the five consumption taxes, is there no double taxation of existing saving in the form of debt.

TABLE 2.

Effects on Nominal Measures

	Destin- ation-basis VAT	Origin- basis VAT	Con- sumption sales tax	Hall- Rabushka	Personal con- sumption tax
Nominal price of consumption goods	↑	↑	↑	0	0
Nominal price of traded goods	0	↑	0	0	0
Nominal exchange rate	0	↓	0	0	0
Value of dollar debt in relation to consumption goods	↓	↓	↓	0	0
Value of dollar debt in relation to traded goods	0	↓	0	0	0

Notes: ↑ means rise by the amount of the tax; ↓ means fall by the amount of the tax, and 0 means no change.

6. INTEREST RATES AND RELATED ISSUES

The most complicated and interesting issues about the move to consumption taxation involve interest rates and asset markets. The discussion of these issues is necessarily tentative because there are large unresolved questions in the economics of consumption that bear directly on the issues.

6.1 Fundamental Analysis

Although the fundamental analysis, based on the life-cycle theory of consumption, does not seem to answer many of the questions about the operation of world capital markets, it provides a good point of departure. In an economy where people live for many decades, or where families have common

budget constraints from one generation to the next, the growth of consumption is governed by the Euler equation,

$$\frac{\dot{c}}{c} = \sigma\left[(1-\tau)r - \rho\right] \tag{1}$$

Here c is consumption, σ is the intertemporal elasticity of substitution in consumption, τ is the income tax rate on interest, and ρ is the rate of impatience. See Hall (1988) for a discussion of the rationalization of this equation.

Under the further assumption that, in the steady state, the growth of consumption is the exogenous growth rate, g, of the whole economy, I conclude that

$$r = \frac{\rho + \dfrac{g}{\sigma}}{1 - \tau} \tag{2}$$

A consumption tax changes the income tax rate τ to zero. If the rate were previously, say, 30 percent, the interest rate should decline by 43 percent upon a switch to consumption taxation. Many important conclusions about the transition would follow if this drop occurred quickly.

The discussion of the reasons that interest rates do not drop sharply and immediately can be divided into three parts:

1. The decline cannot take effect until there has been enough extra investment to drive down the marginal product of capital,

2. Large amounts of interest income are not currently taxed, and

3. The United States is embedded in a world capital market.

6.2 Timing of Interest Decline in a Theoretical Model of a Closed Economy

The effect of tax reform is well understood in a closed competitive economy with a single kind of output, a single kind of capital, and life-cycle consumers (Hall (1971)). Assume for simplicity that the imposition of the consumption tax is a surprise, so that there is no intertemporal substitution effect from the consumption tax. The market interest rate in the economy is the net marginal product of capital. Assume, for the moment, that labor supply is inelastic. Because the tax reform does not affect the capital stock and because there is no change in the level of employment, the interest rate does not change initially. However, the consumption Euler equation shifts because the income tax rate, τ, has fallen to zero. Consumption must grow faster—that is, consumers must

defer consumption in order to take advantage of the higher incentive to save. Consequently, consumption falls discontinuously at the time of tax reform. The extra output is invested. As the capital stock rises, the interest rate falls. As the interest rate approaches its new lower level, consumption growth declines to equal the rate of growth of output.

At reasonable parameter values, the convergence to the new steady state with more capital and a lower interest rate is largely completed within a decade. If labor supply is elastic and is governed by life-cycle principles, then the convergence is faster. The immediate effect of tax reform is to stimulate labor supply, which elevates the interest rate in the short run. The immediate depression of consumption is greater, and the rate of capital accumulation more rapid.

6.3 The Extent of Income Taxation of Interest Income

The model just discussed is a great oversimplification of the U.S. tax system. Large amounts of business income are paid out as interest but not taxed under the personal income tax.[3] In fact, only a tiny fraction of all interest paid is reported as income under the personal tax. The tax treatment of saving for retirement operates on the consumption principle, in particular.

6.4 Interaction of the U.S. Economy and the Rest of the World

U.S. capital markets are tightly integrated with those of other major industrial countries, notably Japan, Britain, and Germany. Those countries rely on a mixture of consumption and income taxation and presumably would not change their tax systems upon U.S. tax reform. The analysis of tax reform in the open U.S. economy has to consider the general equilibrium in a world economy with heterogeneous tax systems.

The general equilibrium analysis encounters a basic problem, as a number of earlier authors have observed. Equation (2), describing the interest rate in the long run, ought to apply to each country, with parameters specific to the country. But a world capital market should have a single real interest rate. The biggest paradox is for growth rates. High-growth countries like Japan should have chronically higher interest rates, according to the life-cycle theory. In fact, real interest rates seem to be roughly equal among the major countries with open capital markets. Although expected changes in real exchange rates can support differences in real interest rates in the short run, neither theory nor actual experience suggests that this mechanism works in the long run.

Tax reform in the United States would encounter the same paradox. How can the U.S. interest rate fall if interest rates in Japan and elsewhere remain locked in place by equation (2)? The answer to both the growth and tax

[3]See Gordon and Slemrod (1988).

paradoxes appears to be that real interest rates for equivalent traded securities are equalized in world markets but households see rewards for saving that are sufficiently different to satisfy equation (2) separately for each country's parameters.

Differences in internal capital markets among countries may be an important part of the resolution of the paradox. For example, direct controls on borrowing may prevent Japanese households from the high levels of debt that would be needed to satisfy the life-cycle model's prescription for scheduling consumption in a high-growth, low-interest economy. On the other hand, the U.S. consumer is in fairly direct contact with world capital markets. Interest rates in the most important credit market for households, the mortgage market, are tightly linked to world rates.

In world equilibrium, firms and intermediaries in countries with naturally high interest rates (with high growth rates and high income tax rates) will be net suppliers of bonds in world markets. Equilibrium occurs where the marginal cost of issuing more bonds is equated, after risk adjustment, to the costs of other sources of funds and to the marginal benefit from investing the funds. Patterns of specialization in the issuance of securities should track differences in fundamental interest rates as described by equation (2).

In the resulting equilibrium, there may be scope for a considerable effect of tax reform on U.S. interest rates. In the first place, the United States is about a third of the total world capital market. Second, relatively modest changes in the pattern of specialization in world securities markets may be enough to reach the new equilibrium in which the world interest rates have moved most of the way to the point predicted by equation (2) for the United States.

6.5 Martin Feldstein's Concern about Higher Interest Rates under a Consumption Tax

A recent analysis by Martin Feldstein (1995) makes the alarming prediction that replacement of the existing corporate and personal income taxes with a unified consumption tax would result in an immediate and large *increase* in before-tax interest rates, contrary to the standard analysis. He finds earlier studies deficient because they do not explicitly consider the effect of the removal of the *corporate* income tax. Discussion of this issue enters the difficult territory summarized by the question: Why do corporations pay dividends? Absent twice-taxed dividends, the U.S. tax system would tax corporate income once at the corporate level and all other income—interest and wages—once at the individual level, and would be amenable to the standard analysis, particularly because the marginal rates of the two taxes are close to each other.

Feldstein's analysis is not carried out in a general-equilibrium model where consumers make explicit choices about present against future

consumption, given opportunities to use current resources to form capital rather than for consumption. Instead, he posits a model where equity and debt co-exist in the market in the presence of the corporate and personal income taxes, despite a huge tax advantage for debt. When the corporate income tax is removed, the return to equity rises because shareholders no longer face the burden of that tax. The interest rate on debt has to rise in order to preserve its historical relation to the equity rate. Under the assumptions of Feldstein's model, a more reasonable story would be that the potential return to equity is far below the interest rate in the presence of the corporate tax. Firms finance with debt alone. When the corporate tax is removed, the potential return to equity rises to the point where equity is viable. No change in the interest rate occurs.

Two standard cases are well understood in public finance discussions of the corporate income tax. First, corporations may use debt as the marginal source of finance for investment. In that case, the corporate tax extracts a lump sum from the corporate sector and the analysis based on just the personal income tax applies, as outlined above. Second, corporations may forego dividends to finance investment. In that case, the personal taxation of dividends is on a consumption basis and does not distort the investment decision. Only the corporate tax rate has the distorting effect, and we may use the standard analysis taking the corporate tax rate to be the relevant income tax rate that is changed to zero by the switch to the consumption tax. These two cases are only illustrative, not exhaustive, but they do point in the direction of the standard view.

Although Feldstein's model does not do justice to the issue, I believe he is correct in pointing out that the standard analysis is oversimplified. U.S. firms do not rely exclusively on debt finance. I will sketch out a view that has some of the implications of Feldstein's work. First, the tax system distorts firms' financing decisions toward debt because interest is always deductible at the corporate level but is often not taxed at the personal level as a consequence of being paid into retirement funds. The return to equity enjoys the same freedom from personal taxation but is taxed at the corporate level. The distortion toward debt finance imposes agency and monitoring costs on the firm and its lenders or bondholders.

A consumption tax would remove the distortion and permit firms to make efficient decisions about their capital structures. Firms would use more equity and less debt to the point where the agency costs of debt were nil, leaving us in a Miller and Modigliani world where leverage doesn't matter (in the relevant range). The effect would be to raise the marginal product of capital— management input, a complementary factor to capital, would effectively increase. With a higher marginal product of capital, the pure risk-free interest rate and the risky rates of return of all types of productive assets would rise, just

as Feldstein suggests. This rise in interest rates would be accompanied by increased, not decreased, real investment. An *increase* in the productivity of existing capital raises its return, and thus the recognition of the agency costs resulting from our present tax system and their removal introduces some ambiguity about the impact of the consumption tax on the return to capital. However, the magnitude of the rise in interest rates would probably be far less than Feldstein predicts, I believe. Corporate transactions in equity are sufficiently small to make me believe that the relevant margins for financing investment are and will remain the ones where before-tax interest rates will close to unchanged after tax reform.

Feldstein also questions the standard view that a consumption tax would stimulate enough investment to push the interest rate back down to its earlier after-tax level over a decade or so. He does not consider the standard Ramsey analysis expressed in my earlier equations 1 and 2, that, in the long run, the interest rate will converge to a level determined by consumers' rate of time preference and the growth rate. Instead, he asks what level of gross saving would be needed to sustain a capital stock large enough to push the marginal product of capital this low. He is skeptical that the U.S. economy could save enough to lower the interest rate by very much in the longer run. Further investigation of this criticism would seem to be in order. Cross-country evidence on the failure of the Ramsey condition may support Feldstein's position.

Feldstein carefully avoids any welfare conclusions. There is a danger, however, that he will be misinterpreted as suggesting that a consumption tax would lead to a stagnant economy with high interest rates and low investment, compared to one with an income tax. His analysis indicates just the opposite. Replacement of the corporate and personal income taxes with a consumption tax would *raise* the private return to capital, whether earned through equity or debt. An investment boom would follow. Private incentives for investment would improve substantially. Feldstein fears the perverse reluctance of Americans to save enough to take full advantage of the improvements that a consumption tax would bring.

7. HOUSING

The fear that consumption taxation would wipe out housing values is one of the major political obstacles to tax reform. The factors entering the analysis of this sensitive issue are:

1. A consumption tax stimulates demand for investment goods, such as houses.

2. All of the consumption taxes considered here place a new tax on the rental value of the structural part of owner-occupied housing, which will reduce the demand for housing.

3. The price of land in the long run and structures in the short run will fall as a result of the elimination of the personal tax deduction for mortgage interest.

4. The price of land will rise as the interest rate falls.

7.1 Houses as Investment Goods

It will be useful to imagine that houses are treated as investment goods under a new consumption tax. That is, the effective price of a new house is lower than the effective price of consumption by the amount of the consumption tax. For example, under a sales tax, new houses would be exempt from tax. By itself, this element of the consumption tax would stimulate housing demand, just as a consumption tax will stimulate demand for plant and equipment.

7.2 Taxation of the Rental Value of Owner-Occupied Structures

All of the taxes considered here impose the consumption tax on the service value of housing structures. The failure of the existing income tax to tax the service value of consumer durables, including housing, has been the subject of extensive commentary. The case for federal taxation of housing services is uneasy, however, because state and local property taxes already put the equivalent of a tax on housing services. The addition of a federal tax might push the balance too far in the direction of a bias against housing. A further complication is that some of the state and local taxes finance personal consumption and should not be considered taxes at all.

None of the consumption taxes actually measures and taxes the value of the services of houses. Instead, they impose an equivalent tax at the time houses are built. Contractors would pay the VATs, the sales tax, or the Hall-Rabushka tax and there would be no provision for families to deduct the cost of a new house. Structures would be on an equal footing whether they were owned or rented. In the rental situation, the landlord would receive an immediate write-off for the new structure and would then pay tax on the rental receipts. The two should be equal in present value. Eliminating both sides, as in the case of owner occupancy, leaves the substance of the tax unaffected.

Note that the treatment of houses as investment goods calls for removing the taxation of new house production, while the taxation of the flow of services calls for replacing exactly the same tax. The combination of treating houses as investments and of bringing their service flows into the tax base is an exact wash. Under all of the consumption taxes considered here, housing does not

participate in the investment boom that would accompany tax reform, because of the extension of taxation to housing services.

7.3 Elimination of the Mortgage Deduction

As a general matter, the deductibility of interest under an income tax is purely an administrative question and has no economic substance. If all taxpayers were subject to interest taxation in the first place, the removal of all interest deductions and the companion removal of all interest taxation would simply result in interest rates that were lower by the amount of the income tax. In this world, removing the mortgage deduction would have almost no effect, even in the short run, on housing.

The U.S. income tax is far from the simple creature just described. Many interest recipients are not taxed, and the personal tax permits deduction only of interest on borrowing against securities and houses. To some extent, the demand for houses is increased and the demand for cars is decreased because houses permit deductible borrowing and cars do not. Interestingly, although the personal tax treatment of interest on borrowing against securities is identical to that for houses, nobody has characterized the deduction of interest on securities as a "subsidy" to securities.

Under the modern U.S. income tax, only higher-income taxpayers take itemized deductions. The impact of the elimination of the benefit associated with deductibility of interest on mortgages would necessarily be limited to the upper end of the housing market.

I conclude that removal of the tax deduction for mortgage interest would be a small negative influence in the short run for the price of housing structures and in the short and long run for land prices.

7.4 Lower Interest Rates

The switch to consumption taxation will cause lower interest rates in the longer run. Recall that land is not brought under consumption taxation under any of the proposals. The price of land would rise immediately on account of the anticipation of lower future interest rates.

7.5 Conclusions on Housing

On net, I believe that the consumption tax reforms considered in this paper would have a modest negative effect on housing prices and demand. If the reforms did not extend taxation to housing services, there would be a substantial stimulus to housing demand. The effect on housing prices would depend on how the consumption taxes avoided the taxation of services.

Under a sales tax, an easy way to avoid taxing housing services would be to exempt new houses from the tax. Houses would then fail to participate in the jump in prices that would affect consumption goods. Under all of the other

taxes, the purchaser would need to be given a deduction or rebate at the time of purchase. For the standard VATs and Hall-Rabushka, it is hard to see how this could be done in practice. For the VATs, some kind of personal tax return just for this purpose would have to be created. For Hall-Rabushka, the loss carry-forward mechanism currently present in the business tax return would have to appear on the personal return. For a personal consumption tax based on the cash-flow principle, the deduction would be straightforward, but only because that tax is so complicated to begin with.

The ease of accommodating a more generous treatment of housing may tilt the balance of tax reform toward a national sales tax. Alternatively, under Hall-Rabushka or any consumption tax system that has a personal return, it would be attractive to create a deduction related to home ownership. For example, homeowners could deduct double their state and local property taxes. The effect would be to lower the rate of federal taxation of housing services to reflect the high existing rates under state and local property taxes.

The inclusion of a deduction based on property taxes could more than offset the adverse effects of tax reform on housing.

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