Stage Two Tax Reform and Housing

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STAGE TWO TAX REFORM AND HOUSING*

BY GEORGE FALLIS**

I. INTRODUCTION

The value-added tax proposed by the Minister of Finance of the Government of Canada,[1] like most value-added taxes (VAT) in Europe, is intended as a tax on final consumption by households. A retail sales tax is usually also intended as a tax on final consumption; but whereas a retail sales tax taxes consumption value at the final stage in the production-distribution-retailing chain, the proposed multi-stage tax levies tax on the incremental value added at each stage in the production-distribution-retailing chain.

A large percentage of household consumption is housing services: in Canada housing consumption was 18 percent of total consumption in 1984.[2] Canada seeks to have a comprehensive base for the value-added tax and therefore would like to include housing consumption. However, there is a problem.

All households consume housing services; both households who rent housing and households who own housing. It is obvious that landlords are the firms supplying housing services to tenants. But who produces the housing services consumed by homeowners? The homeowning household is the firm supplying housing services to itself. The household can be thought of as both tenant and landlord. In principle, the homeowner should be treated as a firm producing housing services; just as a landlord should be treated as a firm producing housing services. If the tax on consumption were levied as a single-stage retail tax, it would be imposed on the value of housing services produced by homeowners and by landlords. If the tax were levied as a multi-stage tax, it would include the value added by homeowners as producers of housing services and the value added by landlords as producers of housing services. Both are the last stage in the chain of producing housing services. However,

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[1] Canada, *The White Paper Tax Reform 1987* (Ottawa: Department of Finance, 1984) at 59.

[2] Statistics Canada, *National Income and Expenditure Accounts 1970-1984*, Catalogue 13-201 (Ottawa: Minister of Supply and Services, 1984).

there are severe political and administrative difficulties to levying a tax on homeowners-as-landlords.

The administrative difficulties are significant, but probably not insurmountable. The main problem is that there is not an explicit market transaction between the household-as-tenant and the household-as-landlord, and hence no market valuation of the housing services produced. In place of a market valuation, there would have to be rules and regulations developed to impute the value of housing services produced. (Statistics Canada when calculating consumption in the nation imputes the aggregate value of housing services produced by homeowners.) This administrative problem is similar to that which arises in designing an income tax. Taxpayers who own and occupy their homes are landlords to themselves and earn income as landlords. This income should be included in the total income of the taxpayer. This income is the imputed net rent and would be calculated as the imputed gross rent of the owner's house minus any expenses incurred in producing the housing services. Both levying a VAT on housing consumption and including net imputed rent in taxable income require an imputation of the gross value of housing services. Some European nations do include net imputed rent in the income tax base, but Canada does not. Therefore, while it is obviously feasible to include homeowners' housing consumption in a VAT, it would be very difficult in Canada. It would probably require a parallel change in the personal income tax system; but the recent reforms to the personal income tax in Canada did not include net imputed rent in the tax base. Canadians have no experience with the concept of the homeowner-as-firm and would likely find it distasteful and difficult to grasp. Previous proposals to include net imputed rent in the income tax base have certainly been greeted this way. Also, the compliance costs of including the homeowner's value added in a VAT would be significant because most households do not keep the sorts of accounting records suitable for establishing an auditable tax base. Finally, inclusion of homeownership would add millions of collection points to the tax system.

The administrative barriers are further reinforced by the political barriers. Housing consumption is a necessity, and there will always be pressures, well-intentioned though perhaps misguided, to exempt housing from a sales tax. Also, homeownership has a special

quality bound up with myths about "a man's home is his castle" or "homeownership leads to responsibility and a stake in the community" or "every hardworking family aspires to own their own home". Homeownership seems out of reach to many families in large Canadian cities at present. These factors create strong political resistance to new taxes on housing.

Together the political and administrative problems mean it is probably impossible to include homeowners' value added in the tax base. The essence of the difficulty is an example — probably the most important example — of a more general problem when levying a value-added tax on final consumption, namely how to deal with home production. Many consumption items are produced in the home; and also in many cases the household can choose between producing the items themselves or buying them from firms in the private market. Households can make their own meals at home, or eat in a restaurant. A spouse can take care of children at home, or the children can go to daycare. And a household can buy a house and produce housing services for themselves (cutting the grass, shovelling the snow, arranging maintenance and insurance, paying the utilities, mortgage and property taxes and so on); or it can rent a house and in effect buy the housing services produced by the landlord. In general it will be extremely difficult to include the value added from home production in a consumption tax base (just as it has been difficult to include the value of this production in the measurement of national income).

Canada proposes to levy tax only on sales of a commercial nature and so exempt home production and the production of non-profit groups, charities and government. These exemptions significantly reduce the share of total consumption which is subject to full tax.

II. THE CANADIAN PROPOSALS

In June 1987, the Canadian Minister of Finance released *The White Paper: Tax Reform 1987* which proposed a significant overhaul of the federal tax system in two stages. The first stage involved changes to the personal income and corporate income tax system and the extension of the federal manufacturers' sales tax to

telecommunications services. The thrust of Stage One was to reduce personal and corporate income tax rates by broadening the personal and corporate income tax bases and raising the rate on realised capital gains. The base broadening was to be achieved by eliminating special tax advantages. Roughly speaking, there was no tax increase in these proposals; the change was revenue neutral. Stage One had significant implications for housing; the effect depending on the gains from income rate reduction relative to the losses from losing tax privileges and the increased tax rate on capital gains.[3]

It is worth reiterating that the special tax privileges for home ownership — the exemption for imputed net rent and the exemption for capital gains realised on sale of a principal residence — were retained. The political and administrative barriers could not be overcome.

In the second stage of tax reform, the federal government proposes to introduce a new multi-stage sales tax system. Because a new sales tax system is a national undertaking involving fundamental change and because the federal government wishes to explore the possibility for an integrated federal-provincial sales tax, Stage Two will "require wide consultations with interested Canadians and extensive federal provincial discussions".[4] "The government proposes to replace the existing federal manufacturers' sales tax with a broad-based multi-stage tax that extends to the retail level. This multi-stage tax would be a form of value-added tax. It would be levied on and collected from all businesses, in stages, as goods move from primary producers and processors to wholesalers, retailers, and finally to consumers."[5]

The existing MST is applied to a manufacturer's sale price of goods produced in Canada and to the customs value of imported goods. The rate of tax for most manufactured products is 12

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[3]See George Fallis & Lawrence B. Smith, "Tax Reform and Residential Real Estate" in Jack Mintz and John Whalley eds, *The Economic Impacts of Tax Reform* (Toronto: Canadian Tax Foundation) (forthcoming) for an analysis.

[4]Canada, *Tax Reform 1987 Sales Tax Reform* (Ottawa: Department of Finance, 1987) at 2.

[5]*Supra*, note 1.

percent, with construction materials taxed at 8 percent and alcohol and tobacco at 15 percent. Many items such as food, clothing, footwear and books are exempt.

It is likely, although the documentation and political pressures make this somewhat uncertain, that Stage Two will also be revenue neutral. The removal of the MST and its replacement by a multi-stage tax (MSST) would generate sufficient increased revenues to finance an enriched refundable tax credit for low-income households, removal of personal and corporate income tax surcharges, and further personal income tax reductions for middle-income families. The rate of tax for the MSST is yet to be deter-mined. It will depend upon the net revenue requirements noted above and the comprehensiveness of the tax base. The Department of Finance documents and this paper assume a rate of 8 percent.

The federal government outlined three options for implementing the MSST. The first is a national sales tax integrating the federal and provincial sales taxes; much as existing federal and provincial income taxes are now integrated. Both the federal MST and the existing provincial retail sales taxes would be removed. A national sales tax would have the same base in all provinces but permit the provinces to set separate rates. To accommodate variable rates, the tax would be calculated on each sales invoice. The second and third options involve only the federal government – the MST would be replaced by a federal-only MSST. The second option is a federal goods and services tax applied at a uniform rate to virtually all goods and services. It would not require a separate tax calculation on each invoice; rather a business would calculate its tax liability as total taxable sales multiplied times the tax rate, minus total taxable purchases multiplied times the tax rate. The third option is a federal value-added tax which would allow different rates to be applied to selected goods and services or certain classes of business operation. The tax would have to be calculated on each sales invoice. This option would be similar to the VAT in many European countries. Most provinces have expressed interest in the national sales tax and negotiations are ongoing, but the federal-only options have not been ruled out.

The MSST rate also will depend significantly on whether the federal-only option is selected or if existing provincial sales taxes are removed and a joint federal-provincial MSST is put in place. The

federal-provincial option will have much higher rates. Which option is chosen will not matter significantly for goods already subject to provincial sales tax and which have a full MST component in their price. However for goods not subject to tax under the MST and the provincial sales tax but taxable under the MSST, the choice of the federal-provincial option will have huge implications. The rate of tax will go from 0 to as high as 15 even 20 percent under the federal-provincial option, (compared to the 8 percent under the federal only options). Housing will be subject to a substantially greater tax increase if the federal-provincial option is selected (although the rate will not be as high as 15 percent). This paper considers only the 8 percent federal rate.

The introduction to this paper identified the difficulties in including housing services produced by homeowners in a consumption tax base. In order that a VAT not distort the choice between owning and renting housing, an exemption for owner-produced housing services would have to be paralleled by an exemption for landlord-produced housing services. This is the choice of the Canadian government. Residential rentals are exempt and owner-produced housing services are exempt.[6] This exemption will not extend to hotel and motel services or other residential rentals on a short-term basis (periods of less than 60 days).

Producers of tax-exempt services will pay for inputs such as heat and electricity and pay for repairs and improvements at prices which include the MSST, but will not be permitted to recover any of the tax paid. Producers of taxable supplies will pay tax on sales and face input prices including the tax but will be permitted to recover the tax paid on their inputs. Where a building has some long-term rentals but also significant short-term rentals, the building will be treated as having two discrete parts — an exempt apartment and a taxable hotel. Revenues and taxes paid on inputs will be prorated accordingly.

Consider now the capital good or housing stock (the building and land) used in producing housing services. The sale of new residential buildings will be taxable. Builders of houses and

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[6]The MSST exempts all home-produced final consumption and transactions of a non-commercial sector.

apartments (and hotels) will be taxable on their sales but eligible for tax credits in respect of the purchase of taxed inputs such as equipment, materials and services. (Purchasers of new houses or apartments will pay prices including MSST but as producers of exempt housing services will not be eligible for any input tax credit.) Developers of land will be taxable on sales of developed land and eligible for credits on taxed purchases. A self-supply rule will apply so that where a developer/builder subsequently rents to tenants, the developer will be treated as though the building were sold at fair market value when it is put into rental use. Resales of used residential buildings together with the associated land will be tax exempt. Even if an owner-occupied house includes a room used as the office of a self-employed taxpayer, the entire proceeds from sale will be tax exempt. If, however, tax credits have been claimed on some part of the acquisition cost or any cost of capital improvements, then a prorated share of the resale revenues will be subject to tax. Sales by an individual of cottages or hobby farms will be tax exempt. Real property will be broadly defined to include leasehold interests and sale of such interests would be taxable according to the above rules.

Because the MSST is levied on a consumption base, each taxable stage in the production process is allowed a credit for the purchase of taxed capital property. Resales of capital property are taxable where an input tax credit was previously claimed in respect of the property. Thus in general, new and used capital property are on the same footing. If a stage in the production process is tax exempt, firms are not eligible for tax credits on input purchases or capital purchases. In the housing sector, producers of new and renovated housing stock are taxable; but of course households and landlords are not allowed a credit on their purchase. However, sales of used residential buildings are tax exempt and therefore new and used residential buildings are not on the same footing.

The resale of a used residential building in the course of a business which involves the purchase, substantial renovation and resale of such dwellings will be subject to tax. The taxpayer will be able to recover taxes paid on inputs and to claim a notional tax credit on the purchase of the used dwelling even though tax was not paid on sale. Therefore, renovators are only taxable on their value

added; and the resale of substantially renovated homes will be on the same footing as new homes.

These are the main provisions of the proposed MSST relating to housing. There are other more detailed aspects, and certain ambiguities about detailed aspects, but these cannot be considered here. To sum up, the MSST is to be levied on consumption and is to be applied to the value added in each stage of the production process as goods move from primary producers and processors to wholesalers, retailers and finally to households. However, the final stage in the production of housing services is difficult — administratively and politically — to include in the tax base and so the final stage is exempted. Sales of new houses and apartments will be taxable, but sales of used residential buildings will be exempted.

In order to analyse the likely effects of these proposals, it is necessary to introduce them into models of the Canadian economy and Canadian housing markets in which producers and consumers adjust their decisions in response to the tax and so prices and output levels also change. This is the task of the next section. However, as a conclusion to the section describing the proposals it is useful to present a highly stylized picture of the MSST effects at the moment of their imposition when nobody changes their decisions and assuming all taxes are instantly shifted forward into increased prices.

Thus it will be assumed that a value-added tax at each stage in the production-distribution-retailing chain is passed forward in increased prices so that, for example, an 8 percent tax on value added results in an 8 percent increase in the price to the household of the consumption good. The MST similarly would have been forward shifted so its removal would reduce prices by the MST rate.

Existing homeowners and existing landlords will face price increases of 8 percent on certain inputs which are subject to VAT, for example, on electricity, heating fuel, any purchasers of services such as services of plumbers or electricians, and on insurance and financial services. To the extent pre-reform prices included a component of the MST, these price increases will be less than 8 percent. They will likely also face property tax increases because the goods and services purchased by local governments will increase in price due to the MSST. Under these assumptions, the price of

housing services will rise to reflect these input price increases. Therefore, the final consumption of housing services is not completely exempt from tax.

The housing services of existing producers are only exempt insofar as certain stages in the production process are exempt. The final stage in the production of the consumption good housing services can be thought of as management-superintendent-maintenance activity. Homeowners undertake this bundle of activities for themselves; landlords provide it to tenants. This is the last stage in the production chain of housing services. This bundle of activities combines two groups of inputs to produce housing services. The first group is the flow of services from the housing stock. The second group includes diverse inputs — heat, light, labour and building materials for repairs, insurance, some public services. The input costs in this group are often summarized under the heading of operating costs. The MSST proposals exempt the value added in the final stage, the management-superintendent-maintenance stage. They also exempt the value added derived from the existing housing stock. But the value added in operating inputs is taxed. Thus if operating costs were 20 percent of total value added, then housing services would rise by 1.6 percent (.2x8) and the consumption good housing could be thought of as bearing tax at a 1.6 percent rate[7] if the services were produced using the existing housing stock. Assuming that the price of existing housing stock does not change, housing services produced in the future by those who buy existing stock will also be taxed at a 1.6 percent rate.

New buildings sales, however, are subject to the MSST. With the removal of the MST, many prices would fall, especially of manufactured goods or goods produced using manufactured intermediate goods. And the price of building materials would fall by 8 percent (then rise 8 percent due to the MSST). Assuming building materials are 40 percent of the cost of a new building, and that some machinery prices would fall, then the price of new buildings would rise by about 4.5 percent. Assuming that services from housing stock are 70 percent of the value added in housing

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[7]The increase will be less because some prices of operating inputs indirectly reflect the MST and will not rise 8 percent in price when the MST is replaced by the MSST.

services, then housing services produced using stock constructed after the MSST is introduced would rise in price by 4.75 percent (.2 x 8 + .7 x 4.5). Only the last stage in the process (10 percent of the value added) is exempt.

The analysis of this section has not included the possibility that the MSST on financial services might raise the mortgage rate of interest.

III. THE EFFECTS OF STAGE TWO ON HOUSING

When analysing a new tax there is often a tendency to consider the new tax alone, neglecting the fact that the new revenues must also imply either increased public services or increased transfer payments or a reduction in other taxes or a reduction in the budget deficit. However, it is the combination of changes which must be analysed. It is the combination which will actually be implemented. (Similarly, there is often a tendency to consider only the benefits of a new government expenditure, neglecting the costs of increased taxes or borrowing which will finance it.) In this paper the combination of changes to consider is obvious because a package was announced by the Minister of Finance. The changes analysed are: the removal of the MST, the levy of a MSST, the enrichment of the refundable tax credit, the removal of the personal and corporate income tax surcharges and the personal income tax cuts for middle income families. Thus the tax reforms to be analysed will be called Stage Two rather than the imposition of a MSST.

Canada was the first industrial country to levy a manufacturer's sales tax; and 60 years later is the only country still doing so.[8] The MST has been widely criticized and there exists a strong consensus that reform is needed. The Stage Two reforms thus begin with a presumption that removing the MST would generate significant efficiency gains.

It will be assumed that Stage Two will not generate any new revenue to the federal government, although many would challenge

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[8]*Supra,* note 4 at 9.

this assumption. The federal government will face increasing pressure to reduce its deficit; a small increase in the MSST rate can generate millions of dollars; the temptation will be great to use Stage Two reform, or to use the MSST slightly after reform, to reduce the deficit.[9]

Broadly speaking, Stage Two reduces income taxes and increases consumption taxes. It reduces sales taxes on manufactured goods (now taxed at 12%) and increases sales taxes on services and retail trade (now exempt but to be taxed at 8%). It increases taxes on housing services, especially those produced using new housing stock; the effect of the MSST on housing is somewhat offset by the removal of the 8 percent MST on construction materials.

As noted in the previous section, an analysis of the effects of Stage Two requires models of the Canadian economy in which the rate of economic growth; the prices of goods and services; the returns to labour, capital and land; the levels of output of all goods and services; and levels of imports, exports and the exchange rate can all change in response to the tax reform. A comprehensive analysis of Stage Two on housing would involve three types of analysis: dynamic analysis looking at the growth of the economy over time; general equilibrium analysis looking at the interaction of all markets in the economy; and partial equilibrium analysis looking at the housing market alone. Ideally of course one would like to have a dynamic general equilibrium model with sufficient disaggregation that the effects on housing markets alone could be studied. Unfortunately, dynamic models and general equilibrium models seldom have housing components in which one can place much faith.

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[9]See Wayne R. Thirsk, "The Value Added Tax in Canada: Savior or Siren Song" (1987) 13 Can. Pub. Pol'y 259, for a general discussion of the MSST and a more complete presentation of the argument that the MSST will be used to increase taxes.

A. *Dynamic Models*

It is often asserted that increasing consumption taxes will reduce current consumption, increase savings and increase the rate of economic growth. This seems to be one of the motivations of tax reform. The dynamic models in the theoretical economics literature, however, give a mixed report, noting how different motives for savings can lead to different results from increasing consumption taxes. In any event the dynamic effects of Stage Two have not been analysed by myself or other Canadian researchers and so the effects of these on the housing sector will have to be ignored. It is possible, however, that these effects are important. Housing stock is a significant fraction of the national capital stock and changes in the aggregate stock would no doubt be accompanied by changes in housing stock. Also, the principal asset for most households is home equity and thus tax changes which encourage savings would likely increase investment in housing equity. Finally, if Stage Two (which has a tax on financial services) were to change interest rates it would have a significant effect on housing; although because Canada is a small open economy our interest rates are largely determined in world capital markets and so Stage Two is unlikely to change interest rates. Some have argued that mortgage interest rates may rise while other interest rates remain the same because of rigidities in capital markets.

B. *General Equilibrium Models*[10]

Stage Two will cause a once-and-for-all increase in the price level and a significant change in relative prices. It can also cause changes in the relative prices of factors of production: land, labour and capital. These relative price effects are best analysed using a multi-sector general equilibrium model.

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[10]James B. Davies, "Manufacturers' Sales Tax, Value-Added tax, and Effective TAx Incidence" in *Report of the Proceedings of the Thirty-Seventh Tax Conference* (Toronto: Canadian Tax Foundation, 1986) provides a good discussion of the general equilibrium approach to analysing tax reform.

In the simplest general equilibrium model with fixed supplies of all factors of production and no international trade, a sales tax on all consumption items is fully shifted forward into increased prices.[11] The assumption of full forward shifting is usually the starting point for analysis of tax reform. This approach was used at the end of the last section when the MSST on housing was assumed to be fully shifted forward. Unfortunately all too often this is also the finishing point in the analysis of tax reform. However in the Canadian economy all factors of production are not fixed, the MSST is not a comprehensive tax on all consumption and we are a small open economy. The simple general equilibrium model is not appropriate and we should not assume the MSST will be fully shifted forward in increased prices or that all prices will shift by the same percentage.

But unfortunately available complex general equilibrium models do not give a detailed picture of the housing sector. Nevertheless, general equilibrium analysis does offer several lessons which are important when thinking about Stage Two and housing.

First, the interaction among sectors, and general efficiency gains following tax changes can be significant. For example, increasing the sales tax on services is often thought to reduce the total output in the service sector. Hamilton and Whalley [12]analysed a MST/MSST substitution and found service sector output to increase slightly, despite increased tax, because other sectors whose taxes were reduced increased their demand for services. Stage Two increases taxes on housing slightly but Hamilton and Whalley found residential construction to increase slightly because efficiency gains throughout the economy increased the demand.

A second lesson from general equilibrium models is that sales tax increases on housing (however financed) can lead to changes not only in final housing prices but also in the prices of factors of production. Ballentine and Thirsk[13] developed a general equilibrium

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[11]Alternatively it can be thought of as fully shifted back into reduced factor payments.

[12] (forthcoming)

[13]J. Gregory Ballentine and Wayne R. Thirsk, *The Fiscal Incidence of Some Experiments in Fiscal Federalism: Technical Report* (Ottawa: Canada Mortgage and Housing Corporation, 1978).

model with a well-articulated housing sector. Their model has not been used to simulate Stage Two but their previous research considered a tax change which is relevant. They simulated "the replacement of a portion of the residential property tax with revenues from the federal personal income tax". Stage Two can be viewed roughly as an increase in tax on the ownership of residential capital. The residential property tax can also be viewed as a tax on housing capital. Thus the Stage Two changes as they directly affect housing are rather similar to an increase in the national rate of residential property tax accompanied by a decrease in income taxes (the reverse of the Ballentine and Thirsk experiment). The Ballentine and Thirsk model suggests that Stage Two initially will increase the price of housing capital, which increases the cost of housing services and causes a decrease in the quantity demanded. Producers of housing services will try to substitute away from the relatively more expensive capital further reducing the equilibrium stock. The contraction of the relatively capital intensive housing sector will cause a small downward pressure on the return to capital (theirs was not a small open economy model). "The most striking effect of the tax substitution" would be the induced decrease in the price of land in housing. (In their experiment a 7.5 percent reduction in the residential property tax increased land rents 3.1 percent). Thus their model suggests Stage Two tax increases on housing will be partially shifted backward onto land. This is consistent with the property tax literature which suggests that a national change in property taxation will be borne by capital and land.

C. *Partial Equilibrium Models*

The final sort of model to analyse Stage Two is a partial equilibrium model of the housing market which has the great advantage of presenting a detailed representation of the housing market (although missing the dynamic and general equilibrium effects). Also, partial equilibrium models are better for analysing short run changes in specific markets and these short run changes

are important in the politics of tax reform.   Fallis and Smith[14]
analysed the effects of Stages One and Two combined on the
housing sector and the results in this paper are derived from that
article. Fallis and Smith used a stock adjustment model, the flavour
of which can be briefly conveyed. In the model it is assumed that
the demand for and supply of services from the existing stock
determine the price of housing services. In rental markets, this is
the market rental price; in ownership markets it is the implicit rental
price of ownership stock (or user cost). (In rent controlled markets
— and all but three provinces in Canada have rent controls — the
rent is set by government regulation rather than by market forces.[15])
Households move between ownership and uncontrolled rental
markets to equate the price of services in each.   The price of
housing stock is then established as the present value of future net
rents, discounting these at the appropriate rate. The level (flow) of
new construction is set by comparing the price of existing stock with
the cost of constructing new stock. Housing market adjustment is
set by the inelasticity of the supply of housing services in the short
run and by the relatively small change which new construction and
renovation can make to total stock in the medium run. Housing
markets take a long time to move to a new long-run equilibrium.

    In the partial equilibrium model, demand increases
immediately push up rents and so raise the price of stock. The
stock of housing is not immediately increased but over time new
construction and renovation increase in response to the higher
capital values, until a new equilibrium is reached. Changes affecting
investors in rental housing do not alter rents at first; but alter
capital values, hence construction and then over time rents.
Increases in construction costs do not immediately affect rents or

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[14]*Supra*, note 3.

[15]In some provinces new construction is exempt creating a more complicated case of two
rental markets, one controlled and one uncontrolled.

capital values, but depress construction levels and therefore eventually raise rents and the price of stock.[16]

1. Uncontrolled rental markets

Fallis and Smith begin by analysing an uncontrolled rental market. Stage Two will likely cause little change in the total demand for rental housing services or in the choice of ownership versus rental housing and so the market rent will be unchanged. In this model, there is no forward shifting of MSST-induced operating cost increases into rent in the short run because the demand for housing services is unchanged and the supply is almost perfectly inelastic.

Operators of existing rental buildings will face price increases on certain operating inputs because of the substitution of the MSST for the MST. Fallis and Smith set out the "typical situation" of an existing rental building held for a 10-year period. A building worth 1,000,000 has an 80 percent mortgage at 10%; operating costs are about 50 percent of gross rent and grow at 5 percent per year; gross rents are 17.5 percent of capital value and grow at 4.25 percent per year. The after-tax internal rate of return on the investment varies significantly according to whether the investor can offset losses against other real estate income and whether the proceeds on sale are treated as capital gains or business income. It was assumed that Stage Two increased half of operating costs by 8 percent. If the investor cannot offset losses, the increased operating costs reduce after-tax cash flows by the same amount and postpone the time until the project must pay income tax. The present value of the cash flow valued at the original internal rate of return declines from $200,000 to about $177,500, assuming rents do not change from their pre-reform path. This does not mean capital values fall 11.3 percent (22.5/200) because as capital values fall the mortgage needed falls, interest payments decrease and after-tax cash flows

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[16]This assumes static expectations, i.e., investors expect current rents will persist. More realistically, investors will have rational expectations and will recognize that current construction declines will raise future units. These expected increases will raise current asset prices.

increase. Capital values would have to fall about 6 percent to restore the internal rate of return.

This 6 percent decline overstates the asset price decline because it assumes no change in rents; but future rents will change. Assume that Stage Two has no affect on any aspect of the housing market except that it increases the cost of operating rental housing units. Asset prices would fall, new construction and renovation would fall, and rents would rise faster than they otherwise would have. These future rent changes would be anticipated by investors and therefore the short run fall in asset prices would be less than 6 percent. To illustrate, if period one gross rent had risen 2.2 percent and then grown at the rate assumed before reform, then the price of an investment building would not decline in the short run.

In dividing the market's adjustment between a rent increase and an asset price decline, the crucial issue is the speed at which rents move to their new long-run equilibrium. If the price elasticity of demand is 1.0, a 2 percent increase in equilibrium rent requires a 2 percent decline in equilibrium stock. The issue therefore is by how much new construction will contract to bring about this decline in stock. In markets where demand is weak and construction levels are already low, adjustment will take a long time — asset prices will fall significantly in the short run. In markets where demand is growing and construction at a high level (but still in the price elastic region of the construction supply curve) adjustment will be quick (construction falls significantly) and asset prices do not fall as much in the short run. But in the markets where demand is growing and new construction is not sensitive to price, adjustment will be slow.

Thus far, the effect of Stage Two on the building and land development industry has not been considered. All the changes analysed above arose solely because the costs of operating a building rose. However, for developers and builders, Stage Two has significant implications. The MST on building materials is removed but their sales will be subject to MSST. The results of this are now considered; ignoring the effects of the change in operating costs. Assuming that the MST was forward shifted so its removal and replacement by the MSST leaves building materials prices unchanged, and that building materials are 40 percent of the cost of a rental building, and that some other costs will have reflected the MST, then Stage Two moves the new construction/renovation supply

curve up by about 4.5 percent. At any asset price paid by investors, the builder will receive less and so be willing to supply less. This stock adjustment model assumes that the demand for new projects is perfectly elastic in each period at a price determined by the present value of expected future net rents.

If the construction supply curve is elastic, new construction will contract significantly. Expected future rents will rise, raising asset prices which in turn mitigates the decline in new construction. The housing market moves to its new long-run equilibrium quite quickly. If the new construction supply curve is quite inelastic, new construction will fall little, asset prices will change little, the Stage Two changes will be passed backward to owners of land and to owners of development and building firms.

Now consider the full effects of Stage Two in an uncontrolled rental market, including provisions affecting both the costs of operating buildings and provisions affecting the development/building industry. Current period rents will be unchanged. Operating cost increases will at first push down asset values and reduce construction levels which will then increase expected future rents. The VAT on new building sales will reduce construction, which raises expected future rents and so asset values. The new long-run equilibrium will have a higher price of housing services, a higher price of housing assets and a lower stock of rental housing. Part of the change will be passed forward in the price of rental housing services and part will be passed back onto land. The path to the new long-run equilibrium is difficult to predict. It depends most importantly on the degree to which new construction responds. If construction contracts significantly, future rents rise more quickly and current asset prices may even rise slightly. On the other hand if construction contracts slowly, future rents rise slowly and current asset prices likely fall. Given the low levels of private rental construction, the most likely result is slow adjustment.

The final equilibrium position is sensitive to the share of building materials in the total cost of a new building.[17] The higher the share the less Stage Two will affect construction. There are

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[17]The numerical calculations are of course also sensitive to the whole range of assumptions made, especially about the typical investor and the typical apartment project.

significant variations in the share across local housing markets because of variations in the cost of land. Cities with high land costs have lower shares of building materials in total cost and so will be more affected by Stage Two. Such cities may be at the top of a building boom and also have an inelastic supply curve. Construction and rents may then adjust slowly and therefore the burden of Stage Two will be shifted in the short run to land and factors inelastically supplied to construction and land development.

2. Rent controlled markets

Of course all of the above assumed that rents were market determined. If there are binding rent controls, as there are in most provinces, the results are considerably different. Rents are set by government regulation not markets. Most rent control regimes do have provisions for passing operating cost increases into rents but only with a considerable lag. In rent controlled markets, asset prices would fall, and such new construction and renovation that is occurring would decline. This reduced construction does not set in motion an ameliorating affect of raising expected future rents. Rent controls just become more binding. Even more critical, the VAT on new buildings may not be able to be passed forward (via reduced construction and then higher future rents). The VAT on new buildings will be passed back onto land and other factors, construction will fall and the excess demand in rental markets will increase. Some control regimes do allow forward shifting via the regulations which set the first rent on new buildings.

This all points to a significant potential problem for Stage Two in rent controlled markets. If Stage Two costs cannot be passed forward under the regulations governing existing rents and under the regulations governing the setting of rents on new buildings, then maintenance, construction and renovation will decline. Rent controls will become more binding and excess demand will increase. All provinces should examine their regulations to ensure costs can be passed forward.

3. Ownership markets

In principle, the market for homeownership functions as an uncontrolled rental market and the extensive discussion of the uncontrolled rental market could be applied and deemed to describe the effects of Stage Two on ownership housing. Like rental markets, increases in the costs of operating a home will tend to reduce property prices although this will be ameliorated somewhat as reduced construction levels raise expected future prices and so increase expected capital gains. (Increases in operating costs are immediately felt by owners because owners are both landlord and tenant; in rental markets landlords feel the costs first and gradually they are passed to tenants.) Also, increases in construction costs will tend first to reduce construction levels and then over time increase house prices. (Again, it should be noted that this analysis assumes Stage Two has no effect on mortgage interest rates. The MSST on financial services may increase mortgage interest rates which would further reduce new construction.)

However, there are important differences between the rental and ownership markets in Canada. The rental model used above made two basic assumptions: new construction was a tiny fraction of existing stock and new stock and old stock were perfect substitutes for one another. Together this meant in any one period the demand for new housing construction was perfectly elastic at a price established as the present value of future net rents (and rents are set in the existing housing market). These two basic assumptions are relatively realistic for Canadian uncontrolled rental markets but much less realistic for ownership markets.

In ownership markets, annual new construction is a greater proportion of the existing stock. Furthermore, demand is growing. This means adjustment will likely be faster in ownership markets. Construction will contract more quickly and asset prices will rise more rapidly on both new and existing housing. There may even be slight immediate capital gains on existing houses.

However, the latter conclusion changes depending on how separate are the new and existing housing markets. If new and old houses are perfect substitutes, the two markets may be analysed as one and there will be only a slight immediate increase in asset

prices. However new and old houses are not perfect substitutes; they differ in design, finishings and often location and lot size. It is likely that a significant number of households prefer new to old housing. Assuming that the marginal new home buyer has a preference for new housing, the price of new and old housing can diverge for some time. It is likely in the short run that the VAT on new homes will push up the price of new homes without an proportionate increase in the price of existing houses. But the closer is an existing home to being a substitute for new homes, the more likely that the existing home will immediately appreciate in value. Thus owners of newer, existing homes are more likely to enjoy an immediate capital gain.

IV. CONCLUDING EVALUATION

The Minister of Finance in announcing tax reform[18] declared that the reform proposals had been designed to meet five broad objectives:

(1) Fairness: the fairness of the tax system should be increased;

(2) Competitiveness: the tax system should encourage competitiveness, growth and jobs;

(3) Simplicity: the tax system should be simpler to under-stand and comply with;

(4) Consistency: the tax system should be internally consistent and consistent with other government programmes; and

(5) Reliability: the tax system should provide a more reliable and balanced source of revenues to finance essential public services.

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[18]*Supra*, note 1.

It makes little sense to judge the housing provisions of Stage Two in isolation against these five objectives; rather, the entire reform package must be considered. The fundamental question is whether a shift from income to consumption taxes is desirable. An answer is much beyond the scope of this paper; only a much narrower sort of evaluation is possible.

There are basically three ways to treat housing under a VAT. The consumption of housing services can be included in the base; and therefore suppliers of housing services (both landlords and homeowners) would be subject to VAT on their sales. Taxes embodied in input prices could be subtracted. Sales of both new and old housing would be taxable; but subtracted by the purchaser. The administrative and political problems of including homeowners makes this option untenable in Canada.

The second option is to exempt imputed rents and residential rents, exempt sales of used residential buildings but tax sales of new buildings. This is the option chosen by Canada. Sales of used buildings cannot be taxed because there would be cascading of this turnover tax. New and old housing stock are treated differently under this option and some analysts have predicted significant capital gains to owners of existing stock. This prediction fails to recognize the nature of the adjustment process in housing markets. As argued above, capital values will more likely rise slowly to a new long-run equilibrium. This second option taxes all but the last stage in the process of producing housing services from new stock. Services from old stock are taxed at a lower rate but over time all but the last stage of the process enters the base.

The third option is to exempt imputed and paid rent, exempt sales of used buildings and zero rate (exemption plus subtraction) all housing development and construction. Under this option, housing consumption bears no tax except insofar as operating input costs are increased by the VAT.

Housing is a necessity and the ratio of housing expenditure to income falls with income; and so the VAT on housing consumption is regressive. But the bulk of the tax savings from an exemption (such as under option three) flow to higher income households and overall VAT rates will have to be higher with an exemption. A full exemption increases administrative complexity, compliance costs and reduces economic efficiency. And housing

already has tax preferences under the income tax. Other taxes and transfers should be used to offset any undesirable distributional consequences from taxing housing consumption and this has been done to a degree under Stage Two. A survey of the European experience with the VAT[19] concluded that the disadvantages of multiple rates and exemptions outweighed any gains from reduced regressivity. Distributional objectives should be sought with other instruments, especially income taxes and transfers.

Thus the Stage Two proposals represent the best approach to dealing with housing consumption under a VAT. There are several aspects of Stage Two, however, which require further attention.

The first is to ensure that Stage Two and rent regulation do not interact to significantly reduce the rental housing stock.

Another aspect is that short term rentals such as hotels and motels are subject to tax, which is reasonable because these are not the permanent residences of the occupants. However, many of the poorest people in Canada do not have a permanent residence and live in hostels, hotels, and rooming houses on short-term rentals. A means should be found to exempt these rentals in order that we do not inadvertently apply a higher tax rate on the housing consumption of those least able to afford it.

And finally, the VAT will increase the cost of operating housing assistance programs particularly those programs which supply new housing stock. Presumably, the intent of Stage Two is not to reduce the real value of Canada's commitment to housing assistance. A compensating adjustment in our nominal commitment would be in order at the federal, provincial and municipal levels.

Stage Two will have many other effects on the housing sector, most of which cannot be dealt with here. For example the services supplied by realtors will be subject to the MSST. Also many sections of the MSST rules not expressly dealing with housing will nevertheless influence the sector, such as the rules governing financial services, small businesses and co-operatives. However, two effects do warrant comment in this concluding evaluation.

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[19]Henry J. Aaron, *The Value-Added Tax: Lessons from Europe* (Washington, D.C.: The Brookings Institute, 1981) at 9.

Stage Two exempts the value added in the last stage of producing housing services and therefore agents in the economy will have an incentive to bring as much as possible of the process of producing housing services into this exempt stage. For example, landlords will have an incentive to employ their own superintendents, and maintenance and repair workers rather than purchase services from outside firms. Large landlords owning many buildings will be able to employ their own plumbers, painters, cleaners and so on. Very small landlords may already do these things themselves. Medium-sized landlords however may not be able to move activity into the exempt stage; they may not be large enough to employ a full-time carpenter or plumber or whatever and so may still have to use other firms or individual contractors. Landlords will have an incentive to be their own general contractor for major renovations. Homeowners, as small landlords, will have the same sort of incentives and will find it more advantageous to do their own repairs or gardening or to be the general contractor on a renovation project. These tax-induced reorganizations are inefficient, but cannot be stopped because there is no feasible means of taxing all of the process of producing housing services.

The MSST is intended to tax the value added at each stage in the production of final consumption. It is a tax on labour usage[20] at each stage in the production process. Land developers argue that land appreciates in value as they move it from rural to urban use, in part because of value added by their labour but in part because of capital gains. Therefore they pay tax not only on their value added but also on their investment gains. As is evident from the proposals dealing with financial services, Stage Two does not seek to tax investment gains. Some of the capital gains of developers are externalities from the public provision of roads, sewers and other infrastructure and to tax them may improve economic efficiency. Some of the gains reflect an increase in the long run price of housing services and it is probably appropriate to tax these gains just as it is appropriate to tax inventory gains of manufacturers. There seems no feasible way to exempt short-run investment gains; but

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[20] In a two-factor closed economy, a comprehensive VAT is equivalent to a payroll tax Carl S. Shoup, *Public Finance* (Chicago: Aldine Publishing, 1969) at 255.

consideration might be given to allowing MSST deduction in the computation of capital gains tax.

In conclusion, the approach of Stage Two in dealing with housing is sensible, although the government now faces a political problem. Stage One offered tax advantages to many (although not all) in the housing sector; but Stage Two increases the tax rate on housing consumption. This increase will be quite significant if a federal-provincial MSST is adopted because housing is also exempt from the provincial sales tax. The pressure to exempt housing somehow will be intense; just as intense pressure is building from all sectors presently exempt from the MST and provincial sales tax.