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VALUE ADDED TAXATION AND REAL ESTATE

By

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Emory University

February 1987

Development Research Department  
Economics and Research Staff  
World Bank

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## VALUE ADDED TAXATION AND REAL ESTATE

### Abstract

The paper contains an examination of the problems that arise in the VAT treatment of housing and housing services. The current tax treatment of housing in Europe and the associated problems are outlined. An alternative, called the stock or S-VAT, is proposed and its advantages listed. This paper was prepared for the Conference on Value Added Taxation in Developing Countries, sponsored by the Public Economics Division, Development Research Department, The World Bank.



VALUE-ADDED TAXATION AND REAL ESTATE

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## VALUE ADDED TAXATION AND REAL ESTATE

Robert F. Conrad

### 1. Introduction

The tax treatment of housing and housing services is claimed to be one of the more difficult aspects of developing a value added tax system which can be administered in a cost effective way. <sup>1/</sup> This paper contains an examination of the problems which arise in the value added tax treatment of housing and housing services; the current tax treatment in Europe; the problems associated with the current treatment; and a proposed alternative. It will be claimed that the proposed alternative (hereafter Stock or S-VAT) does not create any additional economic incentives beyond those created by the institution of a VAT in its pure form; is possible to administer; and can be used in a variety of contexts.

### 2. Problems of VAT Treatment with Real Estate

In theory, a VAT should reach all consumption activities in a given period of time. <sup>2/</sup> That is, the impact (not the incidence) of the VAT is designed to tax the "flows" of consumption in each time period. Flows of inputs used to produce consumption flows and the "stocks" which embody the future flows are exempt. <sup>3/</sup> This fact would imply that the tax should be applied on "consumption" and not purchase. In reality, few goods and services

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\* The author has had the benefit of comments from several people. Mr Evan Davis made substantial comments during the conference and cited a potential problem with the proposal. Mr Gregory Ingram provided a number of written comments. I hope that the current version reflects these important comments and suggestions. However, any remaining errors are those of the current author.

can be taxed at the time of consumption: e.g., the consumption of electricity, restaurant meals, hotels stays. Thus the date of purchase is generally used as a proxy. However, many consumption expenditures do not correspond to the period of consumption: e.g. all consumer durables (stoves, cars, etc.), occupied housing and the purchase of land (either for housing and investment purposes). Real estate thus represents one of a large group of stocks having long lives. <sup>4/</sup> In theory, there is no reason to treat housing differently from other long term consumer durables.

A number of problems arise with respect to the appropriate and feasible application of a VAT to real estate. First, there is the problem of owner-occupied housing. The long-term nature of housing is not itself sufficient to generate concern about the application of a VAT. Rather it is combined nature of long life and the absence of regular market transactions between taxable parties which creates the administrative problem.<sup>5</sup> If all real estate was rented then the VAT could be applied without any additional problem.

Second, there is a problem with the trades in real estate between the taxable and non-taxable sectors. The same real estate can be used in the production of goods and services by taxable firms or be used for final consumption. Since the purpose of the VAT is to tax only the current consumption value of real estate, mechanisms are necessary to ensure that taxable firms receive the credit (if the credit system is used) to ensure that only the consumption services are taxed.

Third, real estate plays a dual role of consumption and investment in any economic system. <sup>6/</sup> A significant share of the net worth (or savings) of individuals in any economy is held in the form of housing stocks and land. Under an ideal VAT a distinction should be made between the "consumption benefits" and the "investment" benefits of real estate ownership.

Finally, there are the administrative problems of taxing small firms which build housing and small rental firms with few properties; the problem of self-construction (where consumers avoid paying tax on the labor component of the value added if all other inputs are taxed); and the problem of the taxation of real estate agents who sell to both consumers and firms. In the case of real estate firms, the problems are not directly related to the taxation of housing, since the services of realtors can be observed and taxed. Rather the problem depends on the taxation of housing under a VAT. If real estate is not taxed (or only new construction is taxed), then there is no credit available to realtors who hold an inventory of housing.

### 3. Response in Europe

The treatment of housing and real estate is covered by the Sixth Council Directive of May 17, 1977 of the Council of Ministers of the European Communities. <sup>7/</sup> Under these rules the sale of real estate (including housing and land) are treated as a supply of goods and the leasing and/or letting of land and housing may be treated either as a supply of goods or as a supply of services. The Sixth Directive contains a definition of "taxable person" which can be applied to those who engage in certain transactions even on an

"occasional basis." <sup>8/</sup> Thus, in principle all transactions pertaining to real estate (even owner/occupiers) can be subject to VAT.

### 3.1 Sales of Land and Real Estate

With respect to the supply of goods, real estate has special treatment. In particular, real estate sales will be subject to VAT only if two conditions are satisfied:

1. The building (and land on which it stands) is new or the land is "building land" and
2. The supplier is "carrying out such transactions within the scope of this trade or business." <sup>9/</sup>

These conditions imply that member states may (but are not required to) tax sales of new buildings from sellers whose regular trade or business is not real estate. If these two conditions are not satisfied then the supply of real estate is exempt. In effect, the Sixth Directive allows states to tax new construction but not existing buildings of any type. Because of the exemption, the Directive allows states to impose a VAT on old buildings and land if both parties to the transaction opt for it. In this case, the buyer will claim the credit for the purchase. This option, however, is not available to non-taxpayers: e.g., an owner-occupier who sells an old house will not be subject to the VAT even if the purchaser is a taxable business.

The actual practice of the individual countries is summarized in Table 1. Note the following points:

- Land and buildings which are not subject to VAT are subject to registration duties (i.e. turnover taxes) in Germany, Holland, France, Luxembourg and Belgium.
- Persons selling "new" buildings on a regular basis are VAT taxpayers in Belgium.
- All real estate transactions are exempt in Denmark while services concerning real estate (e.g., construction) are subject to VAT.
- Transactions which would be otherwise exempt can be taxable on an optional basis in Germany, Holland, France, Luxembourg, and Denmark.
- The supply of building land (when the land is subdivided) is a taxable event in France (even subdivision for own use).
- In Italy all real estate transactions (both new and old) are taxable, with the exception of land other than building land.
- New buildings are exempt in Luxembourg.
- Non-exempt transactions in the United Kingdom may be zero rated.

### 3.2 Letting and Leasing of Real Estate

The Sixth Directive does not explicitly state whether letting and

leasing are the supply of goods or the supply of services. Thus, member states have the option to treat these transactions under either definition. <sup>10/</sup> However, the definition may be largely immaterial since most leasing and letting transactions in this area are exempt from VAT. The major exemptions include hotels, parking and the like. The Directive provides for taxation on an optional basis.

The current treatment of letting and leasing is summarized in Table

2. Points of interest include:

1. The tax treatment in Ireland depends on the length of the lease (if the lease is for more than ten years) then the transaction is taxable.
2. Commercial lessors (i.e., those who engage in the rental of buildings and land to commercial firms) are subject to tax in Belgium under certain conditions.
3. Leasing is a taxable transaction in Italy.
4. Dwellings are exempt from VAT in the Netherlands.

While there appears to be some uniformity within the European Economic Community, glaring exceptions do exist (e.g., Italy). Even if complete uniformity existed between the member states, there are a number of economic implications about the nature of the Sixth Directive itself.

First, there is the "new" versus "old" distinction. If new buildings (regardless of use) are taxed and old land and buildings are not taxed then it has been claimed that this distinction creates a "windfall" to the owners of old buildings. <sup>11/</sup> In addition, the taxation of new buildings implies that this activity is subject to a kind of "first sale VAT." That is, the tax is paid by the first purchaser who does not receive a credit for subsequent sale nor does he explicitly charge a VAT on the subsequent sale.

Second, once a new building is an "old" building, it is not subject to taxation. Also, if an "old" building is torn down and a new building is built, a distinction must be made between the land value and the value of the new building.

Third, exemption from VAT does not imply exemption from taxation. In several countries real estate sales (either land, buildings or both) are subject to various transfer taxes which can have relatively high rates. Since these taxes are not part of the VAT system, these taxes are in effect turnover taxes which can cascade throughout the system depending on the number of sales of the same property. Even the sale of a building which was subject to VAT (a new building which is now old) is subject to these turnover taxes.

Fourth, the option for taxation is intended to allow the lessee or purchaser the right to credit the tax paid. If this option were not allowed then purchasers would bear part of the tax on inputs from sellers who will increase the price of their output to recover the input taxes without the

benefit of the credit.

Finally, there are the legal distinctions about definition of a taxable transaction. Land used for farming appears to be exempt and the option for taxation is available only to registered taxpayers and not to individual consumers who sell or lease housing and land.

In summary, the European experience is not completely uniform, nor does it comply with standard notions of a VAT. Neither rental nor sales of old housing and land are taxed. Optional VAT treatment of rentals appears to depend on the tax status of the parties. Finally, non-VAT transactions in this area may be subject to turnover taxes which can cascade throughout the system and for which the VAT is designed to replace.

#### 4. Evaluation and Alternatives Under Consumption Taxation

From an economic perspective the introduction of a VAT is equivalent to the introduction of a pure consumption tax at a flat rate with no consideration for the personal circumstances of the taxpayer (e.g., age, family characteristics, etc.). In either case the "incidence" of the tax is borne by the "factors of production" (capital, land and labor) in proportion to their shares in pre-tax gross national income. Under either system, "savings" (however defined) are not subject to taxation and thus this type of taxation does not affect the relative prices of consumption goods and services either within or between time periods.

However, this type of taxation is not economically neutral

(allocatively efficient). That is, incentives to change behavior (other than pure income effects) are generally created. <sup>12/</sup> Since the tax does not fall on leisure, in particular, and household production/consumption, in general, there is an incentive for consumers to substitute "non-market" for "market" activities: e.g. the introduction of a VAT (or pure consumption tax) will create an incentive for the substitution of meals cooked at home at the expense of meals cooked in restaurants since the home cooked meal will escape VAT (or consumption taxes) on the labor component of the meal even if all other inputs are taxed. <sup>13/</sup> The same statements are true for housing. If a VAT is applied to housing in a correct manner then consumers will have an incentive to substitute "housing labor" for market labor in the construction and maintenance of housing; e.g. consumers will have an incentive to paint their own houses instead of having taxable firms paint them in order to escape the VAT on labor. <sup>14/</sup>

With respect to VAT taxation on real estate there are a number of alternatives which have been either proposed or implemented. Assuming that it is desirable to tax the consumption of housing services none of these options are without fault. First, real estate could be exempt from VAT. In this case, either all services of housing (either rental or owner-occupied) escape taxation or there would be taxation on only selected inputs which would be subject to the general VAT. This treatment creates a number of problems. First, to the extent that taxable activities and housing are substitutes, there is a clear incentive for consumers to substitute housing services for other forms of consumption, in addition to a windfall for existing owners. <sup>15/</sup> If the elasticity of supply of housing is nonzero then the

economy will be relatively more housing intensive. Second, the exemption of real estate to consumers may change the relative price of this type of consumption to the value of real estate used as inputs in the production process. <sup>16/</sup> Therefore, relative to the ideal VAT treatment one can expect that the production process will be less land and building intensive: i.e. the land-labor ratio might be lower under a VAT with an exemption for real estate than under an ideal VAT. The proportion of total buildings and land in the economy devoted to consumer consumption of real estate might be higher than under an ideal VAT. However, since "savings" are exempt from VAT we would not expect a reallocation of the portfolio of assets in the economy devoted to housing stocks versus the stocks of machines and equipment. Rather there would be a reallocation of the portfolio of real estate stocks between consumer consumption and input consumption (i.e. the use of land and buildings as inputs into the production process).

A second alternative would be the proposed treatment under the Sixth Directive: i.e. tax new housing only without benefit of the credit at later dates. In this case existing owners of residential housing and land clearly win relative to renters as well as to investors in stocks and bonds. <sup>17/</sup> To the extent that "new" housing and "old" housing are substitutes the price of old housing will rise (existing owners of housing and land get an artificial capital gain.) This capital gain is above that which would occur if there is a fall in the real rate of interest resulting from the implementation of the VAT. <sup>18</sup> Since the effect is a windfall, we would not expect a change in the share of housing used as rentals. <sup>19/</sup>

Some countries do not restrict the incentives created by the VAT to one-time capital gains for existing owners of real estate. Once a building is "old", market trades are subject to various transfer fees and taxes which appear to be substituted for the VAT. <sup>20/</sup> These taxes are not credited for firms and are imposed each time the real estate is transferred. <sup>21/</sup> From the perspective of the investor or seller the total tax bill (both nominal and in present value terms) depends on the number of times the real estate is sold. 22

Finally, there is the option to tax only market transactions. One type of system would be to tax only rental payments to third parties and not tax owner-occupiers. <sup>23/</sup> In such a system renters clearly lose and thus this option has never been seriously considered.

## 5. Proposed: The Stock-VAT

### 5.1 Basic Approach

From the previous discussion it is clear that the idealized VAT on real estate is largely unworkable and that alternatives to it are flawed with respect to their economic incentives, distributional outcomes and/or administrative feasibility. Below, an alternative is offered which is both administratively feasible and which does not create economic incentives over and above those which are created by the idealized VAT. This alternative will be called the Stock-VAT (hereafter S-VAT).

Under the S-VAT the VAT would be paid on the sale of any type of real estate (either new or old). Taxable firms would receive credit on purchase

but no credit on sale. Nontaxable persons who purchase would pay the tax and nontaxable sellers will "receive" the taxes paid by the purchaser as a refund. Real estate agents, etc. would be taxable. Construction firms would be taxable. <sup>24/</sup> All sales of durables used for home improvements or construction would be subject to tax. <sup>25/</sup> Rental payments would be subject to VAT if the lessor is taxable. <sup>26/</sup>

The reason why such a strategy would work is based on the equivalent nature of a VAT and a flat-rate consumption tax. Since a consumption tax is intended to exempt "savings", the U. S. Treasury, in Blueprints for Basic Tax Reform offered two alternative means of accomplishing this result. First, the idea of a "qualified account" was introduced. All inflows into this account would be deductible for the purposes of computing the tax; the income earned would not be subject to tax as long as it stays in the account; and all outflows from the account would be included in the tax base. Second, the U.S. Treasury offered the alternative of "tax prepayment". A stock (e.g., real estate) would be subject to taxation if an individual chose to do so (i.e. make the purchase outside the qualified account), and on subsequent sale of the asset no tax would be paid on either the income or the capital gain or loss. In Blueprints it is shown that in a flat-rate tax world the only difference is the timing of the tax revenues with no difference in the present value of the tax revenue. Thus, either approach would fit the bill and there are equivalent economic incentives created by either alternative.

In the context of a VAT system it is straightforward to show that a prepayment approach in real estate would work equally well. <sup>27/</sup> Suppose that

under the idealized VAT an individual would pay 100,000 on an existing house in present value terms inclusive of tax over the life cycle of which 10,000 in present value terms is equal to taxes. For simplicity suppose the market value of the real estate is zero at the end of the life cycle.<sup>28/</sup> In this case, the market value of the house today would be equal to the capitalized flow of net of tax benefits or 90,000. At this price, the owner of the real estate would be indifferent between holding this real estate, other real estate or other types of capital. Suppose now that the S-VAT is introduced instead of the flow VAT. The consumer is indifferent between 100,000 to the owner as opposed to 10,000 to the government and 90,000 to the owner, while in order to be indifferent the owner must get 100,000 and pay 10,000 to the government today in order to receive her 90,000 net of tax. That is, relieving the consumer of the obligation to pay the tax on an annual basis does not relieve the consumer from paying the tax inclusive price. The only difference in the two transactions is that the owner now pays 10,000 today for the consumer which the owner will recoup over the period of the lease. The same effects are created with respect to sale. The owner-occupier would pay 100,000 to the seller and the seller would pay 10,000 in VAT. Thus, the owner-occupier is no better or no worse off relative to the renter than under a pure VAT. The VAT is prepaid.

## 5.2 Owning versus Renting and Multiple Sales

The major benefit of the S-VAT is that it creates no incentives to change the allocation of real estate between owner-occupiers and renters or between residential and non-residential real estate use. In addition, multiple sales do not imply multiple taxation. For instance, suppose that the

sale under consideration is a piece of unimproved land which lasts forever. Furthermore, assume that all purchasers and all potential renters would be willing to pay  $R$  in land rents per annum forever net of VAT and would be willing to pay  $tR$  per annum in VAT taxes. <sup>29/</sup> Given these assumptions, the market value of the land today would be  $R/r$  where  $r$  is the market rate of interest. Suppose now that the S-VAT is substituted for the flow type VAT. In this case the seller of land would receive  $R(1+t)/r$  for the land and pay taxes equal to  $tR$ . That is, the first purchaser will pay the entire value of the flow type VAT which has been capitalized into the values of land and then taken by the government on the first sale. <sup>30/</sup> In effect, this one time payment is a prepayment of all future taxes regardless of future use (investment or consumption).

When the property is sold at some future date the seller would demand and would receive from purchasers the remaining balance of the prepaid taxes. Assuming no capital gains and losses resulting from changes in relative prices the present value of the taxes paid by the first purchaser after sale to another purchaser would be equal to:

$$T = tR/r(1 - e^{-rt})$$

Alternatively, the government could collect VAT on each trade between consumers. However, since the consumer has prepaid the entire tax, the tax collector should "refund" the taxes paid by the purchaser to the consumer who is the seller. <sup>31/</sup>

It is clear that the allocation of residential property between owners and renters would not be affected since renters would still pay the VAT (technically repay the owner for the prepayment) over the period of the lease.

The major difficulty with this proposal, in the absence of a credit system, would be transactions between registered VAT payers or between registered VAT payers and consumers. <sup>32/</sup> However, if a credit system is used for registered taxpayers, then the problem is solved. If the first purchaser is a taxable firm then it will receive a credit for the full value of the tax, just like the purchase of a new machine. When the firm sells the real estate to another taxable firm, it (or some VAT officer) will collect the VAT and the selling firm will not receive a credit on that date. In effect, the government has given the firm the credit in present value terms when the real estate is purchased; i.e., the government recoups the excess credit in present value terms when the real estate is sold. Such a tax-credit system would continue until the real estate is sold to the residential sector which of course would not receive the credit. If the property is then sold back to the taxable sectors the tax-credit system would start again.

Administration of this type of VAT could be relatively simple. Consumers would not be VAT taxpayers and they would never need to file any type of return. Commercial construction firms would not have to separately account for the cost of buildings which are sold to consumers as opposed to firms or between repairs and construction since all these activities would be subject to tax. Commercial construction firms would impose the tax on all sales and consumers would not get a credit. Instead of the practice in Europe

where only "new" buildings are subject to VAT while old buildings are subject to various other taxes no distinction is necessary under the proposed system.

The administration and collection of this tax would involve two steps. First, when the real estate is sold, the title search (or deed) should contain information on prior first payment of the tax. The only information necessary on the deed is whether VAT has ever been paid. No subsequent record is necessary. If the tax has never been paid then the tax is paid on this transaction independent of the tax status of the buyer or seller. If tax has been paid in the past then the tax status of the seller must be identified. If the seller is a VAT taxpayer then the government collects the funds and keeps them. If the seller is not a taxpayer then the government collects the funds and gives these funds to the seller in the form of a "refund" for prior taxes. <sup>33/</sup> This administrative setup would be simpler than a true VAT on flows (which would be impossible) and hopefully no more cumbersome than either the "new" building VAT (land values do not have to be separately accounted for and there is no need for an arbitrary determination of "new" versus "old"). In addition, there would be no need for annual "in lieu of" registration duties on "old" properties which are not creditable by firms and which can cascade throughout the system.

Finally, there is no need to make an arbitrary distinction between buildings and "the land on which they stand". This implies that no incentives are created on redevelopment activities. <sup>34/</sup> For instance, suppose a taxable construction firm buys an existing house and land, tears the house down, builds a new house and sells the new house and land. In this case, the market

value of the land without the house is greater than the combined value of the land plus house. The difference in values is equal to the cost of demolition and this value will be reflected in the taxes paid by the firm. When the new house and land are sold as a unit, the S-VAT would be collected and if the credit system is operating the construction firm applies the credit on the purchase. Thus, the addition tax, if any, is equal to the value added from the demolition plus new building.

I believe that the incentives noted above imply that any country which has a property tax or a stamp duty on real estate transactions should be able to administer the tax.

### 5.3. Potential Conflicts and Problems

This proposal is not perfect. There are at least six criticisms which might be applied to this system. I believe that three are not founded while three may have some foundation.

1. Capital Gains and Losses. The purpose of the S-VAT is to tax the present value of the flow of consumption benefits from real estate and to exempt gains or losses resulting from changes in relative prices. Trades within the taxable sector will always recognize such gains and losses. For instance, land may sell for 1,000 today and 1,000,000 or 500 (in terms of real dollars today) next year. In the proposed system capital gains resulting from changes in relative prices would not be taxed, nor should they be. Recall that real estate is one of many investment vehicles for consumers. Since there is no intention of taxing the gains and losses under a VAT, no tax

should be imposed on the gains from real estate. In fact, the government will capture its share of these gains when the seller trades the receipts for a taxable flow of goods and services. <sup>35/</sup>

2. Increased Housing Prices. It has been claimed that to impose a VAT on real estate would increase housing prices beyond the limit which many consumers could afford. <sup>36/</sup> However, it must be realized that a VAT imposed on everything else with an exemption for housing would both increase housing prices and create windfalls for existing owner-occupiers. <sup>37/</sup> Therefore, the issue should be phrased in terms of "how much more" will housing prices rise (if any) with a direct VAT relative to an exemption under an otherwise generally applicable VAT. I believe that consideration of these effects would at least weaken, if not destroy, the case against the imposition of the VAT on housing.

3. Self Construction. In an attempt to escape taxation on the value added in the construction sector, consumers might self-construct part or all of housing and improvements. It was noted above that there is no solution to this problem and this incentive would continue under the S-VAT. Self-construction of improvements is just one example of this incentive. However, unlike home cooking, to escape the VAT on restaurant meals, the following factor should be kept in mind. To the extent that the consumer uses own time, as opposed to market time of others, in construction and improvements, a part of this value will be captured in the increased price of housing. Thus this value of labor will be taxed when the proceeds are realized and also subject to VAT on subsequent consumption of market goods. In effect, the consumer is

"making an investment" which should not be subject to tax. Consumers have alternative means of increasing their wealth, e.g. investments in stocks and bonds and using time to self-construct assets. Therefore, to the extent that own-time is used for construction and maintenance is reflected in the price when sold, only the own-consumption of the improvements escapes taxation and not the future consumption benefits from the liquidation of savings.

4. Lock-in Effects. The imposition of the S-VAT might create a lock-in effect if it is implemented as a completely new tax. To illustrate, consider the following example. <sup>38/</sup> A person owns a house worth 100,000 and is considering the purchase of another house which is also worth 100,000. The S-VAT is now imposed at 10% and the net-of-tax price of housing does not change. <sup>39/</sup> If the person sells the house, she will receive 100,000 but must pay 110,000 for the next house including the 10,000 in taxes. Thus a lock-in effect is created with all its potential negative implications.

A number of points need to be addressed regarding the implications of this effect. First, this type of lock-in effect is a transition problem. Once all housing and land are sold under the new system the lock-in effect will disappear. Second, the introduction of a VAT, in general, creates a type of one time lock-in effect. If a new VAT is introduced then the government provides a clear signal to consumers "not to consume." Thus, consumers who own assets of various kinds (housing included) are discouraged from liquidating their positions and purchasing taxable goods and services. Third, this type of lock-in effect is present under the type of VAT on "new" construction imposed in Europe. There is an incentive to keep old non-taxable

housing in service longer than otherwise. Finally, the type of turnover taxes and registration fees used "in lieu" of VAT creates the same type of problem. In addition, the lock-in effect created by these taxes are not transitional in nature and is part of the incentive structure of the entire system.

These comments imply that the potential lock-in effects are part of a VAT system in general (via the bias against consumption). These effects must be compared against the relevant alternatives as well as any taxes currently employed which might be replaced by an S-VAT. For instance, an S-VAT which replaces an existing turnover tax on housing might create no lock-in effect at all.

5. Risk. If all consumers were risk neutral then the S-VAT would create no incentives relative to a flow type VAT. However, it is known that risk averse consumers would always prefer a flow type excise tax to a fixed fee at the front-end. <sup>40/</sup> This is a problem with respect to the VAT treatment of all consumer durables as well as all forms of savings and thus it is not unique to real estate. Given the VAT tax treatment of other forms of savings (no tax until consumed), there might be: (1) a reallocation of the share of portfolios devoted to housing; (2) self-selection based on risk preferences between owners and renters; or (3) a change in the relative price of housing services.

6. Use of Government Proceeds. The intention of the S-VAT (or any VAT for that matter) is to confiscate a uniform share of wealth on the value of

land and the undepreciated value of the housing stock for government purposes. In the present context it is reasonable to expect that government receipts would be front-end loaded. <sup>41/</sup> Unlike the incidence of the VAT on labor income which will accrue through time, the government will collect the present value of revenue as the trades are made. If, as expected, much of the revenues accrue to the government in early years then there may be a difference between the timing of receipts and expenditures relative to a flow type VAT. <sup>42/</sup> However, given the fact that the government confiscates at the front-end rather than through time could imply that fiscal restraint should be considered. For instance, consideration could be given to establishing a "trust" account which will receive funds from the S-VAT. Revenues collected from transactions in real estate could be placed in the trust. These revenues could be invested at the market rate of interest and the "income" (not the principal) could be used as part of general revenues. If such a scheme is used then the government could replicate the time path of receipts of a flow type VAT. <sup>43/</sup> Such a scheme might alleviate fears of future tax increases created from such one time transfers from the private to the public sectors.

## 6. Conclusion

It is my view that the consumption benefits from housing should be subject to VAT if a VAT is chosen as a means to raise government revenues. The revenues would be sizable which would imply a lower rate on all consumption goods assuming equal revenue and I believe that the distributional implications from the exemption of housing services while largely unknown may be regressive. This is particularly true in developing countries where considerable wealth is held in the form of land and real estate. The S-VAT is

one of a number of schemes which could do the job. In effect, the function of the S-VAT is to tax the stock of consumption value and not the flows. The intention of the tax is transparent, is easy to understand, and I believe that it has the potential for being cost-effective while also creating a minimum of allocative incentives.

Given this view, the S-VAT appears potentially feasible for any country that now collects property taxes (even at the local level) and which has a systematic record of land holdings. Whether such a scheme can be politically acceptable and cost effective including incentives against corruption is difficult to evaluate at this point in time. However, I do feel that the tax is worthy of serious consideration and study.

Table 1: VALUE ADDED TAX TREATMENT OF REAL ESTATE SALES

Country	Building Land	New Buildings	Old Buildings
Belgium	Exempt 1	Exempt 1,2	Exempt 1
Denmark	Exempt 3	Exempt 3	Exempt
France	Taxable	Taxable	Exempt 1
Germany	Exempt 1	Exempt 1	Exempt 1
Ireland	Taxable 4	Taxable 4	Taxable 4
Italy	Taxable	Taxable	Taxable
Luxembourg	Exempt 1	Exempt 1	Exempt 1
Netherlands	Exempt 1	Taxable	Exempt 1
United Kingdom	Exempt	Zero-rated	Exempt

1. Exempt from VAT but subject to other duties and transfer taxes.
2. Taxable if certain conditions apply.
3. All services associated with construction and sale are taxable.
4. Taxable if certain conditions apply.

Table 2: VALUE ADDED TAX TREATMENT OF LEASING AND LETTING REAL ESTATE

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Country	Leasing	Letting
Belgium	Exempt 1	Exempt
Denmark	Exempt	Exempt
France	Exempt 2	Exempt 2
Germany	Exempt 2	Exempt 2
Ireland	Exempt/Tax 3	Exempt/Tax 3
Italy	Taxable 4	Exempt
Luxembourg	Exempt 2	Exempt 2
Netherlands	Exempt 2/Tax 3	Exempt
United Kingdom	Exempt	Exempt

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1. "Immovable leasing" is excepted and subject to VAT.
2. Option available to take taxable status.
3. Exemption depends on length of lease.
4. Immovable leasing is exempt.

Notes

1. See U.S. Treasury, November 1984, Volume 3. This document will hereafter be referred to as Treasury I.
2. For purposes of discussion I will assume that the VAT under consideration is a flat rate tax which is designed to tax all consumption. If exemptions and/or variable rates are used, then the incentives created by the VAT will be different. However, at this point, it is convenient to assume universal application at a single rate.
3. From an economic point of view this distinction is largely irrelevant. That is, a uniform tax on all flows, in an atemporal general equilibrium environment is equivalent to a uniform tax on all factors of production, i.e., the incidence of the tax is a non-distortionary tax on wealth. See Atkinson and Stiglitz (1980) and McLure (1975). It is this equivalence which is exploited in the design of the VAT on real estate.
4. Other stocks or the flow of new stocks would include works of art, novels and consumer durables such as Wedgewood China which can last for generations.
5. From an economic perspective the consumption benefits of owner occupied housing is equal to the opportunity cost per period which the owner-occupier incurs from the absence of market trade in the form of rentals. In effect, the owner-occupier is both a consumer and a supplier of housing services. The problem is that under a VAT which can be administered, there is no feasible way for the government to determine the value of these periodic rentals other than via some arbitrary rule.
6. Investment in this context does not necessarily imply that the real estate will be used as a taxable firm. Rather the "stock" nature of real estate enables it to be a store of wealth.
7. A previous version of this paper contained an Appendix which described fully the information summarized in the current section. This appendix may be obtained from the author.
8. Timmermans and Joseph (1980).
9. Timmermans and Joseph (1980), p. 44.
10. This distinction will determine whether the VAT would be paid at the beginning of lease in one payment (a supply of goods) or over the period of the lease (a supply of services). Timmermans and Joseph (1980), p. 47.
11. Treasury I, page 74.

12. This statement is based on the fact that at least one classification of commodities will never be subject to taxation: e.g., household production and consumption. To the extent that consumers can withdraw labor from the market sector to the household sector there is a clear incentive to do so in order to escape taxation. In addition, the local conditions for the optimal second best taxation of commodities have been known since the time Corlett and Hague (1953) and depending on the cross-price effects a flat rate VAT is not even a second best optimum.
13. The definition of "market" for all practical purposes will correspond to "taxable" sectors when a VAT is applied. That is, if small firms are exempt or certain items (e.g., housing) are exempt, then there is an incentive to substitute nontaxable activities for taxable ones. In effect, exemptions increase the number of goods and services which are not subject to taxation.
14. There is simply no answer to this problem. These incentives to substitute "non-market" for "market" labor are an inherent part of the VAT (or any consumption tax). Therefore, no strict theoretical claim can be made that consumption taxes are Pareto Superior to income taxes unless certain stringent conditions are satisfied.
15. The demand curve for housing shifts to the right when the relative price of taxable goods is increased by the introduction of the tax.
16. Because a VAT is tax on consumption at the household level and not a tax on consumption at the firm level the price of any good used in consumption which could be used in production will experience a relative price increase. For instance, if a VAT is imposed on trucks then consumers pay  $P(1+t)$ , where  $P$  is the price of trucks, while firms pay only  $P$  via the credit system.
17. Of course, this windfall could be offset with a "windfall tax". While good in theory such a tax could never be implemented in practice, because no one could attribute the gain until the real estate is sold and even then such an attribution would be largely arbitrary.
18. If the supply of savings shifts to the right as a result of imposition of the VAT (or the VAT is substituted for a tax on income, including the return to savings) then there will be a one time capital gain for existing owners of capital. The windfall cited in the text is above that which would occur resulting from such an interest rate change.
19. See below. In effect the first purchaser prepays the tax for each renter, who might be himself. Thus, the relative price of renting versus owning will not change.
20. Note that in these countries the transfer fees and taxes are imposed only if the real estate is not subject to VAT. Thus, these fees appear to be clearly intended to substitute for the VAT.

21. There is also the obvious problem of attributing the value of real estate between the building and the "land on which it stands" for those countries in which such attempts are made.
22. This incentive will affect the market value of assets and in theory could be overcome if everyone knew how many times every property would be sold. That is the capitalized value of the property today would reflect the number of trades. However, this assumption is stronger than anyone could reasonably expect.
23. There is always the option to tax imputed rentals which is done in some countries for income tax purposes; e.g. Belgium. However, it is commonly agreed that such attempts are arbitrary and have uncertain economic incentives depending on the degree of error in measurement.
24. There might be exemptions for small firms depending on administrative costs.
25. If sale of these inputs (e.g., lumber, paint, steel, etc.) are made to taxable firms, then these taxes would be creditable.
26. Like construction firms, relative administrative costs determine whether all lessors are taxable.
27. For the basic analytical framework see Conrad and Gillis (1985). The mathematics are very straightforward and for that reason they are not repeated in this paper.
28. This assumption is not necessary for any general result, see below.
29. Again this assumption has no effect on the general result.
30. This is the same type of capitalization which occurs in a European type VAT on new buildings abstracting from the problems of resale taxes. Thus if any type of property is exempt from VAT (e.g., old housing), the owners of the exempt properties receive a one-time windfall equal to the present value of the tax revenues which would have been paid to the government.
31. Since this is not a "credit" system there is no need for consumers to keep receipts, etc. for home improvements and the like. To the extent that the home improvements increase the value of the real estate, the tax (and thus the refund which is required because of the investment nature of housing) will reflect the prepayment of these taxes as well.
32. In Conrad and Gillis (1985) the issue of the allocative effects between the production and consumption sectors of this proposal were not considered. However, real estate can be used both in production and in consumption. Therefore, if a credit system for taxable firms is employed, then taxable firms should get the credit for the purchase of real estate.

33. Inflation is not a problem here unless interest rates do not reflect expected inflation.
34. Gregory Ingram noted that I omitted this incentive in an earlier draft.
35. In principle the S-VAT is superior to the consumption tax which allows the option for prepayment or investing through qualified accounts. Windfalls made outside the qualified accounts (via tax prepayment) would not be subject to tax under the consumption tax. However, under a VAT on all other goods, there is no way for the consumer to escape the tax. It might be deferred but the present value will always be the same. See Blueprints.
36. Treasury I, p. 74.
37. If housing and taxable goods are substitutes then the demand curve for housing will shift to the right. Depending on the elasticity of supply then either the price will rise or housing will expand beyond the economically efficient quantity or both. As long as the supply curve of housing is not perfectly elastic housing prices will rise.
38. Evan Davis noted the lock-in in his comments on this paper. The following example was developed in our subsequent discussion.
39. In effect, the supply curve of new housing is assumed to be perfectly elastic.
40. See Thon 1985.
41. If new housing follows some kind of steady state path based on depreciation then the government would collect steady state revenues at each point in time. However, the problem is the front-end load of the revenues of the existing stock.
42. Of course the government could borrow to replicate the S-VAT expenditure profile under a flow type VAT and thus in theory there is no reason for a difference in the time path of government expenditures.
43. The government could still borrow at the front end but at least it would have collateral in excess of promises for future tax increases.

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