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Foreword

Progress Foundation's Thirteenth International Economic Conference was devoted to discussion of the flat tax, which has enjoyed increasing support among policymakers who seek a practical alternative to the complex and distortionary tax regimes that now plague the developed economies. In recent years, a flat tax actually has been adopted by a number of developing or newly freed economies. Notably, the Russian *duma* earlier this month passed flat tax legislation of potentially sweeping proportions.

In an ideal world there would be no taxes on either labor or capital—*i.e.*, no taxes on personal income (whether from wages, interest, or dividends), no corporate profits tax, and no capital gains tax. But this is not an ideal world, and almost surely never will be. Income taxes in some form can be expected to persist.

That said, however, some taxes on labor and capital seem preferable to others. In this respect, the tax systems that now prevail in many of the most developed nations are among the worst imaginable. In the United States, the tax code is an incomprehensible labyrinth of rates, loopholes, special privileges and distortionary incentives and features multiple taxation of some forms of enterprise while it exempts others entirely. This system has created huge costs to the economy for tax compliance alone—and so has drained resources that otherwise could be deployed to productive purposes—even as it has distorted spending and investment.

While not perfect, a flat tax regime would seem to promise to eliminate many of the most egregious effects of the current system. Indeed, as Professor Alvin Rabushka notes, a properly crafted flat tax would expense all investment and so convert "a tax on income into a tax on consumption, which embodies the principle that people should be taxed on what they take out of the economy, not on what they put in."

Perhaps most important in an immediate sense, a flat tax would "get the tax code out of the economy" and promote far greater tax transparency. For as he also observes, if the public is ever to attain an informed perspective on taxation, "It is important that taxes be made as visible and painful as possible."

As in all Progress Foundation economic conferences, the views expressed by the participants are their own and do not necessarily represent the views of the sponsoring institutions. As with previous such events, however, we believe that the discussions in the pages that follow are both timely and pertinent—and will engage the reader's interest whatever his or her particular views.

About the Participants

Alvin Rabushka is co-author, with Robert E. Hall, of three books on the flat tax. These include Low Tax, *Simple* Tax, *Flat Tax* (New York: McGraw-Hill, 1983); *The Flat Tax* (Stanford: Hoover Press, 1985); and *The Flat Tax, 2d Edition* (Stanford: Hoover Press, 1995). The Hall-Rabushka plan drew part of its inspiration from Hong Kong, which has an effective flat-rate income tax of 15 percent for upper-income households. It should be noted that the newly-independent country of Estonia enacted a flat-rate income tax, which has thus far proven successful. In addition, the Hannover Chamber of Industry and Commerce has proposed a 20 percent flat tax for Germany. See Wilfried Prewo, Martin Rudolph, and Dirke Franke, *Globalisierung und Handlungsverantwortung: Politics für das Informationszeitalter, pp.* 24-31.

Manfred Rose, Professor of Financial Science at the University of Heidelberg and the Alfred Weber Institute, has written and lectured widely on the consumption tax effects of the flat tax. He was the primary architect of the tax system adopted by the Republic of Croatia from 1992 to 1996, and he drafted the tax laws for the Ministry of Finance of the Republic of Romania in 1998. Among other related publications, he is the editor of the *Heidelberg Congress on taxing Consumption* (1990).

The Flat Tax

Alvin Rabushka

Introduction

The subject of my talk is to explain a comprehensive tax reform plan—a flat tax—that is designed to replace any country's current corporate income tax (CIT) and its typically graduated,[1] usually quite complicated personal income tax (PIT). In brief, a flat tax is a tax system with only one rate that applies to all taxpayers, business firms and individuals alike, regardless of the source and amount of their incomes. A flat tax is known by such other names as a uniform tax, a single-rate tax, or a proportional tax. The flat tax contrasts with a system of graduated rates under which individual and corporate taxpayers pay increasingly higher rates of tax as their taxable income rises.[2]

In principle, the flat tax can be designed to generate any specific level of revenue. The tax base (the base of income on which the tax is levied) and the tax rate can be chosen to collect the same amount of revenue (revenue neutral), more revenue (a tax increase), or less revenue (a tax cut) than is generated by current personal and corporate taxes. Relative to most countries in Western Europe, Switzerland is regarded as a low-tax country.

The flat tax that I am discussing this evening does not involve replacing any revenues derived from the operations or potential sale of state-owned enterprises, value-added taxes (VAT), social insurance taxes, nuisance taxes, and non-tax sources of revenue.

The flat tax is intended to increase individual freedom by letting people keep more of what they earn. Compared with graduated tax rates, the flat tax is based on the principles of supply-side economics. The central tenet of supply-side economics is that individual incentives matter. Tax rates are perhaps the single most important incentive in any economy. High tax

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[1] This proposal does not address the value-added tax or social insurance taxes, which are two other sources of revenue. It is possible to combine these with a flat-rate income tax, but that is a subject for another time. In particular, social insurance taxes should be treated as a separate issue in order to consider privatizing social benefits by letting individuals determine their own mix of social insurance benefits by allocating the funds currently taken from them in social insurance taxes.

[2] Individuals pay federal income tax at progressive rates from 0 percent on taxable income up to SFr 14,899 of taxable income up to 11.5 percent on taxable income over SFr 603,100. In Geneva, for example, marginal tax rates can reach as high as 49.5 percent on an income level over $1 million when Cantonal and City taxes are included. These figures are obtained from Deloitte Touche Tohmatsu, "Quick Guide to Taxation in Switzerland." Corporate tax rates in Switzerland are also progressive.

rates discourage work, saving, and investment because the government takes an increasing share of our earnings. In contrast, low tax rates encourage work, saving and investment, because we get to keep most of what we earn.

Principles of Sound Taxation

Economists generally agree that sound tax policy should aim at certain goals. First, taxes should distort as little as possible the prices resulting from the interaction of supply and demand in the market. Tax policy should strive for neutrality between investment and consumption and among products and industries. Government should not use its power to alter prices to favor any one industry or producer. Low tax rates minimize price distortions, at the same time that they maximize individual incentives.

(1) An efficient system of taxation collects money without seriously influencing individual decisions on how much to work and to save and where to invest. An efficient system is not riddled with exemptions, deductions, and credits that direct money to investments with lower tax liabilities instead of to investments that increase real output at the highest rates of return. The best way to minimize distortions is to impose low rates of taxation on a broad base of taxable activity, rather than narrow the tax base through exemptions, deductions, credits, and other loopholes, and then tax the resultant narrow base at steeply-graduated rates. The broadest possible base of taxation is a country's entire gross domestic product.

(2) Another important standard against which to evaluate systems of taxation is equity or fairness. Historically, equity has always meant equal treatment of equals, which conforms to historical common law notions of equal treatment before the law. So in general, if two taxpayers earn identical incomes, this doctrine of equity would imply that each should contribute identical shares in taxation.

(3) Simplicity is a third standard by which we can evaluate tax systems. The notion of simplicity encompasses the comprehensibility of the system, the ease with which taxpayers can figure out how much they owe with absolute certainty, and how much time and effort they have to put into complying with the tax system. It reflects the extent to which taxpayers have to consult expert counsel from their lawyers or accountants either to compute their taxes or to take advantage of tax-saving devices. A truly simple tax system would require no more than a halfsheet of paper that all literate persons could easily complete, whether as a large multi-national corporation headquartered in Zürich, a small business, a self-employed professional, an owner of rental property, a farmer, or a salaried employee.

Terminology of Taxation

We are now armed with several standards for the evaluation of tax systems. It may be useful here to complete a conceptual checklist of concepts and definitions that render tax jargon into ordinary language.

Begin with the tax rate. There are two notions of tax rate: **average**, or effective, tax rate and **marginal** tax rate. A taxpayer's average tax rate, which is sometimes called the tax burden or tax level, is simply the fraction of income paid in taxes. Divide taxes paid by income to calculate the average tax rate. For example, SFr 10,000 paid in taxes on income of SFr 100,000 yields a 10 percent average tax rate.

The marginal tax rate, in contrast, applies only to the last franc earned. If the person receiving SFr 100,000 gets SFr 110,000 instead, and has to pay SFr 12,000 in taxes, the tax on the extra SFr 10,000 is SFr 2,000, and the marginal rate is 20 percent. In most tax systems, the marginal rate exceeds the average rate.

The marginal rate determines whether the taxpayer decides to work overtime, go hiking, or cheat.

Inflation has very severe effects on incentives in a graduated-rate income tax system. Why? Unless tax brackets are indexed for inflation, an increase in consumer prices pushes taxpayers into tax brackets with higher marginal rates, a phenomenon that is termed **fiscal drag, or tax-bracket creep, or bracket creep** for short. Assume that any given individual receives an increase in salary that exactly matches inflation. He will, in fact, experience no change in real disposable income (that is, the real purchasing power that remains after inflation is removed). However, inflation may push him into a higher tax bracket because he now earns more. Higher tax rates both reduce his incentive and his after-tax income, which means that he will actually suffer a decline in real disposable income.

Bracket creep can be easily avoided if the tax authorities adjust the tax brackets each year by the full amount of inflation. Some countries make this inflation adjustment, such as the United States, while others do not. Those that do not adjust tax brackets for inflation are able to raise additional revenue without having to legislate tax increases.

Even without inflation, the disincentive effects of higher tax rates are the result of a **graduated tax-rate structure.** As an individual's real income rises, he has to share an increasing fraction of each increment with the tax collector. A graduated tax-rate structure has the effect of cutting the government in on the growth of the economy, thereby transferring more and more of the national income into public hands, unless the government

enacts tax-reduction legislation to offset the trend.

Some definition of income constitutes the basis on which a tax system is constructed. Take gross domestic product (GDP), for example, which is a comprehensive measure of the annual value of goods and services produced by a nation. The tax base against which any structure of rates is applied is that portion of GDP that remains after all allowable deductions and exemptions have been removed, and any credits applied.[3] Those items that have been removed may take the form of **exemptions,** (in most countries, this is an allowance for each member of a taxpaying household, the taxpayer, spouse, and dependents, which is subtracted from gross income), **deductions** (special provisions in the tax law for such items as charitable deductions or large medical expenses), **exclusions** (in the United States, contributions to individual retirement plans and moving expenses to accept a new job are deductible from gross income), and **credits.**

Taken together, the four categories are often known as **loopholes,** devices that allow taxpayers to reduce their taxes. They are also called **tax-preference items or tax expenditures,** because if the government declines to tax part of someone's income to encourage him to engage in some specific social or economic act, it is the same thing as if the government were spending money to pay the person to do the same thing. The effect of loopholes is to **narrow the tax base.**

Special interest groups seek, and often obtain, specific tax loopholes that favor their members. Tax-free or tax-preferred fringe benefits are often received by some groups of employees. Such benefits may include free or subsidized meals, the use of company cars (not for private use), interest-free employer loans, employee participation in their employer's business in the form of stock, and other benefits. These tax benefits or loopholes become tax shelters for the group that receives its benefits. The object of a shelter is to generate deductions from total income to reduce taxable income and lower tax payments.

In this regard, **the underground economy,** in which people exchange goods and services for other goods and services with no cash changing hands, or pay unreported cash for goods and services, is a form of **tax evasion.** Evasion, unlike loopholes that give rise to **tax avoidance,** is illegal. Higher marginal tax rates encourage both avoidance and evasion. A low flat rate minimizes both.

Finally, the concept of **revenue neutrality,** which means that a new tax

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[3] The tax base, as discussed here, refers to the share of GDP that remains when all deductions are removed. From the standpoint of the individual or corporate taxpayer, the tax base is more precisely defined.

system raises the same amount of money as the old system it replaced. A neutral reform leaves revenue unchanged.

To summarize at this point, the important characteristics of a well-designed tax system are that it is:

(1) efficient, both in the broader economic sense of promoting growth and in the narrower sense of efficient administration of tax collection,

(2) equitable, and

(3) simple.

The flat tax best meets these three criteria. Any system of graduated tax rates distorts prices and markets, thereby reducing efficiency. A graduated-rate system is complicated to understand and costly to enforce, thereby violating the simplicity criterion. No one individual knows how much another individual should pay. As a result, the system takes on the appearance of favoring one person or group over another and is widely perceived to be unfair. The flat tax solves this problem because every person has to pay at the exact same marginal rate of tax over the specified level of personal allowances.

Principles of Tax Design and Administration

Taking the principles of sound taxation and the terminology of taxation as our starting points, let us design a sensible tax system.

1. All income should be taxed only once, as close as possible to its source.

2. All types of income should be taxed at the same low rate.

3. The poorest families should pay no tax, until their incomes reach a specified minimum level.

4. Tax returns for both families and businesses should be simple enough to fit on a half-page form or a postcard. The tax system should be easy and cheap to enforce.

The first principle seems obvious enough. Any economic activity that is taxed more than once will be discouraged, while those that are not taxed at all will be favored. This is both unfair and inefficient. Double taxation distorts costs and prices, interferes with production decisions, and can seriously harm savings by imposing very high rates on savings. The tax systems of many countries violate this first important principle. Some kinds of income-like fringe benefits-are never taxed at all, while other forms of income, such as corporate income, are double taxed.

Taxing all income at the same rate, the second principle, is the crux of the flat-rate tax. Its logic is much more profound than just the simplicity of the tax calculation with a single tax rate. Whenever different forms of income face different tax rates, or different taxpayers face different tax rates, the taxpayer takes full advantage of opportunities to receive income in ways involving low rates and takes deductions against the income that pays the highest tax. Rich people have the greatest opportunity to exploit deductions. The second principle also states that *the flat rate should be as low as possible* consistent with raising sufficient revenue to finance the legitimate essential tasks of government. Low tax rates inject the smallest possible distortion into the production of goods and services.

The third principle of tax reform is limiting the burden of taxes on the poor. The tax authorities should not chase after families living in poverty. This can be accomplished by applying the flat rate above some specified minimum poverty-level income. This level must not be set too high, however, for it would narrow the tax base, and require all remaining taxpayers to pay at higher rates.

The fourth principle of tax reform is simplicity of the system. Complicated taxes require expensive advisers for taxpayers and can subject taxpayers to fearsome audits by the tax authorities. Honest misunderstanding can result in fines, litigation, and "fiscal terrorism." A complicated tax also invites the taxpayer to search for special features that can be twisted to escape the taxation of some income or give an advantageous deduction to some expense, and rich persons are better able to use these deductions than low- or middle-income persons. Complicated taxes diminish confidence in government, inviting a breakdown in cooperation with the tax authorities and widespread outright evasion. Each of these problems gets worse as tax rates and the tax burden rise.

It is possible to design a comprehensive income tax system for any modem economy, which meets the broad objectives of neutrality, efficiency, equity or fairness, simplicity, and administrative workability. These objectives are met when a tax system conforms to the four general principles of sound taxation mentioned above. A unified flat tax on individual and corporate income best meets these principles and objectives.

Explaining the Flat Tax

The best approach to the taxation of all forms of corporate and personal income takes the form of a *completely integrated flat tax.* To administer a flat tax, it is desirable to have two separate tax forms-one for business income (which includes corporate income and income from the ownership of unincorporated businesses) and the other for wages and salaries-but it is

important to think of the two forms as a single integrated system. An integrated system provides for equal taxation of all types of income, even though reporting of income is separated into two parts. It is important to think of the flat tax as a *single tax* on the cash flow of the economy, not as two or more different taxes arising from different sources of income.

In a fully integrated flat tax, all income is classified either as business income or as wages and salaries. The tax rates on both types of income are equal. The tax on wages and salaries would only apply above a specified poverty level of income. The forms for both taxes will fit on a half- sheet of paper or a postcard-sized form.

All business enterprises, not just corporations, would file a business tax form. The largest corporation and smallest self-employed operation would use the identical simple business tax form. An integrated flat tax would apply a uniform low tax rate on all types of income.

An integrated flat tax provides a single uniform incentive for capital formation by permitting 100 percent first-year write-off of all investment outlays in the year they are made. Expensing of investment would replace multi-year depreciation. Expensing, which both improves the tax treatment of capital and aids simplification, would minimize reporting requirements and reduce expensive accounting and legal fees for compliance.

The Individual Wage Tax. The individual wage tax is designed to tax total income paid as cash by employers to workers. The base of the tax is stated precisely and narrowly as actual payments of wages, salaries, and public or private pensions.

The tax form for the wage tax is almost self-explanatory. It can be filed on an individual or a household basis. For illustrative purposes, Form I would be used for individuals. It requires the taxpayer to report total wages, salaries and pensions at the top, count the number of dependents (e.g., children, dependent parents) eligible for an allowance, compute total allowances, subtract allowances from income, and multiply the balance by some fixed percentage.[4] For the great majority of salaried employees, filling out this brief form once a year would be the only effort imposed on them by the national income tax system.

It is possible to exempt individuals whose income derives solely from wage employment from having to complete this tax form by having the employer correctly withhold and remit the tax to the government on behalf

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[4] For illustrative purposes, the tax rate has been set at 15 percent. The final choice of the tax rate depends on the size of the tax base (e.g., whether to retain some current deductions and tax credits) and the amount of revenue that is sought from direct taxes.

Form 1 Individual Tax 2000

Name: Social Security Number

Address:

City, State, Zip: Occupation

1. Wages and salary ..... 1 .....
2. Pension and retirement benefits ..... 2 .....
3. Total (line I plus line 2) ..... 3 .....
4. Personal allowance .....
   [a] SWf xxxx for adult
   [b] Swf xxxx for dependent
5. Number of adults ..... 5 .....
6. Allowances for adults (line 5 multiplied by SFr xxxx) ..... 6 .....
7. Number of dependents ..... 7 .....
8. Allowances for dependents
   (line 7 multiplied by SFr xxxx) ..... 8 .....
9. Total personal allowances (line 6 plus line 8) ..... 9 .....
10. Taxable income (line 3 less line 9) ..... 10 .....
11. Tax (15 % of line 10, if positive) ..... 11 .....
12. Tax withheld by employer ..... 12 .....
13. Tax due (line I I less line 12, if positive) ..... 13 .....
14. Refund due (line 12 less line 13, if positive) ..... 14 .....

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of the employee.

It may be administratively convenient to minimize individual reporting of income taxes for those whose income derives solely from wage employment. However, it is politically desirable, in my view, for each employed individual to complete an annual accounting of his income-tax liabilities and sign a completed tax return in order to see, first hand, how much income tax he paid and to judge whether the services he receives from the government are worth those payments.[5] It is important that taxes be made as visible and painful as possible in order to encourage the public to resist the government's endless grab for more money. Money withheld and never received by the individual is often not seen as a cost of government. This creates what is known as a "fiscal illusion" and leads citizens into thinking

[5] Suppose that withholding was abolished and individuals were required to write a check to the government every month to pay income tax. Under these conditions, taxpayers would probably take a more critical look at what they are getting for their income tax payments from the government in terms of the quantity and quality of public services. So long as individuals have income tax and social insurance tax withheld from their paychecks, and pay VAT inclusive in retail prices, it is difficult for ordinary people to realize how much they pay of their total income in taxes.

they receive government benefits free of charge or at the expense of others.

Choosing a level of personal allowances for exemption from income tax is no easy task.

Most countries grant a personal exemption for a head of household, his or her spouse, and a smaller amount for each dependent child or aging parent and grandparent. The underlying notion is that each household requires a minimum amount of income to purchase necessities of life, and that income taxes should not be imposed until income surpasses the level required to subsist at a socially-accepted minimum standard.

For the majority of the population whose income derives solely from wages and salaries, the individual wage tax will be the only tax to worry about. A broad-based integrated flat tax contains no provisions for charitable deductions, mortgage or other interest payments, and other deductions. Eliminating deductions is important to achieve a broad tax base. However, the flat tax does not require any payment on capital gains, dividends, on interest receipts, which explains the omission of these items in Form 1.

The Business Tax. In the first place, the purpose of the business tax is not to tax businesses. *Fundamentally, people pay taxes, not businesses. The idea of the business tax is to collect the tax that the owners of a business owe on the income produced by the business.* The belief that businesses as such pay taxes is among the most misleading myths in how people think about taxes, and why politicians often clamor to raise taxes on business.

The business tax is a giant, comprehensive withholding tax on all types of income other than wages, salaries, and pensions. The business tax is designed to tax all income outside of wages and salaries only once, as close as possible to its source. The business tax does not have deductions for interest payments, dividends, or any other type of payment to the owners of the business. As a result, all income that individuals receive from business activity has been taxed. Because it has extracted its tax, the tax system need not worry about what happens to interest or dividends after they leave the firm.

The business tax would be assessed on all the income originating in the business, but it will not tax any income that originates in other businesses, nor will it tax the wages, salaries, and pensions paid to employees. The types of income taxed by the business tax would include profits from the operations of factories, royalties from books and patents, earnings of self-employed professionals such as doctors, lawyers and accountants, rental income from ownership of apartments and offices, and fringe benefits provided to workers. In short, all profits originating from the conduct of any non-salaried business activity would be subject to the business flat tax. Many of these types of income are reported on individual returns in many

countries. This would change under the flat tax.

The business tax works in the following way: all income derives fundamentally from the sale of the products and services produced by the business. On the top line of the business tax form goes the gross sales of the business—its proceeds from the sale of all its products and services. But some of the proceeds come from the resale of things the firm purchased; tax has already been paid on these items because the seller also has to pay the business tax. So the firm can deduct the cost of all the goods, materials, and services it purchases for the purpose of making the product it sells. In addition, it can deduct its wages, salaries, and pensions, for the taxes on these will be paid by the people receiving them under the wage tax. Finally, the business can deduct each year all its outlays for plant, equipment, and land.

Everything left from this calculation is the income originating in the firm, and is taxed at a flat rate, the same rate imposed on wages, salaries and pensions (which eliminates any tax-advantaged decision regarding incorporation). Deductions are eliminated for interest payments and fringe benefits; note that interest receipts, dividends, and capital gains of individuals are correspondingly not taxed since they represent after-tax income. (The business tax form, Form 2, appears below.)

The flat tax sweeps away the whole complicated system of depreciation

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Form 2 Business Tax 2000
Business Name: Employer Identification Number
Address:
City, State, Zip: Principal Product

1. Gross Revenue from sales ..... 1 .....

2. Allowable Costs .....
   (a) Purchases of goods, services and materials ..... 2(a) .....
   (b) Wages, salaries and pensions ..... 2(b) .....
   (c) Purchases of capital equipment, structures and land . 2(c) .....
3. Total allowable costs [sum of lines 2(a), 2(b), 2(c)] ..... 3 .....
4. Taxable income (line I less line 3) ..... 4 .....
5. Tax (15% of line 4) ..... 5 .....
6. Carry-forward from 1997 ..... 6 .....
7. Interest on carry-forward (% of line 6) ..... 7 .....
8. Carry-forward into 1998 (line 6 plus line 7) ..... 8 .....
9. Tax due (line 5 less line 8, if positive) ..... 9 .....
10. Carry-forward to 1999 (line 8 less line 5, if positive) ..... 10 .....

deductions, but replaces it with something more favorable for capital formation, an immediate 100 percent first-year tax write-off of all investment spending, also called expensing of investment. Expensing enhances depreciation deductions. Replacing depreciation with expensing is a crucial element in the reform plan, in order to enhance the return on capital and to simplify tax reporting.

Under the integrated flat tax, each business would file a simple form. Every line on the form is a straightforward, well-defined number obtained directly from the business's accounting records (see business tax form above). Line 1, gross revenue from sales, is the actual amount of money received from the sale of all the products and services of the business, plus the proceeds from the sale of plant, equipment and land. Line 2a is the actual amount paid for all the inputs necessary for the operation of the business. The firm could report essentially anything it purchased provided it was actually needed for its products and was not being given to the employees or owners. Line 2b is the actual cash put in the hands of workers and former workers (which is taxed via Form 1). Line 2c reports purchases of new and used capital equipment, buildings, and land. Line 3 sums all deductible business expenses. Line 4 computes taxable income (gross income less expenses). Line 5 levies the 15 percent tax on taxable income. The remaining lines deal with carryforward provisions.

Because the business tax will treat investment in plant, equipment, and land as an expense, companies in the start-up period will have negative taxable income. This negative tax will be carried forward to future years, when the business should have positive taxable income. Balances carried forward should earn the market rate of interest to prevent them from being eroded by inflation.

Expensing of investment simplifies tax reporting. It also encourages saving and investment. In general, all investment originates in saving. When all new investment in any given tax year is subtracted from the income tax base, it means, one step removed, that all saving that year was exempt from income tax. A tax on income with an exemption for saving converts an income tax into a consumption tax (because when investment is subtracted from GDP, only consumption remains). Expensing of investment thus converts a tax on income into a tax on consumption, which embodies the principle that people should be taxed on what they take out of the economy, not on what they put in. There is a general consensus among economists that a consumption-based tax is more conducive to growth than an income tax, which taxes the formation of new capital.[6]

[6] There is a near universal consensus in American economic circles that replacing the current U.S. federal income tax with some form of low, flat-rate, consumption-based tax

Expensing investment eliminates the double taxation of saving. Under an income tax, people pay tax once when they earn and save, and again when the savings earn a return. With expensing, the first tax is abolished. Saving is, in effect, deducted in computing the tax.

It is important to distinguish profits from the sale of rental property, plant and equipment, which would be taxed under the business tax, and capital gains from the sales of financial assets, which would not be taxed. With respect to the sale of real assets, the purchase price would be deducted at the time of purchase, and the sales price would be taxed at the time of the sale.

The treatment of capital gains is different for the following reason. Rising earnings of an expanding firm are taxed. To tax the immediate capital gains of a stock, which reflects the capitalization of a firm's future earnings, along with its higher earnings constitutes double taxation because the two taxes would be levied on the same single stream of earnings. Thus with comprehensive taxation of business income at the source, capital gains should be excluded from taxation at the household level.

The business tax (reported on Form 2) completely solves the incentive problems facing the entrepreneur. No further tax applies to the value created by the entrepreneur, once he has paid his flat tax on profits. If the firm pays dividends, those dividends are distributed from after-tax income and incur no further tax. If the entrepreneur sells appreciated shares, the appreciation is the capitalization of after-tax income, and no tax is imposed on the capital gains.

The business tax also solves the problem of low taxation of debt-financed business because there is no preferential treatment of interest over dividends. All interest and dividend payments are paid out of income already taxed on Form 2, which has no deduction for interest. Placing all interest payments on an after-tax basis would result in lower interest rates compared with current law, which allows a deduction for interest payments but which also taxes interest income.

Economists generally agree that a low flat tax will improve the performance of the economy. Improved incentives to work through increased take-home wages will stimulate work effort and raise total output. Rational investment incentives will raise the overall level of investment and chan-

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(by exempting new investment from the tax base) would substantially increase economic efficiency and growth. Estimates of additional annual growth, as reported in a survey of studies published by the U.S. Congressional Joint Committee on Taxation, range from 0.3 percent to 1.1 percent. The average increase in annual real growth was about 0.7 percent. This has a very large effect, over time, on real personal income and government revenues.

nel it into the most productive areas. And sharply lower taxation of entrepreneurial effort will enhance this most critical risk-taking input to the economy.

Summary

Here are the key aspects of the flat tax:

1. The flat tax, in effect, removes the tax code from the economy. No individual, household, or firm needs to take into account any tax complications that arise from their economic decisions and activities. The tax system is designed for the sole purpose of collecting revenue, not for social manipulation of individuals or firms.

2. The flat tax is pro-investment because it permits 100 percent, first-year writeoff of all investment.

3. The flat tax is non-discriminatory, in that it treats every individual, household, and firm exactly the same. It is fair in this regard. This is an important point of principle, namely, that of enhancing individual economic freedom. The flat tax does not punish success.

4. The flat tax is the essence of tax simplification. It is completely transparent. Everything you need to know to understand the system is contained on the two proposed forms for reporting individual and business tax liabilities.

5. The flat tax promotes economic growth. The consensus of scholarly studies is that a low flat tax would result in higher growth in those countries which now have graduated income tax systems.

6. The flat tax is easy to administer. Revenue from business cash flow is collected at source, except for wages, which is withheld at source and directly transmitted to the government.

7. The flat tax increases individual incentives to work, save, invest, and take entrepreneurial risks. The rate of tax in a flat tax system is lower than the top rate in graduated tax systems.

8. The flat tax eliminates political lobbying on the part of special interest groups.

Towards a Lifetime-Oriented System of Taxing Income

Manfred Rose

It is of particular importance for the development of a market economy that the tax system does not discriminate against savings and investment. In this regard, the traditional concept of taxing income according to the net increase of wealth in the calendar year is highly inappropriate, since from a lifetime perspective it creates an extra burden on capital formation. On the contrary, lifetime-oriented types of approach are of great advantage because they are neutral with respect to decisions regarding savings and investment. Furthermore, a legal framework based on this approach will ease the administration of and compliance with income tax. It can be shown that a lifetime-oriented approach of taxing income will create a uniform tax burden on taxpayer's lifetime consumption which is financed by income gained from market activities. Hence, the taxation of income from markets which guarantees decision neutrality with respect to investment of entrepreneurs and intertemporal consumption of citizens can be seen as an approach to taxing personal consumption in a non-discriminatory way. In preparing this paper, I have taken into account my experience derived from participating in the implementation of a lifetime-oriented and thus consumption-oriented system of taxing personal income and business profit in the Republic of Croatia from 1992 until 1996 and from drafting system-based tax laws for the Ministry of Finance of the Republic of Romania in 1998.

1. The Flat-Tax and International Trends in Taxing Income

The flat-tax proposal of Hall and Rabushka (1995) is a double attack on the traditional way of taxing income. Firstly, applying only one rate does not correspond to the traditional idea of progressivity in marginal tax rates. There are, however, some international movements which signal a change towards reducing that progressivity. In the last decades, several countries flattened the income tax rate schedule. For the discussion of tax reform in Germany, it was surprising that the traditionally oriented council of advisors to the German Ministry of Finance last year proposed the introduction of a flat rate of 28 per cent.[1] The greatest attack of Hall and Rabushka's proposal on traditional income taxation, however, concerns the tax bases. The basic idea of taxing income comprehensively according to the traditional concept was mainly developed by Schanz (1896), Haig (1921) and Simons (1938). Such a basis of assessment would cover not only income

[1] See Bundesministeriurn der Finanzen (1999), p. 114.

derived from markets but also transfer incomes such as state benefits, private monetary relief, donations, inheritance and lottery winnings. The systems actually applied are far from satisfying these requirements. In many countries, inheritance tax, gift tax and lottery tax are imposed separately due to the distinctive features of those transfer incomes. For the purpose of simplification, receipts from public assistance are mostly rated as net income transfers and are therefore exempt from income tax. Private maintenance is often treated the same way. Consequently, the base of personal income tax is limited to the sum of income derived from markets.

The concept of comprehensive income taxation fundamentally based, as it is, on the calendar year - both with respect to the tax (collection) period and its theoretical roots - calls for the entire taxation of interest, dividends and gains from selling shares in other companies. This leads, as shown below, to multiple tax burdens which significantly violate the criterion of justice besides harming the fundamental forces driving the market economy, especially those relating to savings and investments. Certain views concerning this issue, on the one hand, and the international mobility of financial capital on the other hand, have caused many countries (e.g., Austria, Sweden, Norway, Finland, Belgium) to introduce a separate tax on certain kinds of capital income,[2] the rate of which is generally lower than the rate applied to other kinds of income.

Furthermore, the double burden on capital income is often not placed on that included in the pensions paid out! This means giving preference to savings for consumption in retirement over consumption of income today and other forms of savings. Thus, the traditional approach to taxing income fails once again to produce satisfactory results.

Along with the implementation of the traditional system of taxing income, it became clear that undistributed profits of large public corporations could not be taxed as personal income. This is why a corporate income tax was established. With partial or full taxation of dividends through personal income tax and partial or full imputation of corporate tax paid on distributions of profits, the attempt was once again made to follow the line of the traditional approach of taxing all kinds of income comprehensively, synthetically and at the personal level.

Due to the world-wide competition for internationally mobile capital,

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[2] In Germany for example, pensions which are funded at the enterprise level by employee's savings out of tax-free wages and interest from investing this capital are taxed as ordinary income. This would put, however, only one burden on the interest contained in the paid out pensions. According to the pure traditional concept of double- burdening capital income, it would be necessary to impose a separate tax on the interest part contained in the net amount available after the deduction of the income tax on pensions.

tax rates on retained profits of corporations were lowered. In many countries, the idea behind this tax policy was to stimulate investments and to create new jobs by lowering the taxes that burden entrepreneurial profits. Germany is about to follow this trend if the goverment succeeds in implementing its plan of taxing retained profits of corporations lower than distributed earnings. In designing such a concept it was overlooked, however, that entrepreneurs could also invest the retained profits in securities and shares in other companies instead of reinvesting them. In many countries, this process has resulted in an implementation of income taxation which is, however, not in tune with the principle of traditional income taxation.

What has happened in practice to the traditional idea of comprehensive and synthetic income taxation? To make a long story short, it has not proved enforceable due to its inconsistency with the economic diversity of different kinds of incomes. In many countries, Germany included, the observable ongoing process of an increased and often arbitrary analytical splitting of income tax law has finally led to a chaotic tax system. Taking this into account, tax scientists around the world recommend very different ways to overcome these problems. One group, more traditionally oriented, recommends revitalizing the system of comprehensive income taxation. The other group to which Hall and Rabushka and myself belong, recommends switching to a new system which is basically oriented towards uniformly burdening taxpayers' lifetime consumption financed out of income gained. In order to get a reliable basis of evaluating alternative system approaches one should calculate the tax burden they usually produce. Such calculations will be presented in the next section.

2. Tax Burden from Applying the Traditional Concept of Income Taxation

To begin, we will analyse the burden caused by imposing a traditional income tax a worker has to bear when saving for retirement consumption. In the pre-tax situation it is assumed that our worker would like to save 1,000 CU from received wages. If the yearly nominal interest rate is 5 per cent he will obtain interest income in the amount of 50 CU next year. The traditional story of tax burden starts with the income tax on wages. If the top rate of income tax is 40 per cent, the tax payment of the first round amounts to 400 CU. Thus, 600 CU are left for the worker's savings. Interest income of the next year is reduced from 50 CU to 30 CU without being taxed. According to the traditional concept, interest income is fully taxable so that in the second round an additional tax amounting to 0.4x3O = 12 CU has to be paid. Hence, the net income from interest-bearing capital amounts to 18 CU and the total tax burden on gross nominal interest mounts to [(50-18)x 100/50 =] 64 per cent which, from an equity point of view,

should be compared with the tax burden on working income which is in our example 40 per cent. But the complete story of tax burdens is not fully described by tax payments. The calculation of real tax burdens has to take into account the loss of purchasing power due to inflation. In our case, assuming a rate of inflation of 1.94 per cent, the real income from interest is 30 CU before applying the traditional income tax. Imposing a tax both on wage income which is saved for future consumption and on interest, the real net interest in absolute terms will be [(18-0.0194x6OO)/1.0194=] 6.23 CU. Hence, the tax burden in absolute terms amounts to [30 - 6.23 =] 23.77 CU and in relative terms to [23.77x l00/30=] 79.23 per cent. In contrast, the real tax burden on wage income runs only to 40 per cent (see table 1).

To sum up, the traditional income tax heavily discriminates interest income against wage income. This means workers or other recipients of market income who prefer only present consumption have to bear a tax burden of 400 CU. Others with preferences for next-year consumption are burdened with an additional tax which, as regards the considered numerical example, amounts to [12/1.03 =] 11.65 CU in present-value terms. Extending saving periods this additional burden will be raised. Thus 'early' consumers bear a lower tax burden than 'late' consumers.

From a market-efficiency point of view, the double tax burden on savings creates a distortion on capital markets and finally leads to an undesirable reduction in private investment. If interest income is fully taxed, it is no longer sufficient for income from real investment to compensate for the

Table 1
Effective Burden that a Traditional Income Tax of 40% Imposes on Interest from Savings Invested in Bonds
(All amounts in CU)

Pre-Tax Figures		*Post-Tax Figures*	
		Savings in 2000	
Income:	1,000	Income:	1,000
Savings:	1,000	Income Tax:	- 400
		Savings:	= 600
		Interest Income in 2001	
Nominal Gross interest (5%)	50	Nominal Gross interest (5%)	30
		Nominal income tax:	- 12
Nominal net interest (5%):	50	Nominal net interest (5%):	= 18
		Nominal tax burden	
		32	64% of 50
Real net interest:	30	Real net interest:	6.23
		Real tax burden	
		23.77	79.23% of 30

consumption foregone: only investments which can also cover tax on interest will appeal to companies, while other investments which cannot bear this additional burden will be shelved for tax reasons, even if they would otherwise have been socially desirable. A conventional income tax thus drives up capital costs confronting companies and so leads to abandonment of investments which are urgently needed.

There is nothing worse than the conventional approach to taxing income, thus forcing an entrepreneur who saves and invests his profits to bear the highest tax burden. The following numerical example, documented in table 2, shows that this is by no means an insignificant matter.

Let us consider the typical case of a young entrepreneur who starts his small enterprise in the legal form of a corporation at the age of 25, makes a gross profit of 10,000 CU in the first year and earns a 5 per cent rate of return on its investment in each following year. For once, let us disregard inflation. At the age of 65 the entrepreneur decides to retire and to consume the wealth accumulated in his enterprise. He sells his share in the corporation and gets [1.05^{40}X10,000 =] 70 400 CU which he will use to finance his retirement consumption.

Now let's introduce a conventional broad-based income tax with a constant tax rate equal to 40 per cent. In the first year, the entrepreneur has to pay a tax of 4,000 CU; 6,000 CU are left for investment. The rate of return is reduced to [0.60x5 =] 3 per cent. According to the investment of all net

Table 2
Effective Burden that a Traditional Profit/Income Tax Imposes on Income Derived from Shares in Corporations

Pre-Tax Figures		*Post-Tax Figures*	
First-year profit gained at the age of 25	10,000	First-year profit gained at the age of 25	10,000
		Profit Tax (40%)	- 4,000
First-year investment	10,000	First-year investment	= 6,000
Yield from investment in the following years: 5% of equity capital		Yield from investment in the following years: 3% of equity capital	
Equity capital after 41 years	70,400	Equity capital after 41 years	19,572
Income from selling the share	70,400	Income from selling the share	19,572
		Income tax (40%)	- 7,829
Funds usable for retirement consumption	70,400	Funds usable for retirement consumption	= 11,743
		Total Tax Burden 58,657 CU	83.32%

profits, the equity capital after 41 years will be [1.03^{40}x6,000=] 19,572 CU. This means that the profit tax imposes in absolute terms a burden on equity of [70 400 - 19 572 =] 50,828 CU and in relative terms a burden of [50 828xlOO/70,400=] 70.2 per cent. But this is not the end of this story of tax burdening.

The concept of comprehensively taxing yearly income requires a tax on capital gains from selling shares in the corporation. Because the capital gain equals the amount of accumulated equity, the taxpayer has to pay income tax of [0.40xl9 572=] 7,829 CU. In final analysis, his funds for retirement consumption amount to 11,743 CU. Compared with the consumption funds in the pre-tax situation, his ability to consume is reduced by 83.32 per cent.

The decision to use funds for present or future consumption is mainly determined by the relative intertemporal price. In the case considered, before imposing taxes the entrepreneur was to give up (111.05^{41} =) 0. 142 CU of present consumption in order to finance 1 CU of consumption in retirement at the age of 65. Imposing traditional corporation tax on profit and income tax on capital gain forces him to give up [1/(0.6x 1.03^{40})=] 0.511 CU today for 1 CU in the future. This means that the tax system raises the relative price of future consumption by about 260 per cent.

Please note that no inflation rate has been taken into account. Assuming a constant inflation rate of, for example, 1.94 per cent, the real value of income left for retirement consumption will be [11,743/1.0194^{40}=] 5 445 CU. This is less than consuming the first year net profit of 6 000 CU. Forty-one years of saving and investing will not bring about a gain in consumption funds for retirement but a loss. From our tax burden analysis, we have to conclude that the conventional concept of taxing income comprehensively can also be designated as the concept that discriminates savings and investments comprehensively. This gravely violates the criteria both of efficiency and fairness. Hence, the traditional way of taxing income from capital and enterprise profits is not compatible with a truly market-oriented and fair concept of taxing income. Additionally, it causes high costs of administration and compliance. This comes mainly from the interest sensitivity of the time-pattern of tax payments. Hence, concerning the taxation of business profits, the choice of the method of depreciation is always a matter of keen contention between the tax authorities and taxpayers. Here, it is of crucial importance that accelerated depreciation will postpone tax payment to the future from which the investor will gain interest because he is provided with more liquidity and can thus reduce his bank credits or place the funds in capital markets. On the other hand, this implies that the government loses money because interest is to be paid on

additional public debt. Last but not least, because the traditional way of taxing income imposes an excessive burden on returns from business investments, tax concessions are needed to reduce it. This policy, however, will create both loss in revenue which has to be compensated by raising other taxes and loss in welfare because of additional distortions in investment decisions of enterprises.

3. Tax Burden by Applying Lifetime-Oriented Concepts of Income Taxation

A truly fair concept of taxing income has to guarantee that all types of income from market activities and other sources are only burdened once during the lifetime of the taxpayer. Indeed, the question of fairness can only be settled by comparing the total stream of present and future consumption which can be financed with a given income after tax. There are several options which meet this criterion and thus guarantee that not only work-derived income but also income from capital is effectively burdened once only.[3] Here I only deal with the savings adjusted concept, the investment-adjusted concept, and the interest-adjusted concept. Let us firstly look at the burden which these guidelines will impose on the income from business investment (see also table 3).

Applying this **savings-adjusted method,** all profits which arise at the enterprise level are exempted from taxation. This results from treating shares in enterprises as stocks of qualified savings-accounts. In the event that entrepreneurs entirely alienate ownership of their enterprises in order to obtain funds for financing their retirement consumption, a withdrawal of savings takes place, which is fully taxable. In our simple enterprise model the proceeds from the sale correspond to a capital gain of 70,400 CU in the pre-tax situation which is subject to income tax at a rate of 40 per cent, leaving 42,240 CU for the purpose of consumption in retirement from the age of 66 onward.

According to the **investment-adjusted method** which Hall and Rabushka recommend to apply to tax income from business activities, the total amount of investment is treated as an expense in the year it is made. Furthermore, by applying cash-accounting only, proceeds and expenditures from real transactions affect the tax base. Hence, interest on goverment securities is not taxable and interest on debt is not deductible. Furthermore, gains from selling shares in corporations are considered as results from financial activities and hence not as taxable income. In the pertinent literature, a profits tax where the base is calculated according[4] to the investment-adjusted

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[3] See Rose (1990).

[4] See the R base of the Meade-Committee (1978).

Table 3
Effective Burden that a Lifetime-Oriented Profit/Income Taxes of 40% Impose on Income Derived from Share in Corporations

Investment-Adjusted Tax Base		*Saving-Adjusted Tax Base*		*Interest-Adjusted Tax Base*	
First-year profit	10,000	First-year profit	10,000	First-year profit	10,000
Profit tax	-	Profit tax	-	Profit Tax (40%)	- 4,000
First-year investment	10,000	First-year investment	10,000	First-year investment	= 6,000
Yield from investment in the following years: 5% of equity capital		Yield from investment in the following years: 5% of equity capital		Yield from investment in the following years: 5% of equity capital	
Equity capital after 41 years	70,400	Equity capital after 41 years	70,400	Equity capital after 41 years	42,240
Income from selling the share	42,240	Income from selling the share	70,400	Income from selling the share	42,240
		Income tax (40%)	- 28,160		
Funds usable for retirement consumption	42,240	Funds usable for retirement consumption	= 42,240	Funds usable for retirement consumption	42,240
Total Tax Burden		*Total Tax Burden*		*Total Tax Burden*	
28,160 CU	40% of 70,400	28,160 CU	40% of 70,400	28,160 CU	40% of 70,400

method is called a real cash-flow tax. Applying its features to our investment model, there is no tax on business profits because in each year all returns on investment are immediately invested, thus reducing the tax base to zero. When selling shares, however, the buyer will take into account that - on terminating the investment process and distributing all accumulated profits - the total amount of equity capital will be taxed at the uniform rate. If this rate is 40 per cent, the buyer - anticipating the tax payment in the case of liquidating the company - will only agree to buy the share at a price which is 40 per cent less than the equity capital from tax-free investments of business profits. Hence, the seller of the share will get 42,240 CU which he can use to finance his consumption in retirement.

A third approach to taxing lifetime consumption uniformly is by applying the **interest-adjusted method.** In this case the first year profit of 10,000 CU is assumed to be a pure economic profit which is fully taxable. Thus, just as in the conventional method, 6,000 CU are left for real investment. The yield from investment in all following years is assumed to be 5 per cent of equity capital, which corresponds to the 'normal' interest yield on capital markets. The rate of 5 per cent is appropriate for use as the standardised interest rate on equity capital in order to correct the tax base and thus to guarantee that the cost of equity capital employed in business is protected from being taxed. Therefore, in Croatia, where the base of profits tax is cleared from interest on equity capital, the basic rate of return used for that purpose is called the protected rate of interest.

We now further pursue our calculations. After 40 years of accumulating untaxed but "preburdened" normal yield on investment of 5 per cent, equity capital will finally accrue to a value of 42,240 CU. Because the proceeds from selling shares in enterprises are non-taxable kinds of income, the entrepreneur has 42,240 CU at his or her disposal in order to finance consumption in retirement: the same amount he or she derives from being taxed according to the investment-adjusted and to the savings-adjusted method.

For the given statutory tax rate of 40 per cent, all three methods result in the same uniform tax burden of 40 per cent on income earned during taxpayer's lifetime.

4. Pleading for an Interest-Adjusted Taxation of Business Profits

I am not going to compare the three lifetime-concepts of taxing income in a detailed way. There is certainly no doubt that enterprises would appreciate immediate depreciation of Hall and Rabushka's cash-flow tax or tax-free profits according to the savings-adjusted method. They would not agree with the cash-flow tax, however, regarding the loss of the right of

deducting interest on debt which especially for small and medium-sized companies is sizeably higher than the interest rate on financial capital (government bonds, etc.).

From the fiscal point of view, treating the total amount of investment as an expense in the year it is made, which is essential to the cash-flow tax, reduces the tax base substantially at the beginning of the investment period and postpones tax liabilities to the future. The resulting time pattern of tax payments will certainly increase government budget deficits in the years following the enactment of the tax. Hence, a long period of transition would be necessary to adjust to this revenue effect. This will raise the question, however, of how to design the rules for transition. A mixture of accrual and cash accounting procedures would be necessary and hence would create severe problems in administration and compliance.

Finally, problems for the investment-adjusted and the savings-adjusted business tax will also arise within the framework of double taxation agreements, because the definition of taxable profits differs substantially from the definition used in the OECD Model Tax Convention for double taxation agreements.

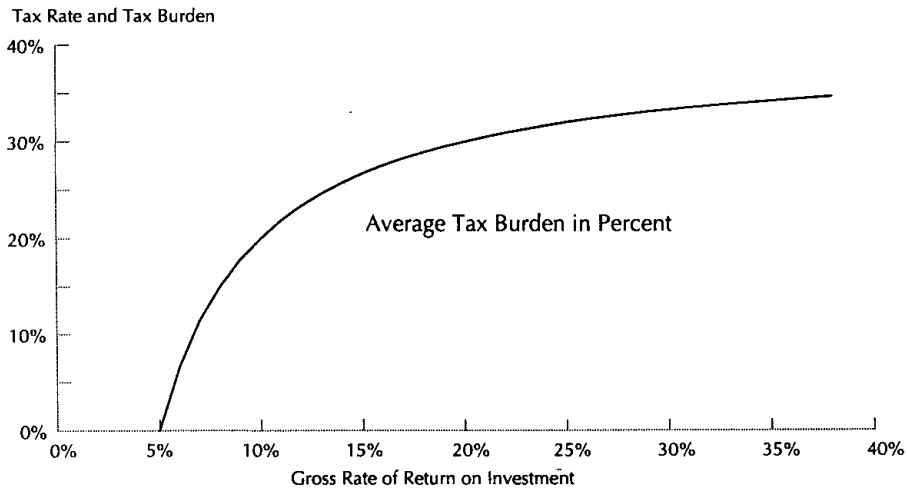
In order to get an extensive and fast acceptance of the new system, it should be seen as an improvement of tax laws and not as an abolition of all traditional rules. This requirement corresponds also with the requirement of reducing the problems in the stage of transition. Taking this into account, the interest-adjusted approach is the best alternative for taxing business profits because it is not necessary to abolish the traditional way of calculating the tax base. The decisive change is the new entitlement to deducting interest on equity in addition to the traditional deduction of interest on debt. By introducing the deduction of interest on equity step by step and by setting permissible depreciation methods according to the current need for government revenue, budget problems of transition could be avoided.

In contrast to the traditional taxation of business profits, the interest-adjustment of the tax base guarantees that the method of depreciation ideally has no effect on the present value of the deductible cost of capital. This is the precondition for investment neutrality. The reason for this fact consists in tax savings arising from accelerated depreciation automatically leading to a lower book value for equity. This correspondingly reduces the additional deductions for imputed interest charges on equity capital. For companies whose capital costs coincide with the market interest rate, the two effects cancel each other. Hence, where interest adjustment is applied, the entrepreneur has no interest whatsoever in manipulating the book values shown in on the balance sheet for tax purposes.

In the end, the interest-adjusted taxation of income from business activities has the same economic effect as applying Hall/Rabushka's (1995) 'Flat Tax', which treats the total amount of investment as an expense in the year it is made. Of course, the annual tax revenue differs between the two approaches to taxing income from business investment. If, however, the tax rate and rate of interest are constant, the present value of total tax revenue for the entire period of investment is the same.

Furthermore, indexation is definitely not necessary in order to adjust the tax base for inflation. When a profit corresponding to the nominal interest on equity - up to a standard rate which contains the rate of inflation - remains tax-free, illusory paper profits do not form part of the tax base. It is important to point out that an interest-adjusted enterprise profit tax automatically ensures that the illusory profits which inflation usually brings about are not taxed. The procedure of adjustment is simple both with respect to compliance and auditing. Economics-oriented tax policy very often refers to both the establishment and the development of new firms and the promotion of investment in particular sectors of the economy. Many countries around the world have adopted a strategy of tax concessions or even tax holidays in order to reward entrepreneurs for their investments. This strategy, however, creates opportunities for abuse, inequalities, loss in revenue and moreover a burden on the efficiency of the market economy.

Figure 1
Tax Burden on the Rate of Return on Business Investment According to the Interest-Adjusted Profit Tax
(Statutory Tax Rate: 40%, Protected Basic Rate of Return on Investment: 5%)



The attraction of an economy as a location for investment would, for example, be much more effectively enhanced through enterprise taxation which is neutral towards investment and free of distortional features rather than through unilateral tax privileges for specific investors.

Domestic and foreign investors will appreciate that the effective tax rate is zero as long the rate of return on investment does not exceed the protected rate of interest. Figure I shows that the relative tax burden rises moderately when the rate of return on business investment goes up. Assuming a profit tax rate of 40 per cent and a rate of protected interest of 5 per cent, the effective tax rate will then be 0 per cent at the gross rate of return of 5 per cent, 20 per cent at the return of 10 per cent, 30 per cent at the return of 20 per cent, and 35 per cent at the return of 40 per cent.

Until now, none of the larger industrial countries offers such an attractive environment for private investment. Tax politicians of the Republic of Croatia - being fully aware of this opportunity when planning to establish a new tax system starting in 1994 - decided, as the first country in the world, to promote its economic development with an interest-adjusted system of taxing business profits. In 1997, Italy implemented a reduced tax rate on that part of corporate profits which corresponds to a normal market rate of interest on equity capital.

5. Structure of a Lifetime-Oriented System of Taxing Income from Markets

The approach to taxing income from market activities which I recommend is a system consisting of personal income tax and a corporation income tax, both of which are integrated with respect to their tax base and their tax rates. Additionally there is an inheritance/gift tax and a source tax on lottery winnings which I will not discuss in this context.

The **income tax** takes into account three basic kinds of taxable income: income from employment, from self-employment and from pension funds. As regards the definition of taxable **income from employment,** any payment in cash or kind that the employee receives from his or her employer is subject to taxation at source. In order to simplify tax collection, income-related expenses should be deductible only in cases of reimbursement by the employer. However, the deductibility of reimbursements, e.g. concerning expenses for commuting between home and work, is limited to certain amounts. A basic allowance should provide for covering all other expenses which are necessary in order to earn a working income. This provision makes it possible to accomplish the taxation of most income from employment through withholding and the payment by employers on the basis of tax cards.

Income from self-employment, which is subject to income tax, includes the income from the entrepreneurial activities and some kinds of income from independent economic activities (for example, income which members of parliament and government receive for their representative work). Income from entrepreneurial activities is a part of profits of personally held companies independent of their legal form. Hence, also the owners of personally-held corporations are entitled to pay income tax on their part of company's profits.

For **pensions** paid out by statutory social security agencies or private pension funds, the concept of the savings-adjusted tax base should be applied in order to guarantee that the taxpayer has a taxable income also in the retirement phase of his lifetime. This means that contributions to pension funds are deductible from current working income, and pensions paid out subsequently are taxed in full as income. From a statutory point of view, the contributions to pension funds are dealt with as negative income from pension funds in the year concerned. From a revenue-related and an administrative point of view, it might be necessary to limit the deduction of contributions to private pension funds. The taxation of pensions is handled by the pension funds on the basis of tax cards. Thus, the collection of income tax on pensions follows the same lines as that on income from current employment. From an economic point of view the present value of gross pensions corresponds to the part of working income which is saved free of taxes.

Furthermore, a lifetime-oriented tax system which is administratively feasible at the personal level should provide for both the tax-free formation of human capital and the taxation of all returns on such investments. The involved returns on human capital are taxed because they are part of income from employment, in the income from self-employment or in pensions. The taxpayer, therefore, should be entitled to deduct **expenditures for investment in human capital,** i.e. tuitions, fees paid for the participation in promotion seminars, etc. But such an entitlement would create some problems for the tax administration because of the need to audit personal items claimed for deduction. It would have to be verified, for example, whether an expenditure is destined for the formation of human capital or used for private consumption. Hence, the deduction of expenditure for the formation of human capital will be restricted to specific categories and be subject to an upper limit.

Personal deductions ensure that in both working life and in retirement a certain subsistence minimum of consumption is protected from taxation.

With regard to administrative efficiency, I recommend taxing **income from publicly owned corporations** at the enterprise level only by the

corporation income tax. Thus, one does not have to deal with dividends as taxable income at the personal level, which facilitates the administration of and compliance with income taxation.

If a company holds shares in another company, the parent corporation has no tax liability whatsoever with respect to either **dividends received** or capital losses on the shares in the other company. Because the profit derived from balance sheets includes gains/losses on shares, the tax base of the enterprises concerned has to be corrected for such items in order to avoid double taxation of profits of affiliated companies.

The decisive correction consists, of course, in the deduction of **interest on equity capital,** as a result of which the cost of equity capital is protected from being taxed. The allowance for interest on equity capital is calculated by applying the protected rate of interest to the qualified equity capital at the beginning of the year. As far as enterprises subject to full financial accounting are concerned, the calculation of qualified equity capital starts with the value of equity capital as documented in the balance sheet. From this value, the value of shares in other companies subject to profit tax is deducted in order to avoid a double interest allowance. The basic assumption presupposes that equity capital is employed throughout the year. However, there are equity inflows and equity outflows during the year. For example, the company has to pay dividends and profit taxes, shares in other companies may be sold or bought, or new shares may be issued. These changes in equity capital will make it necessary to apply rates of interest which raise or reduce the protected interest initially calculated. Note that the correction for interest on equity inflows and outflows also works against tax planning in the aim of artificially increasing equity value at the beginning of the year. As far as enterprises subject to cash accounting and income tax are concerned, the qualified equity is the difference between the book value of real assets (machines, computer equipment, buildings, real estate, etc.) and the total of business debt.

The best choice for the **protected rate of interest** is an appropriate market rate of interest. From a theoretical point of view, a representative interest rate of a no-risk medium-term investment should be used. This could be the rate of interest of a two-year government bond. Enterprises subject to income tax or subject to corporation tax should be entitled to **carry forward loss** for an unlimited period.[5] Incomplete loss offset as a result of a time limit on loss carry-forward is a major tax drawback, par-

[5] Concerning income tax, if personally held enterprises report a loss the share of each equity holder is to be balanced with other kinds of his income. If taxable income considering the deduction of loss from enterprises is negative the concerned loss is to be carried forward to the next year where it can be deducted at an interest adjusted basis.

Table 4
Tax Bases of a Lifetime-Oriented System of Income Taxation

	Calculation of Personal Income		*Calculation of Personal Income*
	Income from employment		Profit according to cash accounting or to balance sheet (accrual accounting)
+	Income from self-employment	-/+	Gains/Losses on shares in other enterprises
+	Income from pension funds	-	Interest on qualified equity capital
-	Investments in human capital	-	Interest-adjusted loss carry-forward
-	Interest-adjusted loss carry-forward		
=	Taxable income of a natural person	=	Taxable profit on an enterprise
-	Personal deductions		
=	Base of the progressive income tax	=	Base of the proportional corporation income tax/taxable profits of personally held enterprises due to income tax

ticularly for risky investments. This means that a time limit on the right to carry forward losses generally affects innovative investments and thus those investments which are essential for the functioning of dynamic competition in a free market economy. It should be provided that a loss is adjusted with the protected rate of interest in each year of its carry-forward.

The best choice would be to apply the same proportional tax rate for both taxes as recommended in Hall & Rabushka's (1995) 'Flat Tax'. Generally, a progressive income tax rate schedule is applied for reasons of vertical justice. In this case, the rate of the corporation tax should be set at the top rate of the progressive income tax in order to achieve an integrative solution concerning tax rates.

6. Concluding Remarks

My suggestions for a lifetime-oriented system of taxing personal income and business profit according to both the interest-adjusted approach and the savings-adjusted approach are derived from both the results of theoretical research and its successful implementation in Croatia.

As regards some indicators of success, in the first year of the new Croatian tax system, tax revenue rose by more than 25 per cent as compared to estimated tax revenue under the old system, which was characterised by numerous tax privileges, different tax rates for different kinds of income and an extremely high total marginal tax rate. In previous years, the rate of growth in revenue from the interest-adjusted profit tax considerably exceeded the rate of growth in total tax revenue and in GDP (see figures in table 5). Ultimately, these results are based on a high acceptance of the profits tax by domestic and foreign investors because

of its interest-adjusted base.

There is no reason to assume that this would be any different in highly developed industrialized countries such as Switzerland, the USA or Germany. Politicians of these countries being confronted with recommendations regarding a lifetime-oriented approach usually argue that it cannot be implemented because of shortfalls in tax revenue. This, however, is a really poor excuse. Actually the odds are rather in favour of a strongly rising tax yield.

Table 5
The Growth in Revenue from the Croatian Interest-Adjusted Profit Tax

Year	*Growth Rate of Revenue from Profit in %*[2]	*Growth Rate of Total Tax Revenue in %*[3]	*Growth Rate of Real GDP in %*[5]	*Rate of Inflation in %*[5] *(Cost of Living)*
	Profit Tax	*All Taxes*		
1994[1]	-		-	-
1995	78.6	13.4	6.8	4.00
1996	24.6	9.0	6.0	4.30
1997	44.3	9.6	6.5	4.10
1998	41.0	31.3[4]	2.7	6.40

[1] First year in which the new system of income taxation was effective. [2] Source: Statistics of the Croatian Ministry of Finance. [4] VAT with a uniform rate of 22% was introduced in this year. [5] Source: Annual Report of the Croatian Ministry of Finance 1998.

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