

Personal Income Tax - TPAF

TAX POLICY ASSESSMENT FRAMEWORK (TPAF)

Welcome to Tax Policy Assessment Framework (TPAF).
It is designed to serve as a guide for systematic and comprehensive tax policy assessments.



Personal Income Tax - TPAF

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1. PIT Design

1.1. PIT base

1.1.1. What constitutes the base of the PIT?

Base of the Personal Income Tax

The base of the Personal Income Tax is the taxable income calculated from the income earned by an individual during a tax period which is usually one year. The applicable tax definition of what types of incomes are taxed is determined in the tax law but sometimes courts also play a role in determining what incomes are taxable. The definition of income is mainly derived from the foundational concept given by Robert Haig and Henry Simons popularly known as the Haig-Simons definition of income. This defines income very broadly as accretions to one's economic position and could cover both cash as well as non-cash accretions, the latter for example including the rise in the market value of one's property even if not sold.

The income that is subject to tax or the "gross income" may be defined or fleshed out according to types of income such as income from employment, capital gains, investment income, business income, etc. and typically includes a residual category. Under the schedular system of taxation these categories of income may be taxed differently.

Certain incomes may be exempt and not be included in the gross income at all. While the income that is taxable includes income that arises from sources within the country, it may also include income arising from foreign sources in the case of tax residents.

The definition of income typically includes all incomes such as,

- Income from Employment (Salary and wages, Employee fringe benefits (non-cash compensation), Employer-provided retirement benefits, Employer-provided health insurance, etc.)
- Capital Gains
- Other Investment Income (Interest, Dividend, Rents, Royalties, Annuities, etc.)
- Non-Corporate Business Income
- Other Income (Prizes and awards, Scholarships and grants, Cancellation of indebtedness income, Illegal income, Imputed income from housing, Windfall gains, including gambling income, Gifts and bequests, Life insurance proceeds, proceeds from

endowment policies, damages for personal injury, Government provided social payments, etc.)

- Residual category of Income

(Some of the items listed above may be exempt, for example gifts and bequests, and imputed income from housing.)

To arrive at the income subject to tax from the gross income, the “taxable income”, deductions may be provided which may be specific to each category of income. These deductions may sometimes result in a loss under the separate category of income and such losses may or may not be allowed to be set-off against income from other categories. Some deductions are generally applicable in calculating taxable income, as opposed to being related to specific categories of income.

The unit of taxation may be the individual, married couple or even a family. This means that the gross incomes are aggregated for all the sub-units within the taxable unit and the taxable income is calculated for the taxable unit.

The tax is calculated by applying the tax rate on the taxable income. The tax rate structure may include a zero-rate bracket which is the threshold on which a zero-rate of tax is applied band after which a positive rate(s) may be applied with increasing rates typically applied on higher bands of taxable income. Some countries apply preferential rates to certain categories of income (say capital gains) or certain types of individuals (say senior citizens) or taxing units (say married).

After the tax is calculated, some countries may provide for tax credits that reduce the amount of tax payable to provide relief to certain taxpayers or as a tax incentive. An example is the Child Tax Credit which allows a certain amount of reduction from the tax for an individual with underage children. Whether tax credits versus deductions should be used to provide relief is a critical policy variable as it has equity implications. In addition, if tax credits are used, the question arises whether the credit is refundable or not, on other words, does the taxpayer receive the full benefit of the credit if the credit exceeds the amount of tax due.

The structure of tax deductions and credits also depends on the support that the country provides outside the tax system. For example, some countries provide benefits for child care outside the tax system.

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1.1.2. Who is subject to the personal income tax?

Who is subject to the personal income tax?

Who is subject to the personal income tax is a fundamental question for the design of the personal income tax. On a very broad level any taxable unit such as an individual, married couple or household, earning income from a source in the country (or jurisdiction) whether resident in the country or otherwise could be subject to the personal income tax. Countries also typically tax their residents, even on income earned abroad. Whether an individual is resident or not is governed by the tax law and hence the use of the term 'tax resident' or resident in a country for tax purposes. Typically, being a resident implies being physically present in the country for more than half of the tax period.

While legally every individual who is 'tax resident' could be subject to the personal income tax, the requirement to pay personal income tax would be based on whether the individual's taxable income results in a tax liability when applying the various applicable rates of personal income tax.

Several factors influence the policy decision on determining who is subject to PIT. These include,

- the amount of revenue needed to be raised by the PIT;
- a variety of economic and social factors that may be useful in estimating the tax capacity for the PIT (such as per capita GDP, the distribution of income, the relative size of the formal and informal sectors, education levels, and the age distribution of the population);
- the use of the PIT to achieve non-tax objectives (for example, providing subsidies to low-income individuals to encourage work-force participation);
- the rates and scope of payroll taxes; and,
- the administrative and political challenges of taxing "hard-to-tax" groups (including the agricultural sector, sole proprietorships, professionals, and individuals with a substantial amount of income from capital).

The choice of income threshold amount for PIT liability raises some of the same issues involved in setting the VAT threshold. There are a series of trade-offs ranging from fairness and efficiency concerns in setting the PIT threshold, as well as difficult choices about whether to allocate scarce administrative resources to tax a large number of taxpayers or to focus on a much smaller group of taxpayers who have substantial income. Overall revenue needs and the parameters of the rest of the rest of the tax system also influence where the PIT threshold is set, with a view to achieving the desired level of revenue and distribution of the tax burden. Not surprisingly, because these trade-offs vary by country, countries adopt different income threshold amounts to determine who is subject to PIT liability.

Finally, whatever tax rules countries adopt for determining PIT liability, countries need to get the necessary information to determine the gap between those who should be paying PIT and those actually pay the PIT. In many countries, over 90% of PIT revenue comes from

withholding on labor income in the formal sector, even though the tax laws provide for much broader coverage for both individuals and the type of income subject to tax.

1.1.3. What incomes are exempt from the PIT?

Exempt Income

Most countries exclude certain incomes from the gross income which are usually identified as exempt income. In some cases, an entity (religious, educational institutions, government agencies, etc.) could be exempt from taxation. The policy consideration to determine what incomes are exempt are driven by considerations for equity, efficiency or administrative feasibility or even as a tax incentive. Typical exemptions include,

- personal exemption which allows an individual to deduct a fixed amount to be taken out of the income that is subject for taxation;
- gifts;
- interest earned from government bonds;
- employee sponsored insurance contribution;
- worker's compensation or compensation granted for injuries incurred at work, etc.

Some amounts are treated as exempt income to reduce the burden on a taxpayer that is likely economically disadvantage. These include welfare payments, scholarships, compensation for loss, etc. Exemptions may also arise due to an international convention, for example, the Vienna Convention on Diplomatic Relations, 1961 that exempts incomes of foreign diplomats to be taxed in a country.

Some incomes are exempt to prevent double taxation. For example, gifts in the hands of a receiver would ordinarily be classified as income but may be exempt if the gift is given out by the donor out of already taxed income. Incomes may also be exempt as part of a government policy to encourage certain activity. For example, income from government bonds may be exempt to encourage purchase of them, contribution out of income made to a retirement fund may be exempt to encourage people to save for their retirement.

1.1.4. What are the typical personal deductions that are given under the PIT?

Personal Deductions under the Personal Income Tax

Personal deductions or itemized deductions are often defended on the basis of fairness, the idea being that a taxpayer incurring certain expenses (which the taxpayer might be forced to incur) has less capacity to pay income tax than another taxpayer with similar income who does not. Medical expenses are a classic example. On the other hand, personal expenses can be seen as a consumption choice. The taxpayer who does not incur medical expenses

may experience other demands on that taxpayer's finances. The case for allowing any kind of itemized deduction on fairness grounds therefore is never clear-cut.

Personal expenses that qualify for deductions might include: deductions for loss or damage to property, travel expenses to work, expenses on medical insurance, child care expenses, or charitable contributions. Itemized deductions may also level the playing field between an individual contractor (self-employed) and an employee performing the same tasks following the "Neutrality Principle". This means that there should not be any difference in taxation between a person working as a contractor or as an employee. For example, transport cost to and from the workplace may be a deductible business expense for a person organized as a contractor, as a result of the neutrality principle, transport to and from the workplace would be deductible (as in Germany and some Scandinavian countries).

In many countries itemized deductions may be replaced by a flat amount or a "Standard Deduction". This may also be offered as an option to claiming itemized deductions. The purpose is to reduce cost of compliance for taxpayers under the "Simplicity Principle" as well as costs for tax administration. Some countries, particularly developing countries, allow no itemized deductions in order to simplify administration of the PIT. If no deductions are allowed, withholding by employers can be treated as final, and employees do not need to file returns.

Personal exemptions may also be given to avoid double taxation. In countries where incomes are taxed both at the federal (national) level and also the State (provinces) level, double taxation may result. In order to relieve this, state taxes are allowed to be deducted when calculating the personal income tax under federal (national) laws (as in the United States and Canada).

Another justification for allowing deductions is to Deductions may be used to incentivize certain behaviors. For example, the government may wish to encourage taxpayers to make charitable contributions and allow a deduction for those contributions.

Under a schedular system of taxation, deductions are sometimes provided under the separate tax heads. For examples employees are allowed to deduct work related expenses to calculate their employment income.

1.1.5. When is income recognized or realized for personal income taxation purposes?

Recognition and Realization of Income for Personal Income Taxation

Income is taxed when it is recognized or realized. Typically, this happens when the consideration is received but countries may use different rules to recognize income even when the consideration is not received. Following accounting rules, income could be recognized even when consideration is not received i.e. when it is accrued, or the right to receive the income is obtained. Following the Haig-Simons definition of income where

income is broadly defined as accretions to one's economic position, recognition of income should track such accretions. For example, the value of an individual's stock portfolio may be rising (or falling) daily resulting in improvement (or reduction) in one's economic position though the consideration is not received.

Realization of income is particularly relevant for the taxation of capital gains and losses. Capital gains are typically taxed when the capital asset is sold. The reason for this approach includes, a) the difficulty in estimating the value of the assets when it is not sold, b) the fluctuation in the value of the asset resulting in income in one year and potentially a loss in another, c) difficulty for some taxpayers to provide the cash for paying the tax when the consideration is not received, etc. However, the realization requirement is being abandoned in the taxation of certain financial instruments such as the implicit interest in bonds issued at a discount. In such cases assets are valued using the 'mark-to-market' method.

The taxation of income on realization is a compromise between the administrative feasibility principle and the equity principle. This is because, capital income which mostly accrues to the rich most commonly benefits from delayed taxation due to the realization principle.

1.1.6. Should different types of incomes be treated differently – Global vs. Schedular approaches?

Global versus Schedular Tax Systems

Countries can choose between imposing taxes on different categories of income (schedular tax system) or impose a single tax on all income from all sources (global or comprehensive tax system). The schedular approach (now largely historic) may apply different tax rates to different types of income, as well as prescribing different rules for determining income and providing different approaches for reporting, assessment, and collection. In contrast, under a global tax system, all income and expenses from all sources are lumped together and a tax (often with progressive tax rates) applies to the total income.

In practice, global tax systems generally have many schedular elements. For example, special rules might apply to limit taxpayers' ability to offset losses from one category of income against income from a different category. In addition, countries may impose a lower tax rate on one type of income (such as capital gains), or subject certain types of income to final withholding taxes (such as dividends or interest). Thus, most income tax systems lie somewhere on the spectrum between pure global and pure schedular tax systems.

In the not too distant past, tax policy advisors recommended countries adopt a global, comprehensive, progressive personal income tax as the main instrument for raising revenue. On fairness grounds, advisors considered income (especially, the Haig-Simons concept) the best proxy for ability to pay and adopting a progressive rate structure would ensure those with more income would bear a larger share of the tax burden. On efficiency

grounds, a pure global tax system would ensure that different types of income would be treated the same, thus minimizing tax-induced distortions.

While most countries have nominally global tax systems, the reality is that all tax systems provide different treatment for different types of income (such as income from capital gains, owner-occupied housing, and retirement savings) such that both fairness and efficiency advantages of a global tax system may be lacking.

With increased globalization and great mobility of income from capital, several countries have adopted dual income tax systems where income from capital is subject to a flat rate while income from labor is subject to progressive tax rates. Even for dual income tax systems, countries have provided for different rates and different rules for computing income for different types of capital income (for example, providing a low rate for active business income and a higher rate for dividend and interest income).

In sum, the actual label of a tax system as global or schedular is less important from a policy point of view than an appreciation where a country's personal income tax system lies on the global-schedular spectrum. This determination will be useful in understanding a country's approach to devising rules for such items as what is included in income, which expenses are deductible, when can losses from one type of income be offset against gains from other types of income, and when certain types of income or taxpayers receive favorable treatment.

References and further reading:

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1.2. Employment Income

1.2.1. What constitutes income from Employment?

Income from Employment

Employment income is derived from performing services as an employee. This may be distinguished from income earned by an individual performing services as an independent contractor or consultant. The definition of who qualifies as an employee may be provided in the tax law or sometimes in the labor code. This definition may be necessary if the tax treatment is different for employment income as opposed to other categories of income.

Employment income is broad and includes that which is paid in cash or in kind. Employees may be paid to cover expenses that the employee may otherwise provide for themselves out of their taxed income. Such payments may be in the performance of their duties or fringe benefits which are more in the nature of payment of salary in kind. For example, free work clothes or uniforms provided by an employer to be worn by an employee during work would not be treated as part of their salary while a clothing allowance with no restrictions on what clothes may be bought is normally treated as part of the salary that would be included in gross income. The law may provide what kind of work-related expenses may be deducted for arriving at the taxable income. Calculation of the income from employment may not be straightforward when employees are paid in company stock. The law would need to provide for rules on the valuation of stock options for tax purposes.

Pensions are a related category of income as it relates to an employer-employee relationship. The tax treatment of pensions is an important area of policy as it guides the savings behavior of individuals. Employer contributions to an employee's pension plan are deductible as an expense but are may not be included in the employee's income. Employee payments into a pension plan may be deducted in calculating the taxable income. Other options include taxing such contributions as part of the income while allowing some relief when the savings are withdrawn. Tax treatment of incomes earned on these savings may also benefit from special treatment.

Income from employment may also be subject to the payroll tax that goes towards the employees' Social Security contributions. The combined Personal Income Tax as well as the Social Security contribution should be taken into consideration when estimating the overall burden of the tax on the income from employment.

Finally, some countries provide for benefits for low wage workers which may be in the form of lower rates of tax or even negative income tax (refunds). The goal is to encourage participation in the labor force for those who may be on welfare grants.

1.2.2. How is an employee defined for purposes of the PIT?

Definition of Employee for Personal Income Tax

The definition of who is an employee has implications as to how they are taxed and how the tax is administered. Employers are generally required to withhold taxes on behalf of their employees and are also required to share information with the tax agencies on their employees. The definition as to who is an employee may be based on common law, in the tax law or in some cases, defined in the labor code.

The employee may be defined on the basis on the degree of control that they have with regard to their work. The common law definition relied upon by the U.S IRS for example as to who is an employee is determined under three dimensions:-

- Behavioral: Does the person paying the worker control or have the right to control what the worker does and how the worker does his or her job?
- Financial: Are the business aspects of the worker's job controlled by the payer? (these include things like how worker is paid, whether expenses are reimbursed, who provides tools/supplies, etc.)
- Type of Relationship: Are there written contracts or employee type benefits (i.e. pension plan, insurance, vacation pay, etc.)? Will the relationship continue and is the work performed a key aspect of the business?

Apart from the common law, the tax law may deem certain categories of workers to be employees. For example, a person who is paid a commission for work done and performs tasks on a regular basis for the payer, for example a driver, a life insurance agent, sales person, etc.

Corporate directors and other officeholders may also be defined as employees for tax purposes.

Source: U.S. Internal Revenue Service

1.2.3. Does the PIT allow employees to deduct work related expenses?

Deduction of Work-Related Expenses for Employees

Some countries prohibit employees from deducting any work-related costs, while others allow such costs but only if they fit into specific categories. These include expenses such as commuting expenses, moving expenses, work clothing, business entertainment and childcare.

However, in practice such deductions may be limited, for various reasons. First, many of these expenses are on the borderline between personal expenses and job expenses. For example, work clothes might be suitable for general wear and many systems have rules that

define rather narrowly the kind of work clothes that are considered deductible. Another important case is childcare. While childcare costs can be considered a cost of working, they could also be considered a personal expense, since the decision to have children is a personal one. Different countries have different rules on how to treat childcare. Some countries provide childcare benefits in which case the tax issue may become moot. In the United States some forms of child care expenses incurred by the employer is considered a non-taxable fringe benefit. In Australia, Canada, Sweden and the United Kingdom, child-care expenses are non-deductible. Countries such as France and the United States have provided a tax credit for child-care expenses.

Commuting expenses are clearly work-related. However, the decision of where to live and how to commute are personal decisions which affect the cost of commuting. In the United States, the costs of commuting which is defined as travelling from the taxpayer's personal residence to the place of work are in general non-deductible. However, travelling expenses between work-sites are deductible. A similar view is taken in Australia and Canada and the United Kingdom. In Germany, a deduction of euro 0.30 per kilometer of the distance between home and work is allowed as a deduction. In Sweden, a per-kilometer deduction is available provided the commuting costs exceed SEK 7,000 per year.

Second, even for those expenses that are considered work-related, many countries restrict or deny deductions for work-related expenses of employees. The motivation for doing this is related to tax administration. There are so many employees that allowing all to deduct work-related costs would place a difficult burden on the tax administration in terms of being able to police the deductions. Some countries have dealt with the issue by allowing employees to deduct fixed amount (standard deduction) or a fixed percentage of their salary in lieu of itemizing their work-related costs. Such a fixed deduction might be mandatory or optional (in the latter case, employees could deduct their itemized costs if they exceed the statutory percentage). This is the practice followed in Japan. In India and France, employees can take a standard deduction.

As a result of these rules, in most countries it makes a difference whether a particular relationship is considered an employment relationship or a relationship between the employer and an independent contractor. In the latter case, there may be fewer limitations on work-related expenses.

1.3. Capital Gains

1.3.1. What constitutes income from Capital Gains?

Capital Gains

Capital gain (or Loss) is the gain (or loss) in the value of an asset (such as a home, stocks, bonds, etc.). Such gains may be notional in that it is not realized, and gains may be realized

when the asset is sold. Typically, only the realized capital gain is included in the income of the individual and rise in the market value of the asset (for example of stocks a person owns) is not brought to tax.

To calculate the capital gains, we need the cost base (or the basis) and the sale price (or consideration). The calculation of a capital gain or loss, therefore, requires rules for the determination of the consideration for, and the cost base of, an asset. The cost or basis may be indexed to account for inflation or may be treated as zero in certain cases. Capital gain may be taxed at the regular rate at which the overall income of the individual is taxed or may be taxed separately at a special rate for capital gains. Capital losses on some assets may be set-off against capital gains arising from others during a year. Capital losses may or may not be set-off against other incomes.

Capital Gains for individuals are treated different from those for businesses entities. In the latter case, assets owned by a business are treated business assets with ant gains and losses on disposal treated as business income.

Finally, Capital Gains may be separated into short-term gains and long-term gains when the capital asset is held for a “short” or “long” period respectively. The holding period to qualify for short term capital gains it typically 1 year or less in most cases. Short-term capital gains are usually taxed at the same rates as ordinary income, but they may still be characterized as capital gains for the purpose of allowing capital losses to be offset against them.

1.3.2. What is the rationale for taxing Capital Gains?

Rationale for Taxing Capital Gains

There are strong policy reasons in favor of taxing capital gains. First, a capital gain represents an accretion to wealth to the same extent as income from labor, property, or business. Consequently, taxation of capital gains is justified on equity grounds. Horizontal equity requires that individuals with the same accretion to wealth should have the same tax burden. Similarly, vertical equity requires that those with a greater ability to pay tax should bear a greater burden of taxation. Taxing capital gains is particularly important for vertical equity because capital gains accrue disproportionately to the wealthiest individuals.

Second, the absence of capital gains taxation can result in investments being tax driven, with the result that scarce resources may not be allocated to their most productive use. This involves a loss of efficiency in the use of scarce resources.

Third, (and related to the second argument) the absence of capital gains taxation encourages tax planning through structuring transactions to derive tax-free capital gains rather than income subject to tax.

Finally, capital gains taxation raises additional revenues for the budget. However, there may be a time lag before significant revenues are raised on the introduction of capital gains taxation, depending on what transition rules are adopted.

1.3.3. Should the PIT give preferential treatment to Capital Gains?

Preferential Treatment to Capital Gains

Capital gains generally accrue over a longer period of time than income amounts. This gives rise to some structural features of capital gains taxation that may justify concessionary treatment as compared to the taxation of income. First, the nominal gain will include a component representing inflation. This may be negligible or significant depending on the inflation rate during the period of ownership.

Second, while a capital gain may accrue over a number of years, the whole of the gain is taxed in the year of realization. For individuals, the realization basis of taxation can result in a capital gain being subject to higher taxation because of the application of marginal rates than if the gain were taxed on an accruals basis (i.e. annual taxation of the increase in value of an asset). This is referred to as the “bunching effect” (the whole of the gain is “bunched” into a single tax year rather than being spread over the period of ownership of the asset).

Third, the tax “cost” may discourage taxpayers from switching investments to more efficient uses. This is referred to as the “lock-in effect”, i.e. the tax cost of changing investments locks taxpayers into existing investments. The concessionary treatment of capital gains may, to some extent, offset the lock-in effect.

On the other hand, the effective tax rate on capital gains is reduced by the deferral of the tax liability under the realization basis of taxation.

There are several options for providing concessionary treatment of capital gains in general: (i) taxation of part only of the capital gain (i.e. partial inclusion); (ii) adjustment made to the cost of the asset to reflect inflation; or (iii) application of a lower rate of tax. The first two options reduce the taxable amount of the gain and, therefore, relate to the tax base for capital gains. In addition, as described below, countries often exempt specific gains from taxation, for example gains on the sale of a principal residence.

Adjusting the cost base of a taxable asset for inflation requires an indicator of inflation to be identified, such as the consumer price index. The tax legislation must provide a basis for specifying the indicator on a regular basis, such as quarterly or annually. The method of specification may be legal (such as in a Legal Notice or by Regulation) or administrative (such as in an official Government document (e.g. the Government Gazette) or in a binding public ruling issued by the tax administration). Previously, in a higher inflationary environment, adjusting for inflation was a common form of concessionary treatment of capital gains. For individuals, inflation adjustment typically did not extend to debt that was

used to finance the holding of capital assets (for companies subject to comprehensive inflation adjustment, debt was included in the inflation adjustment mechanism). In more recent lower inflationary times, however, the trend has been to provide concessionary treatment either through partial inclusion of the gain or a lower tax rate. These are simpler to apply than inflation adjustment, particularly for long-held assets.

Under partial inclusion, the taxable amount of the gain is usually in the 50% - 80% range. Setting the included amount at the higher end of the range (say 70% - 80%) is preferred to ensure that capital gains taxation is effective in raising significant revenues and limit the incentive for planning.

The concessionary treatment of capital gains continues the bias in favor of capital gains over labor income. Consequently, there is still an incentive for taxpayers to structure transactions to derive concessionary taxed capital gains rather than labor income. However, even if such planning is successful, at least some tax is collected on capital gains as opposed to the non-taxation of such gains.

1.3.4. How are Capital Losses treated?

Treatment of Capital Losses

It is usual for capital losses to be offset only against capital gains (i.e. capital losses cannot be offset against income). Unused capital losses should be carried forward for offset against capital gains derived in the following tax year or years until fully utilized. This is referred to as “quarantining” of capital losses and is justified on the basis that taxpayers are likely to have greater control over the timing of the realization of capital losses (e.g. control over the timing of the disposal of loss assets) than the realization of revenue losses. The quarantining of capital losses will occur automatically under a CGT. A separate quarantining rule is required if capital gains and losses are included under the income tax.

The quarantining of capital losses creates the opposite incentive to the concessionary treatment of capital gains. It encourages taxpayers to characterize a loss as a revenue loss rather than a capital loss so as to benefit from the immediate deductibility of the loss.

1.3.5. Are some Capital Gains are exempt from taxation?

Exemptions under Capital Gains

In some countries capital gains are not taxed at all while there are others which do not tax long-term capital gains. In countries that do tax capital gains, those that arise from the transfer of certain assets may be exempt from the Personal Income Tax.

Principal Residence

The main example of an exempt asset found in the legislation of a number of countries is a taxpayer's principal residence. There are several reasons for this exemption. First, a capital gain on the disposal of a home will usually be "illusory" since the owner will normally have to use all the proceeds of sale to purchase another comparable home. Second, it may be difficult for individual taxpayers to determine the cost base of a home as all expenditures on repairs, alterations, and extensions would need to be accounted for and classified into those that enhanced the value of the home (and, therefore, included in determining the cost base of the home) and those that related only to the use or enjoyment of the home. Third, a home is commonly owned for long periods and, over time, a taxpayer may not retain the records of expenditures necessary to properly determine the cost base of the home, which may result in over-taxation if a home is treated as a taxable asset.

The principal residence of an individual should include any form of residential accommodation, such as a house or an apartment, but should not include any land adjacent to the residence. Consequently, the exemption should apply only to the land on which the residence is located. For example, a farmhouse may be a principal residence, but the surrounding farmland should not be treated as part of the residence for exemption purposes. If a part of a residence is used for income-producing activities, such as a space designated in the residence as a doctor's surgery, the exemption should apply only to that part of the gain apportioned to the use of the premises as a private residence.

If an individual has more than one residence, the residence where the individual mainly lives is his or her principal residence. Spouses must have the same principal residence. If spouses either jointly or separately own more than one residence, only one of those residences should be treated as their principal residence. In this case, if a single residence where the spouses mainly live is not easily identifiable, then their principal residence may be identified by allowing them to elect the residence that is to be treated as their principal residence.

Exempt Taxpayers and Assets Producing Exempt Income

To ensure consistency with the ordinary income tax, the assets owned by a taxpayer who is exempt from income tax should be treated as exempt assets. This may apply, for example, to the assets of charities and other non-profit organizations, and tax-exempt superannuation or retirement funds.

Similarly, an asset that is used by a taxpayer wholly to produce exempt income should be treated as an exempt asset. This will be relevant, for example, if a particular activity undertaken by a taxpayer results in the derivation of exempt income. For example, in India as agricultural income is exempt, capital gains arising from sale of agricultural land is also exempt. It is important, though, that this exemption applies only when the income produced by the taxable asset is intended to be completely excluded from the tax base. Sometimes amounts are treated as exempt income to prevent double taxation (for example, corporate dividends). Ordinarily, the capital gains tax exemption should not apply to assets producing this class of exempt income.

De Minimis Assets

If a comprehensive definition of capital gains applies, then all assets of an individual could potentially give rise to capital gains or losses on disposal. This will add significantly to the complexity of capital gains taxation. To limit complexity, a de minimis exemption could be included for personal-use assets, such as: (i) household furniture and effects exclusively for use in a private residence; (ii) motor vehicles; and (iii) items for the private use or adornment of the owner the cost of which does not exceed a specified amount. Such an exemption is further justified on the basis that many personal-use assets, such as motor vehicles and furniture, actually decline in value and, therefore, are likely to give rise to capital losses rather than capital gains.

For greater clarity, it would be preferable to expressly include in the definition of “taxable asset” only those personal-use assets that are likely to appreciate in value, such as jewelry, artwork, antiques, and stamp and coin collections. The scope of taxation could be further limited by including a monetary threshold for the treatment of such assets as taxable assets. For example, a personal-use asset may be treated as a capital asset only if it has a cost base above a specified amount, such as USD\$10,000. The setting of a threshold needs to be supported by an anti-fragmentation rule to avoid the splitting of an asset above the threshold into separate assets each below the threshold. This may be particularly relevant to valuable stamp and coin collections.

1.3.6. What are the alternative regimes in lieu of Capital Gains?

Surrogate regimes in lieu of Capital Gains Tax?

A number of jurisdictions have taxes on transfers of real property. These might be low-rate taxes, but as the rate gets higher, the taxes might be justified as a surrogate for a tax on capital gains. This kind of surrogate tax is imperfect in the sense that it is not correlated with the amount of gain. There may also be taxes on transfers of securities. One advantage of this kind of surrogate tax is that it is relatively easy to collect, since it can be collected as part of the process of registering transfers.

1.4. Investment Income

1.4.1. What constitutes income from Investment?

Treatment of Investment Income other than Capital Gains

Investment Income are incomes arising from investments such as,

- Dividends

- Interest
- Real-estate
- Annuities
- Royalties, etc.

The taxation of investment income arises as it increases the ability to pay of the recipient. The taxation of capital is an important way to increase the progressivity of a tax system because these incomes usually accrue to those with higher incomes. However, investment incomes are typically taxed at lower rates than other incomes for efficiency reasons. This is because countries would like to encourage savings which would then go into investments that eventually translates into higher economic growth. Hence there is a tension between the efficiency and equity principle (see equity-efficiency tradeoff). The lower taxation of investment income is also because the tax bases are more mobile than labor and higher taxation tends to cause relocation of the tax base resulting in lower overall tax.

1.4.2. How is the taxation of income of shareholders under the PIT integrated with the Corporate income tax?

Integration of the Personal Income Tax with the Corporate Income Tax

The tax base of the personal income tax includes capital income and an important source of capital income are corporations. Hence the taxation of corporations is very relevant in the taxation of capital income.

An investment made in shares of a corporation would make the individual a part owner and hence corporate income tax paid by the corporation is essentially a tax on the investment made by the individual. However, in most countries when the profits of a corporation are distributed to the shareholders in the form of dividends, a dividend tax is applied. This means that the individual is taxed twice on their investment and the relevant tax rate is the tax rate on the corporate profit as well as the tax on dividend income. This system is known as the 'classical system' of taxing dividends. In case the corporation does not distribute its entire profits, then the portion of the profits retained by the corporation increases the value of the corporation thereby showing up in the form of higher capital gains.

The goal of integrating the personal income tax with the corporate income tax system is to be able attribute all the income of the corporation to the individual shareholders which are then taxed in the hands of the latter.

Implementing 'full integration' is difficult because, a) shares are traded constantly making the tracking of the part-shareholders very difficult, b) some of the shares are held by other corporations or by institutions which themselves have shareholders making the allocation of corporate income to the ultimate owners very difficult, c) attributing retained earnings to different classes of shareholders, preference shares, ordinary shares, rights issue, etc. is not straightforward, d) taxing shareholders on the profits of the corporation an accrual basis

when the profits are not yet distributed means that shareholders will face a liquidity problem to pay the taxes due.

Different means of 'partial integration' have been tried. In some countries, dividend income is taxed a lower flat rate so that the combined tax rate is close to maximum marginal personal income tax rate. The table below reflects the various ways of taxation of dividends including the classical system, the full integration system and different types of partial integration. The imputation methods allow shareholders to claim a credit for taxes paid by the corporation. Full imputation allows for the entire amount of tax paid by the corporation to be credited while partial imputation allows for a part of the tax to be credited.

Full imputation is not the same as full integration as the tax credit is available only against the tax paid by the corporation and the taxable income could be lower than the book profit due to tax incentives. As the shareholder receives the dividend which is from the after-tax book profits for which she is liable to be taxed, while the tax credit is only for the tax paid, the tax benefits do not get passed on. Under the fully integrated system, the shareholder is liable only for the tax due from the corporation (see table below). Further, a person at a higher marginal rate than the corporate tax rate will pay tax on the difference while a taxpayer at the lower brackets may even be allowed to claim a refund in some countries (Malta). Recently many EU countries have replaced their imputation system because the tax benefit could only be claimed by domestic taxpayers putting foreign shareholders at a disadvantage which was against EU rules.

Ireland follows the classical system of taxation of dividend. Japan, Poland, India follow the modified classical system taxing dividends at a preferential rate while Singapore and Malaysia do not tax dividend at all. Germany and France tax dividends at the marginal rates but on a reduced base of 50% of the dividend. Australia and Malta apply full imputation while South Korea, Chile and Canada follow the partial imputation method. The United Kingdom used to follow the partial imputation system but now provides a tax-free dividend allowance of 2000 pounds. Norway taxes dividend in the classical system but allows for a deduction equal to the risk-free return.

For the similar reasons, capital gains on sale of shares which captures partly the value of retained profits within the corporation, are taxed on a preferential basis. These include in Canada a 50% exclusion of the capital gains from the tax base in the hands of the individual, in Australia a 50% exclusion of the capital gains if the shares are held for more than one year, a lower flat of tax in Germany of 25%, a 30% flat rate under the dual income taxation in Sweden, etc.

Integration of Corporate and Dividend Taxation for Individuals

	Corporate Book Profit	Corporate Taxable Profit	Deduction from Corporate Tax	Corporate Tax (corporate tax rate - τ_c)	Shareholder Tax base (dividend distributed)	Tax on Shareholder (income tax rate - τ_i)	Deduction/ Tax Credit	Total Tax paid	Effective Tax Rate (if $P = P_t$)
Full Integration	P	P_t			P_t	$\tau_i P_t$		$\tau_i P_t$	τ_i
Classical system	P	P_t		$\tau_c P_t$	$P - \tau_c P_t$	$\tau_i (P - \tau_c P_t)$		$\tau_c P + \tau_i P (1 - \tau_c)$	$\tau_c + \tau_i \beta (1 - \tau_c)$
Modified Classical System (Preferential Rate of Taxation for Dividends)	P	P_t		$\tau_c P_t$	$P - \tau_c P_t$	(dividend tax rate - τ_d) $\tau_d (P - \tau_c P_t)$		$\tau_c P_t + \tau_d (P - \tau_c P_t)$	$\tau_c + \tau_d (1 - \tau_c)$
Corporate Dividend deduction	P	P_t	(deduction ratio - β) βP	$\tau_c (1 - \beta) P_t$	$P - \tau_c (1 - \beta) P_t$	$\tau_i (P - \tau_c (1 - \beta) P_t)$		$\tau_i P (1 - \tau_c (1 - \beta)) + \tau_c (1 - \beta) P_t$	$\tau_i (1 - \tau_c (1 - \beta)) + \tau_c (1 - \beta)$
Split-Rate system	P	P_t		(share of pre-tax profits distributed - β ; tax rate on dividend distribution - τ_d) $\tau_c (1 - \beta) P_t + \tau_d \beta P$	$\beta P - \tau_c (1 - \beta) P_t - \tau_d \beta P$	$\tau_i (\beta P - \tau_c (1 - \beta) P_t - \tau_d \beta P)$		$\tau_c (1 - \beta) P_t + \tau_d \beta P + \tau_i (\beta P - \tau_c (1 - \beta) P_t - \tau_d \beta P)$	$\tau_c (1 - \beta) + \tau_d \beta + \tau_i (\beta - \tau_c (1 - \beta) - \tau_d \beta)$
Full Imputation System	P	P_t		$\tau_c P_t$	P	$\tau_i P$	$\tau_c P_t$	$\tau_c P_t + \tau_i P - \tau_c P_t = \tau_i P$	τ_i
Partial Imputation System	P	P_t		$\tau_c P_t$	(imputation rate = c) $\frac{P(1 - \tau_c)}{(1 - c)}$	$\tau_i \frac{P(1 - \tau_c)}{(1 - c)}$	$\frac{P(1 - \tau_c)c}{(1 - c)}$	$\frac{\tau_c P_t + \frac{P(1 - \tau_c)}{(1 - c)}}{(1 - c)}$	$\tau_c + \frac{(\tau_i - c)(1 - \tau_c)}{(1 - c)}$
Reduced Base for Taxation for Dividends	P	P_t		$\tau_c P_t$	(portion of base taxable - β) $\beta P - \tau_c P_t$	$\tau_i (\beta P - \tau_c P_t)$		$\tau_c P_t + \tau_i (\beta P - \tau_c P_t)$	$\tau_c + \tau_i (\beta - \tau_c)$

References and further reading:

Ault, H. J., Arnold, B. J. and Gest, G. (2010) Comparative income taxation: a structural analysis. 3rd edn. Alphen aan den Rijn, The Netherlands: Kluwer Law International, pp. 405-410.

1.5. Non-Corporate Business Income

1.5.1. What is the tax treatment of Non-Corporate Business Income?

Non-Corporate Business Income

Unlike employment, business activities may be engaged by individuals or legal persons. Business income is the profits and gains arising from a business activity. As a result, rules for taxing business income are usually common to both individuals or legal persons. Under a schedular system of taxation where tax rules are different for business income, defining the term business becomes necessary to exclude incomes such as employment and investment income. This poses challenges to define as well as implement the tax rules especially when the rates of tax on income from different income sources are different. A person may provide a service either as an employee or as an independent contractor in which case the nature of income derived changes from employment income to business income. In the principle of neutrality, the tax liability should be ideally be the same in both cases, i.e. neutral to the type of organization of the activity.

Financial accounting forms the foundation on which business income is based upon. Tax laws may then change some of the rules related to recognition of income and timing resulting in a divergence between the tax and financial accounting. Larger businesses are

typically required to report their income tax liability using accrual accounting. Such companies are often required to use accrual accounting for financial accounting purposes, and the tax law simply requires the same. For those businesses that are not required to use accrual accounting for financial accounting purposes, the income tax law usually allows the use of cash accounting. This is less accurate than accrual when it comes to measuring income as measured by the canons of taxation but is simpler and involves lower compliance costs for the taxpayers concerned. For small businesses, some countries go even further and exempt such businesses from having to keep track of inventories or depreciation, allowing the taxpayer to write off the cost of inventory and equipment purchases.

Small businesses may also be allowed to use a simplified approach under which the taxpayer does not have to keep accounts at all, or perhaps just needs to keep account of gross sales. Such a system using simple tax bases known as presumptive taxation is not suitable for taxpayers that are registered for VAT; therefore, it tends to be limited to smaller businesses (below the VAT threshold). In principle, presumptive taxation can be fairly sophisticated, and tailored to specific industries, but few countries manage to adopt a sophisticated approach because it takes a lot of work to design. Instead, presumptive taxation tends to be based on global factors such as gross receipts or assets.

Countries often provide the self-employed access to tax treatment for retirement plan contributions that is comparable to what is available for employees. This preserves the neutrality of the social security tax system with respect to the type of organization. Self-employed are required to self-withhold social security taxes and pay it to the government to put them on par of those who are employees.

Tax preferences for individual entrepreneurs vary substantially. They could include the ability to write off capital expenditures. Many developing countries have special regimes for small businesses, for example a tax in the amount of a percentage of turnover, which can be quite favorable.

A more detailed description of the taxation of business income would be covered under a separate module.

1.6. Other Income

1.6.1. What is the tax treatment of Other Incomes?

Taxation of Other Income

In a schedular system of taxation of taxation it becomes necessary to specify a catch-all category that may not be covered under the other categories of employment, capital gains, investment income or business income. While this is a residual category some types of incomes may be specified including,

- Prizes and awards
- Scholarships and grants
- Windfall gains, including gambling income
- Gifts and bequests
- Illegal income
- Imputed income from housing,
- Life insurance proceeds, proceeds from endowment policies, damages for personal injury, government provided social payments, , cancellation of indebtedness income, etc.

Prizes and Awards

Cash prizes and awards clearly fit under the broad definition of income and are taxable in most countries. Awards for employees are generally taxable as they relate to the work performed. However special treatment has been accorded to prizes that do not directly relate to work such as awards for recognition of life-time contribution to an area of work such as the Nobel Prize. In Germany, Japan and Sweden, such prizes are not taxable. In Australia prizes received by an Olympic-standard athlete are taxable and in Canada Olympic medals are taxable.

Scholarship and Grants

Scholarships especially periodic payments increase the consumption of an individual and would fit in the broad category of income. Arguments may be made for supporting education especially in countries where tuition is privately financed.

In the United States the tuition portion of scholarships were excluded from income but the portion relating to boarding and lodging were included in the income and taxed at the marginal rate of the parents when the student was below the age of 24 and depended on the parents for more than half of their support. The 2018 tax reform has increased the rate at which this amount is taxed.

Scholarships are generally not an issue in countries with free or subsidized public education and scholarships typically cover living expenses. Despite this, countries such as Canada, Germany, Netherlands and Sweden exempt scholarships from taxation.

Gambling and Windfall Gains

Gambling income are usually subject to tax whether they arise from occasional transactions or a professional gambler. In the case of a professional gambler, a case may be made to deduct gambling losses from gambling income. The issue of deductibility of gambling losses is that it may be treated as a form of consumption and not an investment. A separate issue relates to whether overall gambling loss could be set-off against other income. Most countries do not allow this. This is the case followed in the India, Japan and the United States. In Japan, each gambling occasion is treated as a separate event and gambling losses from one occasion could only be set-off against gambling income of that occasion.

In Australia, Canada and the United Kingdom, income derived from gambling or lottery-type prizes is not taxable unless it is a business activity.

Windfall gains may arise from found property, damages, etc. Found property is treated as taxable in the United States and Japan. In Germany, the Netherlands windfall gains are not taxable except in certain situations such as when cash is found within a business premise where it is considered as business income. In most countries, windfall gains are not taxable as no effort was made to realize the income and it is not periodic.

In most countries personal injury damages are normally excluded from the tax base.

Gifts and Bequests

A Gift paid out of already taxed income does not result in economic income especially in a family context and is not considered taxable. A case may be made to provide a deduction to the donor and tax the income in the hands of the donee but this may result in tax planning under a progressive income tax. An issue may arise when the gift is paid out of untaxed funds or is given in an employer-employee context. Such gifts are treated as a business expense for the employer and employment income for the employee. Personal gifts are not taxable in most countries. In the United States, gifts are not taxable to the donee and not deductible to the donor. Gifts of appreciated property are not a realization event and the cost basis of the donor carries over to the donee so that the appreciation is preserved for future taxation.

The issue of transfer of assets at death is an important area of consideration for taxation. For the case of the individual who dies, death is a realization event which generally triggers taxation. By pure tax principles, the estate of the deceased would owe tax on capital gains on the assets at they would be deemed to be transferred at the fair-market value. In the hands of the transferee, the cost basis of the asset is taken to be the fair-market tax cost. This is the practice followed in Australia, Canada and the United Kingdom. In Australia, the transferee does not pay tax until the asset is sold. In the United States, transfers at death is not a realization event and the cost basis is 'stepped-up' to the fair market value for the transferee. The United States however applies an estate tax which in 2019 had the maximum marginal rate of 40% for estates above 11.4 million dollars.

Illegal Income

Illegal income is considered taxable in most countries. The issue arises whether the income that is derived illegally is required to be returned and hence not truly income in the hands of the embezzler. This is the way it is treated in Australia and Sweden. In Canada, France, India and the United States, income from illegal activity is taxed. When the illegal activity is in the course of business, usually expenses related to the illegal activity is allowed as a deduction as is the case in India.

Imputed Income from Owner-Occupied Housing

In a purely economic sense, renting a home and staying on one's own home should be the same and applying the principle of tax neutrality the tax treatment in the two situations should be the identical. However, the tenant pays rent to the property owner which becomes a taxable income in the hands of the latter. In the case where a person stays in one's own property no such taxable income arises in the usual case. In order to equalize the tax treatment in the two situations, one may consider that the person staying in her own property pays rent to herself thereby bringing the renting and owning situations on the same plane. This in-kind return from the ownership of personal assets is called imputed income. It also arises for example when one provides usual housing services within a household such as childcare and preparing meals where the equivalent situation is to order food from outside versus preparing one's own food or hiring childcare services versus providing them oneself. In both cases in the former results in taxable income while the latter does not in the usual case.

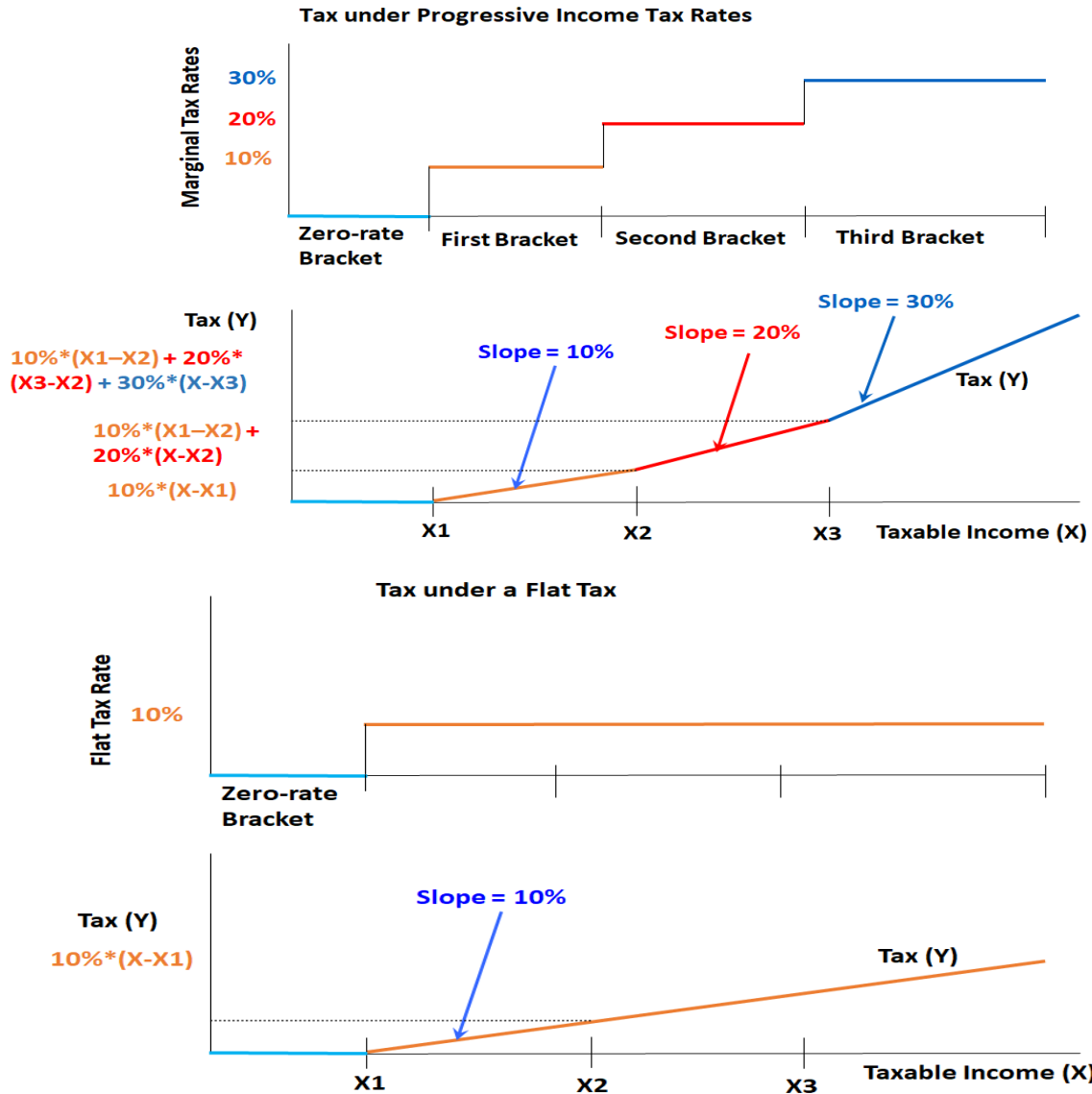
In the case of house property taxation of imputed income however is not common as the property tax is a surrogate tax. In Netherlands and Sweden, imputed income is taxable while in India income from unoccupied property is deemed at a notional rent and taxable. In many countries the tax expenditure due to the non-taxation of imputed income from owner occupied property is estimated and published.

1.7. PIT rates

1.7.1. What is the PIT rate structure?

PIT Rate Structure

The tax rate structure of the PIT may include a zero-rate band after which a positive rate(s) may be applied with increasing rates typically applied on higher brackets of taxable income. Through these higher rates for higher income brackets, the rate structure introduces progressivity into the personal income tax. These rate brackets are sometimes indexed for inflation.



The role of the zero-rate bracket is to exclude the taxpayers with low incomes from the personal income taxation. Some others achieve the same by exempting a certain amount of income from the tax base, for example, as a personal exemption for the taxpayer and dependents, and may not use a zero-rate bracket. The presence of a zero-rate bracket introduces some amount of progressivity even if there is a flat tax or a single positive rate of income tax.

Many countries apply preferential rates to certain categories of income (say capital gains) or certain types of individuals (say senior citizens) or taxing units (say married). The top marginal rates are in Western Europe region followed by North America and Sub-Saharan Africa. The lowest of the peak rate of PIT is in the MENA region. The top rate is in Sweden with 57% followed by Austria with 55%, the Netherlands at 51.75% and Belgium at 50%.

1.7.2. Are there special rates under the PIT?

Special Rates under the Personal Income Tax

Apart from the marginal rate structure that is used to calculate the personal income tax, special rates may apply to different kinds of income such as interest, dividends, or capital gains and business income of individuals. Special rates may also apply to different types of individuals such as senior citizens. In countries where tax units may be individuals, a couple or a family, the rate structure is modified to account for the different tax units. The rates of personal income tax for income of shareholders is usually integrated with the rates of the corporate income tax.

Taxation of Capital Gains - Worldwide

Region Name	Capital Gains tax rate	No of Countries
East Asia & Pacific	Regular Rates	4
	Special Rates	4
	Capital Gains are not taxed	3
Europe and Central Asia	Regular Rates	4
	Special Rates	10
	Capital Gains are not taxed	1
Latin America & The Caribbean	Regular Rates	2
	Special Rates	2
	Capital Gains are not taxed	4
Middle East & North Africa	Regular Rates	1
	Special Rates	2
	Capital Gains are not taxed	1
North America	Regular Rates	1
	Special Rates	1
	Capital Gains are not taxed	0
South Asia	Regular Rates	1
	Special Rates	1
	Capital Gains are not taxed	0
Sub-Saharan Africa	Regular Rates	2
	Special Rates	2
	Capital Gains are not taxed	0
Western Europe	Regular Rates	2
	Special Rates	13
	Capital Gains are not taxed	2
	Total Countries	63

A survey of capital gains rates in 63 countries shows that nearly three fourths of these countries either provide lower rates of tax or do not tax capital gains at all. Any departure from a rate structure that is applied uniformly to all kinds of income and to all persons creates inefficiencies in the tax system opening up opportunities for tax avoidance and even tax evasion.

1.7.3. What considerations influence the choice of rate structure and top marginal rates?

Choice of Rate Structure and Top Marginal Rates

The top marginal PIT rate is important in terms of determining the progressivity of the income tax. The rate needs to be coordinated with the corporate income tax rate; having a PIT rate that is much above the corporate rate can lead to problems, such as an incentive for wealthier individuals to do business in unincorporated form rather than by forming a company. The significance of the top PIT rate also depends on whether all individual income is aggregated and taxed at one rate, or whether special rates apply to different kinds of income such as interest, dividends, or capital gains.

The optimal income tax rate structure can be derived by specifying a social welfare function that sums up the weighted sum of the welfare (utilities) of the individuals and the distribution of the pre-tax incomes of the population. Specifying the weights and the social welfare function allows for different redistributive policies of the government such as placing most weight on the person with least income (Rawlsian criterion) or equal weights on all individuals (Utilitarian criterion), etc.

$$SWF = \int \omega_i G(u^i(c, z)) dv(i)$$

Where $\omega^i \geq 0$ is the welfare weight of individual i , $u^i(c, z)$ is the utility of the individual i which increases with consumption c and decreases with work, and hence the income z , and $G(\cdot)$ is a social welfare function of the utilities and $dv(i)$ is the distribution of the individual.

An optimal linear income tax could be derived by allowing individuals making choices on how much to work and consume at the income tax rate that maximizes their individual utilities and a government that maximizes the social welfare function that combines the utilities of its individuals using a social welfare function, subject to a revenue constraint. The government collects the revenue to fund a transfer (a demogrant) that is evenly distributed to all taxpayers and fund a non-transfer spending determined exogenously. To solve the problem, apart from the social welfare function we need two more key parameters, the behavioral elasticity of the individual denoted by the elasticity of aggregate earnings with respect to the net of tax rate and the distribution of the individual's earnings or skills which is used to arrive at the normalized social welfare weights.

The elasticity of aggregate earnings with respect to net of tax rate is denoted by,

$$e = \frac{(1-\tau)}{Z} \frac{dZ}{d(1-\tau)}$$

The optimal linear income tax rate is then given by,

$$\tau = \frac{1-\bar{g}}{1-\bar{g}+e} \quad \text{or,} \quad \tau = \frac{-cov(g_i, \frac{Z_i}{Z})}{[-cov(g_i, \frac{Z_i}{Z}) + e]}$$

where $\bar{g} = \frac{\int g_i \omega_i dv(i)}{\bar{Z}}$ is the average normalized social marginal welfare weights weighted by the pre-tax incomes Z_i and also can be interpreted as the ratio of the average income, i.e. $\int z_i dv(i)$ weighted by the individual social welfare weights g_i , to the actual average income Z .

The optimal linear income tax rate,

- a) Decreases with the aggregate elasticity e . This is intuitive as it indicates the behavioral changes due to the taxes that reduces the tax base;
- b) Decreases with \bar{g} the redistributive taste of the government. When the government does not value redistribution, all the g_i 's are equal to one and hence $\bar{g} = 1$, hence $\tau = 0$ is optimal. In the other extreme case when the government is Rawlsian and maximizes the lumpsum transfer to the worst-off individual (with zero earnings), then $\bar{g} = 0$, hence $\tau = \frac{1}{1+e}$ which is the revenue maximizing rate.
- c) Affected by the pre-tax inequality. When inequality is maximum, then $\tau = \frac{1}{1+e}$ which is the revenue maximizing rate. When there is no inequality then $\bar{g} = 1$, hence $\tau = 0$ is optimal with a lump-sum tax equal to the government's non-transfer funding requirement.

The methodology above can be used to illustrate the optimal rates under different assumptions in the case of the United States and the European Union.

	Elasticity $e = .25$ (empirically realistic)		Elasticity $e = .5$ (high)		Elasticity $e = 1$ (extreme)	
	Parameter g (%)	Tax rate τ	Parameter g (%)	Tax rate τ	Parameter g (%)	Tax rate τ
	(1)	(2)	(3)	(4)	(5)	(6)
A. Optimal linear tax rate τ						
Rawlsian revenue maximizing rate	0	80	0	67	0	50
Utilitarian (CRRA = 1, $u_c = 1/c$)	61	61	54	48	44	36
Median voter optimum ($Z_{\text{median}}/Z_{\text{average}} = 70\%$)	70	55	70	38	70	23
B. Revealed preferences g for redistribution						
Low tax country (US): Tax rate $\tau = 35\%$	87	35	73	35	46	35
High tax country (EU): Tax rate $\tau = 50\%$	75	50	50	50	0	50

The top marginal rates are in are in Western Europe region followed by North America and Sub-Saharan Africa. The lowest of the peak rate of PIT is in the MENA region. The top rate is in Sweden with 57% followed by Austria with 55%, the Netherlands at 51.75% and Belgium at 50%. Many Gulf as well as Caribbean countries do not levy any personal income tax at all and many CIS countries and Eastern European countries have a flat income tax with maximum rates around 10%.

1.7.4. Does the PIT provide for automatic adjustments to tax rate brackets for inflation?

1.7.5. Should capital income be taxed at the same rate as employment income?

Should Capital Income and Employment be taxed at the same Rate ?

The taxation of capital income is intrinsically linked to the taxation of labor or employment income because income from labor goes either towards consumption or is saved by investing into financial assets which earn income in the future. This can be illustrated in a simple two-period lifecycle model. During the first period, the individual decides to work for part of the time and consume leisure for the rest. The individual decides to consume part of the income earned saving the rest for retirement (the savings is a capital asset). During the second period, the savings along with the returns on that savings (capital income) funds the individual's consumption during the second period of their life.

In such a model, when the government can levy an income tax, if an individual earns only income from labor during the first period, the income tax on their income includes a tax on the portion of their income set-aside for savings; hence a tax on second period consumption. During the second period, the income that is saved earns some returns. These returns i.e. capital income, is taxed in the second period. As shown in the table below, the labor tax and the consumption tax are equivalent as over the lifetime of an individual, the entire income earned is consumed over the lifetime (assuming that there are no bequests i.e. transfer across generations). Similarly, an income tax is just a combination of a labor (or wage) and capital income tax.

	Identity (without taxes)	Labor Tax	Consumption tax	Income Tax	Identity (with Labor taxes)	Identity (with Consumption taxes)	Identity (with Income taxes)
Single Period Model	$c = wl$	$\tau_l * wl$	$\tau_c * c = \tau * wl$	$\tau_l * wl$	$c = wl(1 - \tau_l)$	$c = wl(1 - \tau_c)$	$c = wl(1 - \tau_i)$
Two- period Model	$c_1 = wl_1 - s$	$\tau_l * wl_1$	$\tau_c * c_1 = \tau_c * (wl_1 - s)$	$\tau_l * wl_1$	$c_1 = wl_1(1 - \tau_l) - s$	$c_1 = (wl_1 - s)(1 - \tau_c)$	$c_1 = wl_1(1 - \tau_i) - s$
	$c_2 = s(1 + r)$ $c_2 = (wl_1 - c_1)(1 + r)$ $c_1 + \frac{c_2}{(1 + r)} = wl_1$	0	$\tau_c * s(1 + r)$	$\tau_l * rs$	$c_2 = s(1 + r)$ $c_2 = (wl_1(1 - \tau_l) - c_1)(1 + r)$ $c_1 + \frac{c_2}{(1 + r)} = wl_1(1 - \tau_l)$	$c_2 = s(1 + r)(1 - \tau_c)$ $c_2 = (wl_1 - \frac{c_1}{(1 - \tau_c)})(1 + r)(1 - \tau_c)$ $c_1 + \frac{c_2}{(1 + r)} = wl_1(1 - \tau_c)$	$c_2 = s(1 + r(1 - \tau_i))$ $c_2 = (wl_1(1 - \tau_i) - c_1)(1 + r(1 - \tau_i))$ $c_1 + \frac{c_2}{(1 + r(1 - \tau_i))} = wl_1(1 - \tau_i)$

In such a scenario there are three 'goods', the first period consumption, the first period leisure (or equivalently, how many hours to work), and the second period consumption. There are two relative prices between them and the government can levy two taxes, i.e. taxes on the first period and second period consumption or taxes on wage income and capital income. Under a linear income tax, the Corlett Hague theorem applies here which says that the consumption tax should be higher on that good that is most complementary to leisure. The idea being that any tax imposed on consumption of a particular good would encourage individuals to work less, i.e. consume more leisure and if those goods are taxed

higher than more complementary to leisure this reduces the distortions associated with the tax. The moot question is whether first period consumption or second period consumption are more complementary to leisure. There is no reason why one is more than the other. In any case, they are not likely to be equal. This implies that capital need not necessarily be taxed at the same rate as labor income.

Clear policy recommendations are difficult even in such a simple model. Things get more complicated under non-linear taxation and when various simplifying assumptions are relaxed including whether the taxes can be varied over time, the functional form of the individual's utility, whether are allowed, whether labor is allowed in the second period, etc.

If neither wage nor consumption taxes can be varied over time, under certain restrictive assumptions it is optimal not to tax capital income. Judd (1985) and Chamley (1986) showed that if the government is restricted to labor and capital taxation, the capital income tax would approach zero in the long run and the government should tax existing capital during the first period and then not tax capital at all subsequently. This result while important is based on strong assumptions especially on the nature of bequests, an upper bound being imposed on capital taxation, and when the intertemporal elasticity of substitution is above one. Further this result assumes that the government can commit to a future path of tax rates. This latter assumption is very strong because if individuals believe the government is committed to zero tax rates into the future and accumulate capital as a result, nothing stops the government to renege on this and tax this accumulated capital at a future date. Individuals considering this commitment problem would incorporate this into their decision not to accumulate capital in the first place and reduce their savings.

Mitigating this time-inconsistency problem is a major policy question because government should convince taxpayers that their capital incomes would not suffer from expropriatory taxation in the future. Tax deferred savings accounts and special taxation of capital such as the dual income tax (a progressive labor income tax with a linear capital income tax) are some of the ways that government use to address this problem.

Finally, capital income may be more elastic with respect to tax rates than labor income than earnings and avoidance of capital income is easier. Further, some forms of capital income are difficult to tax such as capital gains on an accrual basis.

Overall on efficiency grounds, the literature on optimal taxation suggests that while capital income should be taxed, it may not be taxed necessarily at the same rate as the employment income tax. On the other hand, because capital income mostly accrues to those with higher incomes, on equity grounds there is need to tax it at higher rates. Political economy considerations would guide the balance between to equity and efficiency considerations.

References and further reading:

Boadway, Robin, 2012. "From Optimal Tax Theory to Tax Policy: Retrospective and Prospective Views," MIT Press Books, The MIT Press, edition 1, volume 1, number 0262017113, March.

1.8. PIT implementation

1.8.1. Who is required to be registered as a PIT taxpayer?

Registration under the PIT

As income that is covered under taxation is very broad, in theory every individual within a jurisdiction is potential taxpayer. Income earned by an individual is reported by third parties requiring the identification of the individual. In countries that registers all its citizens and issues them with a national identification number, this process becomes the default number that is used by tax agencies.

However, in countries where such an identification number is not issued, a separate tax registration is required for certain classes of taxpayers. For example, everyone earning interest income in banks, or earning income from employment, it may be compulsory for the individual to register with the tax authority. Similarly, any individual earning taxable income would be required to file tax returns which would entail registering with the tax authorities.

Even in countries that registers all its citizens, it may be necessary for certain non-citizens earning income in that country to register with the tax authorities. This ensures exchange of information of the incomes earned by non-residents to the countries where they are tax resident.

1.8.2. Who is required to file personal income tax returns?

Who is Required to File Tax Returns

It is common for the PIT to be collected on a self-assessment basis, under which taxpayers file returns declaring the amount of taxable income and tax due. In most cases those who do not owe any taxes on their income are not required to file a tax return. In some cases, if no tax becomes due only after the application of tax deductions, then such persons are required to file tax returns to be able to substantiate to the tax authorities their qualification to those tax deductions.

However, many countries, particularly developing countries, restrict the situations where a return must be filed. Most employees do not have to file returns and their tax is typically collected via final withholding. The goal in such cases is to reduce the compliance burden on taxpayers as well as reduce the costs on the tax administration. In such cases, when there is income other than employment income either, there are two options, a) either a declaration is made to the employer of these additional incomes which are then brought to tax through

additional withholding or, b) the taxpayer is required to file a tax return declaring all their incomes and paying the additional tax.

1.8.3. What are the mechanisms used to reduce the burden of filing tax returns under the PIT?

Reducing the Burden of Tax Filing

Deemed filing

In some countries employees do not have to file tax returns and the withholding of tax by the employer followed their reporting of the tax against each employee, is deemed to be a tax return. In some cases, where a person only earns interest income or dividend income, the withholding tax becomes the final tax and there is no requirement to file a tax return.

Pre-filled Tax Returns

Some tax administrations such as Australian Tax Office send taxpayers a return with information already filled in based on the information that has been provided to the tax administration. The advantage of this approach is that taxpayers do not have to put this information together themselves.

Electronic Filing

Many jurisdictions allow taxpayers to file returns electronically. Electronic filing poses challenges for information security, but it can be convenient for taxpayers as well as providing returns in a format that is readily usable by the tax administration without the need for data input.

1.8.4. What are the mechanisms used to ensure compliance under the PIT?

Compliance Mechanisms for the PIT

Provisional withholding

Virtually all countries require employers to withhold tax from wages. In some countries, the withholding is provisional, meaning that employees can file returns and claim a refund if the withholding exceeds their tax liability, or may be required to file returns above certain income thresholds.

Similarly, banks are required to withhold tax on interest payments and corporations are required to withhold tax on dividend on distribution. Requirement to withhold tax could extend to cover different types of payments paid by many classes of payers. Apart from improving compliance, the goals of the policy on withholding include reducing cost of

compliance for taxpayers, reducing costs for tax administration as well as maintaining a regular cash flow of tax payments to the government treasury.

Pay As You Earn (PAYE)

Other countries implement a system of final withholding, with limited if any possibility for employees to obtain a refund. A final withholding system goes along with return filing rules under which taxpayers whose sole source of income is wages (and other income, such as investment income, that is also subject to final withholding) are not required to file returns. The justification for this approach is to relieve the tax administration from having to process numerous returns for no compelling reason. This approach works best if the country also does not allow deductions for employees in computing employment income, or personal deductions (e.g. for charitable contributions, home mortgage interest, medical expenses, and so forth).

Information reporting

Information reporting works in tandem with withholding to provide information of a potential taxpayer to the tax authorities. While in the case of withholding, tax is deducted, in the case of information reporting there are no financial liability is incurred to the taxpayer, though there is a strong correlation to potential income that may arise. For example, if a business hires someone as an independent contractor rather than as an employee, there is often a requirement to report the person's income to the tax agency, if withholding is not required. In this case, the individual is required to file a return, and the amount reported by the hiring business can be cross checked with the person's return. In that manner, information reporting becomes an important part of estimating the potential of understatement of income brought to tax by a taxpayer in their tax return. Under the automatic exchange of information, tax agencies report the tax related information of non-citizens under their jurisdictions back to their home countries.

1.8.5. What is the role of withholding tax under the PIT?

Withholding Tax under the PIT

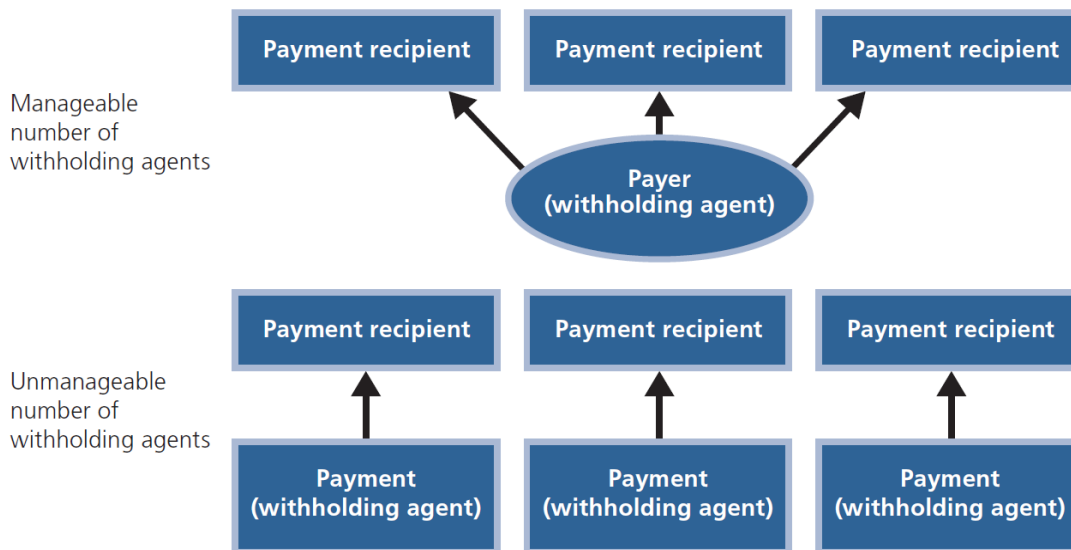
Withholding of tax is a mechanism whereby agents designated as withholding agents are required to deduct a certain percentage, the withholding tax rate, from the payments made by them to others and are required to deposit these amounts with the tax administration.

Withholding of tax by agents from the payments they make to others is an important policy tool to improve compliance, reduce cost of compliance for taxpayers, reduce costs for tax administration as well as to maintain a regular cash flow of tax payments to the government treasury.

One rationale for making withholding final is to reduce the number of returns filed thereby reducing costs for tax administration. Typically, taxpayers whose only source of income is

wages subject to final withholding are not required to file returns. If withholding is final, the only situations where a refund might be due are where the withholding amount was erroneous or where a deduction is allowed. In these cases, returns should be allowed.

However, withholding is not without disadvantages. While the policy of withholding reduces cost of compliance for taxpayers it increases costs for the withholding agents. Second, as tax is deducted before the payment is received, it reduces the cash flow for taxpayers. This could be especially problematic when the withheld tax is much higher than the tax due.



As withholding tax is applied on the gross payment, an optimal withholding tax policy should impose withholding tax rates that are close to the actual tax on that income. Further, when the government creates too many withholding agents, the cost of compliance shifts from ensuring compliance of taxpayers to ensuring compliance of tax agents.

1.8.6. What is the role of third parties in tax return preparation?

Support for Tax Return Preparation and Filing

Calculation of the taxable income for many taxpayers could be quite complex and cumbersome for the ordinary taxpayer. Tax preparers are third parties who support taxpayers with the calculation of their taxable income, filling the tax form, payment of any remaining tax (or obtaining the refund) and filing of the tax return. Support include,

Tax Accountants and Tax Lawyers

Tax accountants and tax lawyers provide support services to taxpayers for a fee. These professionals being accredited by accounting and legal associations ensure that the standards and quality of support are high. Typically, these professionals provide end to end

services for complex cases including maintaining accounts of the taxpayer up to the filing of the tax return and later even representing the tax payer before the tax authorities during tax audits.

Tax Preparation Software

Support to tax return has increasingly become automated. Tax return preparation software has broadened the reach of tax support and directly to the taxpayer. These softwares allow taxpayers to calculate their taxable income and the resulting tax and account for any withheld tax and file the tax return.

Tax Return Preparer Scheme

In many countries tax accountants are not widely available and their cost are prohibitive for the ordinary taxpayer. Registered tax return preparers are those with a basic accountant degree and who are not full-fledged chartered accountants who after being certified by the tax authority can provide tax preparation support services to taxpayers. Such a scheme is available in the United States and India, though a ruling in the U.S. has removed the requirement to be registered.

1.9. Interjurisdictional issues

1.9.1. What are the rules governing PIT on residents and non-residents?

Personal Income Tax applied on Residents vs. Non-Residents

In an increasingly globalized world, the taxation of income of individuals pose a challenge both for tax policy as well as for tax administration. The policy challenge is how to demarcate taxing powers of the countries when individuals provide services in foreign countries or when they earn income originating in foreign jurisdictions. The administrative challenge is how to enforce these taxing powers across different jurisdictions. The taxation powers are governed by tax treaties between countries of which the UN Model treaty and the OECD Model treaty are most used as a template.

The League of Nations in 1923 identified four factors governing the taxing rights of countries on incomes and wealth which were, a) the origin of the wealth or income, b) the location of the wealth or income, c) the enforcement of rights to wealth or income and, d) the place of residence or domicile of the individual entitled to the dispose the income or wealth. These factors have given way to two popular principles, the 'Source' principle and the 'Residence' principle. The source principle also known as the territorial principle gives taxing powers to the country where the income originates. The residence principle or the nationality principle gives taxing power to the country where the individual is a national, resident or domicile and such a person is called a tax resident in that country.

Most countries tax its residents on their worldwide income. A few countries such as Bolivia, Ghana, Hong Kong, Malaysia and Singapore tax residents on a territorial basis, excluding income derived abroad. Territorial taxation makes tax administration easier, since it is not necessary to keep track of foreign-source income. However, territorial taxation tends to be inequitable, since it allows wealthier individuals to engage in tax planning by arranging to earn investment income from abroad. Territorial taxation also requires tight definitions of foreign-source income. A typical rule treats all income from a business that is carried on partly in the country and partly abroad as domestic source. To forestall tax planning opportunities and improve tax equity, a number of countries that previously taxed on a territorial basis have moved to a worldwide system (e.g. Argentina, Israel, and South Africa).

Source rules determine which incomes have a source within the country. In general, employment income is sourced from where the services are performed, dividend and interest are sourced from the country where the taxpayer that has made these payments is tax resident and rental and royalty income for use of a property is sourced from where the property is used.

Tax treaties between countries may alter the source as well as residence rules. This may be needed when combined operation of source and residence rules may result in double taxation especially when a tax resident earns income with a source in another jurisdiction. Double taxation may be relieved by giving the tax resident a 'foreign tax credit' for tax paid in the foreign jurisdiction or sometimes exempting the foreign income from taxation.

1.9.2. How does the PIT address cross-border income of its residents?

Personal Income Tax and Cross-Border Income of Residents

Taxing powers of a country are asserted on the basis of tax residence where by as a general rule a tax resident is taxed on their world-wide income in that country. A few countries such as Bolivia, Ghana, Hong Kong, Malaysia and Singapore tax residents on a territorial basis, excluding income derived abroad. However, countries also assert the right to tax even non-residents on incomes that can be said to 'arise' in that country or that have a 'Source' in that country. This means that a resident with income from a source in another country could be liable to be taxed on that income in both countries. This may lead to double taxation which may be avoided by a tax treaty between the countries. Most countries allow residents to claim a 'foreign tax credit' for taxes paid on income that arise in another country which relieves double taxation. Some countries exempt certain foreign incomes from taxation. For example, the French system exempts business income attributable to an establishment located outside of the country. Countries can also deal with cross-border workers in income tax treaties. For example, a resident of Country A who crosses the border and works in Country B, while returning home every night might be exempted from the

employment income in Country B and pay tax on this income only in the country of residence. (This is the approach of the US-Canada income tax treaty, for example.)

Ensuring compliance of taxation on cross-border income of residents is challenging for tax administrations and presents opportunities for tax evasion. This is especially true for investment incomes parked in bank accounts in countries that either do not tax, or tax such incomes at very low rates. In Canada, unreported offshore investment income earned by Canadian individuals resulted in underreporting and reduced tax of up to 3 billion Canadian dollars or 2.2% of personal income tax revenues. Exchange of information between tax agencies especially the automatic exchange of information is a useful tool to afford greater transparency on cross-border incomes of tax residents to counter such cases of tax evasion.

1.9.3. How does the PIT address income from domestic sources of non-residents?

Personal Income Tax on Income of Non-Residents

Countries may assert their right to tax income with a 'Source' in their country regardless of the residency status. Source rules determine which incomes have a source within the country. In general, employment income is sourced from where the services are performed, dividend and interest are sourced from the country where the taxpayer that has made these payments is tax resident and rental and royalty income for use of a property is sourced from where the property is used.

As it is harder to tax the income of non-residents than that of residents as the former may not maintain any physical presence in that country, most countries have rules for withholding of income paid to non-residents. In many cases this is the only income owed in the source country. Non-residents may then claim a 'foreign tax credit' for such taxes paid when calculating their tax in the jurisdiction of their tax residency. Countries may impose rules requiring the filing of tax returns when the non-resident individual earns employment income or business income. In most other cases especially for interest and dividend income, the withheld tax becomes the final tax. Under the automatic exchange of information between tax agencies, the incomes arising to non-residents are reported back to the countries of their tax residency.

Some countries extend advantageous treatment to persons coming to the country from abroad to work for relatively short periods of time (although long enough to become a resident under the normal rules). For example, Belgium treats certain expatriates coming to work in Belgium as nonresidents and exempts various allowances and benefits that they receive, such as travel and moving allowances.

1.9.4. If there is a sub-national PIT, how is it designed?

Design and Administration of a Sub-National Personal Income Tax

In certain federations, sub-national jurisdictions may levy an income tax along with the federal government. This is taken to the extreme in Switzerland that has a personal income tax at the federal, cantonal and municipal level with different rates. In the United States, all states except nine levy an income tax. Canada and the Nordic countries also have an income tax at the provincial level.

In most cases, the provincial income taxes apply their own tax law but use the same base as the federal income tax making adjustments by applying additional deductions and tax credits to it and applying their own tax rates to it. The province of Quebec in Canada applies its own tax base but this mirrors closely the federal tax base. The Nordic countries and some cantons in Switzerland levy a flat rate of income tax while most states in Canada and the United States and most cantons in Switzerland apply progressive rates. In Switzerland, the municipalities 'piggy-back' on the cantonal income tax applying a flat rate on the cantonal tax.

Taxation of income at the provincial level poses similar challenges to allocate the right to tax to the correct jurisdiction. In Canada, an individual files her taxes on employment and investment income in the province she resides on December 31st. Business income is taxed in the province where the income is earned.

Administration of the provincial income tax in Canada is done by the federal revenue authority in all provinces except Quebec. In the United States the states administer the personal income tax independent of the federal revenue agency. Switzerland's cantonal tax administrations administer the provincial income tax as well as the federal income tax.

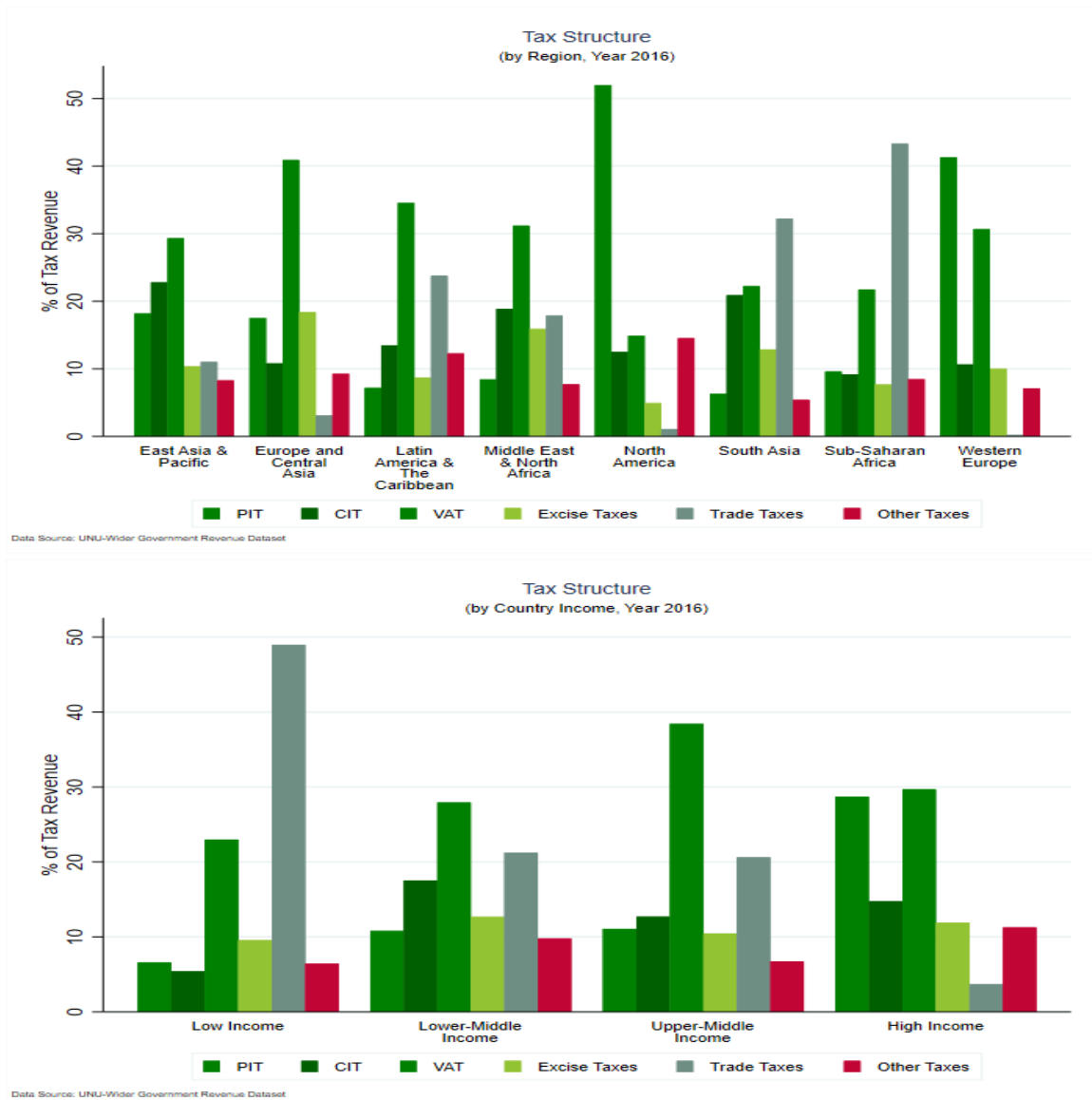
2. PIT Performance

2.1. PIT effectiveness

2.1.1. How effective is PIT in raising revenue?

Effectiveness of the Personal Income Tax in Raising Revenue

The PIT was the biggest contributor of revenue in North America and Western Europe in 2016. It contributes nearly a fifth of the revenues in East Asia and the Pacific, Eastern Europe and Central Asia and the Middle East and North Africa. The contribution of the PIT to revenue is correlated to the income with increasing shares as the income level rises. It is the biggest source of revenue along with the VAT in the high-income countries while in the other income groups it is neither the biggest nor the second biggest contributor of revenue. The contribution of the PIT of the High-Income group of countries is nearly twice the collection of the other country income groups.



The question whether the PIT collection around the world can be explained by rate or base is pertinent. Maximum marginal PIT Rates in the Low-Income are the highest followed by rates in the High-Income countries even though the former collects much less. With regard to the base, it is the coverage of the PIT rates that determine what part of the base is taxed. The zero-rate bracket or exemption threshold largely determines what proportion of the population is covered by the PIT. One of the purposes of the zero-rate bracket is to allow for minimum income required for subsistence to be kept out of the tax net. In poorer countries this implies that this band would cover a significant part of the population keeping them out of the PIT net. While the maximum marginal rate is an important aspect of the PIT rate policy, it is the coverage of all the marginal PIT rates for the various income slabs that overall determine the effectiveness of the PIT in collecting taxes.

The Equity-Efficiency tradeoff is central to arriving at the optimal income tax rate. A higher income tax rate affects the decision to work while also providing additional revenue for re-

distribution. Optimal Income Tax theory arrives at the revenue maximizing linear income tax rate which is affected by the elasticity of aggregate earnings to the tax rate which encapsulates all the behavioral responses to the income tax, the distribution of pre-tax incomes and the social welfare function which captures the re-distributive tendency of the government.

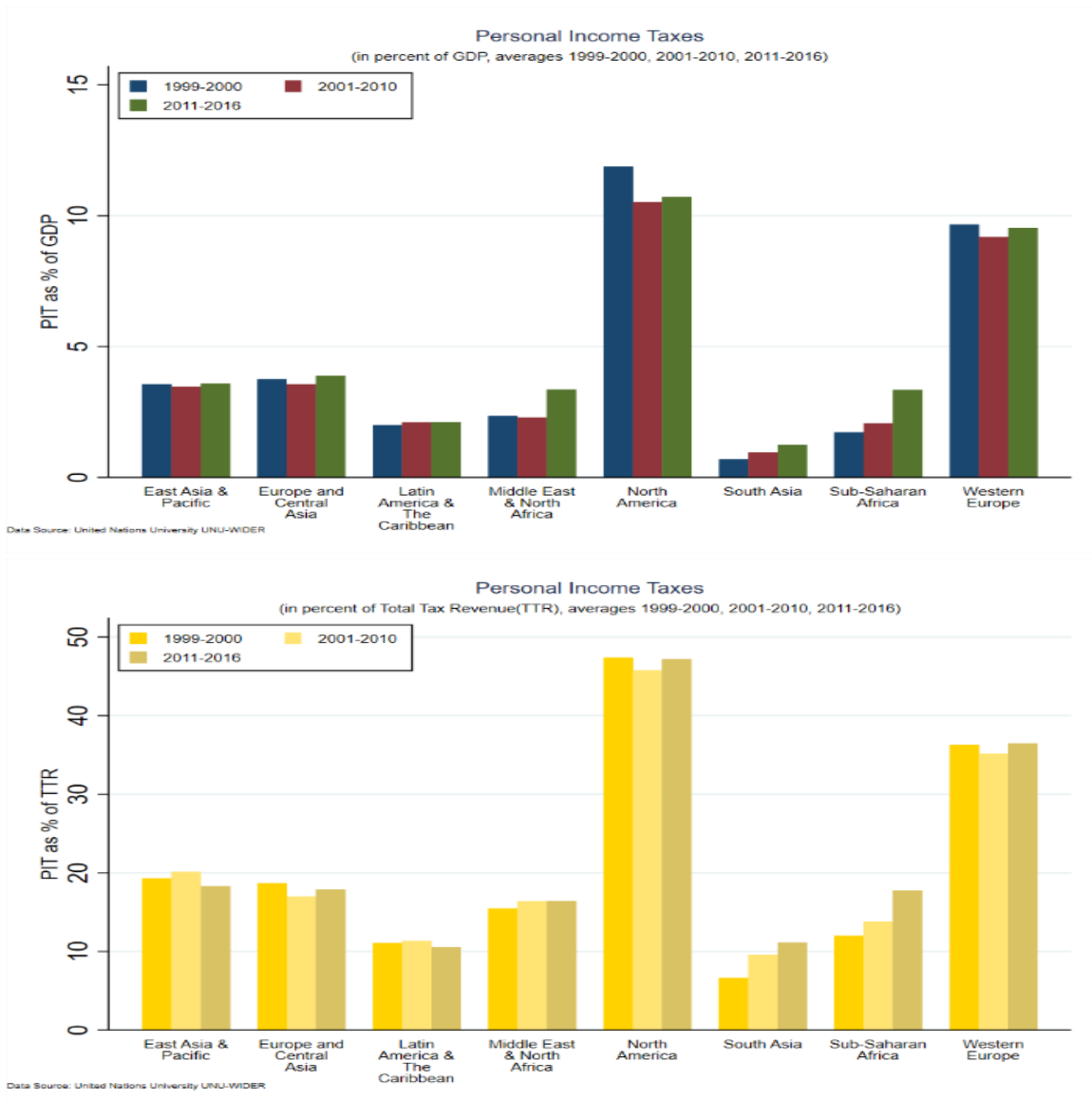
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2.1.2. What is PIT revenue?

Performance of the PIT

Personal Income Tax revenue is an important revenue source in North America and Western Europe collecting nearly 10% of GDP in both regions. It comprises nearly half of the overall tax revenues in North America and about a third of revenues in Western Europe. In the East Asia and Pacific and Eastern Europe and Central Asia regions, the Personal Income Tax collection is nearly a fifth of the overall revenues and about 5% of GDP in both regions. It forms a less important part of the overall tax revenue in South Asia and the Latin America and the Caribbean.



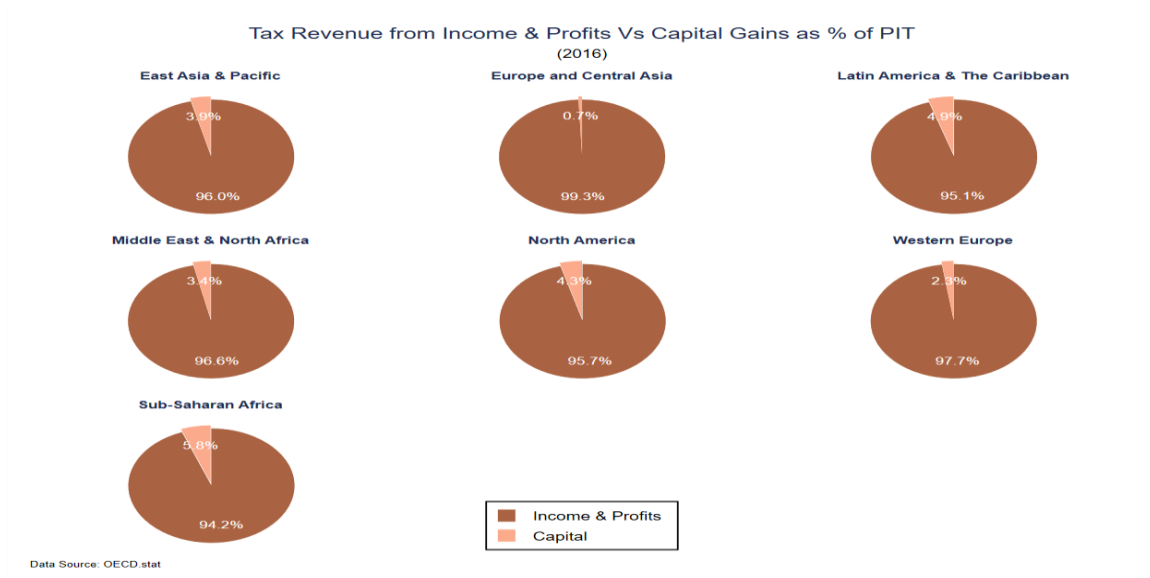
[Click here for Charts for PIT revenue by country income group](#)

Overall, the importance of the Personal Income Tax as a source of revenue has been remarkably stable in nearly all regions since the decade of the 1990-2000. In South Asia it nearly doubled from 6% of the total collection to about 11% in 2011-2016 while in Sub-Saharan Africa it increased from 12% of the total tax revenue to 18%. increasing from and South Asia. Collections from Personal Income Taxes has grown since the decade of 1990-2000 in all the regions except in North America where it dropped by nearly 2% points of GDP and in Western Europe where it fell in the subsequent decade before climbing back to the earlier levels. back to the levels in the decade of 1900-2000.

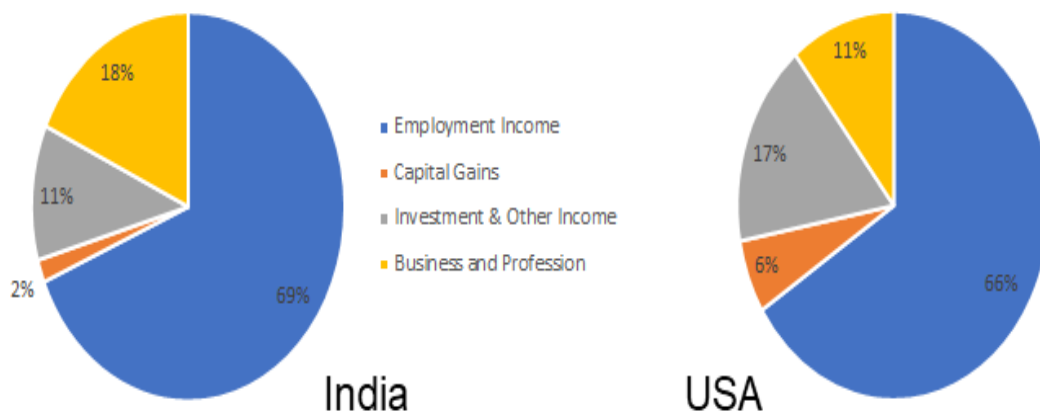
2.1.3. What is the composition of PIT revenues?

Composition of PIT Income and Revenues

Detailed data on the composition of the personal income tax is not widely available because the tax is calculated for combined incomes from different sources as few countries follow the pure schedular system. However, as capital gains in most cases are taxed at special rates, it is more common to calculate the tax on capital gains separately. The breakdown for capital gains versus other income is available for forty-five countries. The highest contribution of capital gains tax is for the five countries in Sub-Saharan Africa and the lowest for the six countries in Eastern Europe. Detailed Income data (not tax) for India and the United States gives an indication of the breakdown. Employment income is 69% of the personal income for India and 66% for the United States. Investment and Other Income is the second biggest part in the United States, 13% of the personal income is Investment Income while 4% for Other Income. In the case of India Business Income is the second biggest contributor to personal income. This is indicative of the fact that Employment/labor income is the most important part of the Personal Income Tax.



Composition of Individual Income (2016)



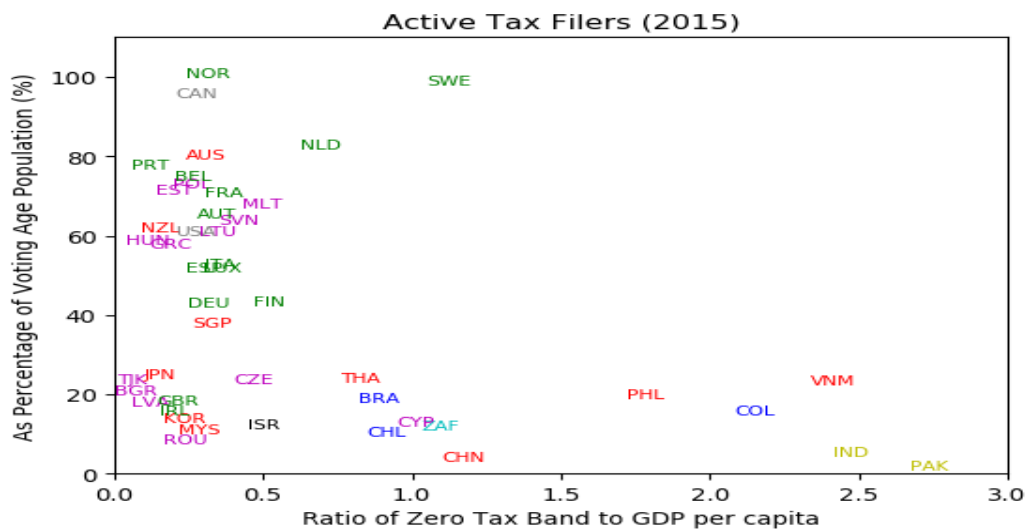
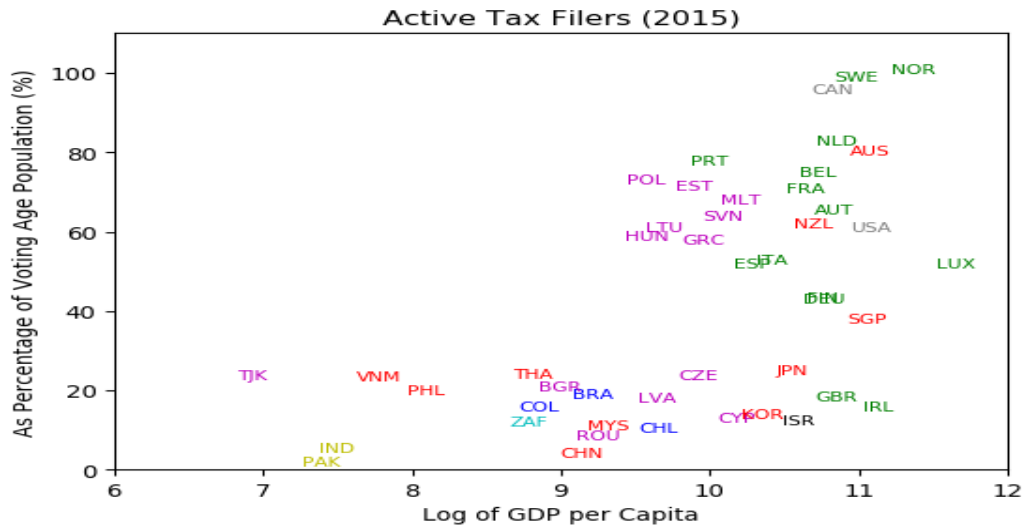
2.1.4. What percent of the population pays PIT?

What percentage of the population pays the PIT?

The number of individuals who pay the Personal Income Tax is not straightforward because the number of those who pay the PIT is not necessarily the same as the number who file tax returns. This is because there are likely to be many whose taxes are withheld but do not file a tax return. In some countries taxpayers are not required to file a tax return by law in case all their taxes are withheld by their employer and reported as such. In such cases the number of tax returns would underestimate the number who pay the PIT. On the other hand, some returns may be filed only to claim a refund, such as in the case of a negative income tax. In these cases, the number of tax returns would over estimate the number of individuals who

lay the PIT. Some countries such as India and Pakistan maintain a list of 'Active Taxpayers' who in most cases are required to file tax returns either directly or via their employer.

In the absence of any other measure, the number of tax return filers or active taxpayers is the best proxy of those who pay the PIT.



The figure above shows that nearly the entire population who are of voting age in Canada, Norway and Sweden file tax returns. In Pakistan only 1.1% of the population are on the active taxpayer list. Even in India and China the number of tax filers are very small, below 5% of the voting age population. There is a strong correlation between income per capita and the proportion of the population that pays the Personal Income Tax.

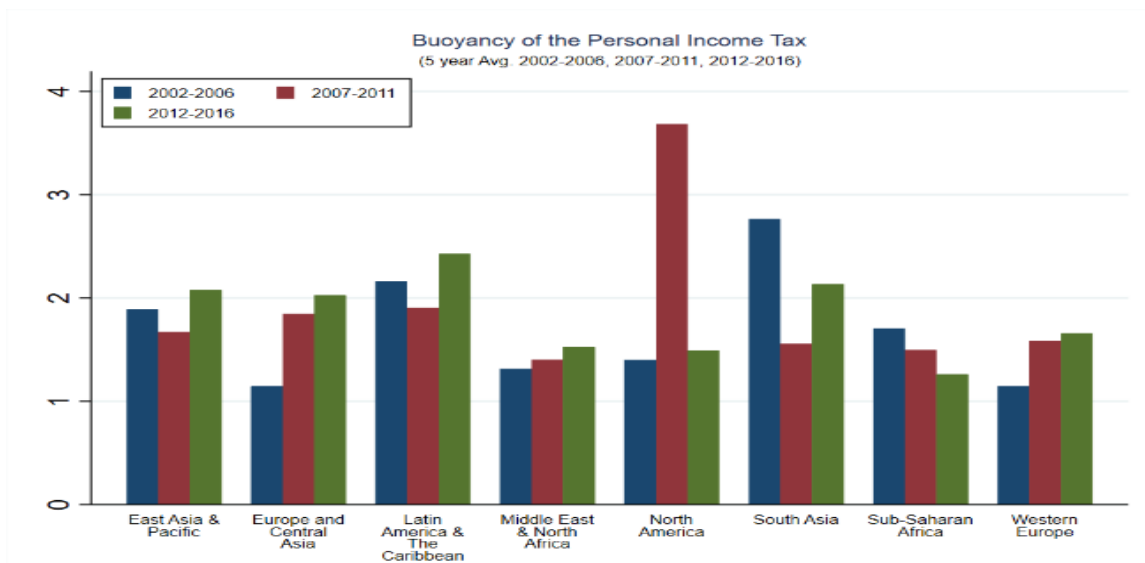
Apart from political economy reasons, a potential explanation for the high correlation is that countries that have low income per capita also tend to have a smaller percentage of

their population who would be within the tax net when one takes into account the exemption limits for the personal income tax which typically covers those with income required for basic living expenses. Further, the exemption limits themselves may keep a large part of the working population of the tax net. For example, Pakistan and India's zero-tax band are more than two and a half times the per-capita GDP.

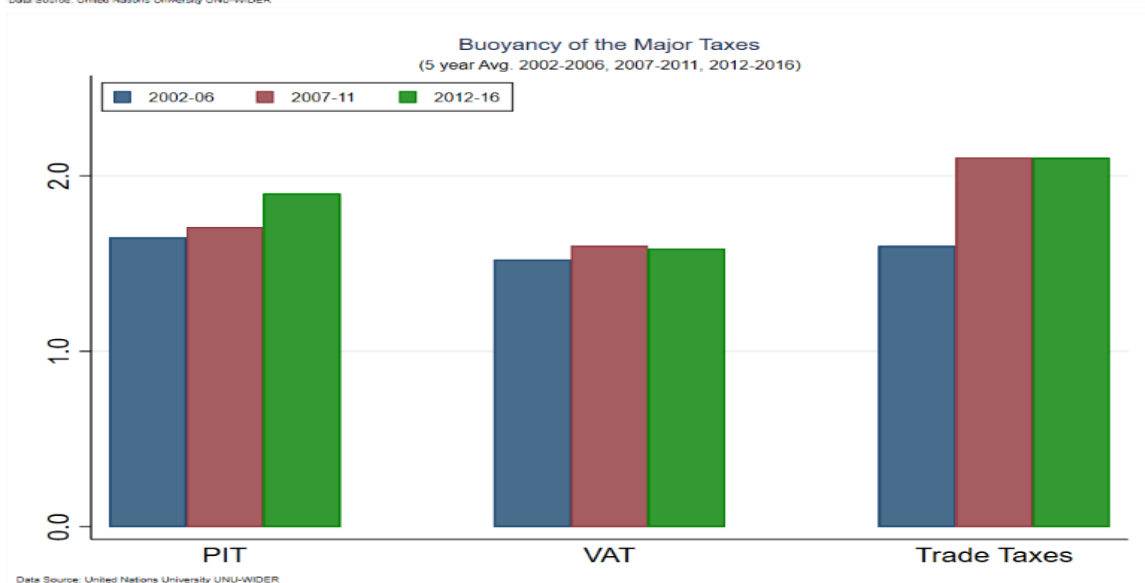
2.1.5. How buoyant are PIT Revenues?

How Buoyant are Revenues from the Personal Income Tax?

Tax buoyancy measures the changes in the tax collection as a result of changes to the GDP. A buoyant source of revenue grows faster than GDP and also slows faster than GDP. Tax Buoyancy is a blunt measure in that it does not account for base changes that would directly affect the tax collection but not so much the GDP of a country. Despite this drawback is a helpful measure to track the general ability of a tax to move with GDP as well as track improvements in tax administration over time. The figures below show that the personal income tax is a buoyant source of revenue with buoyancy close to 2 which is more than the VAT but not as buoyant as the Trade Taxes have been recently.



Data Source: United Nations University UNU-WIDER



Data Source: United Nations University UNU-WIDER

[Click here for Charts for PIT Buoyancy by country income group](#)

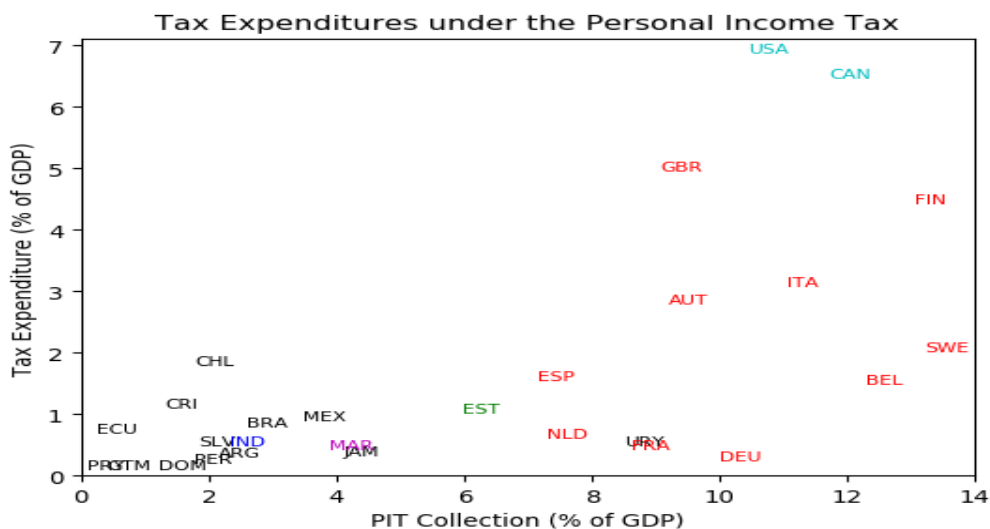
Buoyancy of the personal income tax has been higher on average in South Asia, Latin America and Caribbean regions and recently in Eastern Europe and Central Asian countries. The spike in the North America for the years 2007-2011 reflects a sharp fall in revenue in the United States in 2009 the year when recession hit. Personal Income Taxes are an important component of automatic stabilizers that rises faster than the GDP during periods of high economic growth and drops faster than GDP during periods of economic decline and as a result tends to dampen fluctuations in the GDP.

No clear pattern emerges from looking at the buoyancy of the personal income tax of countries on the basis of their income levels though buoyancy of the personal income tax has risen sharply for the Upper-Middle Income countries over the last fifteen years and shows a steady rise among the High-Income countries.

2.1.6. How high are PIT tax expenditures?

How High are PIT Tax Expenditures?

Tax expenditures are “the cost of special tax provisions .. such as permanent exclusions from income, deductions, deferrals of tax liabilities, credits against tax, or special rates.” Surrey and McDaniel (1985). Unfortunately, there is no universal definition of what is considered a “regular” as compared to a ‘special tax provision’ and hence It is problematic to compare the estimates of tax expenditures across different countries. Further, many tax expenditure estimates are data intensive and essentially a ‘work in progress’ as better-quality data becomes available and analysis are improved. In any case, these tax expenditures place a major dent on the revenues of countries.



The figure above shows the estimates of tax expenditures for Personal Income Tax for 28 countries for which data is available. It varies between 6.9% of GDP for the United States and close to zero for some of the Latin American and Caribbean countries. In the case of the Canada and the United Kingdom, the revenue foregone on personal exemption or allowance that is available to all taxpayers is not considered a ‘special tax provision’ is not included in the estimates. In the case of the United States, the revenue foregone on ‘imputed rent’ is not included in the estimates because these estimates are considered part of the benchmark tax system for most countries including Canada. The major tax expenditures relate to tax expenditures on savings for retirement, health insurance and home mortgage. See detailed discussion on these tax incentives.

2.2. PIT efficiency

2.2.1. What are the efficiency costs of a PIT?

Efficiency Costs of the Personal Income Tax

Like virtually all taxes, the PIT involves an efficiency cost because it affects the incentive to work and encourages behaviors that affects the base including tax avoidance and tax evasion. To gauge the effect of the PIT on labor supply, it is necessary to include also other payroll taxes such as social security tax. Particular attention in terms of labor supply should be paid to situations where high marginal rates may apply, for example high rates on a second-earning spouse where the incomes of the spouses are aggregated. High marginal rates may also apply where benefits are phased out with income. In terms of the efficiency costs of tax on investment income in a global world, this is one reason that the dual income tax has been found attractive.

One way to estimate the efficiency costs of the personal income tax is to use tax reforms and micro-level tax return data to estimate the elasticity of reported income with respect to the net-of-tax marginal rate. These studies compare the pre-tax incomes of groups affected by the tax reform to those that were not. According to these studies, while the short-term behavioral response measured by the elasticity is not very pronounced for most taxpayers about 0.25, it is quite large for taxpayers with high incomes. Such behavioral responses further are not the result of fundamental changes to income generating behavior but tax avoidance by modifying the timing of income received and by changing the nature of the income to lower taxed categories or shifting the incomes to other lower taxed jurisdictions. Further when avoidance opportunities were limited the elasticity of reported income of even this group drops down to 0.25. Behavioral responses are especially pronounced in the case of capital incomes which are mobile and can be moved relatively easily to lower taxed jurisdictions though spatial mobility of individuals especially those who are high-skilled workers have also been observed.

Studies using long time series analysis of the top tax rates and the top income shares show that there is a strong correlation between the top 1% income share and the top marginal tax rate. In a study of 18 OECD countries by Piketty, Saez and Stancheva (2011) conclude that such a correlation has been shown not to be driven by supply side responses (such as working more when top marginal rates were lower) rather that when tax rates were lower, the top income earners gained disproportionately more incomes as compared to those lower down the income distribution. This explanation that it was rent-seeking that was driving the responses rather than productive income earning responses lead to a marginal dead weight loss per dollar of additional revenue from the top bracket taxpayer of 0.26.

For the United States, an earlier study by Feldstein (1999) using tax simulations estimates the incremental deadweight loss of the U.S. personal income tax in 1994 per dollar of additional revenue is \$2.06 which implies a deadweight loss amounting to 32% of the revenue.

When treating the personal income tax over and above the social security taxes which pushes the marginal income tax rates much higher the dead weight loss increases to nearly 52% of the personal income tax revenue. Later estimates by Blomquist and Simula (2010) brings this figure down from 2.06 to 1.04 for the U.S. for the year 2006.

References and further reading:

Piketty, T. and Saez, E., 2012. Optimal labor income taxation (No. w18521). National Bureau of Economic Research.

Feldstein, Martin. "Tax Avoidance and the Deadweight Loss of the Income Tax." *The Review of Economics and Statistics*, vol. 81, no. 4, 1999, pp. 674–680.

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2.2.2. What are the optimal personal income tax rates?

Optimal Personal Income Tax Rates

The goal of an optimal personal income tax is to arrive at a tax rate structure that maximizes social welfare of the society and is closely linked to the equity-efficiency tradeoff that balances equity and efficiency concerns. In order to arrive at the optimal rate structure, we need,

- The distribution of pre-tax incomes of individuals
- The government's social welfare function
- The elasticity response of the individuals denoted by the elasticity of the aggregate earnings with respect to the net-of-tax rate

The requirement for the optimal rates can be understood by studying the parameters in the formula for the optimal linear rate under a linear income tax and optimal tax rates in the United States and the European Union under various assumptions.

$$T = 1 - g(z) / (1 - g(z) + a(z).e)$$

$$\tau = \frac{1 - \bar{g}}{1 - \bar{g} + e} \quad \text{or,} \quad \tau = \frac{-cov(g_i, \frac{z_i}{Z})}{[-cov(g_i, \frac{z_i}{Z}) + e]}$$

The elasticity of aggregate earnings with respect to net of tax rate is denoted by,

$$e = \frac{(1 - \tau)}{Z} \frac{dZ}{d(1 - \tau)}$$

The normalized social welfare weight of individual i is given by,

$$g_i = \frac{\omega^i G'(u^i) u_c^i}{\int \omega^j G'(u^j) u_c^j dv(j)}$$

Where u_c^i is the marginal utility of consumption of individual i and $G'(\cdot)$ is the derivative of the social welfare function with respect to utility.

and $\bar{g} = \frac{\int g_i z_i dv(i)}{Z}$ is the average normalized social marginal welfare weights weighted by the pre-tax incomes z_i and also can be interpreted as the ratio of the average income, i.e. $\int z_i dv(i)$ weighted by the individual social welfare weights g_i , to the actual average income Z .

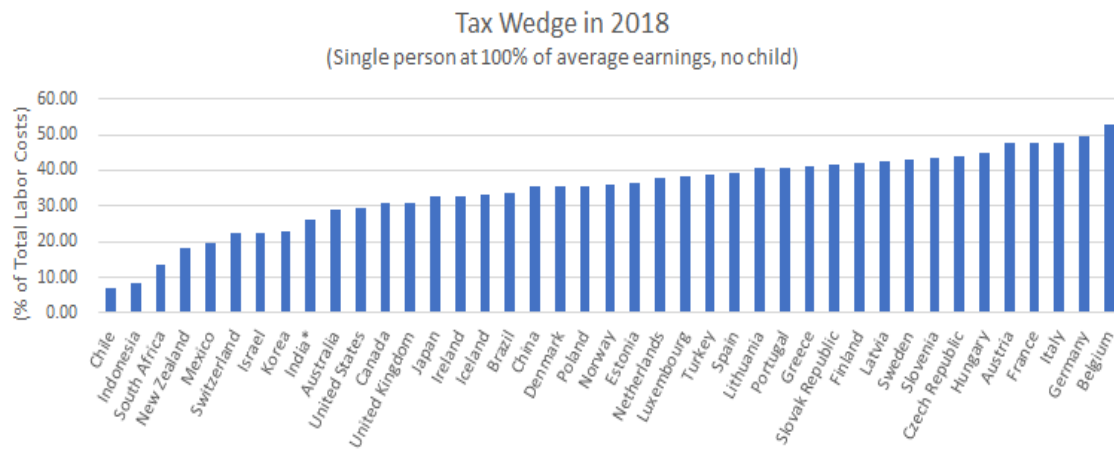
	Elasticity $e = .25$ (empirically realistic)		Elasticity $e = .5$ (high)		Elasticity $e = 1$ (extreme)	
	Parameter g (%) (1)	Tax rate τ (2)	Parameter g (%) (3)	Tax rate τ (4)	Parameter g (%) (5)	Tax rate τ (6)
<i>A. Optimal linear tax rate τ</i>						
Rawlsian revenue maximizing rate	0	80	0	67	0	50
Utilitarian (CRRRA = 1, $u_c = 1/c$)	61	61	54	48	44	36
Median voter optimum ($z_{\text{median}}/z_{\text{average}} = 70\%$)	70	55	70	38	70	23
<i>B. Revealed preferences g for redistribution</i>						
Low tax country (US): Tax rate $\tau = 35\%$	87	35	73	35	46	35
High tax country (EU): Tax rate $\tau = 50\%$	75	50	50	50	0	50

2.2.3. What are the tax wedges due to all taxes on labor?

Labor Tax Wedges Around the World

The labor tax wedge is the ratio between the total labor taxes to the 'total labor costs' for an average worker as a percentage of the total labor costs. By total labor costs we mean the payment that is made by the employer to the average worker. The total labor costs include wages and any tax payments made by the employer on behalf of the employee such as payroll taxes and social insurance payments. The net take-home-pay of the employee is equal to the wages less income taxes and any other payroll and social insurance taxes paid by the employee increased by any cash transfers received from the government. The total labor tax is the difference between the total labor costs and the net take-home-pay.

$$\text{Tax Wedge} = \frac{\text{Total Labor Costs} - \text{Net Take Home Pay}}{\text{Total Labor Costs}}$$



Labor tax wedges measured for a single person at 100% of the average wage for the OECD countries ranges between 7% for Chile and 53% for Belgium in 2018. In the case of Chile this is entirely due to the social contribution as the average worker did not reach the required threshold to pay the income tax. In India, social security contributions are not compulsory except under certain circumstances while the personal income tax for an average worker is zero. In Belgium the breakdown of the tax wedge was 14.4% for central government income tax, 5.9% for the local income tax, 11% for the employee contribution of the social security taxes and 21.4% for the employer contribution. The overall labor tax wedge as a result is significantly higher than the progressive personal income tax rates. Though social security contributions are not really a tax as it entitles a person to social security payments after retirement, the overall tax wedge has a significant factor on labor supply responses to tax rates.

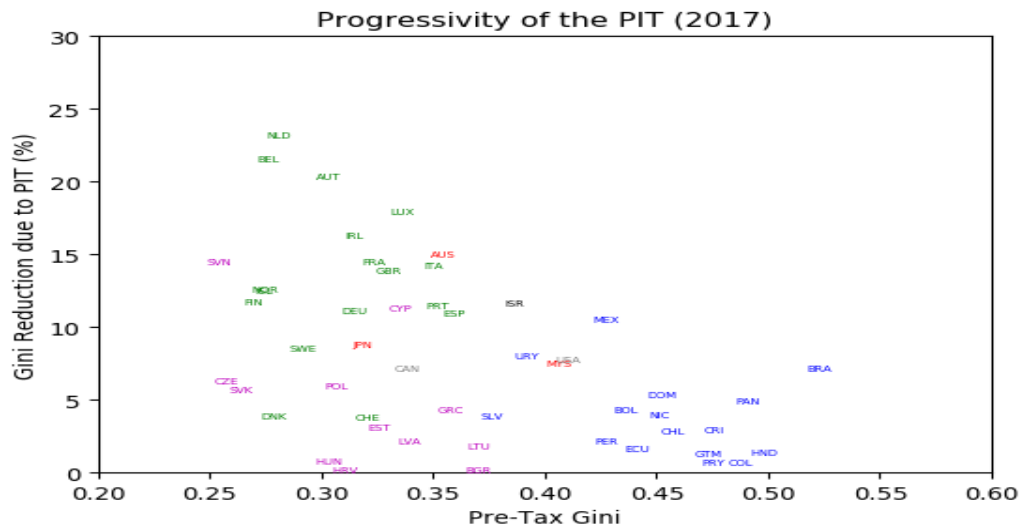
2.3. PIT equity

2.3.1. How progressive is the PIT?

Progressivity of the Personal Income Tax

The Personal Income Tax through higher marginal tax rates for higher incomes is an important tool to improve equity. It must be said that it is the combination of how the PIT is collected and how it is used that determines the overall impact on equity and hence the PIT on its own may not present the complete picture. However, the coverage of the PIT is important. If the personal income tax is applied only a small section of the population, then it has limited impact on reducing inequality on its own. The factors that reduce the progressivity of the PIT on inequality include,

- High exemption thresholds or zero-rate bracket that rule out a large section of the taxpayers from the coverage of the PIT
- Flat rates of tax with little or no personal exemptions
- Highest marginal rates of tax applied to a very small section of the taxpayers



The figure above shows an analysis of the impact of the PIT in over 50 countries. The extent of inequality in the country is given by the Gini Coefficient which varies between 0 and 1 with 0 being most equal and 1 means most unequal. The PIT with its marginal tax rates increasing with greater incomes implies that it reduces the inequality and hence the Gini. The percentage reduction in the Gini Coefficient due to the PIT varies between zero and 25% with the largest reduction in the Gini seen in the Western European Countries which unusually is also more equal. The Latin America and Caribbean countries with highest levels of inequality also tend to have relatively less effective Personal Income Tax regimes with respect to reducing equality.

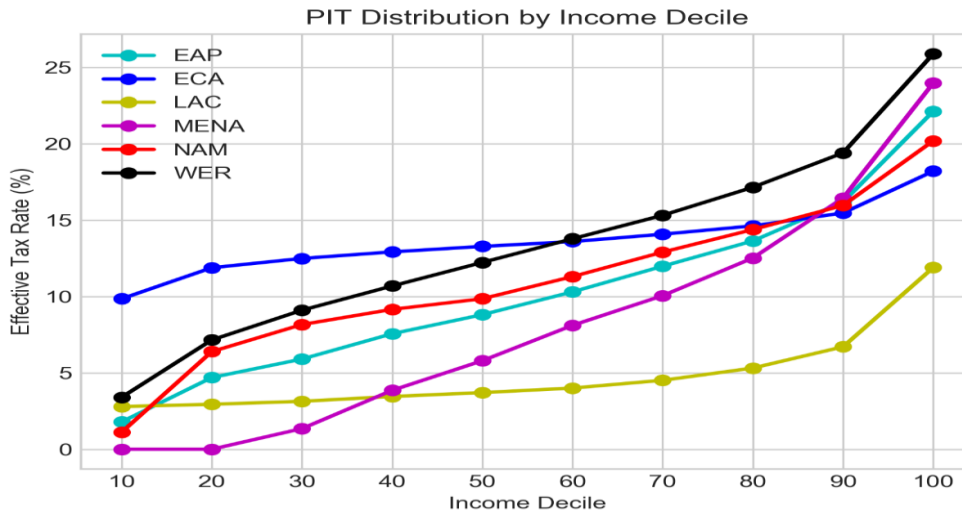
References and further reading:

Inchauste, Gabriela, and Nora Lustig, eds. 2017. *The Distributional Impact of Taxes and Transfers: Evidence from Eight Low- and Middle-Income Countries*. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-1-4648-1091-6.

James, Sebastian, 2019. *Progressivity of the Personal Income Tax around the World*. Working Paper. World Bank Group.

2.3.2. What is the distribution of PIT among income groups?

Distribution of the Personal Income Tax by Income



The different regions show very different profile of PIT paid across the various income groups. A steep effective tax rate profile indicates a high degree of progressivity. Western Europe and MENA (only Israel in this group) and East Asia and the Pacific show high degree of progressivity. Latin America and the Caribbean countries show a relatively flat PIT incidence across the income groups. Eastern Europe and Central Asian countries also have a flat PIT incidence across income groups though the effective rate starts at nearly 10% for the lowest income decile.

2.3.3. What is the incidence of PIT?

Incidence of the Personal Income Tax

The incidence of any tax may be separated into the statutory incidence (the legal requirement as to who should pay the tax) and the economic incidence (those who lose real income, i.e. those who end up paying). One may also consider the absolute incidence of the tax, i.e. assuming the government just retains the revenue it collects, versus the balanced budget incidence, where the incidence is considered after including how the tax is spent.

In most analysis the economic incidence of the personal income tax is treated as being entirely borne by the individual taxpayer. However, this assumption is true only if one considers that labor is supplied inelastically and income taxes imposed on an individual has no effect on their decision to work either start or stop work (extensive margin) or work more hours or less (intensive margin).

Empirical evidence using household survey data by Pencavel (1986) finds that the elasticity of labor supply (percentage change in hours worked when net wage increases by 1%) for primary earners when married in the United States was indeed low and positive (0 for uncompensated elasticity and 0.1 for compensated income elasticity). The income effect

was also low -0.1, i.e. increase of non-labor income has little effect on labor effort. However, for secondary earners Killingsworth and Heckman (1986) find that the elasticity of labor supply was much higher, averaging around 0.5 (ranging between 0 and 1) with a sizeable income effect. A big part of the effect on the response for married women has been in the extensive margin. Later studies have found that as women became more attached to the labor market, their labor supply elasticities have fallen Blau-Kahn (2007). A Congressional Budget Office of the United States study in 2002 find that the labor supply elasticity of married women has dropped over time now being in the range of 0.2 to 0.4 with the elasticities for men and single women in the range of 0.1 to 0.3. These studies indicate that the impact of labor income taxes would be low for first earners and could play a bigger role for second earners in a family especially when the tax unit is the household.

What matters for policy though are broader impact of taxes beyond hours worked. Workers respond to taxes by making occupational choices as well as tax avoidance and tax evasion. All these responses are captured in the taxable income which is reported in tax returns. Hence the elasticity of taxable income is much more relevant for policy. A mid-range of the estimates of the elasticity of taxable income to the net-of-tax rate is around 0.25 see Saez, et. al. The net-of-tax rate implies that the elasticity of taxable income is of a positive sign, for example, if the rate increases from 25% to 26% the net of tax rate decreases from 75% to 74% or a decrease of $1\%/75\% = -1.3\%$ implying that the taxable income decreases by .325%. This elasticity parameter is very useful to estimate the optimal marginal rates of tax especially the optimal top rate of income tax.

Personal income tax is applied on all income which is either consumed or saved and hence savings decisions are affected by the tax and it is the savings that subsequently generates capital income. Further, the personal income tax taxes capital income directly as tax on capital gains or investment income and reduces the return on these incomes. The Personal Income Tax by affecting the returns from capital income reduces saving and resulting in a lower capital to labor ratio. As there is now more labor for each capital, the returns from labor goes down and hence part of the incidence of the tax on capital income is shifted on to labor. The shifting of the incidence of the tax from capital to labor is about one-third to one-half (Krzyzaniak 1967; Feldstein 1974a). Analyzing savings rate in 26 OECD countries Tanzi and Zee (1998) find that the income tax has a significant and negative impact on savings and a higher impact than consumption taxes.

Incidence of personal income tax on capital income is closely linked issue is the incidence of corporate income tax as corporate profits are distributed as dividends and further the sale of shares of corporations result in capital gains. Debt is a source of funding for corporations and hence interest income is affected by how corporations respond to corporate tax.

It has now been widely accepted that part of the burden of corporate income tax is shifted to labor. The extent of this shifting is dependent on the mobility of capital. In a closed economy where capital income is immobile, Harberger concluded that the entire burden of the corporate income tax is borne by owners of capital. However, in an open economy where capital income is completely mobile, the entire burden is shifted to labor. The

Congressional Budget Office of the United States allocates 75% of the corporate income tax to owners of capital and 25% to labor when estimating its distribution tables for tax incidence. In the case of pass through entities, the incidence on labor is taken to be 5% primarily on the assumption that capital in these cases are less mobile across borders.

In the case of Capital Gains, it has been well established that the incidence of the tax on capital gains falls on share prices. However as capital gains are affected by how much of the profits are retained within the corporation and how much is paid out as dividend, any changes in tax on capital gains could be partly neutralized by changing the dividend paid out. Another degree of freedom is that capital gains are generally taxed on realization that taxpayers have control over and hence the timing of the realization can considerably affect the tax treatment. This is especially the case when the tax treatment depends on the holding period, for example when long term capital gains are taxed at a lower rate than short term capital gains. Taxpayers could also affect the tax treatment when they could prepone or postpone realization when there is an imminent tax change to take advantage of lower tax rates. These higher elasticities of response imply a lower tax rate for capital gains.

References and further reading:

Fullerton, Don & Metcalf, Gilbert E., 2002. "Tax incidence," Handbook of Public Economics, in: A. J. Auerbach & M. Feldstein (ed.), Handbook of Public Economics Vol-4.

2.4. PIT administration and compliance

2.4.1. What are administrative and compliance costs associated with PIT?

Personal Income Tax Compliance Costs

Administrative and compliance burdens of PIT include the 'total tax time' and the preparation costs associated with the tax return including book-keeping, tax planning or gathering information. The potentially most-relevant driver for high tax compliance burdens is the complexity of tax law, which depends inter alia on the number of taxes at the national and regional level (e.g. state income taxes and local income taxes, see Slemrod and Blumenthal 1996; Erard 1997), the number and the understandability of tax regulations (Sawyer 2011; Marcuss et al. 2013; Eichfelder and Kegels 2014), tax exemptions, tax deductions and tax credits for certain situations (Sandford et al. 1981, p. 62; Slemrod 1989; Wurts 1995; DeLuca et al. 2005), the frequency of tax law changes (Rametse and Pope 2002; Eichfelder, Kegels, and Schorn 2011), the frequency of tax payments (e.g. monthly payments, Collard and Godwin 1999), the number of tax expenditures (Weinstein 2014) and the alternative minimum tax in the U.S. (Slemrod and Blumenthal 1996; DeLuca et al. 2005).

Table 1 in the appendix shows a selection of studies measuring the compliance burden of individual taxpayers over the years. Where available it reports estimates for taxpayers with employment income (EM) as major income source, capital income (CA) and income from self-employment (SE).

It should be noted that if the tax rate – *ceteris paribus* – decreases, the cost-per-tax revenue ratio increases. Despite considerable differences in cost estimates, Table 1 documents that cost burdens of employees are typically below 1 % of income, while the burden on self-employed taxpayers is significantly higher. Extremely high cost-per-income ratios of up to 83.3 % have been reported for USA in a study by Marcuss et al. (2013). This is mainly driven by households with very low pre-tax incomes (< 5,000 U.S. \$ per year). Estimates on the cost-per tax revenue ratio lie in a range from 0.9 % for Croatia (Blažić 2004a) to 10.8 % for Australia (Pope and Fayle 1990). According to Chattopadhyay/Das-Gupta (2002b), India has a time burden of 27.9 for employment income and 88.1 for income from self-employment and a cost per income of 1.8% and 10.0% respectively. This compared to a country in Europe like Slovenia, Klun (2004) has a time burden of 1.7 and cost per income of 2.5% (both had a similar sample size).

Table 1: Compliance Cost of Households - 1984 - 2014

Study	Country	Cases	Time burden (hrs)	Cost per income	Cost per tax revenue	Comments
Slemrod/Sorum (1984)	USA	600	EM:18.2 SE: 57.2	1.4%	5.0-7.0%	Minnesota sample including state income tax
Tiebel (1986)	Germany	1,933	11.2	--	--	Including wealth tax
Sandford/Godwin/Hardwick (1989)	UK	1,776	EM:3.4-11.7 SE:9.1-20.8	EM:0.8-1.5% SE:1.5-6.8%	3.6%	Including capital gains tax
Vaillancourt (1989)	Canada	1,673	EM:4.8 SE:8.0	--	2.5%	
Pope/Fayle (1990)	Australia	1,098	EM:5.6 CA:17.0 SE:33.8	EM:0.9-2.3% CA:2.6-11.2% SE:3.1-16.1%	7.9-10.8%	
Blumenthal/Slemrod (1992)	USA	708	EM:22.5 SE:59.8	--	--	Minnesota sample including state income tax
Allers (1994)	Netherlands	4,743 (1,319)	3.0 (2.3)	--	1.4% (17%)	Income tax (wealth tax), in addition 1.5hs time of unpaid helpers
Diaz/Delgado (1995)	Spain	2,355	6.8	--	3.3%	
Malmer (1995)	Sweden	2,000	EM: 1.1 SE:6.3	--	1.7%	
Evans et al. (1997)	Australia	1,665	8.5	--	4.0-5.6%	
Delgado Lobo/Salinas-Jimenez/Sanz Sanz (2001)	Spain	2,388 (2,449)	3.6 (2.2)	--	1.8% (1.2%)	Tax year 1998 (1999)
Chattopadhyay/Das-Gupta (2002b)	India	172	EM:27.9 SE:88.1	EM:1.8% SE:10.0%	--	
Guyton et al. (2003)	USA	15,447	EM:13.8 SE:59.5	--	8.3%	Cost per tax revenue based on own calculations
RWI (2003)	Germany	278	15.8	0.9-3.7%	--	
Blažič (2004a)	Croatia	300	1.7	--	0.9%	Self-employed not included
Klun (2004)	Slovenia	222	1.7	0.06-0.7%	2.5%	Self-employed not included
Mathieu/Waddams Price/Antwi (2010)	UK	320	4.5	--	--	
Vaillancourt (2010)	Canada	2,000	EM:7.7 SE:10.7	--	2.2-3.2%	
Marcuss et al. (2013)	USA	7,685	12.5	0.5-2.2% (max: 83.3%)	--	Based on ITBM survey 2010; max. burden of 83.3% for low-income taxpayers (< 5,000 \$ per year)
Blaufus/Eichfelder/Hundsdoerfer (2014)	Germany	894	EM:7.1-8.8 SE:20.6-35.9	EM:0.4-1.5% SE:1.0-4.5%	3.1-4.7%	Quota sampling
Tran-Nam/Evans/Lignier (2014)	Australia	517	EM:8.3	--	EM: 5.5%	

Remarks: EM: Employment income; SE: Self-employment income; CA: Capital income.

Source: Vaillancourt and Eichfelder (2014)

Table 2: Compliance Cost Categories of Households - 1984 - 2014

Study	Country	Cases	Time burden	External costs	Other monetary expenses	Comments
Slemrod/Sorum (1984)	USA	600	84%	13%	3%	Minnesota sample including state income tax
Sandford/Godwin/Hardwick (1989)	UK	1,776	46%	52%	2%	Including Capital gains tax
Pope/Fayle (1990)	Australia	1,098	65%	32%	3%	
Blumenthal/Slemrod (1992)	USA	708	78%	19%	3%	Minnesota sample including state income tax
Diaz/Delgado (1995)	Spain	2,355	63%	32%	4%	
Evans et al. (1997)	Australia	1,665 (903)	72% (66%)	20% (23%)	6% (11%)	Net compliance costs, including (excluding) self-employed, 2% (12%) cost of capital
Delgado Lobo/Salinas-Jimenez/Sanz Sanz (2001)	Spain	2,388 (2,449)	78% (69%)	20% (26%)	2% (5%)	Tax year 1998 (1999)
Chattopadhyay/Das-Gupta (2002b)	India	172	61%	19%	20%	
Guyton et al. (2003)	USA	15,447	77%	21%	2%	Excluding state income taxes
RWI (2003)	Germany	278	64%	34%	2%	Including appeals
Klun (2004)	Slovenia	222	90%	1%	10%	Self-employed not included
Mathieu/Waddams Price/Antwi (2010)	UK	320	64%	33%	3%	

Source: Vaillancourt and Eichfelder (2014)

Table 2 shows the time effort, the external adviser costs and other monetary expenses. It shows unweighted average of the monetary equivalent of the time effort (time costs) that accounts for about 70 % of the aggregate compliance burden. External costs encompass about 25 % of the cost burden. Other monetary expenses are rather unimportant with an average proportion of about 5 %. It is seen that Slovenia, Klun (2004) and USA, Slemrod/Sorum (1984) has one of the highest 'time burdens'. In comparison UK, Sandford/Godwin/Hardwick (1989) and Spain, Diaz/Delgado (1995) have relatively lower 'time burdens' but higher 'external costs'.

Tax compliance costs result from different activities like the collection of receipts, tax accounting, the preparation of the tax return, and tax planning. Corresponding to the existing studies, the fraction of tax planning costs (apart from gathering general information about tax laws) is about 10 % to 20 % of the compliance time effort for individual taxpayers (Slemrod and Blumenthal 1992; Chattopadhyay and Das-Gupta 2002a; DeLuca et al. 2005).

Hence, the major part of the compliance costs of individual taxpayers is due to documentation activities such as record keeping which take nearly 3/4th of the time.

References and further reading:

Tax compliance costs: A review of cost burdens and cost structures. (2014). Vaillancourt, Francois; Eichfelder, Sebastian. in: arqus Discussion Papers in Quantitative Tax Research. RePEc:zbw:arqudp:178.

2.4.2. How high is the PIT compliance gap?

How high is the PIT compliance gap?

One of the indicators of the extent of compliance is the tax gap which is the difference between the taxes owed and what they report and pay in a timely manner. The economics of a tax gap in general and Personal Income Taxes in particular, can be viewed as a problem of public finance, law enforcement, organizational design, labor supply and ethics or a combination of all above. Many of the empirical studies and surveys have been done to tackle the question of PIT compliance gap but they focus mainly in the **United States** federal individual income tax. However, recently systematic studies measuring the tax gap have been conducted in **Australia**, Canada, Denmark and Sweden.

Estimating the magnitude of the taxes non-compliance is difficult because it is by nature hidden from the tax administration. Two popular approaches have been the top-down approach that estimates the tax owed based on the national accounts' estimate of the tax base and compares it to the actual tax collected. The second approach is the bottom-up method which uses estimates of the tax owed uncovered during tax audits. The top-down approach is well suited to consumption taxes such as the VAT due to a relatively 'clean' base which is measured on a regular basis when preparing national accounts. In the case of personal income tax, estimating the tax base from national accounts is much harder because the base includes income from labor as well as income from capital. The different tax incomes of different categories requires estimating the size of these categories of income which is not straightforward from national accounts.

For the **United Kingdom**, HM Revenue & Customs estimates **the understatement of income tax, National Insurance Contributions and Capital Gains Tax (IT, NICs and CGT)** to be £13.5 billion 2016-17 or **4.2% of the true personal income tax liability**. The overall tax gap including VAT was estimated to be £33 billion which was 5.7% of total theoretical tax liabilities and the same level as 2015-16. The report of **Canadian Revenue Agency** released in June 2016, estimated the tax gap due to unreported income due to underground activities was led to a tax loss of 6.5 billion Canadian dollars in 2014 and assessed taxes not collected or the 'payment gap' for the 2014 tax year to be about \$2.2 billion. Combined **the tax gap amounted to 6.4% of the personal income tax revenues in 2014**. The tax gap associated with **unreported offshore investment income earned by Canadian**

individuals ranged between 0.8 to 3 billion Canadian dollars or 0.6% to 2.2% of personal income tax revenues.

In **Australia** 'individuals not in business income tax gap' for 2014–15 was estimated at a **net tax gap of \$8.76 billion or 6.4% of the true tax liability**. The main components of the gap were, improper deduction of work-related expenses, undeclared cash wages and improper deduction of rental property expenses. According to the most recent report released by Sweden's tax agency in 2014, **Sweden's tax gap on employment income was 5% of tax** while the **gap on capital income was 11% of income tax on capital** in 2006. The Danish tax agency, SKAT's report of 2017 estimated the **total tax gap for Denmark at 532 bn DKK, while the tax gap from private individuals stood at 330 bn DKK which was 0.3% of total tax liability**.

The latest estimates for the tax gap for the **United States** is for the years 2008-2010. The personal income tax gap on was **319 billion dollars constituting 12.8% of the total tax due**. This gap was comprised of 26 billion dollars due to non-filing of tax returns, 264 billion dollars from under-reporting and 29 billion dollars from individual non-payment.

References and further Reading:

Andreoni, James and Erard Brian and Fienstein, Jonathan. 1998. "Tax Compliance". Journal of Economic Literature, Vol. XXXVI (June 1998) pp. 818-860.

2.4.3. What are the main PIT tax evasion schemes and how are they tackled?

What are the main Tax Evasion Schemes and how are they tackled?

Tax avoidance are legal ways that taxpayers use to reduce their tax liabilities while tax evasion are illegal means taxpayers adopt to do the same. However, taxpayers may also use aggressive tax avoidance schemes that border on illegality. Tax gaps reports of the various countries indicate the main schemes taxpayers use to avoid and evade taxes. In all these cases, due to the nature of these activities, data on tax evasion is mainly on instances where it has been detected. Some types of tax evasion such as cash sales and cash wages are very difficult to detect and prove. Perception surveys while not being very accurate but indicative of the extent of non-compliance could be helpful. Most tax administrations offer rewards for tips by insiders for specific information on instances of tax evasion.

In nearly all countries that publish tax gap estimates, the non-compliance can be predicted by lack of third-party reporting of information on the transactions involving taxpayers. This explains relatively limited non-compliance on wage and investment income as these are reported by the employer or banks respectively and further tax is withheld from them. In nearly all countries this meant that business income had the most non-compliance because sales could be under-reported, and expenses inflated to reduce taxable profits.

The Kenya Revenue outline some ways that taxpayers use to evade income taxes including,

- Forging books of accounts,
- Using cooked statements,
- Failure to furnish tax returns,
- Failure to pay taxes,
- Failure to keep records and
- Failure to withhold taxes.

In the United States, non-compliance was highest for business income, the biggest item of non-compliance identified was the under-reporting of income from the sale of capital assets followed by under-reporting of income from rents and royalties. In Australia, the main sources of non-compliance have been identified in deduction for work-related expenses, omitted income especially cash wages and deductions for rental property expenses. The HMRC of the United Kingdom identifies, 'ghosts' or individuals whose entire income is unknown to the tax authorities and 'moon-lighters' who pay tax only on those incomes reported as an area of non-compliance.

In Sweden the main areas of non-compliance that have been highlighted have been on ineligible expenses on business travel and dual residence and, under-reporting of sales of private housing. According to perception surveys, nearly 16% of respondents indicated that they knew someone who evaded tax and nearly 27% indicated that they knew someone who worked for unreported cash wages.

As in Sweden, in India and Pakistan, under reporting of income from sale in private housing is an area of non-compliance. It is well known that a significant portion of the sale proceeds are conducted in cash mainly to avoid taxes. In India, there is a perception that the government policy that 'demonetized' nearly 86% of the cash has significantly dented cash sales on the fears that such an exercise could be repeated. Together with the reporting of large cash deposits by banks to tax authorities, demonetization has been blamed for the sharp fall in real-estate sales in India.

Tax evasion using the international route is increasingly the focus of tax authorities. Tax evaders deposit their evaded income in bank accounts in foreign countries, or do not report their foreign income to the tax authorities. The Canadian Revenue Agency estimated that the tax gap associated with unreported offshore investment income earned by Canadian individuals ranged between 0.8 to 3 billion Canadian dollars or 0.6% to 2.2% of personal income tax revenues. The automatic exchange of information by tax agencies to each other has made tackling such non-compliance possible.

3. PIT Special Topics

3.1. PIT as policy instrument

3.1.1. How is the PIT used to incentivize certain behaviors?

Tax incentives under the personal income tax

Most countries offer some kind of tax incentive under the personal income tax in the form of deductions or tax credits. Among the important incentives are

- Home mortgage interest deductions
- Exemption of employer contribution to a persons' health insurance under taxable salary
- Deductions for savings for retirement
- Deductions/Tax Credits for child care expenses
- Deductions from taxable income for charitable contributions

The deduction for charitable contributions is the most provided tax deduction followed by deductions for health insurance and home mortgage deductions and pensions. The policy rationale for providing these tax incentives are to encourage private contributions for public goods through charitable contributions, encourage buying insurance against catastrophic expenditure for health emergencies, nudge a person to save more for retirement, reduce cost for childcare to encourage women to re-enter the workforce after having children, etc. On the positive side, tax incentives provide governments with a policy tool to change behavior of the taxpayers when it is in the public interest, however, they come at a cost in terms of foregone tax revenue.

Deductions under the Personal Income Tax - Worldwide

Type of Tax Deduction	Number of Countries offering (out of 150)	% of Countries offering
Charitable Contributions	45	30%
Health Insurance	27	18%
Home Mortgage Interest	27	18%
Pensions	24	16%
Life Insurance Premium	21	14%
Education Expenses	19	13%
Childcare & Family	17	11%

Source: PWC Worldwide Tax Summaries & Author's Calculations

Beyond the revenue cost, tax Incentives increases the complexity of the tax system and reduces its effectiveness as an instrument to promote equity. A crucial policy question is whether the tax incentive is an effective instrument to promote the behavioral change it hopes to achieve.

The Revenue consequences of some of the tax incentives are significant. In the United States, deductions on expenses for healthcare by taxpayers mainly on health insurance cost the government 275 billion dollars in 2018, approximately 1.3% of the GDP and 18% of all

the income tax expenditures. These tax incentives reflect a 'government contribution' to the private sector led health care system in the U.S. In Europe on the other hand the cost of tax incentives for such expenses are insignificant reflecting a public sector led healthcare system. In India, healthcare related tax expenditures constituted 1.7% of the Income Tax Expenditures in 2017 which was only 0.02% of the GDP.

The effectiveness of these tax incentives is varied. In the case of the mortgage interest deduction, studies in the United states have found that it has limited impact on home ownership and subject to the elasticity of housing supply, though in the case of low-income households there was no impact on home ownership regardless of the elasticity of supply. Similarly, in Denmark it was found that the mortgage interest deduction had no impact on home ownership though it had a modest impact on the intensive margin inducing home owners to buy larger and more expensive houses. In some studies, it was found that by inflating the home prices, it adversely affected homeownership among those with low-incomes.

This adverse impact on low income households highlights the equity aspect of tax incentives. The Personal Income Tax is an important tool to promote equity, but if the uptake of tax incentives is higher among those with higher incomes, the progressivity of the Personal Income Tax is blunted. Further, deductions by their nature grant greater benefit to those in higher marginal tax brackets resulting an inbuilt regressivity. In the United States, according to the Joint Committee of Taxation (2017), households with incomes less than \$100,000 received only 14% of the total tax benefit of the mortgage interest deduction in 2017 (median household income in the U.S was 61,372 dollars in 2017).

Tax incentives for savings for retirement too have not been very effective in promoting overall savings and the evidence mostly point to the fact that tax payers move existing savings to tax-preferred savings instruments Attanasio, Banks and Wakefield (2004).

Tax Incentives for charitable giving cost the United states 63 billion dollars in 2018 which was 4% of the entire cost on income tax incentives and 0.3%of GDP. Pelozo and Steel (2005) find that a 1% reduction in cost of charitable giving increases contributions by 1.11% indicating a modest effect of the tax incentive. Here too the tax incentive is mostly claimed by those in the higher income bracket.

Overall while tax incentives provide a useful policy tool for governments, its limited effectiveness and regressive effect suggests the use of alternative tools especially using the spending side from providing the same benefit to taxpayers especially low-income taxpayers.

3.1.2. How are gender biases in the PIT addressed?

Personal Income Taxation and Gender

The issue of how the tax system interacts with gender and addressing any discriminatory impact it may have on women, either explicit or implicit, is an area of great importance in tax policy. The principle of neutrality suggests that the tax system should not be used to address any non-fiscal biases in the underlying economy or society against women. However, it has been found that even a neutral tax system could affect women more negatively than men under certain situations (i.e. an implicit bias). Governments have tried to address these biases in different ways.

Explicit biases in the tax system against women are not very common now but personal income tax system used to have discriminatory practices such as in South Africa in 1995 where married women were taxed at a higher rate than married men and in the United Kingdom when a married “man’s allowance” was only allowed to be given against the income of the husband until 1993 after when it became transferable between the spouses.

When the tax unit is the household and as is most often the case that women are predominantly the second earner, under marginal tax rates, the wife’s income is taxed at higher rates than that of the husband. This could significantly affect the participation of women especially when they rejoin the workforce after childbirth, i.e. on the extensive margin. Childcare which is generally provided by the mother is another barrier for them joining the workforce as this would imply paying for childcare at market rates.

Empirical evidence supports this claim. Killingsworth and Heckman (1986) finds that the elasticity of labor supply for secondary earners was much higher than primary earners, averaging around 0.5 (ranging between 0 and 1) with a sizeable income effect. Though studies have found that as women became more attached to the labor market, the gap in the labor supply elasticities is reducing Blau-Kahn (2007). A Congressional Budget Office of the United States study in 2002 find that the labor supply elasticity of married women has dropped over time now being in the range of 0.2 to 0.4 with the elasticities for men and single women in the range of 0.1 to 0.3.

Countries have made changes to address the implicit bias in the tax system. Sweden has moved from household taxation to individual taxation which has had a positive effect on female employment, though this was also accompanied by public support to child care services. Nearly 11% of the 150 countries surveyed provide tax deductions to mitigate childcare expenses. Tax credits are also provided. Canada and the United Kingdom consider childcare expenses to be personal and non-deductible expense. However, they do not include employer provided childcare expenditure as part of the taxable income of the employee. A tax credit is provided for expenses incurred in registered establishments. Australia has followed a similar approach but replaced the tax credit with a direct payment. In Sweden and France, childcare costs are non-deductible, but a tax credit is provided. Germany provides a childcare deduction. Japan and Netherlands do not provide any tax benefits for child care through the tax system.

References and further reading:

Stotsky, Janet G., 2016a, "Gender Budgeting: Fiscal Context and Overview of Current Outcomes," International Monetary Fund Working paper 16/149 (Washington, DC: IMF).

Gunnarsson, Asa, Schratzenstaller, Margit, Spangenberg, Ulrike., 2017, "Gender Equality and Taxation in the European Union", Director-General of Internal Policies, European Parliament.

3.1.3. How can the negative Income Tax be used to provide a direct subsidy to individuals/families?

The Negative Income Tax

The negative income tax such as the earned income tax credit (EITC) is an earned income tax credit for low-income workers as a means to increase work-force participation. The negative income tax is a refundable credit against income tax in the amount of a percentage of wage income and results in a refund to the taxpayer even with positive (but low) incomes. The credit phases out at higher income levels, as it is designed to provide a benefit to those who work and have lower incomes. The U.S. has had an EITC for some time, and it is considered relatively effective. There are tax design issues, for example whether the credit should be linked to the number of dependents that the taxpayer has. The link to dependents has led to problems by way of inaccurate claims of the credit. While the EITC may be a good idea for the U.S., it is not necessarily a good idea for other countries. The EITC is part of an income tax system with nearly universal filing of returns, while many other countries take the opposite approach of limiting the number of PIT returns that need to be filed. The need for a negative income tax should also be evaluated in the context of other benefits that a country provides, for example health insurance, early childhood education, and the like. To the extent that benefits are provided outside the tax system, there is less of a need for an EITC. Another, perhaps simpler, approach, would be to exempt a certain amount of wages from payroll tax. This would also have the effect of increasing after-tax take-home pay.

3.1.4. How are minimum taxes designed to tackle tax avoidance?

Minimum Taxes under the Personal Income Tax

Several types of minimum taxes are used for the income tax in different countries. A minimum tax is an alternative way of determining tax liability, compared with the normal income tax rules. The normal rules determine taxable income by adding up receipts and subtracting deductible expenses. Minimum taxes use different calculation methods.

The primary goal of the minimum tax for non-business income is to limit any excessive generosity as a result of tax incentives or as a means of controlling tax avoidance or even tax evasion.

Minimum tax based on indicators of lifestyle has classically been used in France, but variations can be found in other countries. The purpose of this approach is to counter taxpayers who fail to declare their true income. The theory is that even if a taxpayer conceals their income, they may have more difficulty concealing their consumption expenditure. Therefore, a number of indicia of personal consumption are used, such as the value of the taxpayer's house, tuition expenses for children, and foreign trips. Factors assigned to each of these items serve to estimate total income that would be needed to support the consumption expenditures in question. The estimate is imprecise and for this reason this minimum tax applies only in more egregious cases of non-declaration of income.

Another kind of minimum tax is used to specifically estimate income from business. The technique is to use factors specific to the type of business carried on by the taxpayer to estimate income. For example, in the case of a restaurant, factors can be used such as location, table space, utility bills, and factors based on the printed menus. These factors can be used to calculate a minimum amount of receipts such that if the taxpayer fails to declare receipts in excess of the calculated minimum, the minimum will apply. The very simplest version of this approach determines taxable minimum income on the basis of the taxpayer's business or profession, without using additional factors. While this single-factor approach is simple, it tends to result in fairly low amounts of tax. A simpler approach is to apply a percentage to gross receipts and set minimum taxable income on this basis. Another approach calculates minimum taxable income by applying a percentage to the taxpayer's assets.

Finally, very few countries like the United States and Canada have specified a minimum tax on non-business income. Under the Alternative Minimum Tax (AMT) of the United States and Canada, taxpayers calculate their minimum tax by recomputing their taxable income by eliminating certain deductions and exemptions.

3.2. PIT and Savings

3.2.1. What is the impact of the personal income tax on savings?

Taxation and Savings

The personal income tax is imposed on the entire income, part of which is consumed, and the rest saved and hence part of the incidence of the tax falls on savings. Savings could be private savings or public savings with private savings done by households or by corporations while public savings is the budget surpluses of governments. The discussion here is limited to the impact of the personal income tax on household savings. This discussion is also related to the discussion on the taxation of capital income.

In a simple two-period lifecycle model, an individual earns in the first period of their life consuming part of it and saving the rest for retirement. The savings along with the returns

on that savings funds the individual's retirement during the second period of their life. In such a model, a tax on income affects the return on savings and hence the price of future consumption. An increase in the price implies a reduction in savings (substitution effect). However, the tax also results in a reduction in overall lifetime income of the individual thereby reducing consumption in both periods (income effect). The income effect implies that with earnings unchanged in the first period, the reduced consumption in the first period results in an increase in savings. It is unclear whether the substitution effect or the income effect dominates. The elasticity of the return to savings to savings (or the interest rate elasticity of savings) is a critical parameter that determines the overall impact of taxes on savings. While estimates of this number varies, it is generally accepted that this number is low, and that taxation of savings is unlikely to have a large effect on total savings Bernheim (2002).

In the absence of abolishing the income tax in favor of a full-fledged consumption tax, tax incentives on savings attempts to mitigate the tax on savings. This tax incentive is prompted by concerns among some countries for low savings rates which affect economic security as well as the need to fund investment for long-run economic growth. Tax Incentive for savings especially savings for retirement is offered by a quarter of the countries worldwide.

Tax incentives for saving for retirement is the result of a paternalistic view of the government that individuals on their own, do not save enough for their retirement pushing them into poverty during old age. While the Social Security system is a mechanism that 'forces' an individual to save for retirement through a tax, many governments also encourage private savings by providing tax benefits for savings for retirement. These incentives target pension contributions, earnings and distributions some exempting all three while others exempting one or more of them.

However, tax incentives for savings have not been very effective in promoting higher savings. In a study on the changes to the tax treatment of savings by the Tax Reform Act of 1986 in the United States, Attanasio and Deleire (2002) found that households financed their contributions to tax favored Individual Retirement Accounts (IRAs) from existing savings or from savings that would have been done anyway. They find that at most 9% of the IRA contributions represented net additions to national savings. Attanasio, Banks and Wakefield (2004) find a similar result for the UK. In Denmark, Chetty et.al (2011) find that after the 1999 tax reform, individuals reduced pension contribution in response to a decrease in tax advantage over other forms of savings. Again, here there is no evidence that savings was out of consumption which is was one of the main purposes of the tax incentive.

While these tax incentives have limited impact on overall savings, they have significant costs in terms of revenue. Another disadvantage of these tax incentives is its regressivity because the uptake of these tax incentives is greater by those with higher incomes.

However, there is evidence that some non-tax tools especially behavioral tools are more effective in promoting saving. Evidence suggests that automatic enrollment into a savings plan (opt-out) where the default option is that amounts are deducted by the employer from

the salary and deposited into retirement account versus when employees are asked to opt-in to the program, increases savings. Other studies find that when employers match the contribution of the employees to retirement accounts, the latter contributions increase significantly. This points to the greater application of such non-tax tools to promote savings.

References and further reading:

Bernheim, B. Douglas, 2002. "Taxation and saving," Handbook of Public Economics, in: A. J. Auerbach & M. Feldstein (ed.), Handbook of Public Economics, edition 1, volume 3, chapter 18, pages 1173-1249 Elsevier. A version of this paper is available at <https://www.nber.org/papers/w7061.pdf>.

3.2.2. What are the alternatives for taxing pension contributions, earnings and distributions?

Taxation of Pension Contributions, Earnings and Distributions

Nearly a quarter of countries provide tax benefits to savings for retirement. Contributions into the retirement fund could be made by the employer or the employee or both. In all cases, these contributions are ordinarily taxable as they are part of the earnings, however tax incentives could exempt them from taxation. Such incentives would exempt payments made by the employer into the employees' retirement fund from being included in the wages. The employee's contribution made out of their wages may be deductible when calculating their taxable income.

Contributions made into these retirement funds earn income on a regular basis and after retirement, may be withdrawn. Hence, the tax treatment could take the following forms:

- Exempt (E) from income the contributions made into a retirement fund (or tax it – T)
- Exempt (E) the interest earned on these funds (or tax it – T)
- Exempt (E) withdrawals from these funds on retirement (or tax them – T)

This implies that there are different possible options for providing these benefits with the (EEE) being the most generous (India offers such an incentive). Some countries follow the EET method where payments into retirement funds as well as interest accrued are exempted from taxation, but withdrawals are taxed; which is why these funds are also known as tax-deferred accounts. In the United States the traditional Investment Retirement Accounts (IRAs) benefit from the EET treatment while the Roth IRAs benefit from the TEE treatment. Contributions to the Roth IRA's are made out of after-tax income but they benefit from the tax exemption of the incomes accruing to the fund.

The different tax treatments have different impacts depending on the marginal tax rates because a person in retirement is likely to have lower income than when they were working. Under the EET system, the withdrawals during retirement usually give rise to tax

liability only for those with higher incomes and due to the exemption threshold may not be taxed at all for low income retirees thereby providing an additional benefit to the retiree. In the interest of equity, some countries tax pensions received from public funds as well.

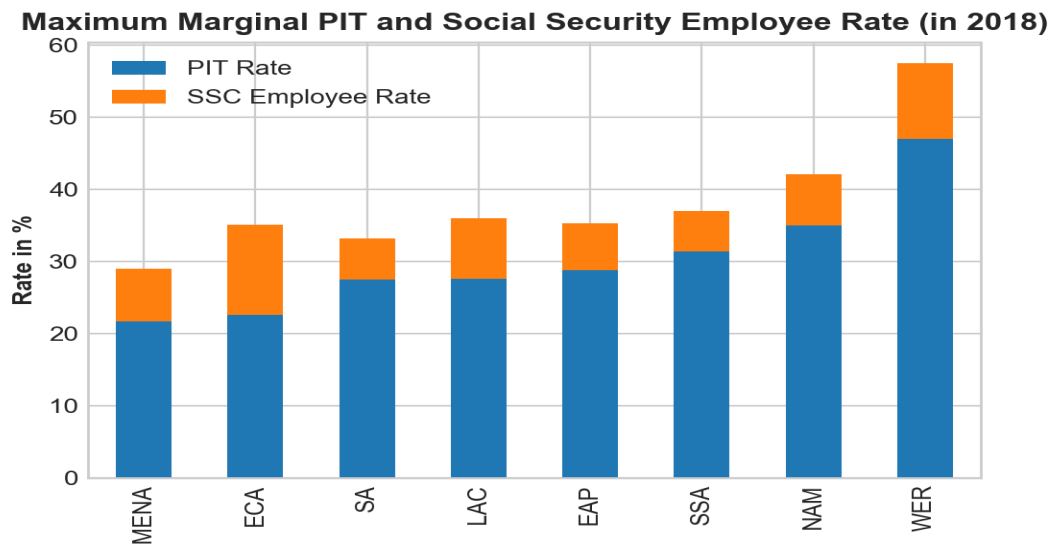
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Institute for Fiscal Studies and Mirrlees, James, (2011), Tax By Design: The Mirrlees Review (pages 297-303), Oxford University Press.

3.2.3. How does the payroll tax influence the design of the PIT and vice-versa?

Interaction between the PIT and social security/payroll tax system

The design of the PIT needs to take into consideration the social security/payroll system as wages are part of the base of both the taxes. The PIT and social contributions are typically imposed separately, and often social contributions involve no exemption. Sometimes social contributions are deductible for PIT purposes. Pensions paid out of public funds are often taxable.



The overall tax wedge on wages varies across the income distribution. In terms of the tax wedge, one conceptual issue is that to the extent that social contributions give rise to a right to receive pension benefits, they are not a tax. Whether this is the case in a particular country depends on the rules for determining retirement benefits. However, the social security taxes even when just including the portion that the employee pays can be quite considerable. While the maximum marginal rate in the EAC region is low, when one includes the employee portion of the social security contribution the total tax rate is equal to that in the East Asia and the Latin America and Caribbean regions. Including the employer portion

greatly increases the overall tax wedge. Hence a policy to rationalize the PIT rates should take into consideration the overall tax wedge on wages as it is this that drives behavioral responses as well as avoidance and evasion responses.

3.3. Simplified PIT

3.3.1. What are the considerations for and against adopting a flat tax?

Flat Tax

The flat tax as is commonly known is an income tax with a single positive tax rate on employment income. Despite the goal of having a single rate, the flat tax in most cases includes a personal allowance or a zero-rate bracket to reduce the burden on the poor. In that sense a flat tax is not truly flat (see tax rate structure).

The flat tax has mainly been used in Eastern European countries with varying degrees of success. The introduction of the flat tax is generally part of a wider package of reforms and driven by political economy considerations with simplicity and lowering compliance costs of taxpayers are the prime drivers. As a result, typically the introduction of flat tax is accompanied by,

- reform of social security tax/payroll taxes
- tax administration reform
- integration of the PIT and CIT system
- removal of tax incentives
- adjustment of the VAT Rates

There is no clear conclusion from the optimal tax literature to either support or oppose a flat tax due to the number of factors that come into play. The flat tax reduces the progressivity of the income tax and gives up potential revenue from those with high incomes. On the other hand, higher marginal tax rates on those with higher incomes could discourage labor supply of the high skilled. Studies of the Russian flat tax reform however did not show any increase in labor supply.

Egalitarian social welfare functions would push for a flat tax. Based on studies of the Russian and Slovak flat tax reform, the impact on equity has been ambiguous because of the multiple changes that changed the entire tax schedule resulting in different impacts on different parts of the income distribution. However, the burden on those with lower incomes was higher post introduction of the flat tax in some countries.

A simpler tax system such as a flat tax with few tax exemptions is easier to administer and reduces opportunities for tax evasion and should push tax collections upwards.

Overall flat tax reforms have had a negative impact on PIT collection except in the case of Russia where compliance was shown to have increased. Subsequently countries such as Latvia reintroduced the progressive income tax in 2017 twenty years after they went for the flat tax.

References and further reading:

Ricardo Varsano & Kevin Kim & Michael Keen, 2006, "The "Flat Tax(es)": Principles and Evidence," IMF Working Papers 06/218, International Monetary Fund.

3.3.2. How is a simplified PIT for small businesses structured?

Special Regimes for Small Business under the PIT

Self-employed individuals are usually taxed differently from employees. Employees may be restricted in terms of the deductions they can take, but the same restrictions usually do not apply to self-employed persons. Income from self-employment is often not subject to withholding. As a consequence, compliance can be much more of a challenge.

Simplified method of accounting

Larger companies are typically required to report their income tax liability using accrual accounting. Such companies are often required to use accrual accounting for financial accounting purposes, and the tax law simply requires the same. For those businesses that are not required to use accrual accounting for financial accounting purposes, the income tax law usually allows the use of cash accounting. This is less accurate than accrual but is simpler and involves lower compliance costs for the taxpayers concerned. For small businesses, some countries go even further and exempt such businesses from having to keep track of inventories or depreciation, allowing the taxpayer to write off the cost of inventory and equipment purchases.

Presumptive Tax regime

A Presumptive tax a regime whereby taxpayers can compute tax liability with respect to revenue, assets, number of employees, or other factors. Presumptive taxation is an even further simplified approach under which the taxpayer does not have to keep accounts at all, or perhaps just needs to keep account of gross sales. Presumptive taxation is not suitable for taxpayers that are registered for VAT; therefore, it tends to be limited to smaller businesses (below the VAT threshold). In principle, presumptive taxation can be fairly sophisticated, and tailored to specific industries, but few countries manage to adopt a sophisticated approach because it takes a lot of work to design. Instead, presumptive taxation tends to be based on global factors such as gross receipts or assets.

3.3.3. How are incomes accounted under the PIT?

Accounting for the Personal Income Tax

As income tax is collected for taxable periods, rules are needed to assign income to tax periods. Financial Accounting does this task and hence tax laws in nearly all cases base **accrual method** on it and modifies it to align the **cash method** purposes. However special rules are needed when taxpayers especially individual taxpayers do not maintain accounts. Ordinarily salary and wage earners account for their income and deductions on a cash basis while larger business taxpayers use accrual accounting. Small businesses are generally allowed to account for their income on a cash basis. Under a **cash method** of accounting income is included in the year it is received or 'derived' while under the **accrual method** it is included when the right to receive the income arises. Similarly, a deduction is taken when the expense is 'incurred' under the cash method of accounting and in case of the accrual method when it becomes 'payable'.

3.4. Tools for PIT Policy Analysis

3.4.1. How do Microsimulation Models help with tax policy analysis?

Microsimulation Models for Personal Income Tax

Microsimulation models are tools that allow for the simulation of policy effects on a sample of agents (individuals, households, firms etc.) at a micro level. Microsimulation models for tax policy are primarily used for three purposes-

- Revenue Forecasts
- Distributional estimates of policies on taxes and taxpayers
- Macroeconomic analysis of how tax policy affects key macroeconomic variables
- Tax gap analysis

A microsimulation model differs from standard economic models because it usually takes into account heterogeneity among each agent in the sample. Using powerful computing techniques and large micro-level data sets which are primarily based on administrative data (such as tax returns), the impact of policy changes is studied at the level of each individual agent. These impacts can then be aggregated to the level of sectors, sub-sectors, commodities, population deciles and so on, thus providing a rich set of scenarios for the policy-maker.

The advantage of microsimulation models over standard economics models is two-fold. First, as noted above, microsimulation models fully take the individual level heterogeneity into account as they are observed in micro data sets. Standard economics models on the other hand, usually employ a 'representative agent' framework where a representative individual or firm is said to embody all the features and characteristics of the average agent. Such an assumption prevents any detailed analysis at the level of individual agents and can

also hide certain individual level behaviour which may be important for the policy under consideration. Secondly, microsimulation models allow an estimation of the cost/benefit of a reform down to the individual level which cannot usually be done by standard economics models. The cost/benefit as well as winners/losers of a reform can be calculated at any level of aggregation required by the policy-maker and this allows for a rich perspective and informed decision making.

A microsimulation model usually comprises of three elements-

- A micro data set, containing economic and/or socio-demographic characteristics of a sample or universe of agents.
- The rules of the policies to be simulated. For example, in the case of a simple Personal Income Tax model, the rules would comprise of the tax logic incorporated in the Income Tax Returns.
- A theoretical model of the behavioral response of agents. This aspect is missing in the simpler microsimulation models but can be added when more precise and sophisticated analysis becomes essential for policy-makers. Modelling the impact of tax policy on the labour-supply decision of an individual is an example of such a theoretical model. The choice of model to be incorporated depends on the questions which are required to be answered by the microsimulation model.

Microsimulation models can be categorized into two types- Arithmetical Models and Behavioral Models. Arithmetical Models are those in which behavioral aspects of agents are ignored. In arithmetical models, the impact of policy changes is studied 'ceteris paribus' i.e. by keeping all other factors constant. This typically involves changing the policy parameters to calculate resulting impact on incomes or tax payments of individual agents. The same rules as the existing policy are used in calculating impacts. While behavioral features such as change in compliance or demographic characteristics are typically ignored, arithmetical models are useful because of two reasons- i) The ability to handle large volumes of data and calculate impacts instantly and ii) Calculating the impact of a policy 'package' or several reforms taking place simultaneously. Implementing arithmetical models alone can involve writing several hundreds of lines of code.

Behavioral models include a detailed representation of the behavioral response of agents. The type of behavior taken into account differs across models, even though consumption and labour supply are the most frequent focus of interest. For instance, given the pre-tax prices and wage rates and given the form of the budget constraint, behavioural microsimulation models usually compute the optimal consumption demand and labour supply of each agent. Using such a framework would then allow us to accurately study how changes in tax rates affect for instance the consumption decision of each individual or investment decisions of each firm. These factors may prove to be crucial when simulating the impact of policy changes in the GST or the corporate income tax. While they allow for greater richness, behavioural models are significantly more complex than arithmetical models.

Some of the major microsimulation models being used in advanced countries are:

- EUROMOD- It is a tax-benefit microsimulation model for EU countries. It is used to calculate the effects of taxes and benefits on household incomes and work incentives for the population of each country and for EU as a whole. It is also used to evaluate the effects of tax-benefit policy reforms and other changes on poverty, inequality, incentives and government budgets.
- SOUTHMOD- It is also a tax-benefit microsimulation model built on the EUROMOD platform by the United Nations University (UNU-WIDER) and the University of Essex for developing countries. The model has been built for African countries such as Ghana, Zambia, Mozambique and South Africa among others.
- OTA Microsimulation Models- It comprises of 4 models used by the Office of Tax Analysis, Department of Treasury, USA- i) Individual Income Tax Model; ii) Individual Income Tax Receipts Model; iii) Tax Distributional Model; iv) Corporate Income Tax Model.
- Tax Calculator Model used by Congressional Budget Office, USA comprising mainly of an income and payroll tax calculator to simulate the impact of past and future laws.

As noted previously, microsimulation models rely on micro-level data to simulate policy impacts. Consequently, such models are data intensive and require unit-level data as a key input. Data sources include administrative data such as tax returns (Income Tax Returns, GST Returns etc.) as well as consumption, income and other surveys (such as NSSO consumption surveys, Annual Survey of Industries etc.). Since the information captured in surveys and administrative data is different for each country, microsimulation models are highly customized for a country based on the data sets available. The simulations which are run are ultimately limited by the extent to which the data is representative of the whole population.

References and further reading:

F.Bourguignon and A.Spadaro, "Microsimulation as a Tool for Evaluating Redistribution Policies", *Journal of Economic Inequality*. Apr 2006, Vol. 4, Issue 1, pp. 77-106.

3.4.2. How do Labor Tax Wedge Studies help with PIT policy analysis?

Labor Tax Wedge

The labor tax wedge is the ratio between the total labor taxes to the 'total labor costs' for an average worker as a percentage of the total labor costs. By total labor costs we mean the payment that is made by the employer to the average worker. The total labor costs include wages and any tax payments made by the employer on behalf of the employee such as payroll taxes and social insurance payments. The net take-home-pay of the employee is equal to the wages less income taxes and any other payroll and social insurance taxes paid

by the employee increased by any cash transfers received from the government. The total labor taxes are the difference between the total labor costs and the net take-home-pay.

$$\text{Tax Wedge} = \frac{\text{Total Labor Costs} - \text{Net Take Home Pay}}{\text{Total Labor Costs}}$$

The importance of studying the labor tax wedges is to have a better understanding of the overall burden on income taxes. Usually the marginal tax rates serve as an important marker for the tax burden of a country however this sometimes clouds significant amount of payroll taxes paid both by the employer and the employee. On the other hand, the tax burden maybe affected by the family composition especially personal exemptions given to dependents or even cash transfers.

Labor tax wedges are typically estimated for the average worker or the median worker under different scenarios which may affect the labor tax burden or transfer payment such as number of children, whether the worker is married or even the age of the worker. Labor tax wedges may be also estimated for different wage levels to capture the progressive tax rates and cash transfers. These wedges may be estimated for different sectors of the economy such as a typical industrial worker or even an agricultural worker if the tax treatment is significantly different. The OECD regularly measures the labor tax wedges under its 'Taxing Wages' series and have estimated the labor tax wedges for OECD countries, Latin America and Caribbean countries.

References and further reading:

OECD (2019), Taxing Wages 2019, OECD Publishing, Paris.
https://doi.org/10.1787/tax_wages-2019-en

OECD/CIAT/IDB (2016), Taxing Wages in Latin America and the Caribbean, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264262607-en>

3.5. COVID-19 and Lessons for PIT Design

3.5.1. What are the lessons learned from COVID -19 crisis with respect to PIT Policy

3.5.2. Role of Negative Income Taxes in a Post-COVID world

3.5.3. Potential new sources of Revenue in a Post-COVID world

Definitions

1. Haig-Simons Income

“Income is the money-value of the net accretion to one’s economic position between two points of time.”

Robert Murray Haig, “The Concept of Income – Economic and Legal Aspects,” in R.M. Haig, *The Federal Income Tax*, (New York: Columbia University Press, 1921) 1-28 at p. 27.

“Personal income may be defined as the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and the end of the period in question.”

Henry C. Simons, *Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy*, (Chicago: University of Chicago Press, 1938) at p. 50.

2. Treatments of purchased Annuities

Individuals may purchase an annuity as part of retirement planning. Under the income tax, the annuity income is taxed with a recovery of the cost over time. If insurance policies receive favored treatment, this treatment may also be extended to annuities.

3. Automatic exchange of information (AEOI) between tax authorities

What is AEOI?

Automatic Exchange of Information (AEOI) is the exchange of information between countries or international tax authorities, of information on Financial Accounts of individuals without having to request for it.

The exchange is achieved by requiring local country financial institutions to provide information on in-scope account holders, to their local country tax authority. The local country tax authority in turn exchanges information on such account holders with the tax authorities in each relevant foreign jurisdiction provided that that foreign jurisdiction has signed up to the applicable AEOI regime.

Several AEOI regimes have evolved over time including the Foreign Account Tax Compliance Act (FATCA) of the United States, the OECD’s global the Common Reporting Standard (CRS) and the EU’s DAC II.

FATCA was enacted in 2010 by U.S. Congress to target non-compliance by U.S. taxpayers using foreign accounts. FATCA requires foreign financial institutions (FFIs) to report to the IRS information about financial accounts held by U.S. taxpayers, or by foreign entities in

which U.S. taxpayers hold a substantial ownership interest. FFIs are encouraged to either directly register with the IRS to comply with the FATCA regulations or comply with the FATCA Intergovernmental Agreements (IGA) treated as in effect in their jurisdictions.

CRS on the other hand is a more broad, global version of FATCA with alterations to accommodate various countries' needs which requires Financial Institutions to report information on accounts held by tax residents of reportable jurisdictions and certain entities controlled by such tax residents. It was developed in 2014 by the Organization for Economic Co-operation and Development (OECD) after decades of discussion and dialogue. To date, 95 countries have either signed up to the CRS or have publicly announced their intention to implement the CRS. Therefore, the scope of reporting under the CRS is much more significant than under FATCA.

Why is it useful?

The new global standard on AEOI reduces the possibility for tax evasion. It enables the discovery of formerly undetected tax evasion and enables governments to recover tax revenue lost to non-compliant taxpayers. This further strengthens international efforts to increase transparency, cooperation, and accountability among financial institutions and tax administrations. Additionally, AEOI generates secondary benefits by increasing voluntary disclosures of concealed assets and by encouraging taxpayers to report all relevant information.

Also, as new information is brought to light by AEOI, the importance of the current standard of Exchange of Information on Request (EOIR) will also increase. The two standards of AEOI and EOIR are therefore complementary, working together to enhance the effectiveness of tax administrations' efforts in addressing international tax evasion

How effective is it?

The AEOI although is a huge step towards information gathering that governments can have at their disposal to fight offshore tax evasion; its effectiveness still remains a question of scrutiny. Many of the countries do not have the resources especially the staff to compile the information to be given as well as process the information received. Often, an entire country may have just one or two employees devoted to international tax issues.

4. Consideration for Disposal of Capital Asset

The calculation of individual capital gains and losses requires rules for determining the consideration for the disposal of a taxable asset and the cost base of the asset. The consideration for the disposal of a taxable asset should include the total amount received or receivable for the disposal, including the fair market value of any consideration in kind. A fair market value rule should apply to a disposal of a taxable asset in a non-arm's length

transaction so that the seller is treated as having received, and the purchaser is treated as having given, consideration equal to the fair market value of the asset at the time of the disposal.

5. Cost Basis for calculating Capital Gains

The cost base of a taxable asset should include: (i) the consideration paid or payable for the acquisition of the asset (which should align with the consideration received or receivable by the person disposing of the asset); (ii) the incidental costs of acquisition and disposal of the asset; (iii) the cost of any capital improvements to the asset; and (iv) the non-deductible costs of ownership of the asset (such as mortgage interest and land tax). The cost base of a taxable asset should not include any expenditure that is deductible under the normal income tax.

6. COVID-19 and the lessons learned for PIT Policy

7. COVID-19 and the role of PIT for transfers

8. Potential New Sources of Revenue in a Post-COVID world

9. Deductions

Deductions are reductions from the gross income that is allowed under the tax law to arrive at the taxable income. Deductions may be provided for loss or damage to property, travel expenses to work, expenses on medical insurance, child care expenses, or charitable contributions, etc.

10. Tax Treatment of Dividends

Dividends are often subject to special treatment as part of a concern to eliminate the double tax on corporate income. Under the so-called classical system, a corporate tax is imposed, and dividends are also subject to tax. Typically, dividends are taxed together with other income, with the result that they are taxed at the marginal rate applicable to the shareholder to whom they are distributed. Under dividend-relief systems of corporate tax integration, shareholders might be given a tax credit for corporate tax paid, with the dividends being taxable at their marginal rates. Another approach to dividend relief is to exclude a portion of the dividends from tax (often 50%) with the balance being aggregated with other income of the shareholder.

An alternative approach is to provide a rough form of integration by subjecting dividends to a low-rate final withholding tax or exempting dividends. This approach is favored by a number of developing countries because it is simple and limits the situations where taxpayers must file returns. Because the withholding tax is final, the receipt of dividends will not be a reason that the taxpayer will have to file a return.

In countries where dividends are aggregated with other income, dividends may be subject to withholding, but the withholding would be provisional. Countries that provide dividend relief via a low-rate withholding tax will have a regime of final withholding.

11. Dual Income Tax

The Dual Income Tax is a system of taxing labor income at progressive rates and capital income at a lower flat rate. This system was first introduced in four Nordic countries of Denmark, Finland, Norway and Sweden. The justification of such lower taxation rests on the idea that,

- Capital is more mobile than labor income and has a higher elasticity with respect to tax rates. Hence for efficiency purposes the tax rate should be lower on capital income as higher taxes on them lowers the capital income base which is not compensated by higher tax rates.
- In the case of Capital Gains that is taxed on realization in high inflation environments inflation may be a significant part of the sale price. Hence the tax would also include a tax on inflation. increase the size of the capital base when

12. Equity

Equity or fairness refers to both horizontal and vertical equity. For the income tax, horizontal equity suggests that two people with the same income should pay the same amount of tax, but what is meant by "income" in this context is subject to dispute. Just to

give one example, suppose that two taxpayers each earn the same amount, but one gives a substantial part of earnings to charity and the other does not. Do the two have the same income and therefore should they pay the same amount of tax, or should income for this purpose be measured by the net amount the two taxpayers have left to spend on themselves after the amounts contributed to charity? There is no correct answer to this question.

Vertical equity refers to the fairness involved in wealthier people paying a higher share of their income in tax than those with lower incomes. Measuring vertical equity also depends on an income concept: for example, for simple purposes of vertical equity, should we consider realized capital gains or accrued capital gains? This can make a big difference, given the importance of capital gains for the incomes of wealthier individuals, and the fact that much of their gain goes unrealized for some time. Vertical equity is also controversial because it is a matter of judgment how progressive the income tax should be. For example, should progressivity of the income tax be evaluated in the context of progressivity of the tax system as a whole? Or the tax and expenditure system as a whole? In either case, there are unknowns and technical problems in terms of determining the incidence of various tax and expenditure programs and their consequent allocation to income classes.

13. Equity-Efficiency Tradeoff

An important aspect of tax policy is the tradeoff between equity concerns and efficiency. A personal income tax together with the transfer system helps with redistribution from the more fortunate to the less fortunate. An economic argument for redistribution may be made that as the marginal utility decreases with income thereby redistribution from the rich to the poor would raise overall marginal utility of society. Redistribution may also be justified as earnings are not only due to hard work which a person can control but also because of family background or luck over which they have no control over.

On the other hand, the tax and transfer system results in inefficiency because it reduces the incentives to work both for the rich as well as those who are benefited by the transfer and this reduces overall welfare. Arthur Okun illustrates this as transferring money in a leaky bucket from the rich to the poor with not all the money reaching the poor. These losses are due to administrative costs and incentive effects.

There is also an equity-efficiency tradeoff in the design of the tax system. One such case is applying a lower tax on capital income as compared to labor income on efficiency grounds as the elasticity of capital income to the tax rate is lower than that of labor income. However, if capital income largely accrues to the rich then a lower tax would be inequitable.

The government balances the equity and efficiency criteria by combining the individual utilities of its constituents using a social welfare function and maximizing overall welfare. The equity preference of the government is reflected by the social welfare function. A

Utilitarian social welfare function adds up the individual utilities of the constituents while a Rawlsian social welfare function only has the utility of the poorest constituent.

14. Exchange of Information on Income of individuals between Countries

A number of countries have entered into international agreements under which information about non-residents are shared automatically. This particularly applies to investment income. This information can be used to improve compliance especially on the part of wealthier taxpayers with investment income abroad.

15. Taxation of Fringe Benefits

Fringe benefits are non-cash compensation provided by an employer to employees. Examples include employer-provided company cars, discounts on purchases of goods or services, life and health insurance, and employer-provided housing. Many civil law countries provide a list of fringe benefits in the labor code. At a theoretical level, strong arguments can be made that fringe benefits should be taxed the same as cash compensation on equity and efficiency grounds and to prevent the erosion of the personal income tax base. Full taxation of fringe benefits is necessary to achieve both horizontal equity and vertical equity. Individuals who receive the same total compensation should bear the same tax liability without regard to the relative composition of cash and fringe benefits. Because the relative value of fringe benefits tends to rise with income level, full taxation of fringe benefits is also necessary to maintain vertical equity. Finally, failure to tax fringe benefits may result in efficiency costs, either at the employer level because some employers (such as airlines, hotels, and retail stores) may be better situated to provide certain types of fringe benefits, and at the employee level, as failure to tax may result in employees receiving benefits because of tax advantages even though on a pre-tax basis they may have preferred receiving compensation solely in cash.

While the theoretical case for taxing fringe benefits is quite strong, countries face substantial administrative challenges both in determining the value of the benefits and in allocating benefits among individual employees. In those countries where there is a history of providing fringe benefits without taxing the employee, political challenges may make changing the tax rules difficult.

There are three primary options for taxing fringe benefits. The first option taxes the employee directly on the value of benefits received. This generally requires tax authorities to identify the types of fringe benefits that will be taxable and to provide for each type of benefit a mechanism to determine the value of the benefits provided.

The second option focuses on the employer and effectively imposes a surrogate tax by denying the employer a deduction for the cost of providing the benefits. This approach may be preferred where there are substantial administrative advantages of assessing and collecting the tax at the employer rather than the employee level. It has the disadvantage of effectively taxing the benefits at the employer's tax rate rather than the tax rate of the employee. For those employers who have relatively low tax rates or no tax liability (either because they are tax-exempt entities or have substantial net operating losses) the cost of the disallowing the deduction is small or zero.

To address this problem, the third alternative is to impose a fringe benefit tax on the aggregate value of employer-provided benefits. The rate could be set at the highest marginal personal income tax rate or some estimate of the average tax rates of the employee group.

References and further reading:

Ault, Hugh J., and Brian J. Arnold. 2010. *Comparative Income Taxation: A Structural Analysis*. Pages 201-17, 3rd ed. Alphen aan den Rijn: Kluwer Law International; and

Burns, Lee, and Richard Krever. 1998. "Individual Income Tax." In Vol. 2 of *Tax Law Design and Drafting*, pages 515-24, edited by Victor Thuronyi. Washington, D.C.: IMF (International Monetary Fund).

16. Gross Income

Gross income is the income that is subject to tax but not necessarily the final amount that is eventually taxed. The gross income is generally defined very broadly using an inclusive definition with the aim of covering all kinds of amounts that a person receives that could be classified as incomes. It often includes incomes under the different categories such as income from employment, investment income, business income, etc. and typically includes a residual category. Certain incomes may be exempt and not be included in the gross income at all. To arrive at the income that is finally subject to tax from the gross income, the "taxable income", deductions may be provided which may be specific to each category of income.

17. Indexing the Personal Income Tax for Inflation

As the rate brackets are expressed in terms of national currency, their value erodes due to inflation. The importance of this effect of course depends on the rate of inflation, but even at low inflation rates there will be some impact. Given the progressivity of the rate schedule, the effect of inflation is to subject a given amount of real income to tax at higher

rates, in other words a tax increase. Some countries ignore this effect as a matter of law and either allow the tax increase to go forward by taking no action or give back the revenue by making adjustments to the rate brackets or other changes to the PIT on an ad hoc basis. Other countries have adopted automatic adjustment of the tax brackets for inflation. As part of achieving neutrality of the tax system in respect of inflation, in principle every amount expressed in the tax laws in national currency should be similarly adjusted for inflation on an automatic basis, but this is not always done.

18. Integration of the Dividend Taxation with CIT

Some countries exempt dividends as a form of integration. The idea is that if corporate profits have already been subject to tax, then it is not necessary to again tax dividends. This approach, however, provides favored treatment because there is no guarantee that corporate tax has been paid, and a number of reasons why corporate income may not have borne tax, whether legally or because of tax evasion.

19. Tax Treatment of Interest Income

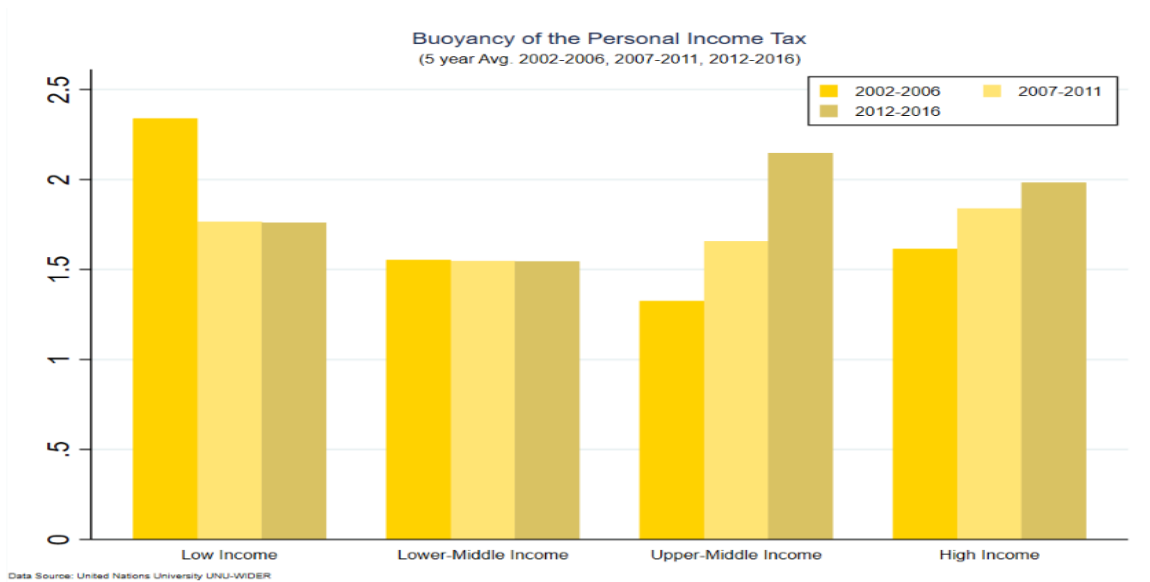
As a general rule, interest income is aggregated with other income and subject to a progressive rate schedule. However, some countries tax interest income at a flat rate using a final withholding tax. In this case, the interest income is not aggregated with other income.

In many countries some types of financial instruments receive special treatment. Interest on government bonds is exempt in a number of countries. Another exemption that is commonly found is interest on small savings accounts. Some countries exempt interest income, in part as a savings incentive, and in part because a large fraction of the income might be due to inflation. (The strength of the latter reason depends on the rate of inflation).

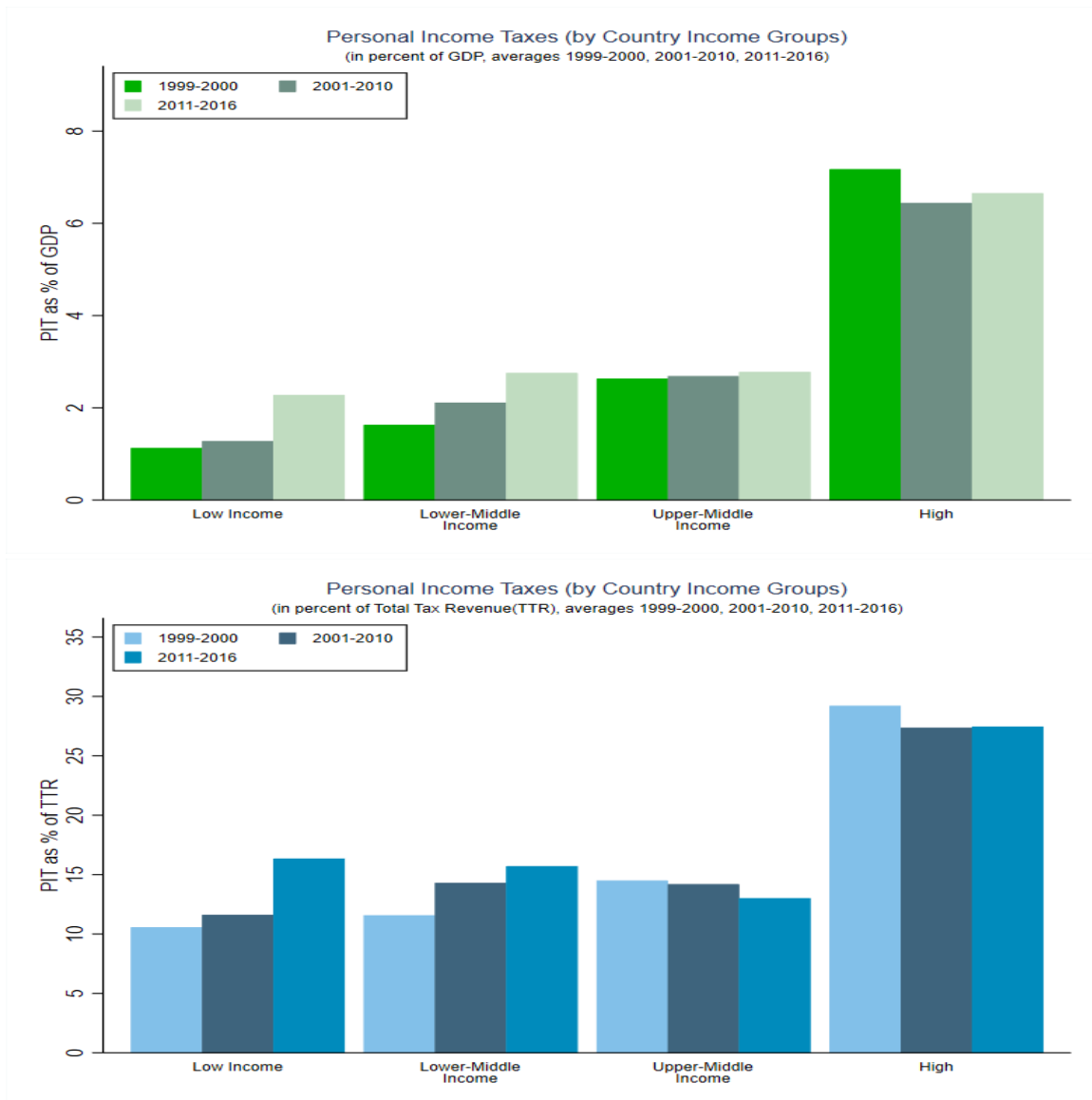
The PIT generally is imposed on a cash basis. Interest income is accounted for under this general rule. However, a few countries have enacted special rules for financial instruments involving original issue discount. In the case of such instruments, taxing them on a cash basis would allow substantial tax deferral, and these special rules tax the interest income to the holder of the instrument as it accrues.

As in the case of Dividends, interest income may require withholding in certain cases. This is typically provisional withholding, meaning that a credit for the amount of tax withheld is allowed against tax liability. Other countries subject interest income to final withholding, which goes along with excluding the income from further taxation.

20. How Buoyant are Revenues from the Personal Income Tax?



21. PIT Revenue



22. Presumptive Taxation

Presumptive taxation is a simplified approach of taxation under which the taxpayer does not have to keep accounts at all, or perhaps just needs to keep account of gross sales. Presumptive taxation is not suitable for taxpayers that are registered for VAT; therefore, it tends to be limited to smaller businesses (below the VAT threshold). In principle, presumptive taxation can be fairly sophisticated, and tailored to specific industries, but few countries manage to adopt a sophisticated approach because it takes a lot of work to design. Instead, presumptive taxation tends to be based on global factors such as gross receipts or assets.

23. Principles of Taxation

In the design of tax policy certain principles act as useful guiding tools. Adam Smith in the “Wealth of Nations” argued that tax systems should follow four principles of equality, certainty, convenience and economy. These principles have also been categorized as the principles of equity, efficiency and administrative feasibility. In the design of a tax system these principles may not be satisfied at the same time and certain tradeoffs may need to be made. An important tradeoff is the equity-efficiency tradeoff.

Equity: An equitable tax system is one that is fair and collects tax based on the **ability to pay**. By **fairness** we mean that a **ability to pay** at those who are in the same economic position similarly (**horizontal equity**). By ability to pay we mean that the tax system imposes taxes on those with more means (**vertical equity**). An example of a violation of the principle of fairness is when investment income is taxed at a lower rate than labor income.

Neutrality: A neutral tax system does not distinguish between the form of the taxpayer or the nature of the income (or tax base). It minimizes any opportunities for tax avoidance and has implications for equity, efficiency and complexity of the tax system. An example of a non-neutral tax system is when a corporation is taxed at a lower rate than an individual. This would induce businesses to incorporate to take advantage of the lower tax rates. Similarly, lower tax rates for different kinds of incomes such as in the schedular tax system violates the principle of neutrality.

Efficiency: The principle of efficiency is that a tax system should reduce distortions as much as possible. This in economic terms means that a tax system should reduce **dead weight loss** or **excess burden** of a tax. All taxes except the lumpsum tax results in some distortion and a tax system should endeavor to keep it to a minimum. Very high tax rates are inefficient because many economic opportunities that are possible in a system with little or no taxes could be unviable under very high taxes.

The efficiency of the personal income tax more specifically refers to the effects of the personal income tax on incentives to work, save, and invest, and in general on the effects of income tax rules on the functioning of the economy. In the case of the taxation of an individual, any amount of taxation of labor income would in general reduce their incentive in taking up of employment in the first place (extensive margin) or, reduce the amount of work to put in (intensive margin). This can be quite crucial for example in influencing a second earner in a family to take up employment. Taxation also affects how much people decide to save or consume over the lifetime.

Simplicity and Administrative Feasibility: Tax system should be as simple as possible to make it easy for those paying it. This means that the cost of compliance should be kept to the minimum. Further a simple tax system also reduces costs for those administering it. A

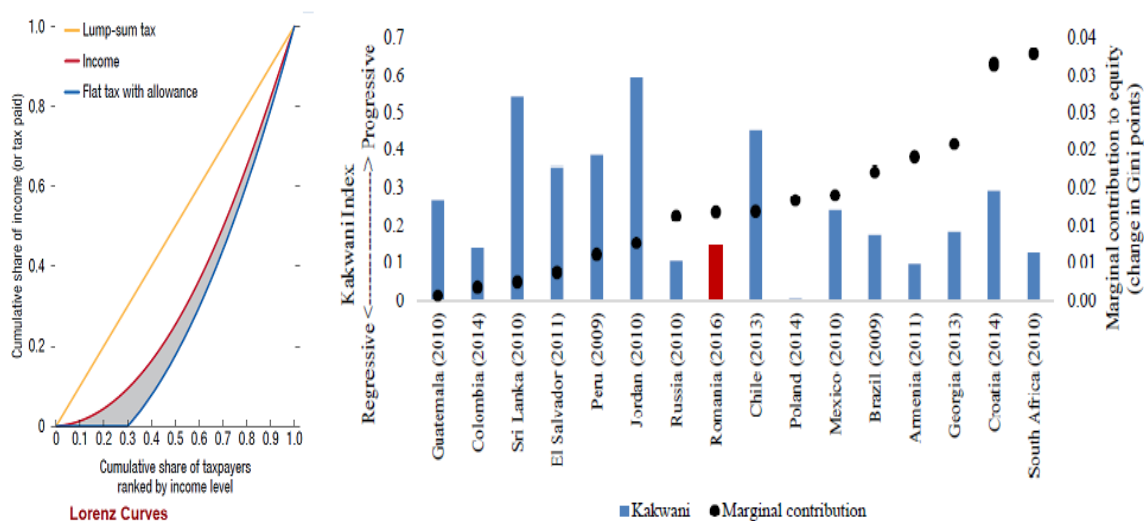
violation of the principle is when tax system is riddled with special treatment for certain categories of incomes, numerous deductions, tax credits, special tax rates, etc.

Certainty: The principle of certainty is that a tax payer should know in advance how much tax they would owe so that they may plan their affairs accordingly. Adam Smith remarks, "The tax which each individual is bound to pay ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid all ought to be clear and plain to the contributor and to every other person". This principle is violated when the tax rules are changed very often creating a great degree of uncertainty for taxpayers.

24. Progressivity in Personal Income Taxation

A progressive tax system is one that collects more tax from those with higher incomes thereby reducing disposable income inequality (inequality after taxes and transfers). A personal income tax system with a tax structure that has higher marginal rates for higher brackets of income is an important aspect of a progressive tax system. A progressive personal income tax combined with transfers to the poor through the expenditure side or even through a negative income tax makes the overall system redistributive.

A steep income tax rate schedules with high top personal income tax rates makes a tax system more progressive. However, the tax rate schedule is applied on the taxable income, the latter which is arrived at after exemptions and deductions are applied to the total income. Hence a true indicator of the progressivity is the effective rate with respect to the income of the taxpayer before any deductions and exemptions are applied. As a result, any exemptions and deductions that apply disproportionately to those with high incomes reduces the progressivity of the tax system. This is particularly true about capital income which accrue disproportionately to those with high incomes.



Source: IMF staff calculations.

Source: Inchauste, Gabriela; Militar, Eva: 2018

Among the different tax instruments overall, the personal income tax is one of the most redistributive and a higher composition of personal incomes tax collection indicates a higher degree of redistribution. A precise measure of the progressivity of a personal income tax system looks at the entire income distribution. The Kakwani measure of progressivity is twice the area between these between the Lorenz curve for pre-tax income and the tax paid (see figure above). As we increase the proportion of the tax paid by those with higher incomes, the area between the curve progressively increases indicating a higher degree of progressivity. Another measure of the progressivity is the change in the Gini due to the tax. The second chart above shows above gives both the measures for 16 countries.

References and further reading:

International Monetary Fund (IMF). 2017. Fiscal Monitor: Tackling Inequality. Washington, October.

“Inchauste, Gabriela; Militaru, Eva. 2018. The Distributional Impact of Taxes and Social Spending in Romania. Policy Research Working Paper; No. 8565. World Bank, Washington, DC. © World Bank.

25. Tax Treatment of Rents from Real-Estate

Some countries provide special rules for small landlords whereby a fixed percentage of income is allowed as a deduction for expenses. Some countries make a distinction between active and passive businesses for the purpose of rules allowing losses to be offset against unrelated income.

26. Taxable event in Capital Gains - Realization

Capital gains taxation applies on a realization, rather than an accrual, basis. This requires timing rules to identify the relevant realization event, which is referred to below as a “disposal” of a taxable asset.

The timing rules need to identify both: (i) what constitutes an acquisition or disposal of a taxable asset; and (ii) when the acquisition or disposal takes place. The determination of when an acquisition or disposal takes place is particularly relevant when it is necessary to determine the fair market value consideration payable on an acquisition, or receivable on a disposal, of a taxable asset. The fair market value is determined at the time of disposal or acquisition, respectively.

An acquisition and disposal of a taxable asset would normally be defined by reference to a change in legal ownership of the taxable asset. In the ordinary case, a change in legal ownership would result in a disposal of a taxable asset by the seller and an acquisition of

the asset by the buyer. The disposal and corresponding acquisition occur at the time of transfer of legal ownership of the taxable asset.

It will be necessary to include acquisition and disposal rules to apply to transactions or events that do not involve a change in ownership of a taxable asset. An example is a transaction that involves the creation of a taxable asset for a party to the transaction without a transfer of the asset, such as the grant of an option over immovable property. An option is not an asset that is owned by the grantor with ownership transferred to the grantee, rather an option is an asset that is “created” in the grantee under the option contract. The grant of an option should be treated as a disposal by the grantor of a taxable asset being the option and an acquisition of the option by the grantee thereby crystallizing a capital gain to the grantor calculated by reference to the option price. The disposal and acquisition occurs at the time of the grant of the option. This rule applies only on the initial grant of the option. The normal acquisition and disposal rules apply on a subsequent transfer of the option.

Other examples of transactions or events that require special disposal rules because they do not involve a change in ownership are: (i) the loss or destruction of a taxable asset; and (ii) transactions relating to intangible rights, such as the surrender or expiry of such rights, or the redemption of shares in a company by the company.

A deemed disposal rule can also apply to a change in use of an asset. The absence of such a rule can give rise to tax planning opportunities. For example, prior to disposing of an asset (such as immovable property acquired as trading stock), a taxpayer may “convert” the asset into a capital asset subject to capital gains tax so as to obtain the benefit of concessionary treatment of capital gains. In this case, the conversion of the asset into a capital asset would be deemed to be a disposal of the asset for fair market value at the time of the conversion. The taxpayer would be treated as having re-acquired the asset as a taxable asset for a cost base equal to fair market value of the asset at the time of the conversion. This ensures that any concessionary taxation of capital gains applies only to the increase in value after the change in use. It is acknowledged, though, that change in use rules can be difficult to enforce. However, they do act as an important impediment to tax planning to take advantage of concessionary taxation of capital gains.

27. Treatments of Royalties

Royalties in the sense of payments for the right to use intellectual property may be treated as a separate category of income or may be treated as business income or earned income. Typically, royalties do not receive special treatment under the income tax.

28. Tax Credits

Tax credits are an alternative way as compared to a deduction to provide a subsidy under the Personal Income Tax. A tax credit is a reduction in the amount of tax. A deduction on the other hand is a reduction in the amount that is taxable. A key difference in the effect of deduction as compared to a credit is that the benefit of the deduction depends on the taxpayer's marginal tax rate, while the credit provides the same level of subsidy to all because it reduces the same amount of tax regardless of the tax bracket of the taxpayer.

Tax Credits are provided for reducing the tax payable in cases when:-

- To compensate for tax that is already paid, such as in the case of a foreign tax credit where credit is given for tax paid in a foreign jurisdiction, a 'dividend tax credit' where the tax is reduced to accommodate the tax paid on profits by the corporation in an integrated PIT-CIT tax system.
- Benefits are provided through the tax system that is designed to be uniform to taxpayers regardless of their income. For example, a tax credit of a fixed amount could be allowed for child care expenses. The intention is to provide a benefit intended to target women to improve their workforce participation regardless of the income level of the woman. Such tax credits may even be refundable and is a substitute for benefits provided through the expenditure system.

29. Tax Credits versus Deductions

Tax credits are an alternative way to provide a subsidy under the PIT. For example, a tax credit could be allowed for charitable contributions. A key difference between a deduction and credit is that the benefit of the deduction depends on the taxpayer's marginal tax rate because it is deducted from the income before the tax is calculated, while the tax credit is deducted from the tax and hence the latter provides the same level of subsidy to all because it reduces the same amount of tax regardless of the tax bracket of the taxpayer.

The considerations in choosing a tax credit as compared to a deduction as a result would be a benefit that is provided with no intention to vary it across income levels. For example, a child tax credit is provided with an intention to encourage women to join the workforce regardless of the income level. It may also be provided to be more transparent about the value of benefit being provided. Structuring a specific item as a credit versus a deduction also affects the overall progressivity of the system. If overall progressivity is held constant, then conversion of a deduction into a credit would enable the rate structure to be changed.

30. Tax Period

Generally, a tax period is a period of twelve months which could be the calendar year or financial year for which a taxpayer is expected to keep a record of income earned and report it in an annual tax return.

31. Who is a Tax Resident?

Taxing powers of a country are generally asserted on the basis of 'residence' in that country. As a general rule, tax residents are taxed in their country of tax residence on their worldwide income. The residence of an individual is generally defined by the number of days a person is present in a jurisdiction with 183 days as the cutoff in the UN Model treaty. While many countries use this rule, some expand the definition to include days present over a longer time period. For example, the United States uses a 'substantial presence test' whereby it uses the same 183-day cutoff but includes along with days during the current year added to one-third of the days present during the previous year and one-sixth of the days the year before that. India uses a 182-day cutoff, but tax residents include those who are present for 60 days during the current year and 365 days or more during the preceding four years. All others are considered non-resident for tax purposes. Many countries also include other criteria such as having a habitual home (Canada, France, Germany, Netherlands, Sweden), tests such as 'habitual visits', presence of family members, etc. Generally, an individual is liable for income taxation in that jurisdiction where she is tax resident except if that jurisdiction gives up the tax right to another jurisdiction for certain categories of income or under certain conditions under a tax treaty.

Some countries such as India and Ireland also include a concept called ordinarily resident, a category in between being a tax resident and being a non-resident. In India, an individual is considered Resident but Not Ordinarily Resident (RNOR) if the person satisfies any of the following criteria, a) the individual has been a non-resident for at least nine out of the 10 preceding years or, has been in India for 729 days or less during the preceding seven years. An individual that is not a Not Ordinarily Resident is considered Resident but Ordinarily Resident (ROR). While Non-Residents and Not Ordinarily Residents are not liable for income taxation on their incomes received from outside India, Resident but Ordinarily Resident (ROR) are taxed on their income that accrues or arises outside India.

Australia defines a category of 'temporary residents' for short-stay expatriate employees and are not subject to tax on their non-Australian source income other than employment income. Canada, France and Japan also use the concept of short-term resident. In Japan a short-term resident is a person who meets the normal residence test but is not a Japanese national and not maintained a residence for five years during a ten-year period. These

short-term residents are taxed only on domestic source income and foreign-source income that is remitted to Japan.

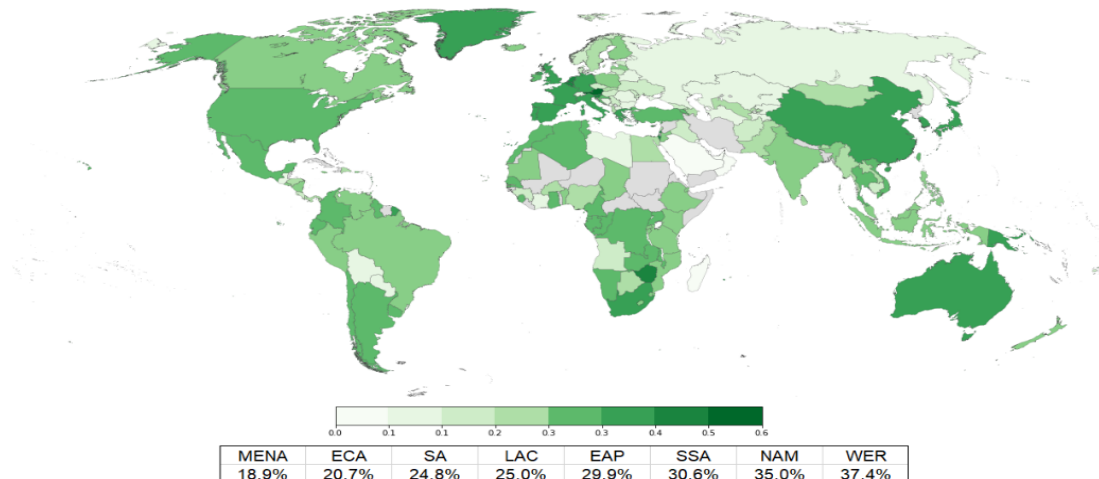
32. Taxable Income

The taxable income is the amount of income on which the tax is usually calculated on. It is generally the gross income less any exemptions or deductions that can be claimed.

33. Top Marginal Rates around the World

The top marginal rates are in are in Western Europe region followed by North America and Sub-Saharan Africa. The lowest of the peak rate of PIT is in the MENA region. The top rate is in Sweden with 57% followed by Austria with 55%, the Netherlands at 51.75% and Belgium at 50%. These top marginal rates include income tax rates at the sub-national level. Many Gulf as well as Caribbean countries do not levy any personal income tax at all and many CIS countries and Eastern European countries have a flat income tax with maximum rates around 10%. These bring down the average maximum marginal income tax rate for the MENA and ECA regions.

Maximum Marginal Personal Income Tax Rates in 2018



Maximum Marginal Tax Rates. Countries without data are shown in grey. Data: World Bank - worldbank.org • Author: Sebastian James

34. Unit of Taxation

In determining what is the tax unit, countries have followed different approaches. Some countries treat individuals as tax units while others treat a married couple and their children as a unit. Some countries extend the unit to a family beyond that of a married couple.

The choice of the tax unit balances different goals of equity and administrative simplicity. Based on the equity principle of the “ability to pay”, two tax units with equal ability to pay should be treated equally (horizontal equity) and a tax unit with higher ability to pay should pay more taxes than one with a lower ability to pay (vertical equity). When we compare taxation of two married couples on the principles of equity we need to ensure that the two couples would pay the same total tax if their combined incomes are the same. We would also want the income tax to be marriage neutral, so that getting married does not affect the total tax due. However, under a progressive income tax rate structure this is not possible because when incomes are combined, it pushes the income to higher taxed brackets and hence higher taxes when the incomes are pooled. This ‘distortion’ is highest when the incomes of the individuals are nearly equal and zero when one of the couples has zero income.

While for the sake of simplicity it is useful to have all individuals taxed as such regardless of their marriage status, there is an economic reason why a married couple may be treated as a tax unit. This argument is that a family is an economic unit that can pool their resources (such as a home, childcare, etc.) and can manage their affairs to minimize their tax liability. For example, the higher earning member could move income-producing assets to the spouse who earns a lower amount of income thereby reducing the tax they could pay.

Some countries allow married couples to combine their incomes which are then taxed at the level of the individual on half of their combined income. This benefits some couples while imposing a penalty on others. Other countries have a different marginal tax rate for married couples which are lower than for individuals. Some countries allow the definition of family to go beyond the married couple and their minor children to include extended family members who live in one household.

There is no correct answer as to how to define the taxable unit (married couple vs. individual) but it is administratively simpler to tax individuals separately, since in this case the amount of tax withholding can be determined with respect to the income paid to that individual. This allows more withholding to be final and reduces the need for individuals to file returns.

References and further reading:

{hyper_para_text}Alm, James & I. Melnik, Mikhail. (2018). TAXING THE "FAMILY" IN THE INDIVIDUAL INCOME TAX.{hyper_text}TAXING THE "FAMILY" IN THE INDIVIDUAL INCOME TAX{hyper_target}<https://www.issuelab.org/resources/4859/4859.pdf>

The personal income tax is the tax on the income of a “physical person” or “individual” or a “natural person”. Incomes of an individual could be of different types: income from employment, business, capital gains, investment income, rental income, etc. The Income Tax in its current form can be traced to 1799 in the United Kingdom when it was introduced by Prime Minister William Pitt to pay for the French Revolutionary War.

The income tax started off as a “class tax”, applicable to only a small part of the population, but around World War II it became in most high-income countries a “mass tax” under which most of the working population paid this tax, largely by withholding from wages. There are still a number of countries where the tax is not widely extended. While there are a few small countries which have no income tax, virtually all the 193 countries that are members of the UN have some form of income tax. The Personal Income Tax (PIT) is one of the key sources of revenue, although it is not the dominant one everywhere. It is generally outweighed by Social Security Contributions. In high-income countries, PIT tends to be the most important revenue source after social security contributions, while in lower income countries it can fall below even the corporate profit tax, with the VAT as the dominant revenue source. Nevertheless, revenues from the PIT are important in almost every country.

Two historical models exist for the structure of the personal income tax – Global or Schedular. Under the benchmark global system all types of incomes as well as expenses are considered together to arrive at the overall income subject to tax. Under the benchmark schedular system, incomes and deductions under the different types of income are treated separately to arrive at the taxable income under each type of income. The different types of incomes may be taxed at different rates. Further there may be different treatment of the base and the timing of each of the different types of income.

Glossary

capital gains are exempt
capital losses
haig-simons
buoyant are pit revenues
pit compliance gap
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pit on residents and non-residents
tax rate structure
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pit rate structure
pit tax evasion
pit tax expenditures
annuities
automatic exchange of information
base of the pit
burden of filing tax returns
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non-corporate business income
non-corporate business income
capital gains
capital income be taxed at the same rate
taxation of capital income
charitable contributions
child tax credit
cost of compliance
administrative and compliance costs
consideration
contribution out of income made to a retirement fund
cost base
basis
lessons learned from covid-19
negative income taxes in a post-covid
new sources of revenue
cross-border income
deduct work related expenses
deductions
distribution of pit
dividends
dual income tax
dual income tax
effective
efficiency costs
elasticity of reported income
employee
ensure compliance
equity-efficiency tradeoff
exchange of information
exempt

file personal income tax returns

flat tax

flat income tax

fringe benefits

gender biases

global or schedular

global vs. schedular

schedular

gross income

hard-to-tax

horizontal equity

tax incentive

incentivize

incidence of pit

inclusive definition

income from domestic sources

income from employment

accrual accounting

cash accounting

financial accounting

incomes accounted

inflation adjustment

integrated

integration

interest

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other incomes

payroll tax influence the design of the pit

payroll taxes

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personal income tax on savings

charts for pit buoyancy by country
income group

pit revenue

charts for pit revenue by country income
group

population pays pit

special rate for capital gains

preferential treatment to capital gains

presumptive taxation

fairness

neutrality

equity

efficiency

horizontal equity

vertical equity

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administrative feasibility

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optimal tax

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realization

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preferential rates

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sub-national pit

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labor tax wedges

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taxable unit

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threshold

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unit of taxation

vat

vat threshold

vertical equity

withholding tax