

Gender Impacts of Government Revenue Collection: The Case of Taxation

Kathleen Barnett
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1

Introduction

Efforts to integrate a gender perspective into public budgeting decisions have been going on for almost 20 years. In 1984, the Australian government introduced the first ‘gender budget’ exercise, which led ultimately to a gender review of all federal, state and territorial government expenditures and some elements of revenue. At the 1995 United Nations World Conference on Women in Beijing, governments made a commitment to incorporate a gender perspective into budgetary processes in order to support gender equality. Since then, work by women’s NGOs, other civil society organisations, academics and multilateral organisations has shown that the analysis of government expenditures can be an important tool for addressing gender inequities.¹ Analysts and activists are now increasingly interested in how to bring a gender perspective to the revenue side of the budget, as well as how to use gender revenue analysis as a tool for advancing gender equality.

Taxation and expenditure need to be analysed together for a full understanding of the income and gender impacts of government fiscal policy. The level of taxes to be levied is decided in conjunction with the level of needed expenditures. The ultimate ratio of tax burden/social benefit for individual women and men depends on the gender distribution of both taxes paid and services received, as well as the gender distribution of the long-term gains from social and economic development. The goal of gender revenue analysis is to identify and monitor the flow of sufficient financial resources so that gender equity is achieved in revenue generation and women and men, and girls and boys, benefit equally from programmes and services.

This paper reviews the literature on the gender dimensions of taxation and the implications for tax policy with special reference to developing countries. Taxation is a critical subject for a gender analysis of development policy for several reasons. First, in the developing world, the majority of the population – and the vast majority of women – are poor, so adequate financing of public services is a pressing issue with special gender relevance. Second, since taxes are governments’ principal own-source revenues, tax policy is at the heart of the public debate on what services government should provide and who should pay for them. Third, taxes in developing countries constitute 10–40 per cent of a country’s gross domestic product (GDP), which means that out of every rupee or pound earned, a significant share goes to the government (IMF, 2002). Such a large extraction of resources affects all aspects of social and economic life and – matched with expenditures – determines the path and distribution of development.

The Commonwealth Secretariat commissioned this paper as part of its commit-

ment to integrate gender concerns into economic policy. The paper follows important prior work on the gender dimensions of public expenditure. Its purpose is to provide information to assist in the analysis of potential gender bias in tax systems and the design of gender-sensitive revenue measures.

The intended audience is a broad spectrum of government, NGO and civil society organisations, as well as economists concerned with public finance, macroeconomics and gender. The paper has an applied rather than an academic focus, and the material and language are designed to be accessible to readers without a formal public finance background. Since the issue of gender bias in taxation is a fairly new discussion, the literature on the subject is limited. There is a large literature on gender biases in the personal income tax systems of developed countries and a relatively smaller literature on the gender dimensions of direct and indirect taxation in developing economies. The literature from developed countries, although specific to conditions of high-income countries, provides helpful information on how gender bias can be identified and corrected in current tax systems, and avoided in future tax policy decisions.

The structure of the paper is as follows. Section 2 explains the concept of gender, and the implications of gender for taxation policy. Section 3 provides an overview of taxation issues in developing countries. Section 4 outlines some basic concepts of tax analysis and provides a feminist critique of them. Section 5 reviews the existing literature on the gender dimensions of tax policy, including a general overview of types of taxes and specific literature reviews on the gender impact of taxation on labour supply, household production and time use, and fertility. It also reviews the gender impacts of user charges which, while not taxes, are also a source of government revenue. Section 6 summarises current tax policy debates and issues, and Section 7 discusses methodologies and tools for gender revenue analysis, and data and modelling requirements. Section 8 concludes with recommendations on how to improve gender equity in tax policy and suggests areas for future research.

2

Gender Analysis: Basic Concepts

Gender analysis suggests four issues or ‘stylised facts’ that are useful for understanding the impact of taxation on men and women.² These are the importance of:

- (a) women’s work in the unpaid care economy;
- (b) gender differences in paid employment, including formal/informal employment, wages and occupational segregation;
- (c) gender differences in household decision-making regarding consumption, savings and investment;
- (d) gender differences in property rights.

2.1 The Unpaid Care Economy

In every country around the world, women have primary responsibility for caring for children and dependents. Women do most of the work in the unpaid economy (also called the domestic, social reproduction or reproductive economy). There are three types of unpaid work. Reproductive work consists of managing a household, cooking, cleaning, gathering fuel and hauling water, maintaining the home in good condition, and caring for family members, friends and neighbours. As Diane Elson (1996) points out, these are all vital services for the paid economy. In many developing countries unpaid work also includes subsistence production – production for home use of goods and services that in principle could be marketed, such as food, clothing and other items. Finally, unpaid work includes unpaid community work: for example soup kitchens organised by women in poor neighbourhoods, groups of mothers organising care of children, the elderly or those who are sick or disabled, and (unpaid) work for local or national non-profit charitable organisations.

Unpaid care work is not counted in most systems of national accounts, although efforts are underway in about 20 countries to collect satellite accounts.³ Time use surveys from around the world show that women spend long hours in work that is not paid. Females work longer hours than males in nearly every country – the difference ranges from as little as eight minutes a day in Republic of Korea to two hours in mountainous regions of Nepal to three hours in rural Kenya (United Nations, 2000). The presence of small children (under five years old) increases unpaid work substantially more for women than for men.⁴

The gendered nature of unpaid work affects women throughout the life cycle – from girlhood through older age – and has enduring consequences (Gornick, 1999).

Recent research has begun to identify and quantify the ‘costs’ to women of their unpaid labour (Folbre, 1994; Davies and Joshi, 1994) and to explore the implications for taxation and benefits policies.

2.2 Gender Differences in Employment

Women’s labour force participation rates are lower than men’s, although women tend to have a greater combined labour burden consisting of paid and unpaid activities in the world economy (UNDP, 1995). Within paid employment, women are also disadvantaged relative to men. Worldwide, women are concentrated in clerical, sales and service jobs traditionally regarded as ‘female’ and are under-represented in production, transport, administrative and managerial jobs, in which men predominate (Mehra and Gammage, 1999). Even within sectors, men and women are found in different jobs; for instance, although both men and women are teachers in many countries, men are more likely to be concentrated in secondary or higher education, while women tend to be found in nursery or primary education (Anker, 1998). Moreover, women enter and exit the labour force more frequently, which means their participation is more discontinuous than that of men, and they are more likely to be in part-time and seasonal jobs, while men have full-time positions.

Women earn less than men, even after controlling for standard human capital variables (age and education). Gender gaps in earnings are among the most persistent forms of inequality, although they have narrowed in some countries over the last decade (Tzannatos, 1999; Artecona and Cunningham, 2002; Oostendorp, 2002). In other countries, however, wage gaps have widened (Standing, 1989, 1999; Mehra and Gammage, 1999). Even in the East Asian countries which have grown rapidly, relying on exports produced by female labour, gender wage gaps remain persistently large and have worsened in some cases (Seguino, 2000).

In developing and transitional economies, the bulk of new employment has been in the informal economy. Informal employment is market-oriented employment in small workshops and family businesses, subcontracted work undertaken in the home (‘homeworking’) and domestic work for others. It is work without secure contracts, worker benefits or social protection. It includes three types of occupational status – employee and self-employed (both of which are paid), and unpaid family worker, where the worker does not herself receive money but the family member (often the male household head) directing the business does receive payment from customers.

Informal employment is a larger source of employment for women than for men. Women constitute 84 per cent of the informally employed in sub-Saharan Africa (compared to 63 per cent of men) and 58 per cent of the informally employed in Asia and Latin America (compared to 48 per cent of men). Within informal employment, women tend to concentrate in street vending, home-based work and as industrial out-sourcers who work at home (ILO, 2002).

The result of women's employment profile – their lower relative earnings and their predominance in informal employment – is that they are unlikely to bear a large share of the personal income or direct tax burden. However, indirect taxes, which are a heavier burden on the poor, are likely to have a greater impact on women than on men.

2.3 Gender Differences in Household Decision-making

Not only do women allocate their time differently from the way men do – between paid market work, household production and leisure – but there is also evidence that gender relations and bargaining power among household members affect the types of expenditures households make, the amount and type of savings, and other allocation decisions.

Across a wide range of cultures, empirical studies have revealed gender differentials in consumption (Haddad *et al.*, 1997). Women, compared to men, tend to spend a higher proportion of income under their control on goods such as food, education and healthcare that enhance the wellbeing and capabilities of children (Guyer, 1988; Thomas, 1992). Changes in the relative prices of these items are likely to affect women's expenditures and time allocations. For instance, a rise in food prices may have several effects: women may reduce their purchases of food and spend more time processing food at home. Or they may cut back on consumption, substituting cheaper (and perhaps less nutritious) foods in their diets. Taxation that changes the relative prices of goods may affect women's consumption decisions.

Women and men may also differ in their savings and investment behaviour. Floro and Seguino (2002) review the evidence from developed and developing countries and conclude that significant gender differences exist in individual retirement savings and investment decisions. In the United States, for example, a study by Sunden and Surette (1998) shows that gender and marital status influence investment allocation decisions; research from European countries echoes this finding. In developing countries, some evidence has shown that women and men may have different motives for savings, although evidence on the gender differences in savings behaviour is inconclusive.

There has been much research on the household decision-making process that underlies choices about consumption, savings and investment. This process is characterised both by co-operation and conflict and is influenced by the relative bargaining power of adults within the household.⁵ Folbre (1997) and others argue that a household member's bargaining power depends on two factors: a) material (economic) factors internal to the household; and b) factors external to the household that influence its wellbeing. Material factors include owned assets, education, kinship, wages and employment. External factors include belief systems, tax and transfer policies, and political and legal structures such as property rights and divorce laws. The latter factors affect positions in household bargaining since they mediate the actual power that

material resources will confer on an individual in the household. Relative changes in any of the factors that affect an individual's bargaining power exert an influence on the allocation of household resources among alternative uses.

In sum, the literature suggests that it is important to look within households and assess the impact of taxes from the point of view of individual women and men, recognising that they have different streams of income, different paid and unpaid work responsibilities, and different propensities for consumption, savings and investment.

2.4 Gender Differences in Property Rights

In many developing countries women are frequently denied the right to own and inherit property. In many regions of Africa men hold formal land title. Social norms may dictate that businesses and other productive assets are owned by male family members although women may supply labour to family businesses. The gender asset gap in land is also significant in South Asia and Latin America, where women rarely represent more than one-quarter of landowners (Agarwal, 1995; Deere and Leon, 2003). Developed countries also have a legacy of unequal property rights.⁶ Women's lack of control over 'immovable property', i.e. land and houses, is mirrored by gender-based inequities in ownership of 'movable' property, such as businesses, equipment, furniture, clothing and personal items, household goods and capital. These patterns place women at a strong disadvantage in terms of securing a place to live and maintaining resources for their livelihoods.

In many developing countries, including those in South Asia, sub-Saharan Africa and Latin America, laws, policies and/or customary practices restrict women's ability to own or inherit property and reduce their capacity to manage risk successfully. Although women may not be taxed currently as property owners, as countries develop and as women acquire property rights in land and housing, they will become a more important part of the tax net.

2.5 Gender and Other Social Stratifiers

It should be noted that gender analysis does not only entail analysing women as a distinct group in relation to men as a distinct group. Gender is a social stratifier that interacts with other important social stratifiers such as class, race, ethnicity and location (e.g. being rural or urban). Smith (2000), in his analysis of the impact of taxation on women in South Africa, explains why this additional disaggregation is important. Of women who are economically active, 28 per cent are unemployed, compared to 19 per cent of men, but of black African women, 35 per cent are unemployed compared to 25 per cent of black African men. The comparable unemployment rates for white women and men are 6 per cent and 3 per cent respectively, and for Indian women and men, 13 per cent and 9 per cent respectively. Thus, especially for analysing the incidence or

burden of taxation within a country, it is important to go beyond the ‘average woman’ to examine gender differences together with income and, if possible, with race, ethnicity and other important social markers.

2.6 Gender Analysis of Taxation

Few gender budget initiatives have examined the revenue side of the budget.⁷ Budlender (2000) suggests there are both political and technical challenges to be overcome in analysing revenue from a gender perspective. On the political side, she notes that gender-sensitive revenue analysis in South Africa encountered several political sensitivities because it came up against corporate and other wealthy interest groups, challenged moves toward decentralisation and raised fundamental questions about political strategies (such as privatisating public enterprises) to address budget deficits. More generally, she notes that gender-sensitive revenue analysis also encounters technical obstacles: analyses must be country specific because the structure of taxation and revenue differs greatly across countries and because of the different types (and even lack) of linkages between revenue and benefits. A second technical difficulty is that governments simply do not collect the sex-disaggregated data that are needed for tax incidence analysis. Where personal income taxes are collected on a joint (as opposed to an individual) basis, disentangling the gender effects can also be challenging.

Assessing taxation and revenue from a gender perspective, therefore, may not be an easy task. Nonetheless, as gender-responsive budgeting takes hold, scholars and practitioners are beginning to devise tools and methodologies to tackle a complex and difficult subject, an issue that is discussed in more detail in Section 7 of this paper. But first, Sections 3 and 4 provide some background information on taxation in developing countries, and set out the basic concepts and tools of tax analysis.

Taxation and Developing Countries

3.1 Taxation and Tax Policy Analysis

In both developed and developing countries, governments collect taxes to fund public services. Although many developing countries are highly dependent on foreign aid, taxes are the principal own-revenue source. Other own-revenue sources are non-tax revenue, which includes fees, licences, mineral rights, etc., and capital revenue, which includes income from sales of government assets, including privatisations.⁸

Since taxes are the principal source of recurring revenue under government control, in all countries tax policy is at the heart of the political debate on the level of public services that should be provided and who should pay for them. The resolution of the debate varies by country and within countries over time. In democratic countries, the resolution depends on the ability of political parties, factions and interest groups to influence policy decisions and to influence voters to support these decisions. Groups without political or economic power, such as the poor and women, are often excluded from this debate and from tax policy decisions.

The goal of tax analysis is to identify the potential macro and micro impacts of tax policy options on individuals, businesses and economic growth, so that policymakers and the public have full knowledge of the impact of tax policy decisions. On the macro side, a gender analysis of tax policy would include analysis of the overall fiscal position of the budget, since deficits and options to close these can have explicit and implicit gender implications. Questions to be considered from a gender perspective might include: Are the estimates of revenue and expenditure, and of the projected budget surplus/deficit, reasonable?; What are the proposed policies for addressing government deficits and national debt?; What are the budget's expected effects on economic growth, inflation and employment? On the micro side, a gender analysis of tax policy would explore the implications for individual and household behaviour – in terms of labour supply, household production and time use, and marriage and fertility. Within both the macro and micro gender analysis, it is particularly important to address differential impacts by income, geography, ethnicity and race.

Tax analysis should also provide cost-benefit estimates of tax policy options, and ensure that the design of tax incentives (discussed in Section 3.4.5) is constructed to include provisions for proper implementation and periodic evaluation. Tax analysis, therefore, is essential to ensuring that the political debate regarding tax policy is fully informed of the social as well as fiscal impact of tax policy options, including the impact on income and gender equity.

3.2 Tax Systems in Developing Countries: Background

The tax system of each country reflects its specific history, legal tradition, political structure and economic base. Developing country tax systems originated from the traditions of their colonial powers, with little relationship to the actual conditions or interests of the country. Initially these systems were designed to extract wealth from the colony for the benefit of the coloniser.⁹

At the time of independence, most ex-colonies inherited tax systems based on early twentieth-century European conditions and a fiscal system in collapse – with few or no revenue sources, a weak civil service, and low levels of human and physical capital. In some developing countries, for example Guinea and Mozambique, the colonising power had consciously destroyed economic assets as it withdrew. In others, for example Angola and Guatemala, economic destruction had resulted from civil conflict sponsored by major economic powers or, as in Mozambique and Namibia, by apartheid South Africa.

Developing countries that adopted a market economy were encouraged by major commercial banks to borrow freely at low interest rates, and these liabilities turned into unsustainable deficits when interest rates turned high. Countries that followed a socialist path often suffered economic sanctions as well as political disruption by major powers, and/or stagnated economically because of misguided economic policies. Countries in transition from socialism, as well as post-apartheid South Africa, were faced with re-orienting their entire societies and economies to deliver to the majority rather than a minority, drafting new constitutions and constructing new government structures. Overcoming these historical conditions continues to be a major challenge for developing and transition country tax systems in attempting to produce sufficient revenues for needed services.

3.3 Tax Systems in Developing Countries: Current Issues

The tax systems of developing countries include the same basic tax categories used in developed countries: direct taxes on income and wealth; indirect taxes on consumption; property taxes; and trade taxes. The most common direct taxes are personal income tax, corporate income tax and wealth or inheritance taxes. The most common indirect taxes are value-added tax (VAT), and selected sales and excise taxes. Property taxes may be imposed on real property, such as land and housing, or on personal property, such as cars and boats. Trade taxes may take the form of import or export duties. For each type of tax, gender bias may exist explicitly in the tax laws and/or implicitly through the differential impact of the tax on women and men (Stotsky, 1997a). These biases will be discussed further in Section 5.

Table 3.1 describes the principal components of total government revenue: tax revenue, non-tax revenue and capital revenue.¹⁰

Table 3.1: Components of Government Revenue

Tax Revenue
Income taxes (individual and corporate)
Payroll/social security taxes
Taxes on goods and services (VAT, sales, excise)
Property taxes
Trade taxes (import duties, export duties)
Other taxes
Non-tax Revenue
Income from public enterprises and property
Administrative fees and charges
Interest receipts
Other non-tax revenue
Capital Revenue
Sale of fixed capital assets

Source: IMF, 2002

The distribution of tax authority between national, provincial and local government differs in each country. There are at least two aspects of how taxation is distributed across the levels. The first is who has authority to impose and collect it. The second is to which levels the money collected is distributed. Usually, broad-based taxes such as income tax and VAT are assigned to the central government, while geographically-specific taxes such as the property tax are local revenue tools. By spreading tax revenues across different tax instruments, ideally the fiscal system can better withstand economic fluctuations and can minimise the tax burden on any particular group of taxpayers or sectors of the economy.

A frequently used measure of the effectiveness of a country's tax system, and/or its tax competitiveness relative to other countries, is the ratio of total tax revenue to GDP. This ratio varies widely among both developed and developing countries. Sweden, for example, had a tax/GDP ratio of 51 per cent in 2002, whereas Australia and the US had ratios of 30 and 29 per cent, respectively, in 2001.¹¹ Among developing countries, there is also a wide range: 7.8 per cent in Bangladesh; 8.3 per cent in India; 10 per cent in Nigeria; 23.2 per cent in South Africa; 26.6 per cent in Jamaica; 31 per cent in Barbados; and 32.2 per cent in Botswana.¹² A low tax/GDP ratio may reflect an inadequate tax system and/or weak tax administration, or there may be other substantial non-tax sources of income, such as petroleum in Nigeria. Or it may be the result of conscious policy, as in South Africa where a national tax/GDP target was set in 1996 at no more than 25 per cent.

The following box provides a summary of the tax system in one country, Argentina, and its tax/GDP ratio.

Box 3.1: Tax System Example – Argentina

The Argentinian tax system includes an income tax and various social security contributions, a value-added tax and a series of excise taxes, and trade taxes. These resources average 17–18 per cent of GDP. Provincial governments collect an additional 3 per cent of GDP in their own sales tax (a gross receipts tax (GRT)) and property and stamp taxes. There is a high degree of expenditure decentralisation, financed through a complex system of revenue sharing and transfers.

Source: Cuevas, 1990

Khattry and Rao (2002) study the use of different kinds of taxes according to the level of development. From a sample of 205 countries, they consider three main tax categories – income taxes, domestic taxes on goods and services and trade taxes – according to their relative shares of total tax revenue and of GDP at four levels of development ranked from low to high income. Their results are shown in Table 3.2.

As would be expected, poor countries derive a proportionally lower share of tax revenue from income taxes than high-income countries do, and they rely significantly more on trade taxes to fund essential public spending. For low-income countries, from 1970 to 1998 the share of trade taxes to total revenue fell from 40 per cent to 35 per cent, and the share of consumption taxes increased from 26 per cent to 33 per cent. The share of income taxes in low-income countries remained approximately the same over the period studied, constituting 27 per cent of total revenue in 1995–98.

Table 3.2 also shows the difference in shares of tax revenue at different levels of development. In 1995–98, trade taxes were 35 per cent of total revenue in low-income countries, 20 per cent in lower-middle-income countries, and less than 1 per cent in high-income countries. Domestic taxes on goods and services were about one-third of total tax revenue at all levels of development, with the share slightly higher in the middle-income countries.

Data for specific countries suggest that each country's distribution of tax revenues across types of taxes depends not only on its level of development, but also on its particular economic structure, the relative availability of alternative revenue sources and its unique social and political factors. Table 3.3 shows the relative shares of total revenue derived from income taxes, taxes on goods and services, property taxes and trade taxes for 22 selected Commonwealth developing countries. The income tax (personal and corporate) share of total revenue, for example, varies widely: from a low of 14–15 per cent in Bangladesh, Mauritius and Sri Lanka to a high of 48–60 per cent of total revenues in Malaysia, South Africa and Zimbabwe.

Table 3.2: Structure of Taxation and Level of Development

Income Group	Time Period	Income Tax (% of GDP)	Income Tax (% of Revenue)	Domestic Taxes on Goods and Services (% of GDP)	Domestic Taxes on Goods and Services (% of Tax Revenue)	Trade Taxes (% of GDP)	Trade Taxes (% of Revenue)	Indirect Taxes (% of GDP)	Indirect Taxes (% of Tax Revenue)
Low-income	1970-74	3.47	28.58	3.18	26.19	4.88	40.20	8.06	66.39
	1975-79	3.53	27.24	3.82	29.48	4.90	37.81	8.72	67.28
	1980-84	4.16	28.65	4.50	30.99	5.02	34.57	9.52	65.56
	1985-89	3.60	25.94	4.59	33.07	4.98	35.88	9.57	68.95
	1990-94	3.53	25.52	5.00	36.15	4.86	35.14	9.86	71.29
1995-98	3.83	27.16	4.66	33.05	4.90	34.75	9.56	67.80	
Lower middle-income	1970-74	3.57	24.37	4.06	29.09	5.05	34.99	9.11	64.08
	1975-79	4.64	27.32	4.15	26.06	6.05	34.70	10.20	60.76
	1980-84	5.20	29.82	4.55	27.80	5.27	30.03	9.82	57.83
	1985-89	5.27	29.64	5.28	31.76	4.59	26.33	9.87	58.09
	1990-94	5.27	29.79	5.77	34.07	4.81	25.16	10.58	59.23
1995-98	4.79	27.30	7.40	41.85	3.80	20.18	11.20	62.03	
Upper middle-income	1970-74	5.57	32.06	4.27	25.81	4.67	26.39	8.94	52.20
	1975-79	6.06	31.26	4.73	24.63	4.30	21.96	9.03	46.59
	1980-84	6.16	29.46	5.91	32.39	4.11	19.97	10.02	52.36
	1985-89	6.41	30.43	5.90	31.69	3.73	18.25	9.63	49.94
	1990-94	6.18	30.19	5.84	31.26	3.56	16.92	9.40	48.18
1995-98	5.98	31.10	7.56	39.37	2.29	13.04	9.85	52.41	

Table 3.2 (continued)

Income Group	Time Period	Income Tax (% of GDP)	Income Tax (% of Tax Revenue)	Domestic Taxes on Goods and Services (% of GDP)	Domestic Taxes on Goods and Services (% of Tax Revenue)	Trade Taxes (% of GDP)	Trade Taxes (% of Tax Revenue)	Indirect Taxes (% of GDP)	Indirect Taxes (% of Tax Revenue)
High-income	1970–74	8.81	35.94	7.73	31.54	1.66	6.77	9.39	38.31
	1975–79	9.52	35.97	7.94	30.00	1.32	4.99	9.26	34.98
	1980–84	10.36	36.41	8.67	30.47	1.07	3.76	9.74	34.24
	1985–89	10.74	36.54	9.69	32.97	0.75	2.55	10.44	35.52
	1990–94	10.37	35.40	9.62	32.84	0.46	1.57	10.08	34.41
	1995–98	10.80	35.36	10.20	33.40	0.25	0.82	10.45	34.22

Source: Khattry and Rao, 2002

Note: Income tax includes taxes on income, profits and capital gains; indirect taxes are the sum of domestic taxes on goods and services and trade taxes. Income group definitions: Low-income = GNP per capita of less than \$775, N = 62; Lower middle-income = \$756–2995, N = 55; Upper middle-income = \$2996–9265, N=38; High-income = \$9266 or above, N=50.

Table 3.3: Tax Structure of 22 Selected Commonwealth Countries

	Bangladesh		Barbados		Botswana		Ghana		Grenada		India		Jamaica		Kenya		Malawi		Malaysia		Mauritius	
	1999/2000	2000/2001	2000/2001	1997/1998	1998	1995	2000/2001	2001/2002	2000/2001	1999/2000	2001/2002	2000/2001	2000/2001	1999/2000	2000/2001	1999	2001					
Total revenue*	203.70	1,703.00	8,169.00	3,551.60	205.00	2,039.00	90,373.00	196,613.00	20,880.00	59,157.00	25,374.00											
Tax revenue*	158.40	1,613.10	6,767.00	2,728.50	172.20	1,886.00	75,965.00	160,394.00	19,285.00	47,917.00	21,642.00											
Tax revenue (% of total revenue)	77.76	94.72	82.84	76.82	84.00	92.50	84.06	81.58	92.36	81.00	85.29											
PIT + Corporate (%)**	14.71	36.67	22.94	25.01	35.79	38.69	34.83	52.51	14.04													
PIT (%)**			11.24	16.86	19.79																	
Corporate (%)**			11.70	18.93	16.28																	
Property (%)**	5.81			2.65																		
International trade taxes (%)**	26.26	8.39	17.53	31.84	19.96	25.19	30.90	13.46	12.37	0.61	6.12											
Goods and services (%)**	51.52	46.50	4.85	26.21	49.52	36.32	30.42	51.72	42.36	30.43	43.77											
Sales (%)**			4.85	20.38																		
Excise taxes (%)**				5.83		36.32																

Source: Authors' calculations from IMF, 2002

Notes: The sub-components of tax revenue are not exhaustive; some taxes have been excluded such as levies, taxes on minerals and petroleum. Thus the columns do not sum to 100 per cent. Total revenue includes tax revenue and non-tax revenue but excludes grants.

*Total revenue and tax revenue are in local currency. Bangladesh: billions of taka; Barbados: millions of dollars; Botswana: millions of pula; Ghana: billions of cedis; Grenada: millions of dollars; India: billions of rupees; Jamaica: millions of dollars; Kenya: millions of shillings; Malawi: millions of kwacha; Malaysia: millions of ringgit; Mauritius: millions of rupees; Nigeria: millions of naira; Pakistan: millions of rupees; Papua New Guinea: millions of kina; Singapore: millions of dollars; South Africa: billions of rand; Sri Lanka: millions of rupees; Tanzania: billions of shillings; Trinidad and Tobago: millions of dollars; Uganda: billions of shillings; Zambia: millions of Kwacha; Zimbabwe: millions of dollars.

**Stated as percentage of tax revenue.

Table 3.3: Tax Structure of 22 Selected Commonwealth Countries (continued)

	Nigeria	Pakistan	Papua New Guinea	Singapore	South Africa	Sri Lanka	Tanzania & Tobago	Trinidad	Uganda	Zambia	Zimbabwe
	2001	2001	2002	2001	1998/1999	2000	2001/2002	1999/2000	1997/1998	1998	1997
Total revenue*	2,227,236.00	535,091.00	3,222.00	42,661.00	184.00	211,282.00	1,042.90	12,144.00	1,254.00	1,131,405.00	30,669.50
Tax revenue*	470,402.00	422,781.00	2,370.00	23,466.00	180.20	182,392.00	938.50	7,706.00	1,156.00	1,093,819.00	26,913.90
Tax revenue (% of total revenue)	21.12	79.01	73.56	55.01	97.93	86.33	89.99	63.46	92.19	96.68	87.75
PIT + Corporate (%)**	32.71	28.96		52.71	60.16	15.05	24.34	46.85	24.57	34.83	48.24
PIT (%) **										26.60	
Corporate (%)**										8.23	
Property (%)**		0.50		6.47		4.48		0.83			2.42
International trade taxes (%)**	41.40	15.39		2.60	0.22	13.14	9.47	10.15	10.12	26.04	22.85
Goods and services (%)**	25.89	47.93		30.74	36.57	67.33	56.46	41.29	65.23	37.57	26.49
Excise taxes (%)**							18.92		31.23	19.29	
VAT (%)**							37.54		34.00	18.28	

Source: Authors' calculations from IMF, 2002

Notes: The sub-components of tax revenue are not exhaustive; some taxes have been excluded such as levies, taxes on minerals and petroleum. Thus the columns do not sum to 100 per cent. Total revenue includes tax revenue and non-tax revenue but excludes grants.

*Total revenue and tax revenue are in local currency. Bangladesh: billions of taka; Barbados: millions of dollars; Botswana: millions of pula; Ghana: billions of cedis; Grenada: millions of dollars; India: billions of rupees; Jamaica: millions of dollars; Kenya: millions of shillings; Malawi: millions of kwacha; Malaysia: millions of ringgit; Mauritius: millions of rupees; Nigeria: millions of naira; Pakistan: millions of rupees; Papua New Guinea: millions of kina; Singapore: millions of dollars; South Africa: billions of rand; Sri Lanka: millions of rupees; Tanzania: billions of shillings; Trinidad and Tobago: millions of dollars; Uganda: billions of shillings; Zambia: millions of kwacha; Zimbabwe: millions of dollars.

**Stated as percentage of tax revenue.

3.4 Tax Terminology and Concepts

3.4.1 Tax Base

A country's overall economic base, to which its various taxes can be applied, is its land, labour, capital, mineral resources, and level of production and consumption. Some countries have unique resources such as oil and/or diversified economies, while others have a very narrow tax base, with only minimal economic resources or activities on which to draw for own-source revenues. For any specific tax, the tax base is the resources to which the tax rate is applied. To obtain a desired amount of revenue, the rate can be lower if the tax base is broad than if the tax base is narrow. A tax on a base of economic activities or assets that is more common to one sex than the other may result in gender bias.

3.4.2 Tax Administration

The tax system must be consistent with each country's level of administrative capacity. Developing countries, especially, suffer from inadequate tax administration resources, weak public sector infrastructure, the lack of both quantity and quality of civil service workers, low public sector salaries and high levels of corruption. Thus, tax administration considerations are an especially critical issue for the design of tax systems in developing countries. There may be gender bias in tax administration if women, in their taxable activities, are more vulnerable to sexual harassment, bribes or other behaviours.

3.4.3 Tax Burden

The tax burden is defined as the ratio of the tax payment to disposable income. Tax burden analysis is a critical tool for tax policy in order to evaluate the fairness, as well as the social and economic impact, of taxation alternatives. The tax burden can be calculated from data from tax returns by various categories such as income class, sector of the economy, individual vs. business, etc. Since the sex of the filer is not captured on tax forms,¹³ gender tax burden analysis can be done by using assumptions based on demographic censuses and household surveys, or by matching sample tax information to other data captured by sex, such as social security information

3.4.4 Tax Incidence

Tax burden measures tax payments according to who is remitting the tax payment by law. This is defined as the statutory incidence of the tax. However, the statutory taxpayer can, depending on market conditions, sometimes recover her/his tax payment by 'passing on' the cost of the tax to others. In the case of a business taxpayer, the business may recover taxes paid by passing on the cost of the tax in lower wages to workers or by charging consumers higher prices for its products. In this way, the true incidence of the

tax may fall on others. True tax incidence is difficult to calculate, so estimates are generally not part of formal tax analysis. However, consideration of tax incidence is an important consideration.

3.4.5 Tax Incentives/Tax Expenditures

Many developing countries which are seeking to encourage business development and capital investment encounter pressure to provide tax incentives or exemptions, especially when they are competing for foreign direct investment. Evidence from years of local and national development efforts in both developed and developing countries show limited, if any, gain from such incentives. Socio-economic and political factors such as basic infrastructure, stable government, sound fiscal condition, available labour force and low social conflict are generally more decisive in influencing business investment decisions. In practice, however, decisions around tax incentives are often driven by political pressure.

3.4.6 Tax Reform

Both developing and developed countries have engaged in periodic tax reform efforts over the last several decades. In developing and transition economies, tax reform has often been driven by international agencies such as the World Bank and the IMF, seeking to address countries' budget deficits and to open markets to globalisation. Their recommendations have resulted in the following reforms in most countries:

- Simplification – eliminating minor taxes and consolidating others so as to reduce the number and complexity of taxes;
- Base-broadening – bringing various forms of in-kind income into the base of the income tax and reducing special credits and exemptions;
- Rate reduction and harmonisation – reducing top marginal tax rates and making these consistent across personal and corporate income taxes, and reducing the number of applicable tax rates and/or tax brackets;
- The creation of a VAT, often in a single-stage form, in order to provide a broad-based consumption tax with relatively simple administration;
- The reduction or elimination of import duties and export tariffs.

In the US, Western Europe and Australia, the emphasis of tax reform has been on reducing tax rates, and especially on providing tax relief to the rich and to businesses on the argument that this will stimulate investment and production ('supply side economics'). Developed countries rely heavily on income taxes, so tax reform has emphasised simplifying personal income tax rate structures, lowering top marginal rates, and bringing personal and corporate top marginal rates in line.

In both developing and developed countries there is concern that tax reform has adversely affected the poor both on the tax and the expenditure side. In developing countries, the increased reliance on indirect taxation, such as VAT, has raised concerns about regressivity. In developed countries there is evidence of an increase in the tax burden of the lower and lower-middle income groups and a reduction in the tax burden of the highest income groups. In both developing and developed countries there is also concern that there has been an increase in the relative tax shares paid by individuals through the personal income tax compared to those paid by businesses through corporate income taxes. Finally, in both developing and developed countries reductions in overall tax revenues have resulted in a ‘fiscal squeeze’ which can mean the reduction of needed public services with adverse effects in the short term on the poor and low-income groups and in the long term on overall social and economic development.

Tax reform has also posed two specific issues with explicit gender implications. First, the emphasis on tax simplification in both income and consumption taxes has led to policy recommendations to limit deductions and exemptions. Such limits have equity implications from both a class and a gender perspective. In the personal income tax, the restriction of certain deductions and exemptions which provide tax relief to women – for example childcare deductions, exemptions for dependents or deductions for insurance and pension contributions – may create gender inequity. In consumption taxes, the elimination of exemptions on products which are primarily consumed by women or are of primary importance to women could create gender bias. And in both types of taxes, base broadening which imposes a higher burden on the poor will also create higher burdens for women who are disproportionately poor in developed countries, and primarily poor in developing countries.

3.4.7 Fiscal Decentralisation

An emphasis on fiscal decentralisation has been part of tax policy reform in developing and former socialist countries in the last few decades. The theory of fiscal federalism allocates expenditure responsibilities and tax authority between the various levels of government – national, provincial/state and local/municipal. The national government has expenditure responsibility for services that cannot be provided locally, such as defence; basic public institutions, infrastructure and services that address redistributive goals, such as equalising a basic level of development across regions; and ‘merit goods’ which the society deems should be provided to all citizens. Lower levels of government have responsibility for locally-provided services. The theory of fiscal decentralisation argues that citizens in a particular region or location can decide their own specific preferences for government services as indicated by their willingness to pay for those services through local taxes and fees.

Decentralisation can have serious equity implications if expenditure responsibilities

are devolved to lower levels of government which lack revenue instruments to support these responsibilities and if no money from national government or elsewhere follows. In many local areas of developing countries there is practically no tax base at all. In others, taxation of local bases such as property or agriculture has no relation to the taxpayer's ability to pay, creating an unfair tax burden on the poor and especially on poor women. In addition, a range of charges can occur at local level, which are often inequitable between and within localities.

In most systems of intergovernmental fiscal relations, there is sharing across levels of government for some services, such as health and education, but other services are a distinctly local responsibility, for example sanitation, and parks and playgrounds. Where there is sharing of expenditure responsibility with the national government, mid-level and local level governments receive grants or transfers from tax revenues collected nationally, and/or they may be authorised to apply a separate local tax rate to a tax base also used by the national government. Sub-national levels of government are also expected to rely on own-source revenues. Property taxes and user fees are the most common local source of revenue. But to cover costs, user fees are often set so high that they create a burden on the poor or limit access to basic necessities such as water.

The following section discusses key tax concepts that are used in tax analysis as a basis for the review of tax and gender in Section 5.

Tax Policy Analysis: Concepts and Critiques

This section reviews key concepts that guide tax policy analysis. As stated previously, tax policy is at the heart of the political debate as to the level of public services that should be provided and who should pay for them. To engage in this debate from the perspective of gender equality in taxation, it is important to understand the concepts that are used, as well their limitations.

Tax policy analysis seeks to identify the impact of tax policy options on individuals, households, businesses, and economic growth and development, so that government decision-makers and the public can make informed policy decisions. Gender analysis of tax policy seeks to identify the differential impact on women and men of tax alternatives, to the extent that their social and economic roles and responsibilities are different, in order to ensure gender equity. In developing countries, most people – and especially most women – are poor, so the analysis of both income and gender equity is central to tax policy analysis.

4.1 The Behavioural Response to Taxation

The most basic concept in tax policy on which there is general agreement is that there is a behavioural response by individuals and businesses to changes in income and changes in relative prices. Taxation, with very few exceptions, alters both disposable income and the relative prices of both inputs to production and consumer goods, and thus affects a wide range of socio-economic decisions.¹⁴ For example, decisions by men and women about the time they spend in formal, informal and unpaid work are influenced by the impact of taxation on wages and disposable income. Decisions about savings, consumption and investment are also affected by taxes.

The direction of the behavioural change depends on many factors and is open to debate, but there is agreement that behavioural responses must be carefully evaluated if tax policy is to attain the desired goal – whether in expected revenue or in the desired impact on targeted groups or activities¹⁵ – with minimal unintended consequences.

Unintended consequences of tax policy are difficult to anticipate but must be considered. An example of unintended consequences from a revenue-raising measure used in India – although it was not a tax – is shown in the following box.

In developed countries with sophisticated data systems, revenue and impact analysis is performed by governments and academics according to various socio-economic and demographic characteristics, such as income class, ethnic group, geographical area, household type (married or single) and business sector/size. Attention to tax impacts by gender has begun only recently.

Box 4.1: Example of Unintended Consequences – Alcohol Licence Fees as a Source of Revenue in India

India inherited from the British a revenue mechanism entailing the auction of licences to sell alcohol. In the 1980s, in the state of Andhra Pradesh, a populist regime came to power with promises of ‘2 rupees a kg. of rice’ to be funded by revenue from the auction of alcohol licences. This coincided with a shift in the type of alcohol sold from higher end and more expensive liquor to a cheaper drink, arrak, also called ‘the drink of the poor’.

To increase revenue from alcohol licences, the state government actively promoted the extension of licensing and the distribution of arrak throughout the state, and revenues from liquor licences increased by over 400 per cent in five years. The pervasive increased consumption of arrak, especially among poor men, increased rates of alcoholism and had a negative impact on household budgets and on family and social life in communities, including a rise in domestic violence.

In 1992, a group of women in Andhra Pradesh joined together to demand a ban on arrak sales in their village. The anti-arrak campaign soon spread to other districts and across the entire state, and the state government was forced to concede to the demand for prohibition. However, due to the need for revenues, and the absence of other tax mechanisms, state governments eventually reintroduced the alcohol licences.

Note: The Andhra Pradesh anti-arrak campaign is documented in the film *When Women Unite: The Story of an Uprising* by Nata Duvvury and Shabnam Virmani.

The following sections discuss three public finance concepts used in tax policy analysis: equity, efficiency and ease of administration. The first two, as discussed below, depend on underlying assumptions and normative values and there is no unanimity regarding their practical application, but they are important terms in tax analysis.

4.2 Equity

Equity in taxation expresses the idea that taxes should be ‘fair’, and is a concept used in all tax policy analysis. However, it should be noted that equity/fairness is a normative, value-based, concept and its interpretation differs across individuals, countries, cultures and time. Since it depends on one’s particular perspective, as well as the specific circumstances being considered, the concept is difficult to apply in practice.

Tax equity is commonly discussed according to four definitions of ‘fairness’. These definitions are also normative, and sometimes conflict, so they too are difficult to apply in practice. However, they are a common reference point for discussion.

Horizontal equity posits that taxpayers who are equally economically situated should be treated equally for tax purposes. *Vertical equity* posits that taxpayers who are *not* identical from an economic standpoint, but are differently situated, should be treated differently for tax purposes.

The limits in application of these principles are seen in the following examples:

Horizontal Equity: Two households both earning 60,000 rupees per month would be considered to be the same for tax purposes. But if one household earns this income through the labour of one wage earner and the other from two wage earners, are they ‘the same’?

Vertical Equity: Of two individuals with an income of 50,000 pesos, one saves part of her income for retirement, while the other spends all of her income on consumption. The former will pay more taxes as she earns interest on her savings, while the latter may consume more government services since she is without private retirement savings. Is this ‘fair’?

One measure for evaluating equity or fairness is the *ability-to-pay* principle, whereby those with a higher income should bear a larger share of the tax burden than those with a lower income. An alternative measure commonly used for user charges and local taxation is that of *benefits-received*, according to which it is fair to assess taxpayers in proportion to the benefits they receive from public services. From this perspective, those receiving the same benefits should pay the same, and those receiving higher or lower levels of benefits should pay more or less.

The limits of usefulness of these two principles in tax policy practice are seen in the following question: What is a ‘fair’ tax policy if a poor person, or an entire poor population, needs a great deal of public benefits yet has no ability to pay? The most commonly accepted idea of fairness in taxation is that taxes should be *progressive* – those with lower incomes should bear a lower share of the tax burden than those with higher incomes. But again the problem is in the application: what is the measure of who has a ‘lower’ income, and relative to whom? And how much less should they pay?

Progressive taxes are designed so that those with a lower income pay a lower percentage of their income in taxes than those with a higher income. Taxes that take a greater proportion of income from the poor than from the rich are said to be *regressive*. Income taxes can be made progressive by a structure of increasing marginal tax rates applied to higher brackets of income and/or through allowable credits and deductions and no-tax thresholds, which reduce the tax burdens of the poor. Consumption taxes are generally regressive, since the poor spend more of their income on consumption than the rich. Consumption taxes can be made less regressive through targeted exemptions, or lower rates for goods purchased primarily by the poor, and/or through special taxes or higher rates on luxury consumption items purchased mostly by the rich.

Gender equity in tax policy can be examined from several perspectives. First, according to the principles of horizontal and vertical equity, to the extent that women as a group or on average are situated similarly to men in terms of economic roles, behaviour or income, they should be treated similarly by the tax system; to the extent that they are situated differently, they should be treated differently. It is important to recognise that since gender interacts with race, ethnicity and geography, the concept of horizontal gender equity should be further extended along these lines. Secondly, since the vast majority of women in the developing world are poor, tax policies that address vertical equity and ability to pay will also improve tax equity for most women.

4.3 Efficiency

Taxes cost individuals and businesses through the loss of income which is transferred to government. If the income is 'recouped' by the same individual/business through public services, there is no net cost to the individual.

However, neo-classical public finance theory holds that, with the exception of lump-sum taxes, taxation imposes an 'efficiency cost' on society because individuals and businesses change what would otherwise have been 'optimal decisions' about labour, investment and production, and this deviation from optimality results in reduced overall economic output and growth. According to this theory, when taxes reduce social welfare – whether directly or indirectly – by more than the amount of revenues they produce, they are considered to be 'inefficient'. The loss to society constitutes a 'deadweight loss', also referred to as the 'excess burden' of taxation. Thus, good tax policy should produce the desired revenue and/or social goals of redistribution, environmental protection, etc., while minimising distortions to the economic decisions of individuals and businesses, and therefore minimising the cost to society.

It goes without saying that everyone wants the maximum social welfare possible – but again, the problem is in the application. Who defines social welfare? What is included in this concept? How is it measured?

The neo-classical calculation of efficiency assumes that there is a social welfare function that can be used as a benchmark for optimal output and production, against which the degree of inefficiency caused by taxation can be measured. Both mainstream and feminist economists have critiqued various aspects of this social welfare function:

- The underlying assumption that individual utility can be measured, compared and summed for society;
- The assumption that non-market time is leisure;
- The omission of non-market and reproductive activities with social value, in which women are heavily engaged;

- The omission of economic and productive value from public services;
- The omission of the possibility that taxation, through its redistributive mechanisms or through the public services it supports, can improve social and gender equity.

Feminist economists have especially criticised the neo-classical notion of efficiency. Diane Elson (1999), for instance, argues that efficiency is too often conceptualised and measured in ways that focus only on market-oriented production and ignore unpaid processes of social reproduction. This notion of efficiency can lead to policy actions which simply shift costs from the paid (public and private) economy to the unpaid economy of the household and community, with no genuine increase in efficiency in the sense of attaining maximum social welfare.

Taxation may also cause unrecognised economic inefficiencies if differential gender impacts are not included in the analysis. To the extent that women's economic roles place them in different positions than men, the impact of taxation on relative prices will be different for women than for men, and their decisions regarding labour supply, consumption, production and investment will be differently impacted. Specific examples of this are discussed in Section 5.

4.4 Ease of Tax Administration

The third 'E' of tax policy, in addition to equity and efficiency, is that taxation should be easy to administer. Administration of a tax system must be funded from public revenue, reducing the amount of revenue available for other public services. In developed countries, the cost of collecting taxes has been estimated at 1 per cent of tax revenues, and in developing countries at possibly twice this. There may also be compliance costs to taxpayers in time and effort. To reduce the overall cost, the structure of the tax system should take into account the conditions of the country and its ability to administer and enforce the tax code. For many developing countries with conditions of low literacy, poor infrastructure and a weak civil service, consideration of the ease of administration is a particularly important factor in the design of tax policy.

4.5 The So-called 'Efficiency/Equity Trade-off'

Traditional public finance theory suggests that practitioners and policymakers should design taxes to raise needed revenues while addressing equity concerns and minimising economic inefficiency. Since equity and efficiency are in themselves normative principles, and often require a normative decision to determine the primacy of one over the other, the 'trade-off' between the two is a political decision to be decided by public debate.

This so-called trade-off between equity and efficiency is at the heart of many fiscal policy discussions. First, there is disagreement about the definitions of equity and

efficiency. Second, there is disagreement about the size or very existence of the trade-off. In the economic growth literature, an emerging body of work suggests that inequality in the distribution of income and assets constrains economic growth and that a wider array of efficiency-enhancing redistributions exist in the policymakers' tool-box than have been recognised (Bardhan, Bowles and Gintis, 1998; Bénabou, 1996). Third, what is the relative value of a decrease in equity compared to a decrease in efficiency, and can this be determined?

Public finance theory may suggest that tax policy analysis should be guided by basic principles of equity and efficiency, but each country must determine through its political processes and within its own social and economic context how it defines these terms and their relative priority. And regardless of the answers, each country faces difficult tax policy decisions in seeking to raise revenues to support public services. The government can reduce the amount of targeted revenue in order to keep the tax burden low, but this in turn reduces the level and quality of public services that can be provided. An alternative is to collect the needed revenues by imposing a higher burden on wealthier taxpayers and/or on businesses, but this risks political opposition or the loss of the high-income tax base due to relocation, especially in conditions of liberalised open markets. A third alternative is to increase tax rates on all taxpayers, including those with low income, but this leads to an increased burden on the poor.

The role of good tax policy is to make sure that political decision-makers and the public have full information about these crucial decisions, so that they can be made in a democratic and transparent manner.

5

Gender Impacts of Taxation: A Review of the Literature

For this paper, we reviewed more than 67 studies that explored various dimensions of gender and taxation. These studies are summarised in Table 5.1. Most studies focus on a single country; far fewer provide comparative analyses of the gender dimensions of tax policy. The majority of the studies examine the gender dimensions of taxation in the industrialised countries, although there is a growing body of work on the gender dimensions of tax policy in countries like South Africa, Vietnam and Chile.

In the industrialised country literature, the topics covered most frequently are the impact of personal income taxes on labour supply, gender biases in systems of joint versus individual taxation and gender biases in social security taxes. The developing country studies focus on gender biases of indirect taxes and the gender dimensions of user fees.

5.1 Summary of Possible Gender Bias by Tax: Explicit and Implicit Bias

Because all tax systems evolve over time and reflect prevailing social and cultural norms which often discriminate against women, tax systems also contain gender bias. Stotsky (1997a) presents a useful conceptual framework for understanding this bias – both in its explicit and implicit forms. Table 5.2 shows the possible types of gender bias for four principal types of taxes: personal income tax; corporate income tax; commodity taxes; and trade taxes.

Explicit bias is found in specific provisions of the law that treat men and women differently. Explicit biases are relatively easy to identify since they depend largely on the language used in the tax code or tax regulations. They are more common in personal income tax arrangements than in other forms of taxation in both developed and developing countries. Implicit gender bias – different impacts on men and women because of different social arrangements and economic behaviour – may be found in personal income tax systems if they have joint filing requirements that tax secondary-earner incomes (primarily women's) at a higher marginal tax rate, thus affecting women's labour supply and other decisions. Implicit bias may also be found in other taxes such as consumption taxes, trade taxes and corporate taxes to the extent that they impact on female and male taxpayers differently, and in the way that payments are linked to the receipts of benefits under social insurance programmes.

Table 5.1: Summary of Literature Review of Effect of Taxation on Labour Supply, Household Production and Marriage/Fertility

Region	General Taxes		PIT		Corporate	Trade	Commodity	Social Security	User Fees	Total
	Labour Supply	Household Production/ Time Use	Household Production/ Time Use	Marriage, divorce, fertility						
Global	1	1					1			3
OECD	3	7	6	8			3	7		34
Developing	3									3
Sub-Saharan Africa	4	1	2			1		1	3	12
LAC	2					1	1	2		6
ECA	1	2			1			2		6
EAP						1	1	1		3
Total	14	11	8	8	1	3	5	14	3	67

Table 5.2: Types of Gender Bias by Tax: Explicit and Implicit Bias

	Explicit	Implicit	Indirect/ Ambiguous Effect
1. Personal Income Tax			
A. Separate Filing			
i. Allocation of non-labour and/or family business income	X	X	
ii. Allocation of tax preferences	X	X	
iii. Rate structure	X		
B. Joint Filing			
i. Allocation of tax preferences	X		
ii. Responsibility for filing	X		
iii. 'Marriage tax' (marginal rates)		X	
2. Corporate Income Tax			X
3. Commodity Taxes			X
A. VAT or broad-based sales		X	
B. Excise or selective sales		X	
4. Trade Taxes			X
A. Import duties		X	
B. Export taxes		X	

Source: Stotsky, 1997

5.2 A Hypothetical Gender-Tax Typology

Table 5.3 is an example of a possible approach to gender analysis of taxation. The table presents a hypothetical gender-tax typology. The typology classifies countries according to their level of income: low, low-middle, upper-middle, and high income. The table profiles the primary economic activities of women in these countries and matches these to the principal types of taxes that affect women engaged in these activities. For each tax type, the most important potential bias, e.g. implicit or explicit, is described. Finally, the table includes a column with hypothetical priority recommendations for improving the gender equity of tax policy. Note, however, that the information in Table 5.3 is hypothetical and not derived from information on actual countries at these levels

The remainder of this section explores the various gender biases that may exist in different types of taxes. It summarises the findings of studies exploring the effects of personal income tax on female employment, household production and time use, and fertility in developed countries and draws lessons for developing countries. Although the literature from developing countries is not as extensive as the studies based on developed country data, the latter do provide background for the gender analysis of taxation in developing countries. The literature from developed countries can also provide important lessons about how gender bias can be identified and corrected in current tax systems, and possibly avoided in future tax policy decisions.

Table 5.3: Hypothetical Gender-Tax Typology

Level of Development	Principal Women's Economic Activities	Principal Taxes Affecting Women	Principal Type of Gender Bias	Principal Tax Recommendations
Very low	<ul style="list-style-type: none"> – Agriculture – Market selling – Small trade – Home-based production – Unpaid domestic work 	<ul style="list-style-type: none"> – VAT – Selective sales taxes – Property taxes – User Fees 	Implicit	<ul style="list-style-type: none"> – Simplify – Low-income relief/credits – No user fees for basic services – Exemptions for food and basic necessities
Medium low	<ul style="list-style-type: none"> – Agriculture – Market selling – Small trade – Small services – Unpaid domestic work 	<ul style="list-style-type: none"> – VAT – Selective sales taxes – PIT & Corporate taxes – Property taxes – User Fees 	Implicit	<ul style="list-style-type: none"> – Simplify income taxes – Low-income relief – Low tax rates – No user fees for basic services
Medium high	<ul style="list-style-type: none"> – Small trade – Small services – Public sector – Factory work 	<ul style="list-style-type: none"> – VAT – Selective sales taxes – PIT & Corporate taxes – Property taxes 	Explicit	<ul style="list-style-type: none"> – Remove explicit bias – Low-income relief – Increase marginal rates – Some targeted tax incentives/credits
High	<ul style="list-style-type: none"> – Unpaid domestic work – Full economic integration 	<ul style="list-style-type: none"> – User fees – VAT/Sales – Selective sales taxes – PIT & Corporate taxes 	Explicit	<ul style="list-style-type: none"> – Remove explicit bias – Low-income relief – Increase marginal income tax rates – Some targeted tax incentives/credits
	<ul style="list-style-type: none"> – Property taxes – User fees 	<ul style="list-style-type: none"> – Wealth & Inheritance taxes 		

The sections below are organised by principal taxes. We begin with the personal income tax. The personal income tax constitutes a smaller share of total tax revenue in low-income countries than in developed countries but Table 3.3 shows that this share is as high as 20 per cent in Malawi, for example, and the share is likely to grow with development (Table 3.2). And finally, it is the tax whose structure can most easily address (gender) equity goals, so it is especially important for a gender analysis of taxation.

5.3 Personal Income Taxes

In developed countries, the personal income tax (PIT) raises desired revenues from a broad tax base with reasonably low rates. Its base of wage and non-wage income grows with the economy and keeps up with inflation. In countries with high literacy rates, the PIT is also fairly easy to administer. It can be used to address equity and redistribution goals through a progressive tax rate structure, with marginal rates which impose a lighter burden (or guarantee a minimum income) at the lower end of the income scale, and a gradually greater one at higher ends, following principals of vertical equity and ability to pay.

In developing countries, however, the PIT is often a more limited tax mechanism for several reasons: a) high rates of poverty mean that the personal income tax base is weak and narrow, and there is a greater need for redistribution; b) steep progressivity in marginal tax rates may unfairly burden those employed in the formal sector and/or create incentives for tax evasion and corruption by a small wealthy elite; c) high rates of illiteracy and a weak civil service infrastructure make the tax difficult to administer and enforce.

5.3.1 Gender Bias in Personal Income Taxes

The review of the literature suggests that most personal income tax systems are not gender neutral. Even in countries which have reformed their PITs to be more gender equitable, a number of thorny issues remain.

The appropriate unit for personal income taxes has been a subject of some debate in the economics literature (see Nelson, 1996 for a summary). The tax unit is the unit over which the income tax base is aggregated. In principle, the definition of the unit can vary for different types of income, although in practice the assessment unit is usually either the individual or a married couple. Some developing countries have a tax unit based on the extended family that is the typical social unit. In some countries with large Hindu populations, as in India, the 'Hindu undivided family' is the filing unit (Stotsky, 1997a). The Hindu undivided family consists of all male Hindus descended in the male line from a common ancestor, their wives and unmarried daughters; responsibility for filing for the family is vested in the eldest male member. Several countries have provisions in their tax code for multiple wives, and Nigeria's

tax code provides more generous tax treatment for the first wife than for succeeding wives.

Julie Nelson (1996) questions the definition of the ‘proper’ tax-paying unit and finds that both household and individual definitions are problematic. She argues that ‘the notion of the household as a unit presupposes that households can be uniquely identified’, which implies, for example, that information on different types of household must be available. Moreover, she suggests that equity principles (discussed above) dictate that levels of household wellbeing must also be well-defined; as noted earlier, this is difficult to do in practice.¹⁶ The notion of the individual as the unit, on the other hand, tends to focus attention on adult earners as the only tax-relevant human beings, ignoring issues of dependency and social relationships. Nelson looks for a middle ground, suggesting that the tax code should define a unit of taxation as an individual earner plus his or her dependents, i.e. those persons who are unable to support themselves for reasons such as youth, old age or chronic disability.

Although discussion of the details of Nelson’s proposal is beyond the scope of this paper, two observations are worth noting: her proposal is marriage neutral, and it imposes a lighter tax burden on the two-earner couple than the one-earner household. If countries are to adopt this approach, many questions, such as the treatment of property income, how to allocate child exemptions and the allocation of social security taxes and benefits will need to be worked out in the tax code. One possible line of approach is the calculation of an ‘adult consumption equivalent’, which includes both working adults and their dependents.

There are two types of personal income taxes – schedular and global. A schedular tax calculates liability on each source of income, while global taxes apply a single rate schedule to aggregated income. Schedular taxes are typically found in developing countries, especially those where tax administration capacities are weak. Global income taxes are typically found in industrialised countries and increasingly in developing countries. Schedular regimes may contain implicit gender bias, insofar as they include elements, such as deductions and credits, based on the personal characteristics of the taxpayer (Stotsky, 1997a).

Global income taxes, which are assessed on either an individual or a family basis, contain a number of explicit gender biases. Under an individual filing system, married individuals file a separate return based on their own labour earnings. The allocation of non-labour earnings and exemptions or deductions for children and other purposes is determined by the country’s tax laws and can be a source of gender bias. Most developing countries require individual filing for at least some sources of income. Joint filing systems with progressive marginal rate schedules also contain explicit gender bias in the allocation of tax preferences (i.e. to only one spouse) or in filing rules. Most industrialised countries had joint filing at one time, although many have moved to individual filing in order to reduce gender discrimination.

5.3.2 Gender Implications of PIT Individual Filing

Stotsky (1997a) identifies three types of potential gender bias in systems that permit individual filing: the allocation of non-labour or business income; the allocation of tax preferences or exemptions; and tax rates.

In income tax systems with individual filing, wage income is attributed to the worker, but the attribution of non-wage income in a household is not so simple. Tax codes allocate this income in a variety of ways, including attributing it to the higher earner, allocating the income equally between partners, allowing couples to make the decision for how to allocate the income or attributing the income to the spouse who possesses legal ownership of the property. Many countries' tax codes allocate all non-wage income to the husband whether or not this is true in practice: this is the case for some countries in Latin America, Asia and Africa which allow women to pay tax on their labour income but attribute all non-labour income to the husband.

In many parts of the world, family business income is also attributed to the husband regardless of the spouse's role in the business: this is the case in Tanzania, for instance. Often the rationale is to prevent tax avoidance. However, there are administrative solutions to this problem that would be more gender equitable.

A second form of gender bias occurs in the allocation of exemptions. Often, countries give exemptions or deductions for a variety of purposes, including for dependent children and non-working spouses. These exemptions must be allocated between spouses or parents in some way, and rules differ widely across countries. In Jordan, for instance, if husbands and wives file separately, some deductions are only available to the husband and not to his wife. In Zimbabwe, married men with non-working wives are entitled to a special credit but there is no such provision for married women with non-working husbands.

A third form of gender bias can be found in a country's tax rate structure. Countries may levy different tax rates on men and women, with a higher rate being applied to married women than to married men, as was done in South Africa until 1995 and still happens, for example, in several other countries in the Middle East. This will be discussed further below.

5.3.3 Gender Implications of PIT Joint Filing

In the US and in most countries in Europe which tax the household, the income obtained by all family members is added together, resulting in a higher marginal rate than the one which would be paid if an individual filed alone (de Villota and Ferrari, 2001). The literature review showed that higher marginal rates deter women from entering the paid labour market and keep them in part-time jobs. According to Sainsbury (1996), joint taxation stems from an ideology favouring the traditional family where the husband is identified as head of the family and financial supporter of the household, and the wife devotes her time exclusively to looking after children and

domestic work. High marginal rates still exist in many PIT systems despite more gender-equitable mechanisms such as income splitting, the family ratio, a joint rate with lower tax levels for families than for single persons without dependents or deductions for accrued tax obligations.

Beyond high marginal tax rates for secondary earners, Stotsky (1997b) identifies two other forms of explicit gender bias in systems with joint filing. One form is making tax preferences available only to the husband, for instance, an allowance for married men if he supports the household but not an allowance for married women. Many countries in the Middle East and North Africa allow men to claim deductions for children on their income. These deductions may only be taken on women's income if she is the sole breadwinner, if her husband agrees (Jordan), or if the father is dead or handicapped (Lebanon). The rationale behind these rules is that a family should only be allowed to take the deduction once, even if both the father and mother work. A second form of bias occurs in countries that require jointly filed returns to be submitted in the name of the husband; consequently wives have no separate existence as taxpayers. This was the case in Britain until 1990; Switzerland continues the practice today.

5.3.4 Impact of PIT on Married Women's Labour Supply¹⁷

As noted above, systems of joint filing with a progressive marginal rate schedule often discourage secondary earners because the tax on the secondary income starts at the highest marginal rate of the 'primary' earner. This is known as the marriage penalty.

The public finance literature on the marriage penalty in the US and in European countries concludes that the principal impact of high marginal rates has been on wives, who generally earn less than their husbands and are in effect taxed at their husband's marginal rate (Bartlett, 1998). Thus, wives generally receive less after-tax income on each dollar they earn than their husbands, which is a significant disincentive to married women to enter the paid labour force. The disincentive effects of high marginal tax rates on married women's labour supply are further exacerbated by their responsibilities in the unpaid care economy during their reproductive years.¹⁸

The empirical literature also shows that the labour supply elasticity of married women, who are often assumed to be secondary earners, is greater than the labour supply response of married men. The 1981 US Tax Act reduced the marriage penalty by instituting a secondary-earner deduction. Feenberg and Rosen (1995) found that following the Act married women's participation in the labour market expanded by almost enough to pay for the revenue loss caused by the deduction. Eissa's (1995b) analysis of the 1986 US Tax Reform Act, which lowered the top marginal tax rate from 50 per cent to 28 per cent, similarly found that married women responded more strongly to the increased work incentive than men did. A Norwegian study found an increase in the labour supply of married women with equalised tax schedules across

marital status (Aaberge *et al.*, 1989). The implication of this research is that to minimise the ‘deadweight loss’ of the income tax, everything else being equal, married women should be taxed at a lower rate than other workers.

However, it is important to note that the conventional literature examining the impact of taxation on labour supply assumes that the alternative to paid work is leisure, whereas most women allocate their time to home production and to leisure. The findings of this literature are most certainly incorrect: when household production is incorporated into the analysis, the labour supply response of married women is seriously underestimated (Apps, 2002b). In addition, purchased childcare is considered to be a cost only when the mother seeks paid employment: the time cost of childcare provided by mothers is assumed to be zero. Analysing data from European countries, Apps (2002a) finds a strong positive effect of childcare subsidies offered through the tax system on female labour supply and on fertility because market childcare and mother-provided care are close substitutes. Further research is needed to show the relevance of this effect for women in different income classes in countries at different levels of economic development.

Finally, tax and welfare policies that ignore household production can lead to an increase in inequality across and within households and impose significant efficiency losses by reinforcing gender roles (Apps and Rees, 1999a). We turn to this issue next.

5.3.5 Impact of PIT on Time Use and Household Production

Models of the effect of taxes and transfers must rely implicitly or explicitly on some theory of how households function. The traditional view, pioneered by Gary Becker in 1974 and 1981, argues that men specialise in market work and women specialise in household production. Other things being equal, labour in household production is subject to diminishing returns – if the value of household capital and technology remains constant, the value of goods and services produced by an additional unit of labour begins to decline at some point. Both men and women making decisions about time allocation devote their labour to household production as long as the value of hourly product from that production is greater than the market wage. Women therefore work longer hours in the household than men and fewer hours in the market. Many studies of the impact of tax and transfer in developed countries rely on this theory of the household.

Many scholars have criticised this view and its use in tax analysis. Apps (2002b) and Apps and Rees (1999a, b and c), for instance, point out that specialisation in domestic production may result either from higher productivity or from lower productivity in household work. As Apps (2002b) says, ‘High productivity in domestic production implies a low implicit price and a higher demand for domestic output. The higher the productivity, the less time is required to produce a given domestic output and more time is available for market labour supply. The net effect depends on the

price elasticity of demand for domestic output in relation to domestic productivity.' Thus, tax policy analysis that is based on average household income may be misleading because it misrepresents the true distribution of living standards.¹⁹

As noted earlier, one measure of tax fairness is ability to pay. Julie Nelson (1996) makes the point that 'if household services are counted as income, the ability to pay of an earner and homemaker couple with a given money income will be higher than that of a household in which earning the same money income requires that both adults work outside of the home'. (This is similar to the example we discussed in Section 4.) The two-earner couple has less time for leisure and needs more money to pay for market goods to replace those formerly provided at home. Nelson argues that households with an earner and homemaker 'should also be compared, in terms of household services, to the household of an earner and a child or other dependent (based on age, disability or illness) who have need for care'. She notes that the ultimate losers in systems where domestic output is 'free' are lone parents, unless they receive special help in other ways.

Because the norm of marriage and the nuclear family as well as the allocation of women's time between market work, unpaid labour and leisure in developing countries differs significantly from that of women in developed countries, the relevance of the European and US literature is questionable. More research is necessary to understand the impact of tax and welfare systems on women's time allocation and unpaid work in developing countries. Nonetheless, one lesson from the developing country literature stands out. Basing the design of a personal tax and transfer system on combined family income, while ignoring women's unpaid work in the care economy, is problematic.²⁰ This type of system can widen gender inequality and increase the gap between rich and poor.

5.3.6 Impact of PIT on Fertility

Concern about population decline has induced some governments to adopt explicitly pro-natalist policies: these countries have included Canada, Singapore, France, East Germany and Hungary. At the other extreme, China has instituted economic incentives to reduce fertility. Given that most developing countries are trying to reduce fertility, the effects of tax incentives on birth rates in these countries remains unclear and there is currently no literature on this issue.

A study from the US by Whittington *et al.* (1990) examined the impact of the personal exemption in the US tax code on fertility. Using fertility data from 1913 to 1984 to ascertain whether changes in the exemption level impacted on fertility rates, they found that the personal exemption had a positive and significant effect on the national birth rate. They note that increases in the personal exemption served as effective decreases in the costs of raising children. Although the elasticity of the birth rate with respect to the exemption was not large, this study suggests that countries can influence to a degree the fertility decisions of its citizens through changes in tax

policies. But putting a tax on additional children would be unfair to the poor, who tend to have more children.

5.4 Payroll Taxes

Payroll taxes are an alternative form of income tax. They are deducted at source from the wages of employees, often with a matching portion paid by the employer, based on total payroll. Developed countries use payroll taxes primarily to fund social security systems. Many developing countries use payroll taxes as a source of general revenue because they are relatively easy to administer and collect, as well as to fund social security systems. However, a payroll tax generally imposes a greater tax burden on the poor than the PIT because: a) it falls on a much narrower base than the PIT – only on the wage portion of income and only on the wages of those employed in businesses over a certain size which are required to keep formal accounting books; b) because of the narrower base, it requires much higher tax rates than the PIT in order to raise the same amount of revenue; c) the employer may be able to recoup all or part of taxes paid by reducing wages to workers or increasing prices to consumers, causing an additional burden on the poor; and (d) it falls on all employees, whereas low-income workers in these companies may be exempt from the personal income tax.

Generally, people pay taxes on their income when they actually earn it. However, an exception is made with respect to taxation of income contributed to retirement funds and pensions: tax is paid when the retirement or pension benefits are actually received after the worker retires. The intention of the tax deferral is to encourage individuals to save for retirement. However, its result is regressive because the deferral is only available to people with sufficient income to be in the income tax system and because, within that group, those who earn more and are taxed at higher marginal rates benefit more from deferral than those who earn less and pay lower marginal rates.

In the past ten years, countries with defined ‘pay-as-you-go’ (PAYG) public pension systems have been moving to privatised defined contribution systems. Pension reforms are well underway in Latin America and the transition countries in Eastern Europe. In these countries, a multi-pillar structure is developing. The new structure consists of two mandatory pillars. One pillar handles the funded accounts that people are required by government to have. This pillar is usually defined contribution instead of defined benefit. The benefits are funded rather than ‘pay-as-you-go’ and the funds are privately managed. The second pillar is a publicly managed tax-financed arrangement designed to provide a social safety net to protect low wage earners.²¹

There are several rationales for defined contribution plans. First, they are seen to reduce the incentive for evasion, which is a problem in many countries. James (1998) notes that, in some countries, between 20–30 per cent of the covered labour force evades taxes. She argues that smaller taxes and closer links between benefits and

contributions reduce the incentive for evasion. Second, defined contribution plans are structured to discourage early retirement, which gives the system more financial sustainability. Third, defined contribution plans avoid large payroll tax increases which may be necessary over time as a country's population ages.

Critics do not agree that privatising pensions is the best way to raise revenues and support workers in their old age. Baker and Kar (2002) contend that it is also possible to raise the return on defined contribution systems by adding more government funds which is, in effect, what private accounts do: they increase government payments to support pension systems, contributing general revenue (and imposing a tax on capital income) but they do it through changing relative prices. Apps and Rees (2002) and others also show that the switch from PAYG to funded pension systems in developed countries is not a solution to the problems raised by increasing aged-dependency ratios and declining fertility in those countries.

5.4.1 Gender Bias in Payroll Taxes

Our review of the literature found several studies on social security taxes in the developed countries.²² A few recent studies have also explored the effect of pension reforms in Latin America and Eastern Europe on women and men.

Three main factors explain gender gaps in private pension coverage: women's household responsibilities, women's work patterns and pension design. Because pension entitlements are predominantly through work, women's responsibilities for unpaid care work, as well as their predominance in informal employment and seasonal and part-time jobs, all restrict their access to the private pension sector. Private pension coverage is more extensive in larger firms and in those industries requiring a skilled, stable and full-time labour force. Pension design is the third factor, and many pension systems contain both implicit and explicit gender bias.²³

Several studies in our review examine the gender impact of pension reforms in Latin America. Baker and Kar (2002) note in their survey of Latin American pension reform that reform efforts have included raising the retirement age to the same level for both sexes. While this is a reasonable policy, it means that women workers will experience a larger reduction in benefits than men. The impact of this benefit reduction is compounded by the shift to defined contribution plans which the authors claim are less favourable to women for two reasons. First, since women generally earn lower wages than men and spend fewer years in formal employment, they are likely to accumulate much less in individual accounts than men. Second, the structure of the benefit payment hurts women. The benefit payment from a defined benefit plan is gender blind, with a worker's benefit depending on his or her contributions. However, the payments from most defined contribution plans are based on gender-specific life expectancies. This means that a woman who retires at a particular age receives a smaller benefit than a man retiring at the same age with an identical accumulation

because she has longer life expectancy. The combination of gender-specific annuities and the lower accumulations that women are likely to have could lead to reductions in benefits for many older women.

In contrast to these claims, James *et al.* (2002) undertook a cross-country empirical analysis of the gender impact of pension reforms in Chile, Argentina and Mexico. They found that women generally accumulate retirement funds and own-annuities that are only 30–40 per cent those of men from the defined contribution pillar of the multi-pillar systems. However, they note that the effect seems to have been mitigated by targeting the new public pillars toward lower wage earners, many of whom are women, and by restrictions on pay-out provisions, including joint annuity requirements, which redistribute income from husbands to wives within households. They claim that as a result of this ‘total lifetime retirement benefits for women reach 60–80 per cent of those for men; for “full-career” women, they equal or exceed benefits of men’.

Cox Edwards (2001) provides a detailed analysis of pension reform in Chile. She finds that it ‘increased women’s incentives to participate in the labour market, to save, and to use the social security system as a channel for their savings ... Under the new system’s rules, there is no minimum level of contributions to obtain a pension; contributions at a young age get an increased weight via compound interest; and widows can keep their own pension in addition to their widow’s pension. These three characteristics raised the marginal benefit of own contributions for working women relative to what the old system offered.’²⁴

Because the specifics of pension reform vary across countries and there are too few studies to draw clear conclusions, further research is necessary to determine whether women are better off in defined contribution plans. Public pension schemes which can provide insurance and redistribution on a wider scale than personal pensions may be an important supplement to defined contribution plans in countries undergoing reform (which are largely middle income), or be a better alternative for women in countries at low levels of income, where informal employment and widespread poverty co-exist.

5.5 Commodity Taxes (VAT, Sales, Excise)

Since the time of J.S. Mill and Alfred Marshall, economists have argued that taxation should be imposed on consumption, not income, in order to avoid the disincentives to paid labour, investment and savings which income taxes create. However, commodity taxes impose a greater tax burden on the poor than on the rich because the poor spend most or all of their income on basic consumption. Commodity taxes also alter the relative prices of taxed and untaxed goods and thus alter individual and household decisions about consumption, and business decisions about investment and produc-

tion. Commodity taxes generally seek to apply the lowest rate possible to the broadest possible tax base, with minimal exemptions.

The value-added tax is a commodity tax that has become the predominant form of commodity taxation in many developed and developing countries.²⁵ By April 2001, 123 countries had some form of VAT; 27 countries in sub-Saharan Africa had a VAT, compared to only four in 1989 (Ebrill *et al.*, 2001, Table 1.1).²⁶ The most populous countries without a central VAT are India and the US. Developing countries that have adopted a VAT have relatively higher GDP per capita and rely somewhat less on international trade than countries without a VAT.

The incidence of VAT and other broad-based consumption taxes falls in principle on the final consumer. Any preferential treatment, as a result, is usually given to the final consumer. Typically, preferential treatment is applied to goods and services that are considered necessities, such as food and medical care, so as to minimise the burden on the poor, and to goods and services that for administrative reasons are difficult to tax, such as financial services (see Box 5.2). Tax preferences can also apply to certain purchasers or producers, such as non-profit institutions or the government. Most countries with a VAT exempt agriculture, because a large share of the agricultural sector is informal and most of the poor are active in that sector (Le, 2003).

Box 5.2: Case Study on Trinidad and Tobago

Trinidad and Tobago incorporated in its VAT regime numerous zero and reduced rates and exemptions that were intended to make the system less regressive than the previous purchase tax. Zero rates were granted to basic goods, in addition to exports, and exemptions included health-related services, most of education, rental of residential property, and bus and postal services. Even with these poverty-relief features, the VAT is seen as a successful revenue-raising tool.

Source: Le, 2003

There is some disagreement in the literature about whether and how to include the informal economy in the VAT base. Le (2003) observes that VAT tends to impose high compliance costs on small traders who generally do not have sufficient resources to keep proper records of their transactions and to comply with accounting rules. Although the number of small traders is large, including them in the tax net would produce limited revenue and create high administration costs.²⁷

5.5.1 Gender Bias in Commodity Taxes

Commodity taxes such as VAT alter relative prices between taxed and untaxed goods. Gender biases in such taxes tend to be implicit rather than explicit. Elson (1999) and

others point out that gender biases can result from women's differential consumption patterns. Although the exact nature of these patterns must be discerned in a specific country context, generally it has been found that women tend to consume goods and services that benefit family health, education and nutrition, while men consume more of their income on personal items. Thus, women may bear a disproportionately larger burden of indirect taxation. At the same time, Ingrid Palmer (1995) argues that the exemption of a range of essentials can turn a VAT into a modestly progressive tax. Since men and women partly purchase and produce different goods and services, she suggests that VAT exemptions can be used as a policy instrument to advance gender equity.

Commodity taxes also alter relative prices between the paid and the unpaid care economy and in so doing affect the distribution of work between them. This distribution has clear gender implications.²⁸

The literature review found two studies that examine the gendered effects of indirect taxation. Smith (2000) provided evidence showing the VAT burden on South African households at different levels of income who consume the same commodity basket. His analysis showed that expenditure on VAT as a proportion of both total taxes paid and annual income is highest for the lowest income household and becomes lower as household income rises. The South African VAT does give special consideration to the distributional impact of the tax. It zero rates certain foodstuffs, including brown bread, maize meal, dried beans, milk powder, rice, vegetables and fruit. Some goods that are important for the poor, such as paraffin, which is widely used by poor women for cooking, have been zero rated in recent years, and the South Africa's Women's Budget Initiative can claim that it contributed to this change. Poor women bear more of the burden of indirect taxes, both because they are poor and because of gender differentials in consumption patterns.

The second study examined the effect of indirect taxes on women-owned businesses. Van Staveren and Akram-Lodhi (2003) explore the effect of VAT in Vietnam on women's enterprises. Because female-owned enterprises have a different input cost structure than do male-owned enterprises, the VAT places a relatively higher burden on female-owned businesses than male-owned businesses because it increases their total costs and lowers their overall profits.

Female entrepreneurs have three types of input costs: labour, capital and materials. On the labour side, female entrepreneurs utilise less paid labour and less unpaid household labour than do male entrepreneurs as a result of gender stereotyping which structures the division of household responsibilities. Value-added tax is a proportion of the estimated value added that is generated by the enterprise. When male-operated household enterprises have more inputs of unpaid (female) household labour, there is an uncosted 'invisible' input into the production process that generates value added which will affect the calculation of VAT. Van Staveren and Akram-Lodhi conclude that gender inequality is not a function of the absolute amount of VAT that is payable,

but rather a function of the gender division of labour in which female-operated enterprises have less access to unpaid household labour and lower levels of value added and which therefore results in female entrepreneurs paying a relatively higher proportion of their total earnings as tax.

On the capital side, women entrepreneurs face higher capital costs than do male entrepreneurs, in part because of credit market imperfections in Vietnam, which reduces their earnings. The Vietnamese government calculates VAT payments on ‘reasonable’ costs of capital, which is likely to proxy the market interest rate for loans. Female entrepreneurs pay higher interest rates than the market rate, so their VAT payments are likely to be higher than those of male entrepreneurs.

On the material input side, Van Staveren and Akram-Lodhi note that industrial and occupational sex segregation influences the burden of VAT payments. Women-owned enterprises are more likely to be in the trade sector, while male entrepreneurs are more likely to be in the production sector. Female entrepreneurs are, therefore, more likely to face the 10 per cent VAT levy, while male entrepreneurs pay the reduced VAT rate of five per cent. Moreover, the authors note that the food and beverages sub-sector, where women predominate, is in the 20 per cent VAT band and this rate is applied to food stalls in markets and on the streets. Thus, profit rates for female entrepreneurs may be diminished by the higher rates of tax applied to women in this sector.

The Vietnamese VAT contains 27 categories of exemption, including one for businesses below a threshold defined as ‘the minimum level of business turnover minus a reasonable cost of business operation’. Many female-operated businesses fall below this threshold, and in principle they are exempted from VAT. However, exemptions are only granted to businesses that are registered and the registration rate for business owners is lower for women than for men. Thus, Van Staveren and Akram-Lodhi conclude: ‘Non-registration by female-owned SMEs will considerably reduce the net earnings of an enterprise because they will be paying tax on higher priced inputs for which no redemption of VAT payments on inputs will be available’ (Van Staveren and Akram-Lodhi, 2003, p. 26).

5.6 Corporate Income Taxes

Developed and developing countries generally impose an income tax on the income of business entities which are legally organised as corporations. There is a great deal of controversy in tax theory regarding corporate taxation since technically corporations are conduits for shareholders and corporate income is passed on to shareholders as dividends or as increased stock value. A corporate income tax means that the same income is taxed twice – both as personal income of the individual shareholder and as corporate income. Despite the ‘double taxation’ argument, corporate taxes continue

to be applied because they produce significant revenues for governments which would be difficult to replace without a shift in tax burden to some other sector. In many countries, reductions in corporate tax rates have resulted in a shift of the tax burden from businesses to individuals. In South Africa, for instance, Hartzenberg (1996) and Smith (2000) report that there has been a continuing shift from company to personal tax. A traditional concern with regard to the corporate tax, particularly if there are high corporate rates, is the possible negative effect on business investment, although there is debate in the literature on the magnitude of the effect.²⁹

A particular issue for all countries in open, globalised economies, and especially for developing countries which desperately need tax revenues but want also to attract foreign investment, is taxation of multinational corporations. In tax policy, there is general agreement that corporations should not be taxed by multiple jurisdictions on the same income, but there is no agreement as to whether corporate income should be allocated for tax purposes according to 'source' or 'residence'. The former allocates income to where it is produced; the second allocates income to where the entity has its residence or domicile.

Grunberg (1998) notes that the question of how to tax foreign income poses a trade-off between equity and revenue objectives. Adopting a residence principle is best for raising revenue: foreign income is treated as domestic income and taken into account in calculating the applicable tax rate. In practice, foreign income is difficult to track because of difficulties in decoding foreign tax documents, lack of co-operation at the operational level, legal challenges and competitive behaviour among countries. Hence, the alternative, the source principle, is often adopted, mostly for corporate taxation. So Treasuries try to make up the shortfall caused by the difficulty of collecting corporate taxes by increasing taxes on immobile factors such as land and labour (e.g. through payroll taxes).

Another issue is that there are many ways that multinational corporations allocate revenues and costs (transfer pricing) in order to minimise their total tax payments to all jurisdictions; this can be particularly challenging for local and national governments. This is particularly true in countries where capital markets have been liberalised and corporate investment can easily be moved to other countries. In the corporate tax, policymakers face most clearly the dilemma of balancing the need for short-term revenue to fund services which are needed for social and economic development against the need for capital investment which is also needed for economic growth.

5.6.1 Gender Bias in Corporate Income Taxes

Since corporate taxes apply to legal entities, they tend not to contain explicit gender bias, but an implicit gender bias is possible, depending on the incidence and behavioural effects of corporate taxation. Preferential tax treatment of different industries may affect men and women's employment and/or consumption differently. For instance,

a differential tax on mining may affect men's employment more than women's as men predominate in that industry.

Gender issues may also be reflected in the distribution of the tax burden between corporate taxes and individual taxes, and in the overall level of taxes, if reductions in tax rates mean reductions in services on which women depend more than men. The literature on corporate taxation concludes that corporate taxes are borne by both the owners of capital and by consumers; there has been no attempt to tie these effects to gendered outcomes.

Only one study in this review discussed the gender dimensions of corporate income taxes. Smith (2000) notes that in principle women could benefit in two ways from increased investment that is associated with reductions in company taxes. They could presumably share in the profits resulting from these investments; however, in South Africa the majority of shareholders of large companies (which receive the greatest benefit from the reduction of corporate taxation) are men, so women may not be direct beneficiaries from reduced corporate taxes. Second, women could potentially benefit if corporate tax relief encourages private sector investment that creates employment. However, Smith observes that private sector investment in South Africa has been primarily in capital-intensive industries such as IT, energy and oil, in which employment is dominated by men.

In other countries, foreign direct investment (as a result of tax breaks for multinational corporations) has been associated with increased employment for women, especially in light manufacturing industries and in services. There is considerable debate, however, about the quality of these jobs and the long-term sustainability of this type of employment for women.

5.7 The Tobin Tax Proposal³⁰

The Tobin tax, originally proposed by Nobel Laureate James Tobin, seeks to reduce volatility in the global economy by imposing a small international tax on foreign exchange transactions. There are now a variety of proposals for Tobin-type taxes, which many argue could be a significant source of revenue that could be used for development purposes (Palley, 2001; Haq *et al.*, 1996). According to some estimates, a Tobin tax has the potential to raise a large amount of revenue. For instance, using 1995 currency transactions figures, Felix and Sau (1996) estimate the global revenues from a Tobin tax of 0.1 per cent to be in the range of \$148–180 billion. If the tax were set at 0.05 per cent, the revenue estimate increases to \$90–97 billion.

Many consider revenues from Tobin taxes as an attractive policy alternative given the widely acknowledged problem of tax competition (Tanzi, 1996; OECD, 2001) which has contributed to an erosion of national tax bases and the shift from direct to indirect taxation (Rodrik, 1997). It is argued that a Tobin tax would be relatively pro-

gressive in incidence, because the burden would fall predominantly on higher income individuals and on corporations. The amount of revenue raised would also depend on the extent to which the tax reduces currency speculation. If the tax has little impact, the revenues will be relatively larger; if the tax has a large impact, the revenues will be relatively smaller. However, many argue the tax is justified (Palley, 2001; Baker, 2002; Pollin *et al.*, 1999).

The literature on Tobin taxes has discussed problems of enforcement, avoidance and evasion that plague national tax systems. Critics argue that these problems make the Tobin tax infeasible. Advocates respond that evasion and avoidance should not be the determining factor in determining the feasibility of such a tax, because every tax system is subject to some evasion and avoidance. The extent of such behaviour is always a concern. Other factors relevant to the implementation of a Tobin tax include the amount of needed revenue that the tax raises and the behaviour it discourages. Palley (1991) argues: 'This is the test that should be applied to the Tobin tax – just as it should for all tax systems – and on this test the Tobin tax scores well.'

Beyond these issues is a question about the nature of regulation in a dynamic global economy. Critics of the Tobin tax argue that financial markets will innovate to avoid it. Advocates respond that this may be true but, again, that this does not mean that a Tobin tax is unwarranted. There are many ways to regulate undesirable behaviour of firms.

5.7.1 Gender and Tobin Taxes

It has been suggested that a portion of the revenues raised by a Tobin tax could be awarded to governments for the design of gender-equitable social insurance and social protection systems. A Tobin tax would also potentially reduce market volatility – caused by movements in speculative, short-term capital flows – which has disproportionately negative impacts on women (see Çağatay, 2003).

5.8 Trade Taxes

Taxes on foreign trade take the form of import and/or export duties. They are similar to broad-based domestic consumption and excise taxes. They typically apply to a broader range of commodities than excise taxes but with different rates. Trade taxes (import tariffs and export taxes) are important policy instruments for resource allocation purposes (i.e. protection for import-competing sectors) and for revenues. Historically, developing countries have relied heavily on trade taxes because other tax bases and tax administration capability are weak, and trade taxes are relatively easy to assess and enforce. Though the relative weight of trade taxes has declined over the last two decades because of trade liberalisation policies, trade taxes continue to be an important source of revenue for the governments of developing countries, especially in low-income countries. The share of total trade taxes in total tax revenue between the

1970s and 1998 averaged 36 per cent for low-income countries, 29 per cent for lower middle-income countries, 19 per cent for upper middle-income countries, and only 3 per cent for high-income countries (see Table 3.2 above).

5.8.1 Gender Bias in Trade Taxes

There are very few studies of the impact of gender bias in trade taxes. One study, produced by the South Africa Women's Budget Initiative, examines the gender dimensions of customs and excise taxes. By analysing a range of regional and multi-lateral free trade agreements, Tanya Goldman (2000) explores the impact that South Africa's import and excise taxes are likely to have upon sectors with concentrations of women. The paper delineates the individual trade agreements and the potential repercussions that adoption could have upon women, particularly if the agreements are implemented suddenly. In recent years, South African trade policy has shifted towards export-led growth. The abrupt rescinding of earlier tariffs has forced many low-skilled industries (where women are disproportionately concentrated) to rapidly become much more competitive.

Goldman identifies three ways in which tariffs affect women: as workers in sectors of the economy where goods are imported and exported (e.g. clothing and agriculture); as consumers of imported goods (e.g. medicines); and as traders in export goods. In South Africa, women predominate in labour-intensive industries, such as clothing and textiles, which have been hard hit by import tariff reductions. The reduction of import tariffs on basic goods such as clothing and food, resulting in lower prices, would be a benefit for poor women. These benefits, however, must be weighed against job losses in the affected industries and the spillover effects to the overall economy. Stephanie Seguino has pointed out that tariff cuts that lead to job losses can lead to a fall in wages in non-protected sectors as workers from protected sectors seek employment.³¹ Further, depending on the multiplier effects, economic downturns can set in, causing widespread job losses and cuts in public expenditure.

Rao (1999) has examined trade taxes and human development in developing countries. Although he does not explicitly consider gender issues, one can draw at least one gender implication from his analysis. Rao demonstrates empirically that trade taxes (as a percentage of trade volume) have a positive effect on current government expenditure. Reductions in import taxes, on the other hand, were associated with decreases in public sector investment in infrastructure and education, which in turn could have negative implications for women's time allocations and expenditures.

5.9 Tax Reform and Gender

As noted in Section 3, tax reform can have gender implications. First, the emphasis on tax simplification in both income and consumption taxes leads to policy recommendations to limit deductions and exemptions. Such limits have equity implications from

both a class and a gender perspective. In personal income tax, the restriction of certain deductions and exemptions which provide tax relief to women, for example childcare deductions, dependent exemptions or deductions for insurance and pension contributions, may create gender inequity. In consumption taxes, the elimination of exemptions on products which are primarily consumed by women or are of primary importance to women could create gender bias. And in both types of taxes, base broadening which imposes a higher burden on the poor will also create higher burdens for women who are disproportionately poor in developed countries, and primarily poor in developing countries.

The literature on tax reform efforts bears out some of these conclusions and also notes other effects. Reform efforts in Japan's PIT in 1989 did indeed exacerbate gender inequality. Shibata (1994) showed that changes to the rate and deduction structure discouraged married women from entering paid employment. At the same time, some reform efforts in European countries, including France, the Netherlands and the UK, have sought to reduce explicit gender bias in personal income tax codes. Reforms in the US reduced the marriage penalty and eliminated other forms of gender bias in exemptions and deductions (Nelson, 1996). Some developing countries have also taken explicit measures to reduce gender biases in personal income taxes. Malaysia, for example, changed its tax system in 1991 from one in which the income of married women was attributed to their husbands unless she elected for separate assessment to a system in which husbands and wives are treated as separate taxable units. In 1995, South Africa unified rates schedules for married persons, single persons and married women, reducing the rates for the two latter categories.

Smith (2000) analysed the gender implications of South Africa's efforts to reform direct and indirect taxes. In 1994, the Katz Commission was appointed to review the tax system and make recommendations for improvement. The commission placed great emphasis on equity as a key principle, along with concerns about poverty and income inequality. Some of the changes that have taken place since 1994 eliminate formal discrimination based on gender, including the introduction of a unified income tax rate structure for individuals and the removal of the distinction between married and unmarried households; tax relief has also been given to low- and middle-income taxpayers through adjustments to tax rates and income brackets.

Smith points out, however, that these changes have not eliminated all forms of discrimination against women. The new system still discriminates against households with only one income earner which pay over four times as much income tax as households with two income earners and the same income and number of dependents as the one-earner household. Gender bias also continues to exist in the way that tax deductions are permitted in the new system. Allowances for travel and accommodation are biased toward men. Although reforms in the PIT closed some of the most egregious gaps between women and men, it did not close gaps between rich and poor individuals

and rich and poor households. Since women in South Africa predominate in informal employment or work in low-paid formal sector jobs, relatively few women have benefited from a more progressive income tax system. More recent reforms seeking to give relief to low-income individual earners may, however, correct these biases.

Smith also evaluated the impact of reforms in consumption taxes on women and the poor. He noted that VAT contains exemptions for certain foods and basic goods and services consumed by low-income people, but that the tax reform commission rejected further extensions of zero rating, fearing substantial revenue losses.

As Esim (2000) notes, the gender implications of tax reform require further research. While the links between gender equality and personal income taxes are better understood, the implications of indirect and corporate taxes still need to be investigated. More country case studies need to be analysed to give a better picture of the direction of the reforms and how they influence women.

5.10 User Charges

As noted in Section 3, as part of fiscal decentralisation, sub-national levels of government are increasingly expected to rely on own-source revenues. Property taxes and user fees are the most common local source of revenue. Since the review did not find any articles on the gender dimensions of property taxes, we restrict our discussion to user fees.

User fees are charges for services or products provided by governments. Following the recommendations of the World Bank and the International Monetary Fund in the past two decades, user financing of basic social services have become common practice in many developing countries, and user fees have become an alternative to tax-based financing for public services. A critical debate in developing countries centres on whether user charges should be imposed on basic public services like water, electricity, health and education. User fees that are more commonly accepted are for selected locally provided optional services such as public transportation charges and parks and recreation.

Proponents of user fees argue that governments need revenues and that charging users for services is an efficient way to raise money for these services. They also argue that user charges may be an effective method of reducing consumption of scarce resources. This argument is based on the idea that user fees allow governments to impose the cost of services on the citizens who use them, and allow market forces to set an economically efficient level of services. Additionally, proponents argue that user fees are especially appropriate when state or local governments provide services that also are provided by the private sector, particularly if they are not core government services.

Opponents of user fees argue that there is growing evidence of the equity losses: reduced utilisation of services and negative effects on wellbeing and health resulting

from the introduction of user fees. In most cases user fees have the unintended effect of decreasing access to basic services (education and health, in particular) by the poor. Opponents also claim that user fees for health and education do not appear to generate adequate revenue to support even basic provision of these services. National user fee systems have generated an average of only around 5 per cent of total recurrent health system expenditures, gross of administrative costs. The cost recovery levels for health services range from 0.5 per cent in Burkina Faso (1981) and Guinea Bissau (1988) to 9 per cent in Lesotho (1991–92) and Mozambique (1985) (Reddy and Vandemoortele, 1996).

Palmer (1995) notes that user charges can be highly regressive, as they constitute a tax on services which were formerly often free at the point of delivery. They have the effect of transferring the costs of providing these services to women in the unpaid care economy. User fees also frequently exacerbate discrimination against girls with respect to utilisation of healthcare and education. One way to mitigate this is to apply user charges to services where gender disparities would not be significantly worsened by attaching a price tag. Another way is through exemptions.

In some countries, governments allow exemptions for the poor from user fees. This can be done in two ways. One is through direct or individual targeting. This type of targeting identifies poor individuals and provides them with services for which others are expected to pay at reduced or no cost. The second is indirect or characteristic targeting. Under this approach, the focus is not on particular individuals but on general characteristics of the programme or its clients. An example of this is the exemption of particular services important to the poor, for instance, immunisation or maternal and child health programmes. The services in question are provided free of charge to rich as well as to poor people, but the poor are expected to benefit most because they are the primary service users and/or gain the most from the services.

Two criteria have been established to evaluate the effectiveness of a targeting programme. One concerns the percentage of the poor population reached by the programme: a programme that fails to cover a large percentage of the poor population is commonly said to suffer from under-coverage or from a large exclusion error. The second criterion is related to the percentage of the programme's benefits that go to people who are not poor. A programme that is designed to serve the poor, but that is used primarily by the non-poor, is considered to have a major leakage problem or large inclusion error.

Vandemoortele (2000) cites a study that found that exemptions based on the ability to pay are extremely uncommon in practice. Exemption schemes for health in sub-Saharan Africa are not only rare, but they are also implemented in informal and *ad hoc* ways. The decision to exempt is often left to the discretion of local service providers, while the characteristics of the poor are generally not clearly defined. Further, if financial incentives or staff performance appraisals are linked to the

criterion of cost recovery, as they have been in many countries, then there can be a direct trade-off between the goal of revenue collection and that of reducing the negative impact of user fees on the poor.

Nanda's (2002) comprehensive review of the literature on the gender dimensions of user fees in the health sector in Africa during the mid-1990s brings the above discussion into sharp relief. She notes that a gender-based analysis of user fees should look at two aspects: the differential impact of user fees on utilisation of healthcare between men and women; and how user fees affect women's utilisation of healthcare for themselves. The limited nature of the data makes it impossible to answer the first question, so her review focused on studies that examine the second issue. Nanda cites studies suggesting that the introduction of user fees is often followed by a subsequent fall in service utilisation. The magnitude of this drop is often greater and occurs over a longer period for the poor. In Kenya, the introduction of user fees (amounting to half a day's pay for a poor person) in government outpatient health facilities led to a dramatic reduction in utilisation of STD services by both men and women, but the fall was significantly greater for women. Fewer women than men utilised the services prior to the introduction of user fees. Nine months after their introduction, the fees were revoked and women's utilisation rose to a greater level than the pre-fee levels. Use of maternal healthcare services was also affected when fees were introduced or revoked. Although some basic antenatal care and family planning services are exempt from user fees in some countries, there was little incentive for providers to apply exemptions, and abuses and inconsistencies in application were widespread.

The World Bank has recently acknowledged that user fee exemption systems seldom work in practice. In a letter to a member of the US Congress dated 29 September 1999, World Bank Vice-President Eduardo Doryan said: 'Experience in and since the 1980s has shown that the poor have not been effectively protected in many cases [from user fees]. Planning for new or higher fees has frequently outstripped adequate protection and implementation of exemptions and safety nets.' As a result, the World Bank now accepts that user fees should not be imposed for basic services such as education and health (World Bank, 2003).

6

Tax Policy Debates and Issues

The literature review in the previous section shows that there is a wide range of ways in which tax policy can have a gender-differentiated impact. This section discusses the principal tax policy debates of special relevance to developing countries, some general tax issues for developing countries and specific issues which are of importance to a gender analysis of taxation.

6.1 Tax Policy Debates

Tax policy is at the heart of an ongoing fiscal debate in all countries, which is of special importance to developing ones, about the role of government and the appropriate size of its budget. This debate recurs in every budget cycle. Its resolution, each time, is fundamentally a political process, which should occur with full participation of all sectors of society, full information and complete transparency, but which is too often determined by politicians and elites behind closed doors. The fiscal debate is posed around three interrelated questions:

1. What should be the overall size of the government budget? This question requires an evaluation of available resources, the desired level of public expenditures and the acceptable level of possible deficits.
2. Of the needed resources, how much should be raised from taxation (government revenue) and how much should be raised from other sources, such as foreign aid (grants) or borrowing (financing)?
3. Of the required amount of tax revenues, what should be the distribution of the tax burden across sectors and taxpayers?

Tax policy is also at the heart of the social debate regarding how to achieve goals of income and gender equity. Two factors have driven a new interest in the use of tax policy to actively promote and achieve redistribution goals. First, there is concern about increasing income inequality in both developed and developing countries around the world. Secondly, there is growing frustration and scepticism about the ability of public expenditure to reach the very poor. Some feminist economists, particularly, have argued that tax policy should be considered as a tool for achieving gender equity.

6.2 General Issues of Tax Policy in Developing Countries

In all countries, and especially in the developing world, the primary issue with regard to taxation is the complex task of designing policies that will provide sufficient

revenues to support desired social and economic development needs, while avoiding policies which may discourage the investment in financial and human capital which is also fundamental for economic growth.

A second issue for developing countries is that a large proportion of the population is too poor to pay taxes, creating a very narrow effective tax base. The narrower the tax base, the higher the rate has to be, which can result in greater incentives for tax evasion and corruption – a vicious cycle for these countries. Additionally, income and consumption can only be taxed to the extent that they can be reached by the tax net, and many developing countries suffer from weak tax enforcement and administration. Tax officials in developing countries need sufficient resources to improve tax administration and enforcement, but allocation of these resources from own-source revenues is difficult – requiring either higher overall taxes, or the reduction of other expenditures.

A third set of issues concerns the need to harmonise tax, trade and industrial policies. Taxes and tax rates need to be harmonised with neighbouring states to avoid tax competition, and to take into consideration the impact of open trade markets. This is especially important for small developing countries. However, in order to reduce trade taxes, countries must create other revenue sources, and the shift to increased reliance on consumption taxes has not resolved the problem of budget deficits. Are there other, more gender-equitable, options that can produce desired revenue?

Finally, there is a link between taxation and other means of closing deficits. Tax alternatives must be considered in the full context of other financing alternatives, including the acceptable level of debt and the need for foreign aid. This paper has not explored that important issue.

6.3 Gender-specific Tax Policy Issues

Beyond the general issues of tax policy for developing countries, there are a number of unresolved issues that are specific to the gender dimensions of taxation. The following questions are especially relevant to countries at low and low-middle levels of development:

- How should tax policy deal with rural–urban differences, low levels of formal employment and relatively large informal sectors, which is where the majority of women workers are concentrated?
- How can tax administration be made appropriate for low levels of literacy, especially for women, the impact of the HIV/AIDS epidemic on households and income, and weak tax enforcement and capacity?
- How should tax policy deal with different family structures, which influence the tax unit treatment (such as extended families, more than one wife and lone parent households)?

- How can tax benefits/allowances be designed to flow to the mother, since evidence suggests that a greater family benefit then ensues to the household?
- How can implicit bias in indirect taxes – heavily used in developing countries – be assessed, given the problems of measuring differential consumption? There is great difficulty in showing non-neutrality in value-added taxes and other broad-based consumption taxes.

Two other issues apply more generally to countries across levels of development:

- How should tax systems recognise the value of unpaid care-giving services? What types of exemptions should there be for spouses or partners who contribute unpaid care work?
- Should sex-based versus gender-neutral annuity/mortality tables be used for social security and other tax payments?

6.4 Summary of Debates and Issues

Tax policy analysis can play an important role in informing tax policy debates and addressing income and gender equity issues, but it is the overall impact of both taxes and expenditures in improving the distribution of income and wealth and improving gender equity that is important. The impact of both tax and expenditure policies on poverty, income distribution and gender equity require considerable more study in a wide range of countries in order to bring empirical evidence to bear on crucial policy decisions.

Methodological/Analytical Tools for Gender-revenue Analysis

This section discusses possible methodological approaches and analytical tools for gender revenue analysis. The first part reviews the standard tax analysis methodologies used by tax practitioners to evaluate the impact of tax proposals on individuals and on specific sectors of the economy and their relevance for gender analysis: tax burden analysis; tax incidence analysis; representative taxpayer analysis; microsimulation models; and macrosimulation models. The second part discusses methodologies applied to expenditure analysis by gender responsive government budgeting (GRGB) initiatives and their applicability to gender revenue analysis.

7.1 Traditional Methodologies and Tools for Tax Policy Analysis

7.1.1 Tax Burden Analysis

Tax burden is defined as the statutory tax payment obligation as a percentage of disposable income. For a particular tax, or for a combination of taxes, to the extent that there are data on tax filers, tax payments and net income, tax burdens can be calculated by income class, by sector of the economy and by individual compared to business filers. Gender tax burden analysis would require data by sex. Tax filers, even when they file separately, are not identified by sex, but gender burden analysis could be done with appropriate assumptions based on census or other demographic data, which all countries have in rudimentary form.

7.1.2 Tax Incidence Analysis

Tax incidence analysis can be used to analyse the distributional impact of taxes and subsidies, for instance how this varies for various groups of households on the basis of income, geographic location and other factors. Gender incidence analysis takes into account intra-household relations. Gender incidence analysis, as with burden analysis, may require assumptions based on limited data, but can nevertheless be a useful exercise.

Incidence studies define the groups of interest, typically in terms of income/consumption, geographic location, gender, ethnicity, age and socio-economic group, and then calculate the taxes paid by each household group.³² Incidence studies distinguish between statutory incidence (those who have to transfer the tax to the government) and economic incidence (those whose real purchase power declines because of the tax). To quantify the tax paid, the technique either estimates the taxes paid as the official tax rate multiplied by the pre-tax value of expenditure, or estimates the 'effective' tax rate by dividing the actual tax revenues by the tax base and applying this to the categories of interest.

Box 7.1: The Feasibility of Gender Incidence Analysis: The Case of Mongolia

A recent report by Richard Marshall for UNDP reviewed the feasibility of conducting a gender incidence study of the tax system in Mongolia. Marshall's review found that suitable sex-disaggregated data is not available for an incidence study of direct taxes; the authorities simply do not hold sex-disaggregated data for any tax. Even where personal records are held, they are not sex-disaggregated. Investment in primary data collection is a necessary first step in the development of a gender revenue analysis in Mongolia.

Source: Marshall, 2003

7.1.3 Micro-simulation Modelling

Tax policy analysis often uses micro-simulation modelling, based on a representative sample of tax return data. Such modelling requires a sufficiently large base of micro data on individuals, such as from taxpayer records stripped of personal identifiers, or from current population surveys or household surveys. These models are particularly used for personal and corporate income taxes. By capturing key variables in the database which interact with tax policy options, and based on defined assumptions about taxpayer behaviour, the micro-simulation model can calculate the effect of tax policy options on the number of filers, size of payments, impact of special credits or deductions, distribution of burden and total revenue collected. Since tax data do not capture the sex of filers, micro-simulation modelling by gender would need to make assumptions based on other data about the distinct economic activity of women and men and intra-household allocation decisions. The reliability of the results would depend on the data used and the underlying assumptions required.

7.1.4 Macrosimulation Modelling

Another potential tool for understanding the gender dimensions of revenue is a macrosimulation model. Such models involve longer-term forecasting and are based on macro variables such as inflation rates, trade balances, forecasts of profits across different economic sectors, estimates of elasticities and so forth. Macrosimulation models aim to produce a gender-aware medium-term macroeconomic framework. Some common models include financial programming models, fixed coefficient, two-gap growth accounting models, macroeconometric simulation models and computable general equilibrium models. Most of these are currently gender blind, but a variety of approaches could be used to introduce gender concerns, including gender disaggregation of variables already included in the models, introduction of new variables and equations which capture the pattern of gender relations, and construction of models

which include a sector that represents the social reproduction system (see Çağatay *et al.* (1995) for a detailed discussion of gender-aware macroeconomic models).

Fontana (2002 and 2001) has developed gender-aware Computable General Equilibrium Models (CGE) for Bangladesh and for Zambia.³³ These models include a reproductive sector and leisure in addition to the market sector, and treat male and female labour as two distinct factors of production. While the Fontana analysis simulates changes in trade policy in an economy where male and female workers have different levels of consumption, it could be extended to simulate the effect of a variety of tax reform measures.

7.2 Methodologies and Tools Used in Gender-responsive Government Budgeting

Gender-responsive government budgeting has developed five tools for gender expenditure analysis, used in pre- and post-budget analysis (Budlender *et al.*, 1998). The first three are used in pre-budget analysis, and have been developed through participatory methods and surveys of opinions. If adapted for gender revenue analysis, these would be:

1. Gender-aware medium-term tax policy framework;
2. Gender-aware tax policy appraisal;
3. Gender-disaggregated tax burden assessment.

The other tools are used in post-budget expenditure analysis and are similar to the methodologies discussed previously for tax analysis. These require significant resources to implement successfully, as they do for expenditure analysis, but they would include:

4. Gender-specific tax incidence analysis;
5. Gender-aware revenue statement.

7.3 Summary

All methodologies for gender analysis of taxation require sex-disaggregated data. Three types of data are needed for this analysis: data on time use of individuals within households, which are important in estimating the productivity of domestic or household work; data on household budgets and the degree of sharing of household income and expenditure by gender; and sex-disaggregated data on both formal and informal employment.

The analysis of tax impacts is a complex task and would require significant investment of resources and time. A thorough analysis of the gender impact of taxation requires consideration of both direct and indirect effects. It should also be paired with a gender analysis of expenditures to properly identify the full gender-differentiated cost-benefit ratio of public policy.

The type and reliability of available data drive the methodology chosen in all tax policy analysis. If the aim of the analysis requires a level of accuracy which cannot be achieved with available data, interim strategies must be devised to produce the needed data. More descriptive methodologies can be used in the short term.

The most appropriate methodology for gender revenue analysis will depend on the following interacting considerations:

- The goal of the analysis and its expected policy impact;
- The type of gender bias, i.e. whether it is explicit or implicit;
- The data available;
- The degree of accuracy expected;
- The cost-benefit ratio of performing the analysis.

The first goal of gender revenue analysis should be to eliminate explicit bias by removing legal inequities in the tax system. The methodology appropriate for this goal is a detailed legal review of the tax laws to reveal bias and proposals for statutory changes.

The second goal should be to reduce or eliminate implicit bias in tax policy. Attaining this goal may require complex methodologies and significant investment, so the cost-benefit should be evaluated on a case-by-case basis. For example, implicit bias in personal income tax marginal tax rates (the ‘marriage tax’), or in the allocation of deductions and credits between husband and wife, would ideally require simulation modelling. Analysis of the incidence by gender of consumption taxes, or of other taxes that are passed on throughout the economy, would require macrosimulation or general equilibrium modelling. Analysis of implicit gender bias could also benefit from new theoretical work on household bargaining models. Pilot studies in selected countries would be a very useful next step.

A third goal for gender revenue analysis might be to advance gender mainstreaming in the public sector. In this case, descriptive methodologies that are low-cost but serve to raise awareness may be the best approach. Gita Sen (2000) discusses a number of methodologies for gender mainstreaming in ministries of finance that could be adapted for this purpose.

Finally, there could be an attempt to improve public sector equity and efficiency by advancing understanding of the impacts of public policies on both women and men. This goal could be met by some of the participatory methodologies used for gender expenditure analysis, and revenue analysis could perhaps be integrated into existing procedures. Tax literacy can be beneficial for civil society and women’s organisations, and gender sensitisation is especially important for tax planners and staff who work in ministries of finance in all countries.

8

Conclusions and Recommendations

Tax systems are not gender neutral. They contain both explicit and implicit gender biases. Gender revenue analysis is an important tool for revealing and correcting this bias. Such analysis can advance the commitment made by governments in the 1995 Platform for Action following the UN World Conference on Women to incorporate a gender perspective in budgetary processes as a means of supporting gender equality and development programmes that enhance women's empowerment.

This paper provides a preliminary review of the ways in which tax systems may be gender biased. It argues that gender revenue analysis is a fruitful tool for both analysing and correcting gender biases. It concludes with some specific recommendations through which gender revenue analysis could be advanced:

1. Support and expand existing efforts to advance and improve the collection of sex-disaggregated data in countries around the world. This should include support for tax policy units in ministries of finance to collect, process and analyse sex-disaggregated as well as other needed data, and produce tax analysis reports. Tax administrators might also consider collecting information on filers by sex. Gender budget analysts and activists could create a list of standard data that should be collected in order to carry out adequate gender analysis in their particular country.
2. Support a legal review of tax law in developing countries to identify explicit bias and formulate recommendations for change. Within countries, or at a more aggregate level, gender budget initiatives should consider developing a list of areas of the tax code with potential gender bias to be examined and corrected.
3. Support research on the equity and gender improvements that could be garnered if a greater share of tax revenue is shifted from indirect to direct taxation which can be made more progressive. These studies should focus on the distributional consequences, as well as on administrative and implementation aspects, of personal and corporate income taxes. For those countries where personal income taxes represent a larger share of total tax revenue, gender budget advocates should look at potential biases in individual and joint filing, as well as biases in the structure of exemptions, deductions and allowances.
4. Support research on gender bias in indirect taxes – such as VAT, consumption taxes and trade taxes. Gender budget analysts should examine the nature of exemptions provided under VAT and whether these exclude small taxpayers, and food and basic necessities that contribute to human capital development, including health and education.

5. Introduce pilot gender revenue initiatives in a small number of developing countries where minimum data requirements can be met. These gender revenue initiatives could take the form of a gender revenue analysis report, following the model of tax expenditure reports which were adopted by many taxing jurisdictions during the 1980s. In these reports, the limits of data and assumptions for each type of analysis are clearly explained, but the issues are identified and quantified to the extent possible in order to inform public decision-making.
6. Support further research on a typology that would match a country's level of development with the principal taxes it uses, and the principal possible gender biases inherent in these taxes, with recommendations on how to address these biases and make tax systems more gender equitable. Such a typology could be developed and expanded by policymakers and practitioners in gender budget training exercises.

This paper has focused on taxation and user fees. Further work could usefully explore the impact of local taxes, such as property taxes and licence fees, on gender equity. Further work is also needed on the gender impacts of foreign assistance, since many very poor countries depend for a large share of their revenue on foreign assistance. Finally, another important focus for research could be gender analysis of government financing options, including domestic and foreign borrowing.

Notes

- 1 At present more than 50 countries have some form of gender budget initiative (Budlender and Hewitt, 2002).
- 2 Gender is conceptualised as the social meanings given to biological sex differences.
- 3 Folbre (1995) profiles the change over the eighteenth century as housework disappeared from official view in the national accounts of the US and European countries.
- 4 Data for 1995 to 1999 reveals that in New Zealand women with no children spend 34 hours per week on unpaid work. This figure increases to 50 hours per week for women with one or more children. Men's unpaid labour remains constant at 23 hours per week, regardless of the presence of children in the household (United Nations, 2000).
- 5 See Sen (1990) and Agarwal (1995).
- 6 Braunstein and Folbre (2001) remark that between the seventeenth and nineteenth centuries, husbands in Great Britain and the US enjoyed explicit control rights over their wife's property and person, and over the products of her labour.
- 7 Notable exceptions are Australia, South Africa, Uganda, Tanzania and the United Kingdom.
- 8 Distinct from revenue are two other categories in government finance statistics: grants, which include foreign aid; and financing, which includes domestic and foreign loans and printing money.
- 9 For a description of one of the most egregious cases, see *King Leopold's Ghost* by Adam Hochschild.
- 10 See definition of revenue, as distinct from grants and financing, in note 8.
- 11 OECD, 2002.
- 12 Years vary; see IMF, 2002.
- 13 Name, and possibly other information such as a tax identification number or social security number, is required on a tax form, but sex is not required.
- 14 The only taxes which do not distort economic decisions are those which can be imposed 'lump-sum', where no behavioural action can be taken which will avoid the tax. The standard example of a lump-sum tax is a head tax imposed per person. In Britain, Margaret Thatcher's government attempted to impose a head tax, which drew widespread popular protest and was withdrawn.
- 15 Targeted tax goals may be to benefit a particular group, for example those at the lower end of the income spectrum or those with children; or they may be intended to penalise socially undesirable behaviour and reward the opposite, such as environmental taxes or benefits.
- 16 Specifying household wellbeing requires the aggregation of individual preferences into a household utility function, a procedure which has been criticized (see Nelson, 1996; Folbre, 1997 and 1994).
- 17 We found no studies on the impact of PIT on marriage and divorce in developing countries. There is a large literature in the US on this topic. The US tax system imposes a marriage penalty for a two-earner couple when they marry if their earnings are close to even, but if one spouse earns very little and the other a lot, the tax burden is not very different than that for the single-earner couple. This balance has changed over time with various reforms to the income tax. Eissa and Hoynes (1998) find that recent reforms in the US tax structure, as well as an increase in secondary earners, have dramatically changed the tax and transfer consequences of marriage; however, this impact is heterogeneous across income brackets. Other research found a correlation between the marriage penalty and the number of cohabiting (as opposed to married) couples (Bartlett, 1998). When the marriage penalty rises, aggregate marriage rates fall. There is a greater impact on the timing of marriage, with couples often delaying marriage late in the year to minimise the marriage penalty. There is also some evidence that high marginal rates encourage divorce, especially on the part of women who are affected most by the marriage penalty (Whittington, Alm and Peters, 1990).
- 18 There is a considerable amount of economic research in the US on the effect of taxation on female labour supply; see Hausman (1979), Hayhe and Bianchi (1994), Eissa (1995a and b) and Eissa and Hoynes (2002). Edward McCaffery (2002 and 1997) discusses the major costs of entering the workforce as a US secondary earner and finds that while the incentives are quite different for lower- and middle-income families, both income groups are affected.
- 19 According to Apps and Rees (1999a), 'This issue is particularly important in OECD countries where the vast majority of workers earn around the median wage and the distribution is positively skewed. Under these conditions, tax systems, such as joint taxation (in Germany and the US) or EITC (in the US and proposed in the UK), have the effect of imposing higher rates on working married women and especially those married to low-earning husbands. Under system of joint income, both partners face the same marginal tax rate. However, what is missed is that two couples with same wages, non-labour incomes, demographics, and preferences

- face very different rates if there is heterogeneity in the labour supply of married women. Couples in which the female partner works typically face much higher marginal tax rates.'
- 20 Bargain, Laisney and Moreaux (2002) suggest the lack of simple econometric technique when accounting for participation decisions and tax-benefit system is the reason for the delays in the use of collective models for policy recommendation purposes. They also compare the predictions in term of policy analysis between the unitary and the collective models. The exercise consists in assessing a current French tax reform using a unitary model estimated on data generated by the collective one. The size of errors from the unitary model, both on positive and normative conclusions, suggests that more effort should be devoted to the estimation and operationalisation of collective household models with taxation.
 - 21 There is often also a third, voluntary pillar for people who want more money for retirement in old age.
 - 22 Most of the work on social security and gender focuses on coverage and benefits, as opposed to tax incidence and revenue.
 - 23 See Apps and Rees (2002) for a discussion of some of these biases. On the other hand, in the US, Armour and Pitts (2002) find that the system favours women as they face a lower marginal rate at each stage. This tax differential, which is attributed to women's longer life expectancies, is seen as a desirable feature because of empirical evidence showing that female labour supply is more elastic than male labour supply.
 - 24 Barrientos (1998) also finds the availability of personal pension plans would not raise the pension gender gap (which is almost non-existent in Chile) and may operate to close it.
 - 25 VATs replaced sales and turnover taxes, which are seen to create a number of producer 'distortions'.
 - 26 Ebrill *et al.* (2001) note that VATs in these countries show considerable diversity in the range of inputs for which tax offsetting is available and the range of economic activity (the base) to which the tax applies.
 - 27 A recent theoretical paper by Emran and Stiglitz (2002) exploring selective indirect tax reform in developing countries argues that the existence of a large informal economy greatly reduces the desirability of VAT because it reduces welfare. This is the case when VAT reform involves both comprehensive rate increases, as well as when changes apply only to a subset of the commodities under the tax net.
 - 28 We are indebted to Haroon Akram-Lodhi for this point.
 - 29 Other issues are that the corporate tax alters three important business decisions regarding: a) legal form, i.e. whether to incorporate or to remain a privately-owned business or partnership (some countries also tax income of these business forms, but tax rate differentials generally remain, distorting some choices); b) equity financing vs. debt, since the latter reduces tax liability although it increases the risk of bankruptcy; c) dividend payments (taxable as income) and retained earnings (taxed as capital gains, generally at a lower rate).
 - 30 This section draws heavily on the excellent paper by Palley (2001).
 - 31 Personal correspondence with the authors.
 - 32 Bird and Miller's (1989) study of the incidence of indirect taxes on low-income households in Jamaica is one of the few examples of a tax incidence analysis that incorporates gender variables. It divides the sample of low-income households into six expenditure groups representing low-income, medium-level low-income and higher lower-income. In addition, the analysis distinguishes coupled-headed and female-headed households and considers the age composition and dependency burdens within households.
 - 33 CGE models are non-linear, multisectoral models which simulate the workings of a market economy. They have been used to analyse such issues as long-term growth and structural change, investment allocation, choice of development strategy, income distribution, trade policy and structural adjustment (see Robinson, 1989).

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