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## ***AN OVERVIEW OF THE BRAZILIAN TAX SYSTEM***

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### ***INTRODUCTION***

In the last few years the Brazilian economy has been passing through a deep process of transformation. The "Real Plan", an ambitious program of government, has been conducted to reshape the development model and modernize the economy. Among the many objectives, this plan intends to perform a fiscal reform, to lower barriers against free trade, and to reshape the role of the government, which includes the privatization of state owned companies.

In this scenario, some constitutional reforms have been made and others are expected to happen in the short run. This situation has raised a strong debate between those who support the new policies and those who want to guarantee the so-called acquired rights of the citizens and the "status quo". In a discussion where several groups of interests try to make their point, it is difficult for the average citizen to decide on what side to adhere.

My intention with this study is to acquire a better understanding of the facts related with the fiscal reform and with the so called " labor cost ", and to express my conclusions in an impartial basis. To establish a mean of comparison I will use the US tax system.

The work will be developed in the following sequence:

I - Tax system theory

A brief description of fundamentals and kinds of taxes that are usually imposed

## II - Legal environment of Brazil and United States

Presentation of the legal framework of both countries and a discussion about some particularities of them

## III - Comparison of the Brazilian revenue with other countries

An evaluation of the taxation level in Brazil and other countries. Considerations about ways of taxing and equity effects.

## IV - Brazil's Value Aggregate Tax (VAT) analysis

A summary of the value aggregate tax theory and a simulation of its effects in the Brazilian market.

## V - Labor cost in Brazil

A discussion about the structure and costs of the Brazilian labor market

## **I - TAX SYSTEM THEORY**

Any government has to raise a certain amount of revenue to offset its liabilities. The basic problem of taxation is to define the appropriate set of tax instruments that produces this result and that can be administered at the lowest cost.

However, in a given economy any set of tax instruments is associated with a consumption pattern for each individual. In other words these choices will affect the distribution of society's welfare and the distribution implications must be balanced against the efficiency costs of taxation.

Thus, it seems more relevant to study how taxes affect the way in which total income is distributed among people. Given information on what proportion of people's income is from capital, land and labor, changes in the factor distribution can be translated into changes in the size distribution. For example, a tax that lowers the relative return on capital tends to hurt those at the top of the income distribution because a relatively high proportion of the incomes of the rich is from capital.

An important issue to be considered is that the overall tax incidence depends on how both the sources and uses of income are affected. For instance a tax imposed in a good could affect the uses side or how the money is spent, increasing the price for the consumers. It can similarly affect the sources side if the demand for the good decreases the producer's receives diminish.

We are now going to describe the kinds of taxes that could be levied in order to rise the needed revenue for the government.

### **COMMODITY TAX**

A uniform tax system, which could be thought to produce the fewer distortion of the relative price of goods, is in general not optimal. This fact could be explained by two means. First, as the

elasticity of demand among goods differs greatly, the goods with high elasticity factor would suffer a greater decrease on consumption while in those with high inelastic behavior the effect would be minimized. Secondly, with a uniform tax on all commodities the relative price of leisure would decrease, causing an inefficiently large consumption of leisure.

So, the optimal tax pattern should take in account the demand elasticity and the relative substitutability or complementary of those goods with leisure (like for example bicycles, rollers, tennis rackets, etc.). But, if taxpayers have different endowments, then the optimal commodity tax structure must consider not only its efficiency cost, but also its effect on the distribution of welfare. Not surprisingly, in this case the optimal tax on luxury goods is higher than otherwise and the optimal tax on necessary goods is lower than otherwise.

### ***LUMP SUM TAX***

The lump sum tax can be defined as a certain amount that must be paid regardless of the taxpayer's behavior. Consequently, this tax does not depend on consumption and no taxpayer can avoid paying it. As the lump sum tax represents a diminishing in the tax payer income by a certain value, it does not affect relative prices in the economy.

An important result from this tax is that the revenue yield equals its equivalent variation. Better saying, the total collected is the product of the number of taxpayers times the value of the lump sum tax.

On the other hand taxes "ad valorem", as they affect the consumption pattern tend to achieve a revenue lower than expected considering the before tax situation. In this case as the government needs a certain amount of revenue the rate has to be increased. This characterizes an excess burden.

Lump sum taxes are not used because most people would consider unfair for everyone to pay the same tax regardless of their economic circumstances. A way of producing more equitable results would be by basing the value to be paid on the personal income. However this procedure could drive people to adjust their working and saving decisions accordingly to their eventual tax burden.

### ***INCOME TAX***

Like the lump sum tax, an income tax represents a diminishing of the income received. However, as income tax affects the people decisions on how much time spent at work or in leisure it also affects the final income, and consequently is not equivalent to a lump sum tax.

There is a general consensus in the society about the equalization of the after tax distribution of income. But as income taxes distort work decisions the final amount of income available is reduced. The optimal income tax problem is to find the best rate that maximizes social welfare, subjected to the constraint that a given amount of revenue must be collected.

An important consideration to be undertaken refers to the definition of income. Public finance economists generally define income as " money value of the net increase to an individual power to consume during a period ". This is equal to the amount actually consumed during the period plus net additions to wealth. The definition includes items ordinarily thought of as income; wages and salaries, business, profits, rents, royalties, dividends and interests. However the criteria also includes

certain unconventional items like: employer contribution to retirement and pension plans, social security benefits, aid to families with dependents, income in kind (goods, services, etc.), capital gains etc.

The criteria has two basic appeal; a sense of justice as people with equal incomes should pay equal taxes and efficiency as it treats all form of income the same, and so, does not distort the pattern of economic activity. Nevertheless, the full implementation of this criteria present some difficulties:

- The income must be measured net of the expenses of earning it
- Unrealized capital gains are not easily measured
- The imputed income from durable goods is not directly observable
- It is difficult to measure the value of in kind values
- It is either cultural and political difficult to implement a system like that

Moreover, some students of the subject argue that the criterion does not necessarily guarantee either fair or efficient outcomes. It is also important to add that the cost of running a tax system is ignored in most theoretical analyses. However, administrative and compliance costs affect the choice of tax base, tax rates and the amount of tax evasion.

Finally, once equity issues are required to be limited only on commodity taxes policy is inappropriate. On the other hand, commodity taxes, which vary with the circumstance of the buyer, are conceivable but usually impractical. Personal income taxes, though, are flexible enough that the average tax rate may vary by individual (although not without cost), thus allowing the pursuit of redistribution goals.

## **II – LEGAL ENVIRONMENT OF BRAZIL AND UNITED STATES**

### ***BRAZIL***

#### ***TAX SYSTEM***

The Brazilian state is a Federal Republic formed by the union of the Federal Government, the States, the municipalities, and the federal district. These three branches of political administration have their constitutional rights to impose specific taxes . There are also some compulsory transfers of revenues, as will be described, from the higher administrations level to the lower ones.

The tax system established by the Federal Constitution of 1988, is composed of:

#### **TAXES :**

According to the Constitution they should be personal and proportional to each taxpayer's contributive potential. To achieve this aim, the tax authority is allowed to identify the taxpayer's assets, income and economic activities.

#### **FEES :**

They could be established by all levels of government, either for their regulatory activities or for the public services they offer whose use could be effective or potential.

#### CONTRIBUTIONS DUE TO IMPROVEMENTS (PUBLIC WORKS) :

They are designated to pay the government back from the cost of the public work done and which will benefit a few people. The payment will be done either by the evaluation of the assets or by the cost of the work as a whole.

#### ***IRPF - PERSONAL INCOME***

The gross income a person receives, excluding the amounts paid for pensions, social security plans and medical insurance plans, is subjected to taxation. The tax is withheld monthly by the employer who sends it to the government. Annually, each individual must present a return adding extra income or values to be discounted.

#### ***1997 TAX RATE SCHEDULE***

Monthly gross income ( R\$ ) tax rate amount to subtract

(%) before the tax ( R\$ )

up to R\$900,00 -- -----

R\$900,00- R\$1800,00 15 R\$ 135,00

over R\$ 1800,00 27,5 R\$ 360,00

#### ***COMPANIES AND LEGAL ENTITIES***

*IRPJ - INCOME TAX - 15%*

There are three bases upon which tax is assessed: the real profit, the estimated profit or the arbitrated profit.

The following companies or entities are obliged to tax assessments based on real profits; - Those which gross revenue exceeds R\$ 12 million in a year.

- Open Capital Companies
- Financial Entities (commercial banks, leasing companies, etc.)
- Building and Civil construction companies

- Those with overseas partners or shareholders
- Controlled or controlling companies
- Companies with participation on Public Entities
- Those with tax benefits or incentives for export
- Representatives of activities located abroad or with profits, incomes or gains abroad.

Excepting these cases, companies with gross revenue under R\$ 12 million can opt for taxation on the estimated profit, applying a percentage to the gross revenue. For other companies the rate is 8%. For fuel suppliers it is 1.6% and for real estate brokers 32%.

The arbitrated profit is a basis for assessing taxation by the authorities when companies fail their obligation of determining such real profits.

#### ***ADDITIONAL INCOME TAX 10%***

A tax of 10 % is applied on real profits which exceed R\$ 240.000,00 per year.

#### ***SOCIAL CONTRIBUTION ON INVOCING – COFINS 2%***

It is a contribution to help the Social Security Program, through a monthly taxation of 2% over the gross receipts from sales and the rendering of any kind of service.

#### ***SOCIAL CONTRIBUTION OVER NET PROFITS***

On a basis of 8 % (18% for financial institutions ) over net profits, also designated to the Social Security Program.

#### ***PIS / PASEP***

The contribution, at a rate of 0,65% over gross receipts from sales, is applied to private commercial undertakings, in order to support social programs (PIS – Social Integration Program ).

#### ***IPI- TAX ON INDUSTRIALIZED PRODUCTS***

An industrialized product is a product obtained from any process which is classified as industrialization, even if it is partial, incomplete or intermediate. The tax is charged through a selective rate varying according to the importance of the product. It is a non cumulative tax and the amount charged at one stage of industrialization becomes credit to the next stage.

## ***ICMS – OPERATIONS RELATIVE TO THE CIRCULATION OF MERCHANDISE AND ON SERVICES OF WHATEVER NATURE***

It is a state tax over the merchandise or service values. Like the IPI it is an aggregated value tax: the tax applied to incoming materials is credited against the tax paid for products sale. The on going price already includes the tax. 25% of this revenue is transferred to the municipalities.

The rates are basically:

- a. 7% or 12 % for essential goods
- b. 7% on goods from South and Southeast to North , Northeast and Middle-East regions.
- c. 12% on merchandises among others states. The difference between the normal and the reduced tax on interstates operations is transferred to the buyer state.
- d. 25% on non essential products.
- e. 17% or 18% on the lasting cases.

## ***ISS - SERVICE OCCUPATION TAX***

It is a municipal tax applied over rendering services according to a relation stated by law. In the city of São Paulo the tax is charged at 5% on service providers and independent professionals. For engineering companies the rate is 2%.

## ***IPTU – REAL ESTATE PROPERTY TAX***

It is also a municipal tax applied as a percentage over the real estate's value (expected to be the market value) according to a generic plant of values that is frequently updated. There is a social mechanism in that tax that is to overtax unused or speculative lands.

## ***ITBI - REAL STATE TRANSFER TAX - ON INHERITANCES***

It is a state tax at a rate of 2 % over the transfer amount.

## ***ITBI - REAL STATE TRANSFER TAX - ON LIFETIME***

It is a municipal tax at a rate of 4 % over the transfer amount.

## ***II – IMPORT TAXES***

For imports, there is a fiscal classification of the products to be taxed at different rates, except for "Mercosur Products" that have a special agreement over taxation.

## ***IPVA – AUTOMOTIVE VEHICLES TAX***

It is an annual tax to be paid due the property of any kind of automotive vehicle (automobile, motorcycle, etc.). It is a state tax but 50% of the revenue is transferred to the municipalities where the automobiles are registered.

***IOF – FINANCIAL OPERATIONS TAX (over credit, exchange, insurance or bonds operations)***

It is charged over some financial operation like loans, exchange, insurance or with bonds.

***ITR – RURAL PROPERTY TAX***

It is an annual tax applied over the value of rural land, and besides its fiscal attribute, it has also a regulatory function in order to inhibit land speculation. 50% of the total revenue is transferred to the municipalities where the lands are located.

***IE – EXPORT TAX***

It's based on a rate over the national or nationalized merchandise that is destined to go abroad.

**NOTES:**

The Federal Government has to transfer:

From the taxes IR and IPI:

21.5 % to states and federal district based on:

directly on the number of inhabitants inversely on its superficial size and population incomes.

10 % is destined to municipalities

22,5% to municipalities

3% to north, northeast and midwest regions

And also from IPI

10 % to states proportionally to the amount that these states had exported.

25 % of the above percentage had to be given to the municipalities.



On the total, taxes transfer from Federal government reaches to 47% of INCOME TAX and 57% of IPI.

## ***THE UNITED STATES OF AMERICA***

### ***TAX SYSTEM***

The American Constitution divides taxes into two classifications: direct taxes and indirect taxes.

Direct taxes must be levied according to the rule of apportionment and they could be: taxes on property ( real or personal ) and " Capitation" taxes ( head taxes ).

Indirect taxes must be levied according to the rule of uniformity (it can't be discriminated geographically) and according to the Constitution " The Congress shall have power to lay and collect Taxes, Duties, Imposts and Excises to pay the debts and provide for the common Defense and general Welfare of the United States; but all duties, Imposts and Excises shall be uniform throughout the United States. Since the ratification of the Sixteenth Amendment, the Congress is empowered to lay and collect taxes on incomes, from whatever source, without apportionment.

General sales and use taxes are the most important source of revenue for state government and the second most important source for local government, and their importance is growing for special districts and other governmental units. Typically, these taxes are levied on retail sales and collected by retailers.

The form and use of general sales taxes vary radically from state to state and from locality to locality. Almost 5,500 cities and 1,250 counties levy general sales taxes, and more are choosing to do so as state laws expand local taxing authority.

There is a number of ways that states permit localities and special districts to use this taxation. It can be established to support specific activities, public education, tourism development, highways construction or maintenance etc.

The collection and administration of general sales taxes has taken several forms, particularly in terms of assuring interlocal coordination of tax collection. North Carolina, for example, permits only counties to levy sales taxes, but revenues are to be shared with cities. Wisconsin permits only city to do so. In Louisiana and Texas, city and county rates are simply added together.

The majority of states offer sales tax exemptions for food ( 26 states ), prescription medicines ( 44 states ), consumer electric and gas utilities ( 26 states ), custom computer programs ( 29 states ), installation services ( 29 states ), and sale of materials to manufacturers, producers, and processors (45 states ). Other items listed as more likely to be taxed by most states are clothing, telecommunication services, and materials sold to contractors and repairers. The exemptions are used as an instrument to reduce the regressivity of general sales taxes over those items that represent the largest categories of expense for lower income households (food,

clothing and utilities). Consumer services is an almost universal exemption from taxation by state and local governments, but the enormous growth of this sector suggests that this policy could change as governments seek other revenue sources.

43 states also impose their own personal and corporate income taxes. These taxes generally follow the federal income tax base with modifications. In the case of the personal income tax, most states conform to federal adjusted gross income.

Sixteen states allow cities to levy a personal tax. Most of these local income taxes apply to earned income only.

General sales and use taxes are more attractive to state and local governments than are most other forms of taxation because consumers find the taxes relatively painless. The negative impact of these taxes on lower income households, however, does suggest that limits should be placed on the rates imposed and on the commodities taxed.

## ***THE FEDERAL TAX SYSTEM***

In the United States, the income tax applies to every entity having taxable income.

### ***Personal Income Tax***

For individuals, gross income includes wages and salaries, taxable interest, dividends, capital gains, rents royalties, pensions etc.

There is a credit for taxes paid to foreign countries and certain items like, gifts, death, benefits, interest on tax-exempt state and local bond. Certain fringe benefits, compensation for injuries or sickness, etc are excluded from gross income. Beside these, there are some deductions for dependents, itemized medical expenses, mortgage interests, charitable deductions, state and local income and property taxes etc.

### **1996 Tax Rate Schedule for Federal Personal Income Tax. (USD)**

<b>Single</b>		<b>table 1</b>			
If taxable income is:		The tax is:			
over	but not over				of the amount over
	0			15%	0
24,000	58,150	3,600.00	+	28%	24,000
58,150	121,300	13,162.00	+	31%	58,150
121,300	263,750	32,738.50	+	36%	121,300
263,750	--	84,020.50	+	39.6%	263,750

<b>Head of Household</b>		table 2			
If taxable income is:		The tax is:		of the amount over	
over	but not over				
	0 32,150			15%	0
32,150	83,050	4,822.50	+	28%	32,150
83,050	134,500	19,074.50	+	31%	83,050
134,500	263,750	35,024.00	+	36%	134,500
263,750	--	81,554.00	+	39.6%	263,750

**Married Filing Jointly or Qualifying Window(er)** table 3

If taxable income is:		The tax is:		of the amount over	
over	but not over				
	0 40,100			15%	0
40,100	96,900	6,015.00	+	28%	40,100
96,900	147,700	21,919.00	+	31%	96,900
147,700	263,750	37,667.00	+	36%	147,700
263,750	--	79,445.00	+	39.6%	263,750

**Married Filing Separately** table 4

If taxable income is:		The tax is:		of the amount over	
over	but not over				
	0 20,050			15%	0
20,050	48,450	3,600.00	+	28%	20,050
48,450	73,850	13,162.00	+	31%	48,450
73,850	131,875	32,738.50	+	36%	73,850
131,875	--	84,020.50	+	39.6%	131,875

An important feature of this table refers to the marriage status of the taxpayer. Under certain condition when two individuals with almost the same earned amount marry their joint tax liability increases. On the other hand, when considerable-earning differences exists the tax code provide a bonus for marriage.

***The Corporation Income Tax***

Taxable income for corporations and other entities that are required to file the corporation income tax return is defined as gross income less allowable

deductions. Domestic corporations are, in general, taxed on worldwide income although they may receive credit for tax paid to foreign countries.

The United States adheres to the classical system of a separate corporate tax with no tax relief for dividends paid by corporations or dividends received by individuals.

The tax rate for corporations has progressive marginal rate of 15, 25, 34 and 35 %, with the top rate applying to corporations with taxable income in excess of US \$ 10 million.

### ***Payroll Taxes***

The social insurance program is maintained by payroll taxes applied to both employees and employers. The largest component is the old age, survivor, and disability insurance tax (OASDI), which is levied on gross wages at the rate of 6.2%, on both employees and employers.

The second component is the hospital insurance tax (HI), with a rate of 1.45% also on both parts. In 1996, the OASDI tax was applied only to the first USD 62,700 of wages and the HI TAX applies to all wages.

### ***Sales and Excise Taxes***

The United States does not have a broad-based federal sales or consumption tax, although there are a variety of excise taxes. They are applied basically over alcohol, tobacco, gasoline, fuels, telephone services, airfares etc.

### ***Net Wealth and Capital Transfer Taxes***

The principal federal wealth tax is the unified estate and gift tax. Under this tax, a single rate schedule with rates from 37 to 55 % applies to taxable lifetime gifts and transfers occurring at death. A credit for a limited amount of state death taxes paid and a unified credit of USD 192,800 are also available. The unified credit permits transfer of USD 600,000 by gift or death, before incurring either an estate or gift tax liability.

Comparing the legal frame it can be verified that:

- The personal Income Tax has almost the same system in both countries. The tax is withheld out of the personal paycheck during the year. Eventually, an annual tax return will be filled determining the difference to be paid or to be refunded
- In Brazil the state level is not allowed to levy income taxes
- States and local levels establish the sales taxes in the US and they are applied at the retail prices. In Brazil the sales taxes are applied over the value aggregate (VAT), and they exist at the state and federal levels

- The Brazilian Federal Constitution defines the legal apportionment of some part of the Federal Revenue among states and local governments. The same way, some apportionment from states to municipalities is defined in the constitution
- In Brazil the states are forbidden to establish different taxes on sales. The same value has to be approved by the Senate for all the country

### **III – COMPARISON OF THE BRAZILIAN REVENUES WITH OTHER COUNTRIES**

The Brazilian Constitution, approved in 1988, has changed the distribution of liabilities and revenues among the branches of government. The Federal government particularly, has lost a great amount of resources whereas its constitutional liabilities were not diminished in the same proportion. The sales taxes, are the most important source of revenue on the country (almost 30% of the total), unlike the majority of models around the world. Moreover, municipalities having a vast share of the taxes collected either by Federal or states government, didn't put enough effort to improve their private sources of revenue (service tax, property tax, fees, etc).

Still on the sales taxes, due to the great difference on development among regions, the states and cities are promoting a "fiscal war" to attract industries. Despite the Constitution forbids any individual change on tax rates without the approval of the congress or the state council, mechanisms of reducing the basis of taxes or even financing the debts at low interest rates have been applied.

Some brief analyze of the taxation performance on the year 1996 can be now presented:

<b>BRAZILIAN REVENUE COMPOSITION</b>				
<b>TOTAL REVENUE ( federal, states and municipalities ) - TAB 1</b>				
COMPONENTS	R\$ millions	% of GTR	% of GDP	
GROS TAX REVENUE - GRT	220,500		29.30%	
( - ) FISCAL SUBSIDIES	1,500	0.68%	0.20%	
( - ) RETURNS	2,700	1.22%	0.36%	
( - ) WITHDRAW OF FGTS	11,000	4.99%	1.46%	
NET TAX REVENUE	205,300	93.11%	27.28%	
Remarks ;				
1- It was considered a GDP of R\$ 752,500 millions				
2- The FGTS is the Assurance Fund for Service Time, that is a value collected from the employer to a fund that could be used by the worker in some specified situations				

<b>TOTAL REVENUE ACCORDING TO ITS JURIDICAL NATURE TAB 2</b>					
NATURE	R\$ Millions	% of GTR	% of GDP		
TAXES	119,200	58.06%	15.84%		
FEES	2,400	1.17%	0.32%		
CONTRIBUTIONS	82,300	40.09%	10.94%		
NET TAX REVENUE	205,300		27.28%		
GTR – GROSS TOTAL REVENUE					
CONTRIBUTIONS INCLUDES THE SOCIAL INSURANCE					
<b>TOTAL REVENUE ACCORDING TO ITS FORM OF COLLECTION TAB 3</b>					
	R\$ Millions	% of GTR	% of GDP		
DIRECT	96,900	47.52%	12.88%		
INDIRECT	107,000	52.48%	14.22%		
TOTAL	203,900		27.10%		

Table 3 shows that the weight of indirect taxes is very high and that sales tax are the greater source of revenue. It is important to point out that the Social Insurance Contribution is accounted as a direct tax. This high level of indirect taxes has according to some authors historical reasons, and is attributed to a natural tendency to evade the income tax. The consumer perception of the indirect tax, as sales taxes, is greatly minimizes and the evasion decreases.

Another factor that presumably tends to reinforce the collection of this tax is the system of Value Added Tax, where each level of production or trade receives a credit on the purchase. Thus, the firm that is buying the merchandise will require the receipt of the collection to use this value as a fiscal credit.

However, as indirect taxes are based mainly on consumption, they tend to be regressive affecting negatively the welfare of poor people. It is said that it is easier to levy a tax of 20% on sales than 2% on incomes. This capacity of political influence is amazing in a country with 74 million of active workers and where only 5 million are subjected to income tax collection.

Table 4, bellow presents the comparison of the Brazilian revenue with those of developed countries. It is difficult to define the optimum tax level as every country has its particularities and different degrees of development. However, a case could be made if we think on where the amount of investments should be stronger. In a country where we already have an infrastructure and where the need is mainly to the maintenance, or in a country with a scarcity basic resources (roads, sewage, ports, etc.)?

COMPARATIVE TAXATION ANALYSES AMONG BRASIL AND OTHERS							
COUNTRY							
							( 1994 )
<b>TAB. 4</b>							
			TAXATION				
COUNTRY	GDP	REVENUE	TOTAL	INCOME	SALES /SERVICES	PROPERTY	
	US\$ bill.	US\$ bill.	% gdp	%	%	%	
Brazil	532	149	28.01	12.9	35.7	1.4	
Italy	776	340	43.80	36.5	25.9	0	
GreatBritain	1,324	445	33.60	35	35.3	10.8	
France	1,321	580	43.90	17.3	26.7	2.2	
Germany	2,044	797	39.00	30.7	27.8	1	
Japan	3,900	1,135	29.10	40.5	14.4	5.4	
USA	6,650	1,975	29.70	42.4	17.2	9.4	

Our understanding is that the later situation is the more likely to happen and, in this case, Brazil should have a greater amount of resources to provide these investments. As the Brazilian revenues is situated at the lower level, 28.01% of the GDP in the table, we can conclude that the tax burden in the country is not as perverse as usually said.

Another aspect to be underlined in the table is that Brazil presents a high level of sales taxes and the lowest on income tax. This fact outline the extensive burden on low-income population through the sales taxes mechanism, although staples and some other basic goods are exempt of taxation.

Through the analyses of the taxes revenues from Brazil (1991 to 1996) and United States (1992) some important observations could be made (tables 5,6 and 7):

- There have been increases in total Brazilian revenue, as a percentage of GDP since 1992. Most of this increase could be attributed to the Social Insurance Fund
- o The US revenue of 1992 presented a total amount of 38.46% of the GDP. Almost 8% of this amount is classified as "charges and miscellaneous. Although the Brazilian government also have some extra fiscal receipts (dividends, shares of companies, profits of state owned companies, etc.), these values barely adds to the total revenue. This happens due to the bad situation of state owned companies that very seldom provide rents for the government. So if we compare a revenue of 38.48% of US with a total of 30% in Brazil again the "excess burden" of the later, could be questioned
- o At the federal level the revenue in Brazil represents 7.54% of GDP while in the US 14.56% (excluding for both the social insurance fund). This result confirms the struggling situation of the Brazilian federal government as an agent capable of fostering the development. This indicator also shows a clear need to alleviate the government from activities not directly related with its basic functions

- The Social Insurance in Brazil represents 35 % of GDP against a total of 25 % in US. The commitment of the Brazilian government with this item is extremely high and is another factor to stress the urgency of a reform in the system
- An issue that has also to be solved is the high level of payroll expenses in the Brazilian government. The salaries and pensions in the Public sector consume 60% of the net revenue at the federal level. 70% - 80% in several mayor states and over 100% of net revenues in other states. In this sense, any action that could be done to promote a reduction of expenditure had necessary to deal with the public sector wage bill
- According to the World Bank report of February 17, 1988 the public employment in Brazil at the national level was 9% of total employment. That rate is coherent with the predicted for the country by the Bank. This number increases to 12% when we add employees from public enterprises. However the public payroll related expenses reaches 12% of Brazilian`s GDP, which is high relative to comparable countries
- The Brazilian stabilization program has been conducted under a strong exchange rate and a strict monetary policy. This policy and a loose fiscal stance led to a high interest rate and to an increasing inflow of rent seeking capital from abroad. This capital had to be sterilized with a loss because of the differential between domestic and foreign interest rates. The result was a worsening of the fiscal deficit and an increase on the domestic debt.
- "The annual cost of pensions, public and private, is about 12% of GDP and the Insurance Program (INSS) is running a cash deficit estimating to R\$4.2 billion in 1997. About 3 million retired civil servants get half of the total benefits while there are more than three times as many beneficiaries in the general system. Moreover, about one third of the benefits go to early retirees below the age of 55 and these are almost all ex public servants". ( World Bank)
- Contribution rates are lower for civil servants and they receive a pension equal to the full last salary while in the private sector the limit is 10 minimum wages (R\$ 1,200.00 at the end of 1997)

#### ***IV - BRAZIL`S VALUE ADDED TAX (VAT) ANALYSIS***

The value added is the difference between the values of firms sales and material inputs used in the production. The tax is a percentage applied on this added value.

The Brazilian system uses the invoice method. Each firm is liable for the tax on the basis of its total sales, but it can claim the tax already paid by its suppliers as a credit against this liability. This system provides an incentive for the producer to police themselves against tax evasion. The buyer must pay whatever taxes the supplier evades. So the buyer will only do business with firms that prove proper invoices.

The commodities are taxed differentially. Food and health care products are taxed at low rates because of equity consideration. Banking and finance institutions escape taxation because they tend to provide services in kind.

Non uniform taxation increases administrative complexity, especially when firms produce multiple outputs, some of which are taxable and some of which are not. In other case the input suffers the taxation whereas the output don't.



In Brazil there is a dual system, one at the federal level for the industries and other at the state level for both industries and retailers.

Finally, it is important to mention the international implication of a VAT. The general agreement on tariffs (GATT) states that a VAT can be levied on imports. In contrast, personal and corporate income taxes cannot be rebated. So, the international trade of a country that adopted the VAT has a comparative advantage with those that don't adopt the system

The aim of this section is to present the price composition in the Brazilian market, focused on the tax weight and structure. We intend to simulate some hypothetical situations of trade and production, which we believe, will clarify some doubts and particularities from Brazilian economy.

### ***THE BEGINNER RETAILER***

Lets suppose a man that had recently opened a shop and is working at his books to make his price list. He knew his operation costs and that he needed a margin of 20% over the cost to pay his debts, income tax, employees and to have a honest profit. Lets admit that he is going to sell a product that had a cost of 100 units, and as he could think, he has just to add 20% over this cost, and the taxes will be burden over the final price.

The taxes he had to add to the product are:

ICMS - 18.00 %

PIS/PASEP - 0.65 %

COFINS - 2.00 %

GROSS TAX - 18.00% + 0.65% + 2.00%

GROSS TAX - 20.65%

So he put the product price at 120 units + 20.65%, or 144.78 units. At the end of the month he noticed that after paying his debts, the profit he received was far below from the expected. What was his mistake?

Sales taxes in Brazil are applied in a mechanism called "through the inside", what means they are part of the price, and the way to take them on account is quite different. Let's analyze what happen with our example price:

PRICE = 144.78

ICMS = 144.78 x 18%= 26.06

COFINS = 144.78 x 2% = 2.89

$$\text{PIS} = 144.78 \times 0.65\% = 0.94$$

$$\text{PRICE} - \text{TAXES} = 114.88 \text{ units.}$$

As the product cost was 100 units, his gross margin was actually 14.88 instead of 20 units, or 25.56 % less than the trader expected.

So we can define a formula to take this taxation procedure and to reach the final price:

$$\text{PRICE} = \text{COST} + \text{TAXES} \times \text{PRICE} + \text{MARGIN} \times \text{COST}$$

Or

$$(1 - \text{TAXES}) \times \text{PRICE} = \text{COST} \times (1 + \text{MARGIN})$$

Or

$$\text{PRICE} = \text{COST} (1 + \text{MARGIN}) / (1 - \text{TAXES})$$

And, in our example:

$$\text{PRICE} = (100 + 20\%) / (1 - 18\% - 2\% - 0.65\%)$$

$$\text{PRICE} = 120 / (0.7935) = 151.22 \text{ units}$$

As we develop the subject we are going to see that this formula needs yet some adjustments referred to credits that the trader receives on each buy.

The final price will be composed of:

$$\text{PRICE} = 151.22$$

$$\text{ICMS} = 151.22 \times 18\% = 27.21$$

$$\text{COFINS} = 3.03$$

$$\text{PIS} = 0.98$$

$$\text{PRICE} - \text{TAXES} = 120.00$$

The margin we have adopted in this example is not important. It could be a mark up over the final price or a fixed value. Our proposal is to show how to get to the final price and the concept of "tax through the inside". Moreover, it's important to compare the final effect on both results:

PRICE 1 = price with tax through inside

PRICE 2 = price over the added value

$$\text{PRICE 1} / \text{PRICE 2} = 151.22 / 144.78 = 1.0448$$

So there has been an increase of 4.48 % on the final price and the collection that was supposed to be of 24.78 units % has changed to a total of 31.22 units or 26.02 %. This represents an increase of 5.37 % in the rate, and an increment of 26 % in the collected value (26.37 % / 20.65 %).

This kind of procedure is resulting from a cumulative taxation by several means. Let's describe some of them:

### ***The double taxation***

Considering the same example we can analyze what is really happening when the tax is applied over the final price. Starting with this basic value of 100 units of cost and 20 units of gross margin we can add the tax on steps:

COST	ADDED VALUE	PRICE	TAX			
					NOMINAL	REAL
units	units	units	Units	tax x tax	%	%
100	20	120.00	24.78		20.65%	20.65%
		144.78	29.90	5.12	20.65%	24.91%
		149.90	30.95	1.06	20.65%	25.79%
		150.95	31.17	0.22	20.65%	25.98%
		151.17	31.22	0.05	20.65%	26.01%
		151.22	31.23	0.01	20.65%	26.02%
		151.23	31.23	0.00	20.65%	26.02%

From the table, where we can observe that after a few iterations the previous value of 151.23 units have achieved, we can observe:

- In the first step the tax is applied over the 120 units. But, as the tax has to be included into the price, the first step creates an value of 24.78 that had not suffered the taxation. The subsequent steps did the task by applying the tax over the tax.
- o There are a total of 6.45 units of taxation obtained by applying the rate over itself on a cumulative sequence.
- o As the added value, or gross margin the trader has put over his cost, did not vary and its equal to 20 units the taxation over it varies not proportionally.

$$\text{ADDED VALUE} = 20 \text{ units}$$

$$\text{CREDIT FROM THE INPUT COST} = 100 \times 20.65\% = 20.65 \text{ units.}$$

$$\text{Tax considering PRICE 1} = 144.78$$

and without the "through the inside mechanism"

$$= (24.78 - 20.65) \text{ units} = 4.13$$

Or TAX OVER ADDED VALUE =  $4.13 / 20 = 20.65 \%$

TAX considering PRICE 2 = 151.22

and with the "through the inside mechanism"

$$= (31.22 - 20.65) \text{ units} = 10.57$$

Or TAX OVER ADDED VALUE =  $10.57 / 20 = 52.85 \%$

### ***Different taxes bearing each other***

We have presented at the beginning 3 taxes, ICMS, PIS and COFINS. They are not applied directly over the price, and the last two charge only the final gross revenue of the firm. However the final result for our purpose is the same. To analyze the right sequence of events, we are going to show the effect of multiple taxation over the final price 2.

PRICE 2 = 151.22 units

ICMS =  $18 \% \times 151.22 \text{ units} = 27.22$

So, PRICE 2 can be divided in:

PRICE 2 =  $(27.22 + 124)$

COFINS =  $2 \% \times (27.22 + 124) = (0.54 + 2.48)$

And we can verify that 0.54 units are obtained from applying the COFINS tax over the ICMS tax. The same will happen with PIS tax and adding both we will get 0.73 units that had as origin the former ICMS.

### ***THE INTERFACE BETWEEN INDUSTRY AND COMMERCE***

Now we intend to present how the problem of cumulative taxation appears on the transition from industry to commerce. We'll admit the same cost of 100 units on the good and the industrialization tax of 15 %. The final cost for the dealer is  $100 + 15 \%$ , but in case of the IPI the tax is "through outside" what means that he will pay  $(100 + 15)$  units. The IPI is a kind of added value tax just for the industry, and it does not give any credit to the dealer so its really a cost to him. Let's analyze the price adding this tax to the others:

PRICE =  $((\text{INDUSTRY PRICE} + 15\%) + 20) / (1 - 20.65 \%)$

PRICE =  $(100 + 15 + 20) / 0.7935$

PRICE = 170.13 units

As the cost for the trader is a price for the industrialist it has, besides the IPI, the same taxes that the commerce has (ICMS + IPI + COFINS). In order to verify the interrelation between these taxes we are going to built a new table:

STAGE	COST	GROSS MARGIN	INDUSTRY TAX	SOCIAL TAXES ( * )	COMMERCE TAXES ( ** )	FINAL PRICE	TOTAL TAX / ADDED VALUE
	units	units	IPI	PIS + COFINS	ICMS	units	
			15%	2.65%	18%		
industry	59.35	20	15	2.65	18	115	
commerce	115	20		3.91	26.54	147.45	62.24%
* those taxes did not apply over the IPI on the industry sale but they do as the IPI is added as a cost on the commerce sale.							
** the commerce tax collected on the previous stage works as a credit at the next stage.							

Through this table we can identify some important facts:

- The IPI was transformed in a cost for the dealer and its amount suffers the burden of ICMS, IPI, PIS taxes.
- The ICMS is a tax that tries to charge the added value in each stage of the trade process, off setting the ICMS credit on the purchase with that owed at the sale. However the ICMS included in the purchase price is not subtracted from the cost when the output value is calculated.
- o The COFINS and PIS taxes are applied over the gross revenue of each process and, in this example, they have reached 7.16 units or 4.21 % of the final price instead of 2.65 %.

From now we will demonstrate the influence of double taxation with increasing production stages. Another feature to be presented is the difference between the final price with the adopted methodology and what was expected by the traditional VAT concept.

## PROCESS WITH 2 STAGES OF PRODUCTION

### *As it works now*

		INDUSTRY		TRADE	TOTAL	
	TAXES	STAGE 1	STAGE 2	PRICE ON GOING	UNITS	/FINAL PRICE

INPUT COST			116.23	265.71		
ADDED VALUE (*)		80	100.00	100	280.00	68.38%
PRICE (**)		101.07	231.06	409.51		
IPI total	15.00%	15.16	34.66			
per stage		15.16	19.50		34.66	8.46%
COFINS	2.00%	2.02	4.62	8.19	14.83	3.62%
PIS	0.65%	0.66	1.50	2.66	4.82	1.18%
ICMS total	18.00%	18.19	41.59	73.71		
per stage		18.19	23.40	32.12	73.71	18.00%
CPMF ( ***)	0.20%	0.20	0.46	0.82	1.48	0.36%
TOTAL TAX		36.23	49.48	43.79	129.51	31.62%
TAX OVER ADDED VALUE %		45.29%	49.48%	43.79%	46.25%	

\* its supposed that this amount includes the gross margin and production costs.

\*\* the price is obtained by the equation  $COST + ADDED\ VALUE - TAXES\ CREDIT / (1 - TAXES)$  as we already described, and it doesn't include the IPI.

\*\*\* we are introducing now a new tax that is charged on every withdraw of the company's current account, and that therefore also affects the price.

### ***Considering taxes only over added value***

		STAGE 1	STAGE 2	PRICE ON GOING	UNITS	
ADDED VALUE		80.00	100.00	100.00	280.00	73.61%
PRICE		108.68	135.85	380.38	624.91	
ICMS	18.00%	14.40	18.00	18.00	50.40	13.25%
IPI	15.00%	12.00	15.00	15.00	42.00	11.04%
PIS + COFINS	2.65%	2.12	2.65	2.65	7.42	1.95%
CPMF	0.20%	0.16	0.20	0.20	0.56	0.15%
TOTAL TAX		28.68	35.85	35.85	100.38	26.39%
TAX OVER ADDED VALUE		35.85%	35.85%	35.85%	35.85%	

## PROCESS WITH 3 STAGES OF PRODUCTION

### ***As it works now***

		INDUSTRY				TOTAL	
	TAXES	STAGE1	STAGE 2	STAGE3	PRICE ON GOING	UNITS	/FINAL PRICE
INPUT COST			116.23	231.06	493.22		

ADDED VALUE (*)		80	100.00	150.00	100	430.00	65.96%
PRICE (**)		101.07	231.06	428.89	651.96		
IPI total	15.00%	15.16	34.66	64.33			
per stage		15.16	19.50	29.68		64.33	9.87%
COFINS	2.00%	2.02	4.62	8.58	13.04	28.26	4.33%
PIS	0.65%	0.66	1.50	2.79	4.24	9.18	1.41%
ICMS total	18.00%	18.19	41.59	77.20	117.35		
per stage		18.19	23.40	35.61	40.15	117.35	18.00%
CPMF ( ***)	0.20%	0.20	0.46	0.86	1.30	2.83	0.43%
TOTAL TAX		36.23	49.48	77.51	58.73	221.96	34.04%
TAX OVER ADDED VALUE %		45.29%	49.48%	51.67%	58.73%	51.62%	

### *Considering taxes only over added value*

		STAGE 1	STAGE 2	STAGE 3	PRICE ON GOING	UNITS	
ADDED VALUE		80.00	100.00	150.00	100.00	430.00	73.61%
PRICE		108.68	135.85	203.78	584.16		
ICMS	18.00%	14.40	18.00	27.00	18.00	77.40	13.25%
IPI	15.00%	12.00	15.00	22.50	15.00	64.50	11.04%
PIS + COFINS	2.65%	2.12	2.65	3.98	2.65	11.40	1.95%
CPMF	0.20%	0.16	0.20	0.30	0.20	0.86	0.15%
TOTAL TAX		28.68	35.85	53.78	35.85	154.16	26.39%
TAX OVER ADDED VALUE		35.85%	35.85%	35.85%	35.85%	35.85%	

## PROCESS WITH 4 STAGES OF PRODUCTION

### *As it works now*

	TAXES	INDUSTRY				TRADE	TOTAL	
		STAGE 1	STAGE 2	STAGE 3	STAGE 4	PRICE ON GOING	UNITS	/FINAL PRICE
INPUT COST			116.23	265.71	493.22	801.57		
ADDED VALUE (*)		80	100	150	200	250	580.00	49.57%
PRICE (**)		101.07	231.06	428.89	697.02	1170.07		
IPI total	15.00%	15.16	34.66	64.33	104.55			
per stage		15.16	19.50	29.68	40.22		104.55	8.94%
COFINS	2.00%	2.02	4.62	8.58	13.94	23.40	52.56	4.49%
PIS	0.65%	0.66	1.50	2.79	4.53	7.61	17.08	1.46%
ICMS total	18.00%	18.19	41.59	77.20	125.46	210.61		
per stage		18.19	23.40	35.61	48.26	85.15	210.61	18.00%

CPMF ( ***)	0.20%	0.20	0.46	0.86	1.39	2.34	5.26	0.45%
TOTAL TAX		36.23	49.48	77.51	108.35	118.50	390.07	33.34%
TAX OVER ADDED VALUE %		45.29%	49.48%	51.67%	54.17%	47.40%	67.25%	

### *Considering taxes only over added value*

		STAGE 1	STAGE 2	STAGE 3	STAGE 4	PRICE ON GOING	UNITS	
ADDED VALUE		80.00	100.00	150.00	200.00	250.00	780.00	73.61%
PRICE		108.68	135.85	203.78	271.70	1059.63		
ICMS	18.00%	14.40	18.00	27.00	36.00	45.00	140.40	13.25%
IPI	15.00%	12.00	15.00	22.50	30.00	37.50	117.00	11.04%
PIS + COFINS	2.65%	2.12	2.65	3.98	5.30	6.63	20.67	1.95%
CPMF	0.20%	0.16	0.20	0.30	0.40	0.50	1.56	0.15%
TOTAL TAX		28.68	35.85	53.78	71.70	89.63	279.63	26.39%
TAX OVER ADDED VALUE		35.85%	35.85%	35.85%	35.85%	35.85%	35.85%	

## PROCESS WITH 5 STAGES OF PRODUCTION

### *As it works now*

	TAXES	INDUSTRY					TRADE	TOTAL	
		STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	PRICE ON GOING	UNITS	/FINAL PRICE
INPUT COST			116.23	265.71	493.22	801.57	1121.02		
ADDED VALUE (*)		80	100	150	200	200	300	1030.00	62.93%
PRICE (**)		101.07	231.06	428.89	697.02	974.80	1636.84		
IPI total	15.00%	15.16	34.66	64.33	104.55	146.22			
per stage		15.16	19.50	29.68	40.22	41.67		146.22	8.93%
COFINS	2.00%	2.02	4.62	8.58	13.94	19.50	32.74	81.39	4.97%
PIS	0.65%	0.66	1.50	2.79	4.53	6.34	10.64	26.45	1.62%
ICMS total	18.00%	18.19	41.59	77.20	125.46	175.46	294.63		
per stage		18.19	23.40	35.61	48.26	50.00	119.17	294.63	18.00%
CPMF ( ***)	0.20%	0.20	0.46	0.86	1.39	1.95	3.27	8.14	0.50%
TOTAL TAX		36.23	49.48	77.51	108.35	119.45	165.82	556.84	34.02%
TAX OVER ADDED VALUE %		45.29%	49.48%	51.67%	54.17%	59.73%	55.27%	54.06%	



**Considering taxes only over added value**

		STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	PRICE ON GOING	UNITS	
ADDED VALUE		80.00	100.00	150.00	200.00	200.00	300.00	1030.00	73.61%
PRICE		108.68	135.85	203.78	271.70	271.70	1399.26		
ICMS	18.00%	14.40	18.00	27.00	36.00	36.00	54.00	185.40	13.25%
IPI	15.00%	12.00	15.00	22.50	30.00	30.00	45.00	154.50	11.04%
PIS + COFINS	2.65%	2.12	2.65	3.98	5.30	5.30	7.95	27.30	1.95%
CPMF	0.20%	0.16	0.20	0.30	0.40	0.40	0.60	2.06	0.15%
TOTAL TAX		28.68	35.85	53.78	71.70	71.70	107.55	369.26	26.39%
TAX OVER ADDED VALUE		35.85%	35.85%	35.85%	35.85%	35.85%	35.85%	35.85%	

**PROCESS WITH 4 STAGES OF PRODUCTION AND FINANCIAL COSTS**

		INDUSTRY				TRADE	TOTAL	
	TAXES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	PRICE ON GOING	UNITS	/FINAL PRICE
INPUT COST			116.23	265.71	493.22	801.57		
ADDED VALUE (*)		80	100	150	200	250	780.00	66.66%
PRICE (**)		101.07	231.06	428.89	697.02	1170.07		
IPI total	15.00%	15.16	34.66	64.33	104.55			
per stage		15.16	19.50	29.68	40.22		104.55	8.94%
COFINS	2.00%	2.02	4.62	8.58	13.94	23.40	52.56	4.49%
COFINS over icms			0.36	0.47	0.71	0.97	2.51	0.21%
PIS	0.65%	0.66	1.50	2.79	4.53	7.61	17.08	1.46%
PIS over icms			0.12	0.15	0.23	0.31	0.82	0.07%
IPI over icms			0.05	0.12	0.22	0.36	0.76	0.06%
ICMS over icms			3.27	4.21	6.41	8.69	22.58	1.93%
ICMS total	18.00%	18.19	41.59	77.20	125.46	210.61		
per stage		18.19	23.40	35.61	48.26	85.15	210.61	18.00%
CPMF ( ***)	0.20%	0.20	0.46	0.86	1.39	2.34	5.26	0.45%
net profit	8.00%	8.09	18.48	34.31	55.76	93.61	210.25	17.97%
loans	45.00%	36.39	83.18	154.40	250.93	421.22	946.12	80.86%
interest rate	3.00%	1.09	2.50	4.63	7.53	12.64	28.38	2.43%
iof	1.50%	0.55	1.25	2.32	3.76	6.32	14.19	1.21%
cpmf over loans	0.20%	0.07	0.17	0.31	0.50	0.84	1.89	0.16%
added							0.00	0.00%
TOTAL TAX		36.85	50.89	80.13	112.61	125.66	406.15	34.71%
TAX OVER ADDED VALUE %		46.07%	50.89%	53.42%	56.31%	50.26%	52.07%	

## **CONCLUSION:**

Through the series of simulations presented, a lot of characteristics of the Brazilian sales taxes system could be demonstrated:

- The IPI tax, although not a widespread tax is quite similar to the ICMS tax and few products are borne by it. In some situations, the IPI is applied over the ICMS, and vice versa.
- The "through the inside" mechanism (from ICMS) increases even more the nominal rate and, despite the credit system among different stages double taxation occurs.
- The PIS and COFINS taxes are extra fiscal tools to reinforce the Social Insurance Fund and they have a cumulative effect as they don't give credits among stages. So, as the simulations have demonstrated, the amount increases with the number of stages
- The tables comparing two ways of using the taxes (the real and the expected) could show that the tax created to bear the added value was modified and the nominal rate (35.88% in the study) was greatly increased because of the described mechanisms
- The final price is greatly affected by the way the taxes are applied and sometimes, the difference between the actual and the expected achieves 20%.
  - o This mechanism is surely a hidden way to increase taxes without presenting this increase to the "general public"
  - o The tables on the appendix shows the total amount of sales taxes beard by each specific sector of activities
  - o The sales taxes on industrialized goods are really high (mainly those that also have the IPI). But to lower them and maintain the revenue rate an offset should happen, probably by increasing the income tax. The previous sections had already presented some comments about the personal income tax. The analyses had showed that there is enough space both to increase the income tax and also to broaden its basis.

## **V – LABOR COST IN BRAZIL**

Among several topics that have been presented as Brazilian barriers for a more competitive economy, one of the most important is the great amount of social costs that the nominal wages carries. The discussion stays basically on grounds of what is truthfully salary and what is social benefit.

To clarify this discussion we are going first to present the frame of legal benefits that have to be paid with the nominal salary:

### ***13<sup>th</sup> salary***

As the own designation stands, it is an additional value defined as the monthly average salary.

### ***Vacation salary***

It is a wage to be paid due to the 30 days period of vacation.

### ***Additional vacation salary***

Since the 1988 Constitution this is an additional wage (30 %) to be added at the vacation salary.

### ***Time of Service Guarantee Fund (FGTS)***

It is a total of 8 % over the nominal wage to be deposited on a governmental fund account that could be withdraw only in some specific situations.

### ***40% additional of the FGTS***

On the employee dismissal, the employer has to pay an extra 40 % of the total amount he had previously deposited in this fund.

### ***Social Insurance and Medical Care (INSS)***

20 % from nominal wage to be collected from the employer and 8% from the worker to join a governmental fund to sustain the retirement plan and the public medical care.

### ***Work Accident Insurance***

A percentage of the nominal wage to be deposited in this fund. It varies according to the sector of activity.

### ***Education Salary***

A fund formed by a contribution of 2,5% of the workers nominal wage to sustain educational programs.

### ***Rural Reform (INCRA)***

0,2 % to be direct to a Federal Institute uncharged of promoting the rural reform.

### ***SESI or SESC***

1,5 % of the payroll to governmental service designated to promote social activities and workers training.

### ***SENAC or SENAI***

1,0 % to perform the training and improve skills of the workers.

### ***SEBRAE***

0,6 % to a service focused in helping new entrepreneurs to begin business giving legal assistance and training.

### ***Extra Wage due to dismissal***

It is a salary that has to be paid when the employee is dismissed without a fair justification.

### ***Transportation Support***

The employer has to support the workers transportation cost for the works when these costs exceed 6 % of their nominal wage.

Besides these social benefits that add costs in the payroll by the employer, there are some legal guaranties like; a maximum workable week of 44 hours, the rewarded rest, and the maximum period of 6 hours of continuous work, etc.

One of the most discussed subjects is the rewarded resting time. This item in fact have its origin in the old labor system where the worker had to work 30 continuous days, without resting time or weekend. When the resting time was established the legal frame was not changed and the value of the daily wage continued to be defined as the monthly value divided by 30. This situation lead to a rough discussion among specialists about the fairness of considering this time as a paid rest or a cost without production.

We consider this discussion worthless. The salary is an agreement between two parts. The employer knows exactly the workable time he is paying. In the same way the worker knows how much he has to work. Both worthies those times in the marked and agree in a money value basis about it. If the law were changed from the 30 days basis to for instance a 22 days it would be very unlikely that the labor market would adjust the wage by a rate of 22/30. On the contrary, the only expected result would be an increase in the hourly basis.

The table bellow shows that the real wage of the worker is really far greater than the nominal value. This characteristic of the Brazilian market produces an uneven distribution of salaries along the year. More than that the worker perception of a salary is focused only on the monthly value. So they tend in general to underestimate earnings.

The social and fringe benefits, mainly the FGTS, are barely understood as a wage because the earnings are delayed in time.

<b>salary and social benefits</b>					
		<b>WAGES + BENEFITS</b>			
nominal salary		120	200	500	1000
13th salary		10.00	16.67	41.67	83.33
vacation salary		10.00	16.67	41.67	83.33
additional over vacation	30%	3.00	5.00	12.50	25.00
FGTS employer	8%	9.60	16.00	40.00	80.00
40% over FGTS	40%	3.84	3.84	3.84	3.84
INSS employer	20%	24	40	100	200
employee	8%	9.6	16	40	80
work accident	2%	2.4	4	10	20
education salary	2.50%	3	5	12.5	25
INCRA	0.2	24	40	100	200
SESI or SESC	1.50%	1.8	3	7.5	15
SENAC or SENAI	1%	1.2	2	5	10
SEBRAE	0.60%	0.72	1.2	3	6
transport over 6%	72.00	64.8	60	42	12
wage + benefits		287.96	429.37	959.67	1843.51
increase over the nominal value		139.97%	114.69%	91.93%	84.35%

\* The transportation cost varies according to the activity. On services and some industries in general, people receive from the employer the transportation ticket to use the public system. In a big city like Sao Paulo workers use to take 4 transports per day.

In industries is common to have freighted buses to transport the personal and the costs decrease.

\*\* According to the number of employees some companies are obliged to pay the meal either by meal tickets or by sponsoring it in their own cafeterias.

The market has developed an underground system, where the worker and employer agree on an intermediate wage. The worker gives up some of the social rights, mainly those delayed in time like

social insurance, FGTS, etc. The employer agrees to pay in the present a share, normally 50%, of the forgone values that should be collected to the government funds.

There are some proposals to abolish this model through the incorporation of these wage benefits, and letting the worker decide how he uses the money he receives. However a system like that would probably hurt the less skilled worker who rarely would care about any kind of saving for their retirement (either by joining to a pension fund or personal saving). In this case the society would suffer because it would have to support those improvident workers and families.

A way to surpass this possibility would be the adoption of a minimum amount to be collected in the payroll. This amount would correspond to a pension equal to the minimum wage necessary for someone's basic subsistence. This tax would build a fund to sustain the improvidence.

Another solution proposed is the obligation to affiliation to a private pension funding which a monthly contribution would be withheld in the firm's payroll. It would be a system like the presently used in Brazil with the only difference that it would be transferred to the private sector.

Both proposals would eliminate at least partially the public intervention and consequently, a series of vices and misleading uses of these funds.

The Social Insurance funding is contributing greatly to the Brazilian fiscal deficit and is a problem that has to be solved in the short run. The bill that intends to change this situation is presently under the congress appreciation and has already been voted in first round. As an amendment to the Constitution it has to pass twice by the 2 houses.

In terms of other rights guaranteed by law we can conclude that:

- The money values paid along the year are and have to be considered as salaries. They can't understand just as social benefits. Both parts anticipate their values the employer in its cost structure and the employee in its personal budget. Of course to the labor market would be better if these parcels were incorporated to the monthly salary. This would clarify the involved values for both parts and promote a better self-regulation of the market. It would also reduce informal agreements related to those delayed benefits.
- The social insurance is also claimed as a burden on the salary. It really is, but it is a cost that also affects several economies around the world. Even those economies that don't have a payroll tax will have sooner or later to support their elders through any other kind of taxation
- The lack of enforcement has created an unfair situation where some firms accomplish with the law while others don't. The excess of regulation is partly responsible for this situation and for a growing underground economy
- The observation of sectors tables on the appendix, shows that the share of labor on the final price varies according with the sector, but in general the participation of labor is not as high as many people claim. It is important to verify on these tables that they deal with gross wages and that the averages includes blue collar wages.
- It is a common practice among workers to require more transportation tickets than they really need. The tickets are sold in the parallel market. If those values, as well as some related to meal supply by employers, were converted at once in salary this practice some say, could end. However it could also be expected that after a few time there would be some unions

movements to reestablish the "lost rights". Another problem that could arise would be the loss of the protection the worker now has against a different evolution between those prices and the wages

- The turnover in the Brazilian labor market is 33% higher than in the US. Severance fund (FGTS) is viewed as an incentive to workers to ask to be fired and withdraw the money in the fund

## ***REFERENCES***

- CORECON/SP set. 97, Economia em Perspectiva – Carta de Conjuntura
- Ronald John N.Y. and William L. Vaughn Jr, State and Local Tax Policies A Comparative Handbook
- Revista Exame, 500 maiores empresas, Jul 07
- Balanco Anual 97, Gazeta Mercantil
- Committee on Ways and Means U.S. House of Representatives, Overview of The Federal Tax System, April 10, 1991
- Confederaçao Nacional da Industria, Custo Brasil, 1995
- Associaçao Brasileira para o Desenvolvimento das Industrias de Base, Custo Brasil
- Regulamentaçao do Imposto sobre a Circulaçao de Mercadorias ICMS
- Durval Noronha Goyos jr, Legal Guide: Business in Brazil
- Sistema Tributario Nacional Evoluçao e Tendencias Textos I e II – ESAF
- Tabela de Incidencia do Imposto sobre Produtos Industrializados TIPI – 3 edicao ed. Aduaneiras.
- Pastore, Jose, Encargos Sociais no Brazil e no Exterior
- CNI – Estudos Economicos, A carga tributaria e a competitividade da Industria Brasileira , out. 91
- Slemrod, Joel, Optimal Taxation and Optimal Tax System, Journal of Economic Perspectives vol. 4, number I – winter 1990 pg. 157-178
- Rosen, Harvey S., Public Finance
- Stotsky, Janet G. and Emil M. Slunley, The Tax System of The United States
- World Bank, Brazil; from stability to growth through public employment reform Feb. 17, 1998