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Burundi
Private Sector Development in the Industrial Sector

December 31, 1991

Industry and Energy Operations Division
South Central and Indian Ocean Department
Africa Region

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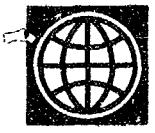

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CURRENCY EQUIVALENTS

	Currency unit			Burundi franc (FBu)
Period Average:	1991	US$1	=	FBu 184
	1990	US$1	=	FBu 171
	1989	US$1	=	FBu 159
	1988	US$1	=	FBu 140
	1987	US$1	=	FBu 124
	1985	US$1	=	FBu 121

WEIGHTS AND MEASURES

Metric International Standard System

ACRONYMS AND ABBREVIATIONS

BOB	=	Bulletin Officiel du Burundi
BRB	=	Banque de la République du Burundi
BTN	=	Brussels Tariff Nomenclature
CAB	=	civil aeronautics board
CCIB	=	Chamber of Commerce and Industry
COOPECs	=	cooperative savings and loans institutions
DFI	=	direct foreign investment
ECFU	=	Entreprise Creation Facilitation Unit
EEC	=	European Economic Commission
ETR	=	effective tariff rate
FTZ	=	free trade zone
HS	=	Harmonized System
IFC	=	International Finance Corporation
II.O	=	International Labor Organization
IMF	=	International Monetary Fund
METR	=	marginal effective tax rate
OGL	=	ordinary general licensing
PE	=	public enterprise
PTA	=	Preferential Trade Agreement
QRs	=	quantitative restrictions
SARL	=	Société Anonyme à Responsabilité Limitée
SCS	=	Société en Comman· ɘ Simple
SEM	=	mixed enterprises with minority public ownership
SMIG	=	salaire minimum industriel garanti
SNC	=	Société en Nom Collectif
SPRL	=	Société de Personnes à Responsabilité Limitée
TT	=	transactions tax
UFS	=	unified single form
USAID	=	US Agency for International Development

GOVERNMENT OF BURUNDI FISCAL YEAR

January 1 to December 31

PREFACE

This is one of two reports written in parallel discussing the issues and prospects for developing the private sector in Burundi. The other, entitled "Private Sector Development in the Agriculture Sector," will be distributed separately, and will cover issues associated with the strengthening of private initiatives in the primary sector. This report discusses the secondary and services sectors.

This report was prepared on the basis of missions visiting Bujumbura in May and August 1990 and was written by I. Alikhani (mission leader), with key contributions by Mr. J. Rwamabuga (Resident Mission, Burundi), Mr. R. Lacroix (consultant, industrial sector), Mr. T. Nguyen (consultant, regulatory environment) and Mr. G. Zodrow (consultant, tax incentives). Additional background information was prepared by Ms. L. Phillips (consultant) and Mr. B. Nicimpaye (consultant), as well as Mr. E. Chagnaud (summer intern, legal framework). Earlier drafts benefitted from comments by lead advisors, Messrs. F. Najmabadi and P. Guislain. Additional guidance was also provided by Messrs. P. Ballard, and D. Keesing.

BURUNDI

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NAME AND ACTIVITIES OF ENTERPRISES

BATA	=	Shoe manufacturer
BRAGITA	=	Brewery
CHANIC	=	Oxygen
COGERCO	=	Cotten ginning
COTEBU	=	Textiles
ETERNIT	=	Fibre cement manufacturer
FABRIPLAST	=	Plastic products manufacturer
FER-AL	=	Metal plate manufacturer
FRUITO	=	Fruits
HUILERIE	=	Palm oil refinery
INABU	=	Printing
INDURUNDI	=	Soap manufacturer
LOVINCO	=	Blanket manufacturer
M. DELENS	=	Constuction company
MINOTERIE	=	Wheat milling
NAB	=	Garments manufacturer
OCIBU	=	Coffee manufacturer
ONAPHA	=	Pharmaceutical products
OTB	=	Tea manufacturer
RAFINA	=	Cotton refinery
SAVONOR	=	Soap manufacturer
SNP	=	Tannery
SOBOX	=	Steel tubes manufacturer
SOSUMO	=	Sugar refiner
UNIDO	=	Biogas
VERRUNDI	=	Bottlemaker

BURUNDI

PRIVATE SECTOR DEVELOPMENT IN THE INDUSTRIAL SECTOR

EXECUTIVE SUMMARY

i. The report argues that private sector-led industrial growth can provide much needed employment opportunities and make a significant contribution to the diversification and expansion of Burundi's export earnings. However, Burundi's physical constraints and the limited capacity of agriculture, the dominant sector, underscore the need for a vigorous program of actions and, at the same time, realistic expectations.

ii. Current macroeconomic projections bring out the leading role that the private sector needs to play in the industrial and services sectors. Over the 1990s, annual per capita agricultural output is expected to increase by less than 0.5 percent, while the per capita output of the industrial sector expands annually by more than 4 percent. In parallel, the share of private sector investment in total investment is projected to increase from about 20 percent in 1991 to 35 percent in 1995. The study highlights the imperative of making extraordinary efforts to improve performance in the industrial and services sectors in order to realize these projections. While considerable progress has been achieved in the past five years with regard to economic liberalization, particularly in the commercial and industrial sectors, the critical mass and depth of reforms needed to elicit a sustainable supply response from the private sector have not yet been attained.

iii. The development of the private sector has been hampered by policy barriers as well as by regulatory constraints. The evolution of firms has been slowed by low domestic demand and difficulties in exporting, exacerbated by an underdeveloped international transport system. Private investment may also have been hindered by poor access to long-term credit as well as by the lack of initial equity; but foremost among the reasons for the embryonic condition of entrepreneurship is the overwhelming presence of the state, as either a producer or a regulator, in the majority of activities, and the almost total absence of any long-standing trading, handicraft, or industrial tradition.

iv. The industrial sector is small even when compared with low-income developing countries (it accounts for about 5 percent of GDP, contributed by about 200 firms), and most existing firms are of only marginal viability and unlikely to provide the foundation for future growth. The sector's production is dominated by public enterprises, which account for the bulk of the output in such subsectors as textiles and agro-industries. The industrial sector has strong links with the primary sector; agro-industries account for about 50 percent of industrial output. The secondary sector stands also to benefit from increased monetization in rural areas which are a source of untapped potential demand. Most of the existing equipment in private firms is obsolete and worn-out. Public enterprises often operate with inappropriate technologies, financed by donors, and--in the absence of an ability to export--at an unrealistically large scale. Both private and public firms suffer from managerial deficiencies and low productivity of labor and capital.

v. While existing viable activities would benefit from being rehabilitated, much of future economic growth is expected to come from new activities. The proposed private sector promotion strategy consists of putting in place an enabling environment that encourages investments in labor-intensive, export-oriented activities and attracts foreign investors. A vibrant informal sector, which is estimated to contribute as much to GDP as the formal sector, could also be an important source of new entrants into modern activities. However, informal sector entrepreneurs need to be attracted to the formal sector by a conducive tax and regulatory regime.

vi. The aforementioned strategy should be implemented through a blend of strong policy reforms, strengthening of institutions, and aggressive action to attract and develop private entrepreneurship. Both labor and capital should be priced in a free market to encourage employment creation. Furthermore, the development of private investment opportunities should be supported by the effective disengagement of the state from the productive sectors and strong support for a conducive business climate. Public disengagement should be made rapidly where the opportunity presents itself (where the state holds a minority share), but may realistically take longer in other instances.

vii. The development of the private sector will depend on the acquisition of know-how by private economic agents and the development of a skilled labor force. In the long run, the main objective should be to upgrade and extend primary and secondary education, giving greater emphasis to French, mathematics, and sciences and to decreasing the number of high-school drop-outs. In the medium and short term, the focus should be on improving and expanding vocational training facilities and management programs. Some of these capacity-building efforts are expected to target key segments of the labor force with growing private sector involvement in their design and implementation.

viii. The report also discusses a privately managed effort to strengthen business know-how. Four major areas of weakness are identified: project preparation and implementation; financial management; production and design; and the marketing and development of exports. The proposed approach consists of identifying promising dynamic entrepreneurs and upgrading their know-how through technical assistance, and of helping firms resolve their management or technical problems. Donor financing should be used to provide firm-level support by private sector experts. This assistance should be coordinated mainly through private institutions, such as the Chamber of Commerce, which will also have to be strengthened significantly.

ix. Beyond continuing efforts aimed at macroeconomic and political stability, the economy should be further opened to external competition through the adoption of a more active exchange rate policy, a further reduction in effective tariff protection from imports, and full current account liberalization. These measures, which are expected to be supported by the third phase of the structural adjustment program, which is under preparation, will create a free foreign exchange allocation system and reduce the anti-export bias. Many of these reforms were initiated in the mid-1980s, but their implementation needs to be strengthened and their coverage broadened.

x. Additionally, reforms should be extended to taxation and the regulatory and legal framework. The objective of tax reforms should be to create a general system that not only does not discourage investors but goes beyond best practices in other countries, such as Mauritius, to compensate for Burundi's physical constraints. The resulting tax burden should be consistent

with and maintain fiscal revenues by combining lower tax rates with better tax enforcement, and should incorporate more transparent provisions. The objective of regulatory reforms should be to remove administrative barriers to enterprise creation and to eliminate those instances of business licensing that serve no useful purpose. These reforms should be supported by a longer-term effort aimed at updating obsolete laws and improving the enforcement of contracts. The resulting legal framework would incorporate clearer provisions for enterprises and workable bankruptcy laws and develop the private legal and paralegal professions.

xi. Given the small size of the domestic market, an export orientation is essential. Affirmative action for exporters will be necessary. This could take the form of private consulting services being made accessible to exporters in order to help them resolve their logistical, marketing, and other problems. Another such initiative would try to match domestic entrepreneurs with knowledgeable foreign partners. These types of activities should be organized by the private sector. The Government should monitor and identify bottlenecks in various export subsectors and help resolve problems as they arise. Air transport, which is expected to be the main mode of transport for exports, should be liberalized quickly.

xii. Other measures could also help promote exports. The study concludes that it is premature to establish industrial free-trade zones (FTZs) at this point. However, individual firms could be given FTZ status. The establishment of bonded warehouses would allow manufacturing under bond as well as experimenting with reexports of goods to the region. Effective implementation of the simplified drawback right and preferential income tax to exporters will also be important. The investment code, which would be incorporated into the common law and the general tax code, needs to be used as a tool to attract export-oriented investment and small-scale enterprises. The objective should be to give new investments automatic access to a limited and well-defined exemption regime.

xiii. The greatest remaining distortions are found in the labor market. Evidence from the unregulated informal labor markets suggests that Burundi has a comparative advantage in labor costs. However, in many instances, the formal sector does not benefit from this advantage because of labor laws and regulations that increase labor costs substantially. Without significant reductions in these costs, the growth of both industrial exports and small and medium-sized enterprises (SMEs) is likely to be severely constrained. Moreover, Burundi needs to place greater emphasis on improving labor productivity through the aforementioned development of skilled labor, by upgrading manpower capabilities and increasing the technical and industrial orientation of the educational system.

xiv. The report concludes that there are concrete opportunities for industrial growth in Burundi, and that investment and entrepreneurship can be nurtured. Although a significant and sustained effort is required in policy-making, institution building and business know-how improvement, there are encouraging signs that a coherent program can be implemented and that the private sector can be the engine of growth of Burundi's economy in the 1990s and beyond.

BURUNDI - PRIVATE SECTOR DEVELOPMENT IN THE INDUSTRIAL SECTOR

I. THE MACROECONOMIC FRAMEWORK

A. Country Setting

1. Burundi is a small, landlocked country in Central Africa. Its per capita GDP is about US$210 (1990). With a population of about 5.5 million, growing at a rate of 3 percent per annum, Burundi has the second highest population density in Africa (169 persons per square kilometer). About 94 percent of the people live in rural areas, and the economy is highly dependent on agriculture which accounts for more than half of GDP, 90 percent of employment, and 90 percent of export earnings. However, the diminishing availability of arable land constrains this sector's potential. Coffee accounts for about 80 percent of total exports. The secondary sector (mining and manufacturing) represents only 14 percent of GDP and 6 percent of exports. The private sector plays a major role in the production of exports and food crops, and transport. The public sector enjoys a quasi-monopolistic position in the processing and export of primary commodities, manufacturing, energy, and infrastructure, and generates half of the country's formal employment. Since the country's independence in 1962, ethnic rivalry has been a major feature of Burundi's political history. Major efforts aimed at achieving national reconciliation and a significant opening up of the political system have been under way since 1988.

2. Significant economic reforms have been undertaken since 1986. The objective of this report is to assess the situation in the industrial sector, to review how the sector has responded to economic liberalization and to set the agenda for a sustained supply response. Much of the industrial capacity in place is of marginal viability. Industrialization, which is needed to promote growth and employment, will thus depend largely on the ability to create new, efficient, export-oriented activities and to attract new dynamic private-sector promoters, and only partly on the rehabilitation and expansion of existing plants. The policy reforms to date have produced mixed results and, therefore, a significant and sustained additional effort is required in policy design, institution-building and business know-how improvement.

B. Macroeconomic Situation and Perspectives

3. The Structural Adjustment Program. Since 1986 Burundi has undertaken a structural adjustment program supported by the IMF and two structural adjustment credits (SACs). The program aimed at stabilizing domestic and external finances, liberalizing the economy, improving the allocation of resources, and redefining the role of the state. Implementation has been slow and success has been mixed. While significant progress has been made in liberalizing the economy, particularly the industrial and commercial sectors, the program has not succeeded in restructuring parastatals and redefining the role of the state, and thus in reducing public expenditures. There has not yet been a significant supply response in the economy at large, although there are signs of a new dynamism in the private business community. This is partly explained by the fact that many of the liberalization measures either have been targeted toward, or have been implemented better in, the relatively smaller industrial sector than in the agricultural sector--a case in point is price control which is still a problem in cash crop production. The analysis of existing constraints also reveals that a sufficiently deep and broad set of microeconomic, macroeconomic, and institutional reforms, which are needed to support sustained economic growth, has not yet been put in place.

Performance and Recent Economic Developments

4. Burundi has not made the expected progress in financial stabilization. The external current account deficit averaged about 15 percent of GDP in 1986-90, roughly the same level as during the

1980-85 period. Erratic swings in the terms of trade, caused by movements in the world price of coffee, complicated the task of foreign exchange management. In response to the external shocks, the Government devalued the Burundi franc on various occasions and, until 1989, resorted on a selective basis to tightened controls on import licenses (paras. 71-74 and 77-84). The significant increase in foreign aid inflows under the adjustment program allowed Burundi to stave off a financial crisis. At the end of 1990, net foreign reserves reached a comfortable level equivalent to about four months of imports of goods and non-factor services. The long-term sustainability of the balance of payments has not improved, however, as exports cover only 38 percent of imports, compared with 70 percent in the 1970s.

5. The lack of strong and sustained fiscal adjustment has been one of the major brakes on the pace of adjustment. Although the overall fiscal deficit (excluding grants) as a percentage of GDP declined between 1987 and 1989 from 17 percent to 9 percent, this trend was reversed in 1990 when the deficit climbed to over 12 percent. The quality of public expenditure programming has improved, but major issues of public resource management persist (e.g., underfinancing of recurrent costs, high level of non-developmental expenditure, inadequacy of cost recovery, and distorted pricing for public utilities). These issues will be addressed in the next phase of adjustment.

6. Progress was most pronounced in the areas of exchange rate policy (paras. 75-76), tariff reform (paras. 91-93), and monetary policy--by liberalizing prices in the industrial sector (paras. 51 and 212), liberalizing trade and limiting money supply growth. The Government has shown a growing commitment to reforms. The mixed performance in adhering to the adjustment goals set at the outset of the program can be attributed to (a) implementation delays linked to political uncertainty; (b) external shocks; and (c) the ambitious design of the program in some areas (e.g., the public expenditure program).

7. Many distortions in the factor markets still exist (paras. 147-157 and 197-199). In the labor market there remain significant barriers to labor mobility; the labor code (which is currently being revised by the Government) is overly protective of existing employees and discourages generation of new employment. These regulations and minimum wage laws increase labor costs in the formal sector to a level which is too high in comparison to labor productivity. In the financial sector the main constraints are (a) the large returns earned up to 1991 from almost risk-free lending for coffee purchases and imports; (b) the historically large, low-interest deposits by Public Enterprises (PEs) that preclude the need for an aggressive resource mobilization policy; and (c) the commercial banks' lack of capacity to assess the viability of private sector investment proposals (paras. 196-199).

Macroeconomic Prospects

8. Annual real GDP growth decelerated during the adjustment period from 5.0 percent in 1980-85 to 3.8 percent in 1986-91; however, it is still slightly positive in per capita terms and it compares favorably with low-income Sub-Saharan Africa, where growth declined an average 0.4 percent a year in 1980-87. All sectors of the Burundi economy grew at similar rates, and all were affected negatively by a downturn in 1989, when the economy grew by only 1.5 percent. The slow growth in 1989 was attributable to exogenous factors (irregular rainfall and a deterioration in the terms of trade), and to partial implementation of adjustment measures. In 1990 the economy was once again on the upswing: real GDP grew by 3.4 percent and the inflation rate fell from 11.6 percent to 7.1 percent. The overall fiscal deficit, however, was at an unsustainable level (12 percent of GDP).

9. The private secondary sector, which is dominated by the industrial sector, is expected to be the main source of sustainable growth in Burundi during this decade and beyond. This expectation is reflected in the latest macroeconomic scenario. The projected GDP growth for 1991-94 and 1995-99 is, respectively, 3.3 and 4.3 percent per year. The relatively small industrial sector (about 5 percent of

GDP) is projected to grow at about 8 percent a year throughout the period and is expected to contribute most to this expansion. In contrast, the agricultural sector is projected to grow at rates of 2.8 and 3.5 percent during the aforementioned periods and is expected to experience a decline in its share of GDP.

10. The growth in industrial production is expected to be promoted by private export-oriented investments. While the private sector currently finances only about 20 percent of gross investment (about 4 percent of GDP in 1990), its share is projected to increase to 24 percent by 1994 in response to the implementation of a private sector development strategy, and to continue to increase during the second half of the 1990s. However, there is a prerequisite to the realization of these projections: investment conditions have to be appropriate in all key facets. Following the analysis of the existing industrial sector, the remainder of the report seeks to develop the critical elements of the enabling environment required for private sector-led growth.

II. THE INDUSTRIAL SECTOR

A. Overview of the Sector

11. According to national accounts estimates, formal manufacturing accounted for about 5 percent of GDP (FBu 9 billion, US$60 million) in 1989, about the same as in 1984. The best available estimate, which takes into account closures and new entries, indicates that about 200 formal enterprises are presently engaged in manufacturing (see Table 2.1 for 1988).

Table 2.1: DISTRIBUTION OF PRIVATE AND PUBLIC ENTERPRISES, 1988

Activities	Private	Public	Total
Constr. materials	5	5	10
Civil works	38	4	42
Wood/paper/printing	19	2	21
Metal/mechanic	36	2	38
Chemical ind.	20	4	24
Agro-industries	30	8	38
Textile/leather	15	1	16
Total	163	26	189

Source: SNES and World Bank estimates.

12. The modern sector empioys less than 20,000 people, about one percent of the active population. In comparison to GDP the industrial sector is about half as large as that of most other low-income developing countries. Because of the heterogeneous nature of the subsectors, most local enterprises enjoy a monopoly or duopoly status for individual product lines. Much of the competition comes from imports or, in some subsectors, such as soap, from informal firms. Most of the enterprises are private and small. About two thirds of the industrial output is attributable to firms with at least 10 percent public ownership, reflecting the heavy, capital-intensive public investment that took place during 1978-86. Based on a representative sample of about 60 enterprises--50 private and 10 public--a general picture of the sector can be constructed (see Table 2.2). The sample covers about 50 percent of output and employment. The share of the private sector is understated in some subsectors because of the better statistical coverage of PEs.

Table 2.2: CHARACTERISTICS OF MAIN INDUSTRIAL ACTIVITIES, 1988
(millions of FBu)

	Gross Output		Value Added		Employment
Private					
Constr. materials	1,192	15%	199	10%	638
Civil works	937	12%	279	14%	1,725
Wood/paper/printing	618	8%	166	8%	425
Metal/mechanic	2,192	28%	546	26%	297
Chemical ind.	1,165	15%	385	19%	552
Agro-industries	637	8%	291	14%	1,559
Textile/leather	1,144	15%	196	9%	328
Total	7,885	100%	2,060	100%	5,524
Private & Public					
Constr. materials	1,279	7%	242	5%	792
Civil works	937	5%	279	5%	1,725
Wood/paper/printing	703	4%	217	4%	544
Metal/mechanic	2,192	12%	546	10%	297
Chemical ind.	1,721	9%	570	11%	665
Agro-industries	9,675	51%	2,195	42%	3,488
Textile/leather	2,346	12%	1,210	23%	2,091
Total	18,852	100%	5,257	100%	9,602

Source: SNES.

13. The structure of production reflects the predominance of agro-industries, which account for over 50 percent of the value added. This share is growing as SOSUMO's (sugar) production continues to come on stream. The textile/leather subsector ranks as the second largest, accounting for one fourth of the estimated value added. In the purely private sector, the largest subsector is metal and mechanical industries. Within the formal sector, PEs are about three times more capital-intensive than private enterprises, as measured both by sales and value added per worker. This finding is not significantly affected by the high levels of protection of PEs, which inflate output at domestic prices.

14. Data on the urban informal sector (paras. 61-67), provided by recent surveys of the USAID and the ILO, indicate that informal industrial activities have been growing rapidly. Their output is estimated to have almost equalled that of the formal sector in 1990. About half the activities are concentrated in the garment/tailoring subsector. Despite recent growth, the informal industrial sector remains relatively small, at about half the size that is estimated as the average in the rest of Sub-Saharan Africa. This is attributable to Burundi having little trading and industrial tradition.

15. Most of the formal and informal industrial activities are located in Bujumbura. This reflects the low urbanization within the country and the better developed infrastructure in the capital city. However, many agro-industries are located outside the capital, due to their links to the agricultural sector; the principal such enterprises include BRAGITA (brewery in Gitega), palm oil refining, and sugar, coffee, and tea processing.

B. Assessment of the Industrial Sector

16. Private Sector. Production and employment in the private manufacturing sector are dominated by the two breweries, which have minority public ownership but are operated by independent private management. These two firms employ about 1,000 people and generate Fbu 2.5 billion of value added. The rest of the sector is composed of small and medium-size enterprises (SMEs) employing between 10 and 600 people and generating a value added ranging from less than Fbu 1 million to about FBu 300 million--average employment is about 100 people and average value added is FBu 40 million (US$270,000). Foreign investors, mainly from Europe and the Indian subcontinent, are present in about half the private firms. Foreign ownership has been in relative decline since the early 1980s. This phenomenon is attributable to (a) the 'Burundinization' efforts of the past; (b) foreigners selling their interests in unviable activities--made temporarily profitable by protection and tax exemptions--once investment code benefits ran out; and (c) the emergence of a small number of new Burundi entrepreneurs who have established new lines of business (NAB and FRUITO, for example, producers of garments and fruit juice).

17. Main Products. Most of the manufacturing output is still intended for the local market. Production is concentrated in typical simple import-substitution activities: (a) agro-industries--beverages, dairy products, sugar, and cigarettes; (b) chemical industries--soap, foam and a range of plastic products, paints, batteries, oxygen, and acetylene; (c) textile and leather--cloth, garments, blankets, and shoes; (d) metal-working industries--nails, corrugated sheets, profiles, and tubes; and (e) other products--including building materials and printed matter. Manufactured goods not yet produced in sufficient quantity to meet domestic demand include dairy products, yeast, malt for breweries, edible oils, margarine, sugar, cement, socks and underwear, plastic bags, and hoes. While this may indicate possible import-substitution opportunities, some of these products are unlikely to be produced efficiently in Burundi; cement, for example, is an industry that has in the past been promoted by the Government but which is unlikely to be viable in the medium term.

Import Intensity

18. Selected indicators of industrial performance reveal that the sector relies heavily on imports (see Table 2.3): imports of intermediary products for the manufacturing industry have accounted for about 25 percent of the value of all imports between 1984 and 1988, and a significant part of petroleum and capital goods imports has also been consumed by the manufacturing sector. On average, the import intensity of the sector is over one third of gross output.

19. Except for agro-industries, manufacturing enterprises import most of their raw materials and intermediary goods. The most import-intensive activities include the breweries, all metal mechanic workshops, paint and plastic manufacturers, the paper products industry, the blanket manufacturer, the soap manufacturers until recently, the shoemaker BATA, and the fibre cement manufacturer ETERNIT. Recent increases in the cost of imports, which have resulted from devaluations, are inducing several industries to look for alternatives; local content in production is increasing in a handful of industries, e.g., in soap manufacturing. However, interviews with entrepreneurs show that the predominance of well-established European suppliers and the absence of adequate information on substitute, less costly supply sources--except within the region--have prevented many manufacturing industries from reducing the cost of nonfactor inputs (see the example of hygienic paper, para. 45). In the medium term, the development of a more competitive resource-based sector should increase intersectoral linkages and lead to a fall in import intensity.

Table 2.3: SELECTED INDUSTRIAL PERFORMANCE MEASURES
(millions of FBU)

	1986	1987	1988	1989
Value added a/	8,128	9,127	9,157	8,967
Exports	1,081	1,588	1,021	662
Industrial investments	2,810	7,465	2,602	3,000 b/
Industrial credits	3,062	3,640	4,770	5,889
Imports of prod. inputs	8,283	8,597	9,995	9,843
Imports of capital assets	4,925	6,259	6,461	6,161

a/ In constant FBu of 1980.
b/ Mission estimate.
Source: Mission Allemande.

Growth and Investment

20. Since the mid-1980s industrial growth has been slow but positive. Real output increased by about 3 percent per year between 1986 and 1989 and is estimated to have increased 5.5 percent in 1990. Manufacturing output fell in 1989 by 2 percent because of declining demand. This decline was attributable to the drought, which increased the price of food crops and reduced disposable incomes and the increase in the transaction tax (TT)--from 12 to 15 percent.

21. The evolution of production at the firm level falls into three broad categories. First, there are enterprises whose production is growing and whose capacity utilization is high (brewery, cigarettes, sugar, oxygen, textile cloth). The second group is composed of established firms that are stagnating but have high capacity utilization (blankets and soap). This group is constrained by its obsolete equipment, and the investments needed to renew its capital stock are being delayed because of uncertainty. The final group is composed of firms with doubtful viability, declining sales and low capacity utilization. Some enterprises within this group are being closed down (the flour mill is now being liquidated), and others continue to operate while trying to restructure (nails, matches, and BATA shoe production, which cannot compete with products from the Kenyan footwear subsidiary). A few firms within this group are not efficient but enjoy protection from competing imports through high transport costs and tariffs, which enable them to be quite profitable despite low capacity utilization (foam products and metal-working industries).

22. Despite the sector's low growth, investments picked up in absolute terms during the second half of the 1980s; between 1978 and 1982 they averaged about FBu 900 million (US$10 million) per year and increased from 1986 onwards to about FBu 3 billion (US$20 million) in 1989.[1] This growth reflected the fact that the private secondary sector was stimulated by the adjustment measures: the share of the private sector in industrial investments went up from about 25 percent between 1978 and 1982 to 85 percent in 1989. As credit to the industrial sector, which precedes actual investments, has grown rapidly--almost doubling between 1986 and 1989--investment and growth in the manufacturing sector can be expected to increase during the first half of the 1990s. The impact of new investment on the size of the sector is likely to be moderated by the probable exit of 10 or so unviable enterprises. Some closures are already under way, but have been slowed by inappropriate bankruptcy laws and protectionist policies (paras. 138-140 and 36).

1/ The numbers exclude the large public investment of about $50 million in SOSUMO (sugar).

Infrastructure

23. The economic infrastructure of Burundi--roads, water and energy, telecommunication--, is by and large adequate and relatively well maintained. Within the capital, where industries are concentrated, land (about 180 hectares) has been set aside for industrial use, but have not been prepared for such use. Thus, for each new investment, the promoters also have to build connector roads and sewers and extend connections to utilities. Moreover, once the physical connections are made, services from utilities need to be secured--this is generally easy. These additional civil works create delays, increase investment costs, and discourage investors, particularly small ones. This partly explains the slow development of small-scale enterprises (SSEs).

24. In many countries, governments undertake the necessary light infrastructure investments in sites and services so that promoters need only to build their factory and to hook up to utilities. The advantages of this approach include lower unit costs, due to the economies of scale gained in creating all the infrastructures at once, and time savings for investors. The main disadvantages are that rehabilitated plots may remain empty if adequate private sector investment does not follow and the managers of the zone may impose discouraging administrative constraints.

25. In Burundi, light investment in industrial infrastructure (sites and services) is needed to support private investment. However, in order to maximize net gains initial investments should be modest. Given the present rate of enterprise creation, about four new medium-size investments occur each year. The number of plots to be readied to meet expected demand over the next four years should be about 20 (i.e., less than 10 hectares). Second, to avoid bureaucratic delays, the management of the zone should be private and the procedures for obtaining a lot and the costs involved should be clear.

26. Complementary investment is also needed to help establish SSEs. At present, these enterprises not only have to secure access to utilities, they also have to construct buildings to house their workshops because such facilities are not readily available for lease. As a result, construction accounts for about half the value of investments by SSEs. A building capable of housing 20 to 30 workshops of about 150 square meters each could be constructed and managed by the industrial zone. Similar structures could be built in one or two other urban centers to encourage decentralized SSEs. This would reduce costs to investors by providing leasing options and the benefit of economies of scale in investment outlays.

27. The Government is pursuing a policy of decentralization. However, the capital city constitutes the single largest urban market and it is the seat of government, where the necessary interchange with the authorities is easiest. As a result, the scope for installing industries outside Bujumbura is at present limited mainly to activities with links to the primary sector. The present level of private investment does not justify preparing a second decentralized industrial zone.

Public Sector

28. Industries with at least 10 percent public ownership, the definition of a PE in Burundi, dominate the industrial sector in size, as measured by assets, investment, equity, and loans (see Table 2.4). COTEBU and VERRUNDI dominate the textile and chemical industries.

Table 2.4: PUBLIC SECTOR SHARES IN INDUSTRY (1987)
(percent)

	Net Assets	Gross Investment	Equity	Loans a/
All of manufacturing	76	86	89	87
Agro - industries b/	66	70	68	76
Textiles and leather	83	96	96	99
Printing	13	84	14	0
Chemical industry	54	62	53	72

a/ Medium and long term.

b/ Includes all primary treatment of agricultural products and food processing.

Source: Ministry of Plan.

29. Enterprises with public ownership can be classified into SEMs (mixed enterprises with minority public ownership) and PEs (majority or complete public ownership). The two breweries (SEMs) operate as fully private entities, and a number of other enterprises, particularly OCIBU (coffee), OTB (tea), BTC (tobacco), and COGERCO (cotton ginning), conduct mainly agricultural activities. The key features of the most important industrial PEs are given below (see Table 2.5).

Table 2.5: CHARACTERISTICS OF KEY PEs

	Permanent Employment		Gross Output	Value Added	Debt	Capital
	1985	1988	(1988, millions of FBu)			
COTEBU	1206	1631	2247	1111	2165	2646
FADI	90	120	370	96	218	141
INABU a/	100	124	84	51	81	38
MINOTERIE a/	81	133	821	99	36	11
ONAPHA	66	64	176	89	98	259
SOSUMO	54	331	N.A.	280	8026	2024
VERRUNDI	163	185	553	417	1949	595
TOTAL	1760	2588	4251	2143	12573	5714

a/ Enterprise currently being restructured or liquidated.

Source: SCEP.

30. The seven enterprises in the table, together with SIRUCO (used garments) and HUILERIE (palm oil),[2] form the core of manufacturing PEs. Most were established during the 1980s. The MINOTERIE (flour mill) is being liquidated and is unlikely to operate again if competitive conditions are maintained, because of its inherent lack of economic viability--imported grain needed to produce a kilo of flour costs more than a kilo of imported flour. INABU (printing) is operating at very low levels of activity while awaiting privatization and restructuring. FADI (pesticides) operates at close to full capacity but is facing increased competition with the liberalization of agriculture imports.

31. The remaining PEs, except for SOSUMO, were protected by quantitative restrictions (QRs) as recently as August 1990. ONAPHA (pharmaceutical products) has been shown to be of doubtful viability, even on a sunk-cost basis, because of (a) poor quality; (b) lack of cost competitiveness in the

2/ Studied in the context of the Agriculture Sector Memorandum.

face of imported generic products; and (c) insufficient demand and inability to export, which prevents its benefiting from economies of scale. Nevertheless, the firm has continued to produce while pursuing rehabilitation and privatization alternatives with possible Chinese help. This enterprise, in its present situation, may not survive the liberalization of competing imports if the Government adopts a competitive procurement process.

32. VERRUNDI (bottles, an IFC project) and SOSUMO also suffer from lack of financial and economic viability. Both can survive on a sunk-cost basis, however, as gross receipts more than cover variable costs. These two firms also face technical problems. For VERRUNDI, an inappropriate choice of technology (electric furnace), excessive scale, and the need for continuous operations lead to high production costs and a tendency to overproduce; the stocks of finished products are sold when production is stopped to change the furnaces' refractory lining. Another problem is that bottles are too heavy. The present management has been slow to adopt measures to lower the bottles' weight and thus production costs. This is a case in which complete privatization with more efficient and innovative management would improve viability. For SOSUMO the main problems were over-investment and high industrial costs; the industrial costs are being reduced through better capacity utilization made possible by improved agriculture operations.

33. COTEBU (textiles) is marginally viable. It is likely to experience severe financial difficulties now that the doubling of its capacity is being completed. The main problem is that its machines cannot produce export-quality cloth for the European market, and that regional and domestic demand is insufficient. In January 1991 this enterprise received protection in the form of an import duty surcharge on competing products that is likely to hinder the development of the growing export-oriented garment sector.[3]

34. Almost all industrial PEs share problems that lower their technical efficiency. Purchases of foreign equipment financed by donors were often motivated not by efficiency considerations but by the desire to promote donors' national suppliers. Problems common to almost all these enterprises are weak management, the absence of adequate cost accounting, the lack of aggressive marketing and product innovation, and technical inefficiencies.

35. Privatization, particularly if foreign partners with appropriate know-how can be brought in, should help create a more dynamic sector. The process should start with privatization of management. However, despite real progress made by the Government in spelling out a privatization strategy, the nuts and bolts of how to privatize have not been devised. The most important issue is linked to the valuation of privatized assets. There is legitimate concern about not "giving away" these assets. However, calculations based on historical costs are likely to grossly exaggerate the economic value of the firms. To capture dynamic gains through the transfer of know-how, the best strategy might be to let the market and the buyers determine the price of the assets, even if this leads to their undervaluation according to historical costs. On the other hand, under no circumstances should additional protection and tax holidays be granted to privatized firms.

3/ Current tariffs are 44 percent. The surcharge is 30 percent in 1991, 20 percent in 1992, and 10 percent in 1993.

C. Industrial Efficiency and Performance

36. Effective Tariffs. Effective tariff rate (ETR)[4] estimates are available for 38 firms covering 49 products for the years 1985 and 1989 (see Table S2). ETRs are now a good indicator of industrial efficiency; low ETRs generally indicate competitiveness with respect to imports. Out of a total of 34 matching products lines, 18 had lower ETRs in 1989 than they had in 1985 and 8 ETRs were unchanged. In 1989, however, 22 out of 39 products still enjoyed high tariff protection, as measured by ETRs exceeding 50; 13 of these products had ETRs over 100. The reduction in tariff protection rates is significant considering that during that period QRs were dismantled and the foreign exchange allocation system was liberalized. However, many activities still remain highly protected. As a result. inefficiencies persist and the system of incentives suffers from a significant anti-export bias; without lower maximum tariff rates domestic sales will remain much more profitable than exports (paras. 90-96).

37. Capacity Utilization. The enterprises for which information is available (about 30) are almost equally distributed between two groups of low- and high-capacity producers. The first group enjoys capacity utilization above 50 percent. The second operates at low capacity, below 50 percent. During the preparation of the adjustment program it was hypothesized that industries with excess capacity would export, as long as they could cover variable costs. This did not happen because of import controls within the region, partly circumvented through informal trade, and the aforementioned anti-export bias (para. 36). Moreover, the majority of industries with excess capacity cannot cover variable costs at competitive export prices for their output (para. 39).

38. Employment. Employment data covering 1984-89 were available for 27 private firms; about half had information missing for the period before 1986. The data, aggregated on an unweighted basis, show that industrial firms hired workers during the second half of the 1980s (see Table 2.6). The sample enterprises responded to the 1989 decline in demand by shedding workers. The analysis of the composition of labor reveals that much of the change in employment occurred for temporary workers. For a sample of 18 enterprises, the share of temporary workers among unskilled workers was less than 20 percent between 1984 and 1986. This figure more than doubled during the 1987-89 period. Interviews with managers of enterprises revealed that the reason for this policy is the high cost of permanent employees relative to that of temporary ones (para. 150). Firms responded to competitive pressures accompanying import liberalization by relying more on cheaper temporary labor. This behavior is consistent with the diagnosis that, due to present laws (paras. 150-153), permanent workers cost too much (paras. 154-157). However, training given to temporary workers is lost if the enterprise adheres strictly to the labor laws, which prohibit keeping a temporary person on the payroll for more than three months.

4/ Defined as the percentage divergence of value added at domestic prices from that calculated at border prices.

Table 2.6: EVOLUTION OF EMPLOYMENT AND OUTPUT
(percent)

	1984	1985	1986	1987	1988	1989
TEMPORARY WORKERS TO TOTAL UNSKILLED						
Average	13	19	23	42	59	39
Observations	18	18	18	18	18	15
EMPLOYMENT GROWTH						
Average		20	55	29	13	-6
Observations		13	17	20	27	26
LABOR COSTS/GROSS OUTPUT						
Average				16	18	14
Observations				26	27	28
VALUE ADDED/GROSS OUTPUT						
Average				26	34	29
Observations				14	27	27

Source: SNES.

39. Adjustment in Costs. Adjustment policies forced enterprises to become more efficient in the use of non-factor inputs, as seen in the rising share of value added in gross output shown in the table above. For a sample of 27 firms this share rose by about 30 percent between 1987 and 1988, and 8 percent between 1987 and 1989.[5] In parallel, labor costs as a proportion of total output showed a decline between 1987 and 1989, even though the proportion had increased between 1987 and 1988. Despite the weakness in the numbers, three conclusions emerge: (a) the more competitive economic environment did not lower profitability, as measured by the share of value added minus labor costs in gross output, which went from 10 percent in 1987 to an average of 15 percent for the 1988-89 period; (b) despite cost reductions Burundi industries remain relatively low value-added activities, with non-factor input costs accounting for about 70 percent of the ex-factory price; and (c) the high variable costs explain why, despite available excess capacity (para. 37), the scope for more industrial exports from the existing sector is limited. Thus, many existing firms have limited growth potential.

Technology and Know-how

40. The choice of technology is an essential part of successful industrialization. Inappropriate decisions with regard to scale, sophistication, degree of labor intensity, and the inability to obtain spare parts and assistance in operation and maintenance can lead to the failure of potentially viable activities. The typical case is VERRUNDI (bottles), for which the choice of experimental electric furnace technology combined with excessive scale has contributed to such a situation. The technological capacity of the industrial sector was assessed through visits to over 40 public and private enterprises. The notion of technology used below covers also such areas as management capacity and product quality.

41. A large share of the problems experienced by industrial PEs originate from their inappropriately large scale, inadequate management, and lack of financial and economic viability. In many cases, difficulties were also attributable to inappropriate production technology promoted and financed by donors. There are no "white elephants" within the private sector of Burundi. Problems of a technical nature are due most often not to the choice of technology, but to (a) operators' lack of training; (b) obsolescence; and (c) the owners' tendency to postpone improvements, renovations, general maintenance and repairs. The first problem is general, linked to the still relatively low education of the

5/ This trend is not affected by the varying coverage of the sample.

work force and its insufficient industrial experience. The latter two can be attributed to excessive protection, as well as to economic and political uncertainty.

42. On the whole, private enterprises tend to have more appropriate technologies and better mastery of their production processes than public enterprises. This is partly because the scale of private operations, except for the brewery, is smaller than that of PEs. Nevertheless, the choice of technology remains an important issue facing the private sector because many existing enterprises have to renew worn-out machinery and some enterprises (NAB, CHANIC (oxygen), FABRIPLAST (plastic products), HUILERIE (palm oil), ONAPHA, and others) have purchased inappropriate equipment during the past few years.

43. Additionally past exchange rate and trade policy regimes and distortions in factor prices have promoted labor saving technologies. Almost all the industrial equipment is of European origin. Only in the case of PEs can this be directly attributed to the source of financing. The private sector generally lacks information about other potential equipment suppliers, particularly those from other, more industrialized developing countries. A related phenomenon is the insufficient knowledge of locally available facilities for general maintenance and repairs. Because traditional suppliers have a track record and provide follow-up support and troubleshooting through authorized dealers, a promoter is unlikely to purchase more appropriate but unknown equipment, unless it is known that basic maintenance can be provided by existing enterprises that operate and maintain similar machines. A registry of locally available maintenance and repair facilities, as well as suppliers of intermediary goods and would be one way to improve the information available to SMEs.

44. Many enterprises lack the design capabilities to conceive new products. This problem can be addressed through the provision of specific, short-term technical assistance (paras. 237-253) to enterprises that wish to revamp their product lines. Typical examples of this assistance include (a) showing garment producers how to cut cloth to minimize wastage, and how to stitch and manufacture products that replicate the latest fashions; (b) helping COTEBU design patterns appropriate for untapped export markets or the local export-oriented garment industry; and (c) helping furniture producers revamp their designs in line with more modern styles.[6]

45. Another technology-related problem is the use of the wrong inputs. The tendency of local entrepreneurs to purchase inputs from traditional sources located in Europe can lead to inefficient production techniques. One particular example was an attempt to produce hygienic paper in Burundi with inputs imported from Belgium; despite its apparently higher quality, this import substitute could not be priced competitively with lower-quality imports from China and Kenya.

46. Management in Burundi is still often inadequate, particularly with respect to marketing and cost accounting. This is a problem in both public and private enterprises. Most managers do not know their firm's production costs. The importance of using depreciation and replacement value in cost accounting, rather than the nominal purchase values is poorly understood. In the same vein, export opportunities are assessed in terms of whether or not average costs are covered, whereas, in the presence of excess capacity, the appropriate parameter is variable costs. As a result, industries de-capitalize themselves, habitually underestimate the needs for working capital, and forgo export opportunities. Applied management courses, with a strong component related to cost accounting, are therefore needed (paras. 243-244). This type of initiative should be complemented by the establishment of an order

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6/ The USAID has just funded such a technical assistance effort in the textile sector. However, it is too early yet to assess its impact.

chartered accountants and the implementation of an appropriate, country-wide accounting system. Other areas where management could be improved include marketing, particularly in the case of export products (paras. 249-250)

D. Exports

47. Burundi's long-term growth will depend on a successful export drive. As in the case of industry, the level of export development is low: (a) imports are more than twice as high as exports, leading to a chronic trade deficit; and (b) the ratio of exports of goods and non-factor services to GDP is 12 percent for Burundi, compared with 19 percent for low-income developing countries[7]. Burundi's exports are dominated by coffee, which accounted for about 75 percent of export revenues between 1987 and 1989. Other exports have begun to grow and to become more diversified in response to devaluations. However, manufactured exports have stagnated. The structure of recorded exports is shown below (see Table 2.7).

Table 2.7: MAIN EXPORTS, 1980-89 (millions of FBu)

	1980	1985	1986	1987	1988	1989
PRIMARY PRODUCTS	5,771	12,547	18,202	9,594	17,986	12,220
Coffee	5,234	11,172	17,057	7,891	16,010	9,502
Tea	136.4	711.7	514.6	556.8	734.7	992.3
Processed rice					53.5	182.9
Leaf tobacco				13.0	203.4	195.2
Raw hide	53.5	116.4	150.6	181.8	295.5	509.6
Cotton	100.5	42.4	20.2	502.3	110.1	31.3
MANUFACTURED PRODUCTS	204	1,425	1,842	2,368	1,629	1,118
Cement products	66.4	24.6	38.5	48.4	36.0	31.8
Bottles	0.0	197.7	193.1	456.5	325.0	315.9
Beer	4.3	11.3	126.6	149.6	121.7	10.8
Cotton tissue	1.0	420.0	428.4	181.9	265.2	144.3
Palm oil	66.4	24.6	38.5	48.4	36.0	0.2
Wood products	5.0	11.3	126.6	149.6	2.5	2.8
Rubber products	0.0	197.7	193.1	456.5	9.0	315.9
Batteries	7.7	0.5			80.7	54.0
Plastic work	1.0	420.0	428.4	181.9	40.8	7.0
Shirts					24.7	19.0
Ceramic tiles	18.6	44.8	112.1	337.1	225.6	0.2
TOTAL	5,986	13,988	20,044	11,962	19,616	13,338

Source: BRB.

Traditional Exports

48. Coffee is the single most important export of Burundi. The industrial aspects of coffee production are hulling and washing stations, which are earmarked for privatization. Coffee accounted for 85 percent of exports in 1980 and over 80 percent during 1985-86. As the result of a combination of lower world prices and the development of other exports, this share fell to less than 75 percent between 1987 and 1989. Exports vary between 30,000 and 37,000 tons. During the 1990s, increased

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7/ As defined by the World Development Report 1991, excluding India and China.

production and improved coffee quality are expected to lead to higher export volumes and above average prices. Thus, the economy's dependence on coffee will inevitably continue for some time.

49. Tea is the second most important export product; it contributed nearly 5 percent of export receipts between 1987 and 1989, and its good quality suggests that the sector has unrealized potential. As in the case of coffee, most of the value added in tea production is attributable to the agricultural activity itself. There is also an industrial link, in the form of tea factories.

50. Cotton exports have remained stagnant over the past five years; relatively high exports in 1987 reflected a sharp decrease in stockpiles. This sector also has strong ties with industrial activities. Exports of the main cotton-ginning operation, COGERCO, depend on the consumption of COTEBU, which COGERCO supplies at subsidized prices. Another industrial link is with the cotton oil extraction plant, RAFINA, which, as the sole customer, also enjoys a privileged relationship with COGERCO, from whom it obtains its main raw material at a low price that is not market-determined.

51. The system of incentives critically affects coffee as well as other cash crops: (a) producer prices drive the production of cash crops and influence substitution among products; and (b) viability depends on exchange rate policies. Most agricultural products are subject to liberalized producer (tobacco and food crops), while many cash crops are subject to fixed producer prices. Where the producer price is set too low--particularly cotton and tea--land pressure forces substitutions that are not always optimal from the country's viewpoint. Linkages with inefficient PEs are another cause of the low viability of lines of activities. Indirect links should be rationalized by establishing market-determined commercial relationships (for cotton). Direct processing links can be improved through the privatization of equity or management and restructuring of PEs.

52. Nontraditional Primary Exports. Nontraditional exports include (a) tobacco; (b) hides and skins; (c) fish, plants, rice, and quinquina; and (d) horticultural products. These exports have responded to exchange rate measures and are growing rapidly. The main constraint for some is the unavailability of reliable and relatively frequent flights to Europe (paras. 141-147). Some of the recent ventures in horticulture have also failed because of poor project design.[8]

53. Mining. Burundi has a variety of ore deposits including gold, tin, and nickel, and other resources such as rare earth. However, except for gold, none of these resources has been shown to be viable for large commercial ventures. Viability, given a certain ore content and a given world price, will depend primarily on the exchange rate and the technique of extraction. With regards to the extraction earlier studies had shown that artisanal-type processes would be viable. This seems to be verified by the fact that hundreds of people are now engaged in such endeavors. Although these entrepreneurs are presently tolerated, the lands are owned by the Government. The artisans have no property rights and could in theory be expelled. Regardless of whether or not large-scale mining is feasible in some areas, the status of these entrepreneurs should be formalized.

54. Manufactures. Burundi has begun exporting manufactured goods relatively recently. The main exported manufactured products are bottles, beer, and textiles (produced by PEs), as well as cement roof covering, and garments (produced by private firms). At their peak in 1987 manufactured exports accounted for about 20 percent of total exports. During the second half of the 1980s, these exports stagnated; the 1987 figure was due to exceptional sales to Uganda and very low coffee prices. During the 1988-89 period, manufactures accounted for about 8 percent of total exports--less than US$10 million.

8/ The EEC/FED has financed technical assistance for the marketing of horticultural exports through the APEE.

55. The slow development of industrial exports is attributable to a number of factors. First, most existing firms are not cost competitive and the delays in implementing the drawback system (para. 206), made effective only in late 1989, discouraged exports. Second, as a result of the bias in incentives favoring import substitution, only a few export-oriented investments have been undertaken (NAB and LOVINCO). Moreover, these investments are just coming on stream and their impact will be felt only in the 1990s. Finally, many industrial exports to regional markets are not recorded and official figures understate export performance; informal exports are estimated to be at least as high as recorded ones.

Direction of Trade

56. Europe in general, and the EEC in particular, is presently Burundi's largest trading partner; in 1989 Europe's share in Burundi's total exports was about 75 percent and the EEC's, 57 percent. However, about 90 percent of exports to Europe are accounted for by coffee. Once this product is excluded, Sub-Saharan Africa becomes the main export market, receiving about 14 percent of exports in 1989--US$10 million. The principal African countries that import from Burundi are (a) Kenya, which imports primarily tea; (b) Zaire, which imports about 70 percent of the types of products exported by Burundi; (c) Rwanda, which imports mainly industrial products; and (d) Zimbabwe, which imports primarily tobacco. The share of recorded exports to Tanzania, Zambia, and Uganda is almost negligible. The lack of trade to the first two countries is attributable to non-tariff barriers (NTB).

57. For over 20 years NTBs have been the Achilles' heel of Burundi's development strategy, based on supplying the regional market. In the case of Zaire and Rwanda, evidence suggests that much of what cannot be officially exported legally is exported informally. This is attributable to the proximity of Bujumbura to these two markets and the ease of access. Most exports to Zaire are products legally purchased in the capital city by Zairian businessmen and taken back to the Kivu by road or by boat. This trade is very important and equals or surpasses recorded trade in manufactures: unrecorded exports of textile fabrics alone are estimated to have surpassed FBu 1 billion--US$6 million--during 1989-90. Removing trade restrictions with Zaire and Rwanda will boost official trade, but may have limited impact on trade creation in the short run.

58. Trade with other countries in the area, particularly Tanzania and Zambia, is much more constrained by NTBs. Informal trade is made difficult by the lack of population on the Tanzania side of the border, and the fact that Zambia is only accessible by going down the length of the lake, too far for light boats. As a result, most exports to Zambia and Tanzania have to be on an official basis. A common complaint in Burundi is that import licensing or the foreign exchange allocation system in these countries have prevented exports.[9] Burundi, on the other hand, because of its liberal policies, imported growing amounts from the region. The removal of NTBs in the preferential trade agreement (PTA) group of countries would benefit Burundi and lead to net trade creation. However, the PTA has tended to give greater emphasis to reducing regional tariffs than to eliminating NTBs.

59. Regional trade is likely to remain important throughout the 1990s. The main question centers on how this trade can be promoted. The Government should actively encourage regional trade by (a) adopting a liberal attitude toward what customs officials see as "illegal exports"; and (b) continuing bilateral negotiations to open up trade with Tanzania, as well as, to a lesser extent, with Zambia, Kenya, and Uganda. It is likely that, under present conditions, the liberal attitude of Burundi's customs toward unofficial exports help Burundi firms. Bilateral negotiations, however, are likely to be less effective unless a major liberalization takes place in partner countries. Such a liberalization can occur either

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9/ Zambia has recently adopted an open licensing system that should reduce NTBs on imports from Burundi.

through general trade policy reforms or in the context of the removal of NTBs within the PTA. The World Bank is presently preparing a project with the PTA aimed at removing NTBs and allowing capital flows (investments) from trade surplus countries to countries that are in a situation of bilateral trade deficit. This project, if successful, should help Burundi.

60. In parallel with export development at the regional level, nontraditional exports to industrial countries, particularly Europe, offer the greatest potential in the long run because of the large size of these markets. Considering that products exported to the region are likely to be different from those exported to Europe, a concerted export drive toward both markets is desirable so that Burundi can develop as broad a range of exportable products as possible. Exporting to industrial countries, however, requires know-how, and products have to be of very good quality, priced competitively, and delivered on time. In order for such an export drive to be successful, local exporters will have to be nurtured and assisted, and transport links will need to be improved (paras. 191-195 and 147).

E. The Informal Sector[10]

61. Many countries in Africa have a large dynamic informal sector that contributes significantly to output and employment and provides a proving ground where businessmen and entrepreneurs learn their trade before moving on to larger formal ventures. The factors that typically hinder such a move are administrative red tape and the higher cost of doing business in more visible activities. This higher cost is often associated with taxation and the need to compensate labor in line with official wage guidelines. This is also the case in Burundi despite improvements in its business climate.

The Sector

62. In 1988-89 the value of the production of the informal activities in the mainly urban secondary and tertiary sectors was estimated at FBu 8 billion, the same as the output of the formal manufacturing sector--about 5 percent of GDP. The sector, largely confined to Bujumbura, grew briskly between 1986 and 1989, doubling in size in nominal terms. Informal units engaged in production and services in Bujumbura are estimated at less than 3,000. The main lines of activity are (a) food production; (b) tailoring (half the sector); (c) wood and metal working; (d) construction; and (e) repairs. The average age of these micro enterprises is about seven years, with little variation among subsectors, except wood-working, which is older, or in the size of enterprises. The total number of people employed is estimated to be more than 10,000.

63. The Ministry of Labor, in conjunction with the ILO, undertook a detailed survey of the sector in 1989. According to this survey the sector consists mainly of self-employed individuals (64 percent), with less than 4 percent of the enterprises employing more than five people. In 1986 the average initial capital of the firms was about US$650. Half the businesses are conducted in private homes, and about 20 percent rent equipment from other entrepreneurs. Finally, it was observed that only 12 percent of the firms have access to electricity.

64. The people working in informal activities are usually young men (average age of 30). Most are Burundi nationals (75 percent), and many of the foreigners are Zairians who emigrated in the 1960s. The level of education was found to be relatively low; two thirds did not finish the third grade in primary school. Only 14 percent have secondary education; this minority is the likeliest to have the

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10/ The following two sources were used in what follows: Haan (1990), "Employment in Rural and Urban Informal Sectors in Burundi," Mimeo; and a review of the informal sector undertaken by the USAID.

capacity to develop its activities into larger units. According to the study, the informal sector remains relatively underdeveloped, and many of the constraints have external origins, such as (a) access to credit; (b) regulatory and legal issues; and (c) local taxation.

65. Another study, undertaken by the USAID, was based of 326 interviews on stratified random samples of service-oriented firms. The typical entrepreneur was found to be a 37-year old Burundi male. Initial investments averaged less than the equivalent of US$1,000. Most businesses did not have ties to formal activities and produced for the central market or performed services for clients from the interior. The average monthly salary was the equivalent of $17, three to four times less than average compensation in the formal sector. Lack of initial capital was cited as a constraint to starting a business. According to those surveyed, the cost of credit and access to credit were also major problems: (a) 20 percent of the businessmen requested loans from banks; two thirds of the requests were granted, even though the borrowers had to offer some personal guarantee; and (b) only 5 percent borrowed from informal money lenders, a reflection of the lack of development of informal credit markets. Even though two thirds of the firms paid local taxes, the tax burden was not very high. According to information available, the effective average tax burden is less than 1 percent of turnover. In comparison, for formal activities the transaction tax alone is 15 percent of turnover.

Prospects and Issues

66. The informal industrial sector of Burundi is growing but is still in its infancy. This growth is partly in response to the more liberal environment implemented during the past four years, particularly with respect to population movement, which was tightly controlled until late 1988. Looking ahead, the best way for the Government to approach the sector is to maintain its hands-off policy. While regulatory reforms may not directly cause the sector to expand, the elimination of petty harassment will encourage it. Additionally, simplifying of procedures and reducing entry fees will encourage informal firms to register themselves (carte de commerçant), and the recent adoption of a statute establishing rights for street vendors will also help. Even though many of the informal enterprises do not generate a significant surplus, the larger ones are more profitable and could be brought into the central government tax base, as long as the tax rates are kept low; firms, such as those making soap, could be subject to presumptive taxation (para. 108).

67. An important aspect of the findings is that there are 200 to 500 entrepreneurs who meet the necessary conditions to expand the scope of their activity from informal micro-scale to formal small-scale activities. Some of these people, together with dynamic public officials leaving the civil service, will form the core of the new entrepreneur class in the formal sector for the next few decades. As for the export prospects, the engagement of so many people in the garment subsector boosts the prospects of establishing an export-oriented garment industry.

F. Investment during the Adjustment Period

68. Industrial investment went up during the second half of the 1980s. According to Central Bank (BRB) data, which track primarily private investments financed by banks and refinanced by the central bank, an average of five new enterprises came into existence each year during the 1986-89 period (see Table 2.8). During previous periods there were rarely more than three new enterprises created each year. The figures indicate an increase in investment activities, as well as the fragility of the sector, with entry occurring at a relatively small scale--except for investments by the brewery, which accounted for FBu 400 million in 1987 and FBu 700 million and in 1988. BRB data are incomplete because they exclude investments financed by retained earnings or through the use of overdraft facilities--not an uncommon practice in Burundi.

Table 2.8: INDUSTRIAL INVESTMENTS, 1986-90
(financed by banks and rediscounted through BRB)

	Value (FBu Million)	Number of Projects	
		Total	New
1986	614	7	5
1987	833	8	6
1988	1029	7	6
1989	322	7	2
1990 (to July)	118	3	2

Source: BRB.

69. Another source of information on investments is the yearly survey conducted by the statistical office attached to the Ministry of Plan (SNES). The survey is based on returns for 12 public and 60 private industrial and commercial enterprises, representing many of the larger firms in the sector. It shows that private sector productive investment, excluding the primary sector, the brewery, and Old East and Toyota Burundi (importers investing in stocks), was about FBu 600 million in 1986 and about FBu 800 million in 1989. If the three aforementioned enterprises are included, investments grew much more rapidly, starting at FBu 800 million (US$6.5 million) in 1986 and peaking at FBu 3.4 billion (US$21 million) in 1989. As for the PE sector, excluding SOSUMO, which is a one-time, unviable investment, investments averaged about FBu 1 billion during the 1986-88 period, before falling to one third of that level in 1989.

70. Overall, industrial sector investment grew moderately throughout the 1986-89 period, partially in response to policy reforms. In 1989, the investment of firms for which data were available, excluding the brewery and SOSUMO, totaled more than FBu 2.1 billion, distributed as follows: (a) FBu 1.5 billion by existing private industrial firms; (b) FBu 300 million by industrial PEs; and (c) FBu 300 million by new firms. Investments in commercial activities also increased, to about FBu 1 billion, during the 1988-89 period. Extrapolated to include missing firms, total investment in commercial and industrial activities in 1989 exceeded FBu 3 billion (US$20 million) for 1990-91, it has been estimated that such investments could have reached an annual level of about Fbu 5 billion (US$25 million).

III. BARRIERS TO PRIVATE SECTOR DEVELOPMENT

A. Exchange Rate Policy[11]

71. Recent Trends. The FBu is presently pegged to the SDR at a rate that is adjusted periodically. As measured by the real effective exchange index calculated by the IMF (which ignores shifts in terms of trade), the FBu in 1985 had appreciated by 50 percent compared with 1980. Between mid-1986 and end-1989, the exchange rate was adjusted in three stages during 1986-87, 1988, and 1989. The result was a nominal devaluation of 50 percent between 1985 and 1990, leading to a real devaluation of about 40 percent. A fourth nominal adjustment of 15 percent took place in August 1991. The analysis of the bilateral nominal and real exchange rates of the FBu vis-à-vis the currency of selected industrial

11/ A detailed analysis can be found in a paper by Frenkel and Klein (1990), "Burundi Contribution du taux de change au processus d'ajustement et examen du système de taux change."

countries shows a similar pattern of devaluation. The bilateral exchange rate indices for the main regional trading partners during the 1985-89 period show that the Burundi franc depreciated less in real terms vis-à-vis the currencies of the neighboring countries than vis-à-vis those of the industrial countries. Thus, at the regional level, gains in competitiveness were less. The real depreciation was stronger against the Rwandese franc (up to late 1990) and the Zaire than against the Kenyan shilling, and real appreciation occurred against the Tanzanian shilling.

72. Impact on External Trade. Many traditional exports are subject to fixed producer prices. As a result, the devaluations had limited impact on production but increased the profitability of the subsectors as a whole--coffee and tea. Tobacco producers and exporters benefit the most from the devaluations because prices in the sector are not controlled. Among nontraditional exports, primary products grew significantly but manufactures remained stagnant (paras. 52-54). The exchange rate appears to have played an important role in growth of exports of hides and skins and of the group composed of fish, plants, rice, quinquina, and tobacco, which grew by a factor of six over four years. In general, exports grew and diversified in response to devaluations. However, further efforts may be needed to make traditional exports profitable and to provide an impetus for continued diversification. Imports have declined or remained stagnant during the past four years. All categories of imports fell, except for capital goods. This decline is explained by the increased competitiveness of local production relative to imports following the devaluations and may also be linked to reduced capital flight through over-invoicing.

73. Other Macroeconomic Impact. A major concern prior to the devaluations was the impact on inflation and the fiscal situation. Based on the experience since 1986, fiscal revenues in Burundi were shown to be more elastic than expenditure, in both the long run and the short run; devaluations improved the deficit-to-GDP ratio. Similarly, economic analysis shows that only one third of Burundi's inflation can be attributed to the devaluations. Therefore, further devaluations, if needed, would in all likelihood not destabilize the economy, given prevailing prudent fiscal and monetary policies.

74. Labor costs in the modern sector of Burundi are relatively high (para. 154), even though recent devaluations have led to decreases of about 30 percent in dollar terms. Further exchange rate movements, in combination with liberalization of the domestic market, would help approach greater international competitiveness. Finally, available analysis show, that income distribution was improved by the devaluations because most of the burden of adjustment fell on urban dwellers.

Exchange Rate Policies for the 1990s

75. Past devaluations have generally helped the economy and the latest one in 1991 helped eliminate the deficit in the coffee sector. More devaluations may be needed to maintain profitability of cash crops assuming that world prices remain at today's level and producer prices are liberalized. Devaluations could also be used to moderate the gap between the official and parallel exchange rate. The parallel rate for the FBu in 1991 was between 10 to 30 percent higher than prevailing official rates, in foreign exchange terms; reflecting mainly demand for foreign exchange from Zaire and Rwanda and market expectations.

76. Taking a medium- to long-term approach, the exchange rate is a key tool to be used to compensate for rising foreign exchange demand, following current account liberalization and the adoption of lower tariffs (paras. 94-109), and to make Burundi's exports more competitive. Another factor is that prevailing current account deficits and compensatory capital flows are not sustainable in the long run and the exchange rate should play an important role in maintaining the equilibrium between supply and demand for foreign exchange. Another issue is how to manage exchange rate policies once the FBu is

in static equilibrium. A number of options, including pegging to a different basket of currency, such as the ECU, or adopting a fully flexible auction system, are under consideration. Regardless of the option chosen, the exchange rate management system implemented at the BRB needs to be flexible and forward looking.

B. Foreign Exchange Allocation and Import Controls

77. The System in the Mid-1980s. The system of import regulations was very restrictive during the first half of the 1980s. As of late 1985, this regulatory system incorporated the following main elements: (a) foreign exchange transactions (for imports) could be carried out only by authorized dealers, who had to specialize in one of 20 broadly defined product categories; (b) all imports into Burundi were subject to prior authorization in the form of an import license, with products competing with local production prohibited or constrained; (c) except for direct imports of inputs by local producers, imports and importers were heavily taxed; and (d) prices of imports were controlled at wholesale and retail levels on a cost-plus basis by the Ministry of Industry. The system was justified on the grounds that it protected producers and consumers.

Liberalization since 1986

78. The main phases of foreign exchange liberalization spanned August 1986 to August 1990. Specific control powers granted to the Ministry of Industry and the BRB were progressively removed or no longer enforced. Most of the measures focused on the liberalization of trade in goods, leaving in place many controls on trade in services.

79. Formal importers' monopolies were eliminated early in the reform process. The only exception was flour, which was liberalized in 1990. This also led to the entry of new importers into the business and the diversification of existing ones into new lines of products. In 1985 there were only 145 private traders concentrating mainly in one line of business, which could cover a number of six-digit products. The number of nongovernment importers increased steadily in the second half of the 1980s, reaching a total of 243 and in 1987 and 286 in 1989. In 1987 the average private importer imported 15 types of products. The corresponding number in 1989 was 17, an increase of about 15 percent. As a result, the importing business became more competitive. Some problems remained, however: (a) complex regulations governing incorporation and the accreditation of importers discouraged entry (para. 115); and (b) the import licensing system de facto sheltered a handful of importers or producers in the case of a few products, particularly cement, tobacco and sugar (para. 84).

80. Prices for almost all imports and domestic industrial products were liberalized early in the adjustment process. The BRB can still question prices for imports, in the context of management of foreign exchange and preventing over-invoicing. In practice, controls at the product level have had a marginal impact on restraining capital flight, but . mplicit disclosure of prices has reduced the incentives for importers to compete with one another by obtaining lower prices from their supplier. This problem is disappearing as banks' authority to deliver import licenses is expanded (paras. 82 and 86).

81. As of August 1990, all official quantitative restrictions (QRs) on products other than arms, ivory, and so on were eliminated. Imports of most products were liberalized during 1986-87, except for luxury goods, which were removed from the controlled list in mid-1988. The last remaining

controls, which were aimed at protecting four large industrial enterprises,[12] were lifted during 1990. The present import system is free from official QRs.

82. Import licensing in Burundi has been used as a form of microeconomic prior control, which also serves to monitor trade. Import licenses are issued, on the basis of pro forma invoices, for specific products and remain valid for one year. In practice, the BRB reserves the right to object to a license. Under certain circumstances, global licenses can be obtained for the bulk import of such heterogeneous products as spare parts, inputs, and pharmaceutical. Since 1988 some import licensing authority has been delegated to commercial banks. An upper limit of FBu 10 million was set in 1988. It was raised to FBu 25 million (US$250,000) in September 1990 and to FBu 50 million in July 1991. Data on the issuing of licenses since mid-1988 were collected from two banks (see Table 3.1). The figures show that the value of licenses returned by the BRB as a percentage of total demand (value of licenses approved plus rejected) for one bank (Bank1) was 27 percent during the second half of 1988, 20 percent in 1989, and 8 percent during the first four months of 1990. The ratios are similar for the other bank (Bank2), which handled a much lower demand.

Table 3.1: IMPORT LICENSE VALIDATION, 1988-90

	BANK1					BANK2		
	VALIDATED			REJECTED		VALIDATED		REJECTED
DATE	TOTAL NO	BANK	BRB	NO	VALUE	BANK	BRB	VALUE
		(FBu Million)		(FBu Mil)		(FBu Million)		
1988	3409	2958	5625	730	3106	15	11	14
1989	4789	4573	7834	633	3155	800	2972	413
1990	1543	2103	2668	120	390	938	1656	227

Source: Commercial banks.

83. Commercial banks approved about one third of demand in 1989 and about two fifths during the first part of 1990. Because of recent increases in licensing authority, commercial banks are now expected to handle the bulk of private sector import demand. The initially high rejection rates by the BRB were related to the fact that a new system was being implemented. By 1989 the BRB responded within 7 days on average, for both rejections and approvals, and the maximum delay in the case of rejected licenses was 14 days.

84. Refusals by the BRB in 242 cases were reviewed for a period covering the first semester of 1989. The main reasons were: (a) prices were deemed to be too high (20 percent of cases); (b) the mode of payment requested was not acceptable (13 percent of cases); (c) other (77 percent of cases, 50 percentage points being due to technical reasons associated with incomplete paperwork). In 10 percent of the cases, more than one reason was given for rejecting the request. The data were also classified according to types of products. Almost half the products rejected, mainly on technical grounds, were industrial inputs, spare parts, and raw materials. These requests were usually approved following revisions to the paperwork. In other cases, however certain consumer goods or a particular enterprise seemed to have been targeted. The breweries in particular had a number of requests for malt, hops, other inputs, and equipment denied. Rejections because of price tended to target large and/or foreign-owned enterprises. Import requests for products rejected most frequently were for (a) pharmaceutical, all on

12/ COTEBU (textile), MINOTERIE (flour), ONAPHA (pharmaceutical), and VERRUNDI (glass bottles).

technicalities; (b) transport vehicles, about 12 percent of the cases; (c) cement, about 10 percent of the cases; (d) petroleum products, about 5 percent of the cases, because the price was deemed to be too high; (e) textile products, most because of QRs; and (f) salt and sugar, 5 percent of the cases.

Policy Agenda for the 1990s

85. The next set of reforms, scheduled to be adopted in 1992, should free current account transactions as well as selected capital account transactions. The liberalization of external transactions is needed to promote the private sector and, in conjunction with depreciation of the exchange rate, exports. The effective implementation of the reforms may be hindered by (a) concerns about additional capital flight, (b) the perceived need to give PEs or private firms in the services sector--particularly transport firms--"sufficient time" to adjust; and (c) apprehension about increasing the current account and fiscal deficits.

Trade Account Liberalization

86. The main constraint on **imports** is related to the **import licensing** system, which is expected to be replaced by a system of open general licensing (OGL) in 1992. The OGL system managed by commercial banks would abandon product-specific controls in favor of a general declaration of intention to engage in a legal trade transaction requiring foreign exchange. The Central Bank in turn guarantees that the required foreign exchange will be available through commercial banks when needed. Commercial banks should also play an important role as responsible accredited intermediaries. Foreign exchange regulations still prohibit the **reexport** of goods, even though this is occasionally allowed on a case-by-case basis. In the context of promotion of limited free zones or entrepôt trade, reexports should be allowed automatically within the OGL framework without prior controls in cases where there are no net losses in foreign exchange.

87. **Export licensing** was managed by the BRB until July 1991. Prior bureaucratic requirements related to the system created problems, particularly in the case of horticultural exports. Under a newly adopted system, export licensing has been eliminated and replaced by a declaration of exports in commercial banks that have been designated as accredited intermediaries. These banks collect information on intention to export and ensure repatriation of foreign exchange. Depending on the exchange rate system adopted, exporters might be allowed to retain some export receipts in foreign exchange accounts in local banks. The effectiveness of these recent changes cannot be yet assessed and continued monitoring is needed to insure adequate implementation.

88. Liberalizatior of Services. The main constraints slowing liberalization of trade in services are related to capital flight (and protection of local service industries)--certain expenditures (travel and tourism) are difficult to monitor and cannot always be distinguished from capital transfers. Areas where reforms are under way include (a) **factor services**--permitting automatic and immediate repatriation of dividends and expatriates' income; and (b) **non-factor services**--increasing allowances on travel, including for tourism and medical reasons, and liberalizing the choice of international transport and insurance. Here again implementation needs to be monitored.

89. Liberalization of the Capital Account. Almost all capital account transactions, except those made by the Government, remain strictly controlled. Capital account liberalizatic :s not a priority, except for (a) encouraging direct foreign investment (DFI); (b) encouraging Burundi to repatriate any foreign exchange they may have abroad; (c) possibly, exporters' purchasing foreign exchange for hedging against currency fluctuations. In order to encourage DFI, rules regarding sale of assets and repatriation

of equity should be made more transparent. Finally, in the context of the PTA, the Barundi should be allowed to invest in the region.

C. Tariffs

90. The taxation of imports, specifically the turnover tax (also known as transaction tax (TT)) and tariffs, has evolved significantly over the past four years, coinciding with the progressive liberalization of imports. With the removal of QRs, tariffs now play a more significant role as instruments of protection. Import taxes are also an important source of fiscal revenues (about 20 percent of fiscal receipts, including grants, in 1989). The increased reliance on the turnover tax (TT, which increased from 12 to 15 percent and began to be collected at source in 1989) has reduced the role of tariffs from the standpoint of revenue generation. Tariffs should now primarily reflect protection and industrial promotion policies. Presently, imports are overtaxed (an average of about 38 percent), which increases production costs and creates an anti-export bias. Moreover, firm-level calculations (para. 36) show that effective tariff protection rates are too high, in spite of the three main tariff reforms implemented since August 1986 (para 90-96). The objective of future reforms should be to minimize distortions in the product market by using tariffs in conjunction with the exchange rate, to provide moderate industrial protection and to reduce the anti-export bias. The analysis that follows was conducted on the SINTIA software. The data were provided by the authorities.

Tariff Policies, 1986-91

91. Before 1986, the tariff system in Burundi was unnecessarily complex; there were many applicable rates, high dispersion in the rates, many specific duties, and so on. From the point of view of industrial protection, tariffs tended to be redundant; QRs and the foreign exchange allocation mechanism usually led to effective protection rates far greater than these provided by tariffs. The nomenclature (Brussels Tariff Nomenclature, BTN), still in place today, covered about 2,000 products. Reforms were phased over three periods. Initially, fiscal and entry duties were merged into a single rate, but a statistical tax of 4 percent was maintained, and the number of applicable rates were cut to five, the minimum rate was increased, and the maximum rate was lowered. The second and third phases aimed to reduce distortions further through lower average rates. The key features of the tariff structure are shown below (see Table 3.2).

Table 3.2: TARIFF RATES BY BROAD CLASSIFICATION
(percent, excludes statistical tax)

Period Category	1986- 1987	1988- 1989	1989- Present
Luxury goods	100-110	100-150	100
(% in total)	(16)	(16)	(13)
Finished products	50	45	40
(% in total)	(22)	(22)	(27)
Essential	15-40	15-25	15
Raw material	15	20	10
Capital goods	20	15	12

Source: Tariff Codes, Ministry of Finance.

92. The aggregate figures show that the many objectives of the reforms were met at the global and sectoral levels (see Table 3.3). The reforms lowered the average tariff, from 25 percent in 1986-87 to 19 percent in 1989. Tariff dispersion, as measured by the standard deviation, more than halved during the first phase of reforms, remaining at about 30 percent since. Tariff collection, however, was inadequate. Between mid-1986 and 1990, about 50 percent of imports came into the country duty-free. Measures to reduce exemptions were ineffective, and the SAL target of keeping exemptions below 40 percent was not attained.

93. At the sectoral level, agriculture initially enjoyed high nominal tariffs, but the rate was cut during each succeeding stage of the reforms. For manufacturing, the rate for finished products fell steadily. Both capital goods and consumer goods also became subject to minimum rates. However, while both rates were about 20 percent in 1987, they fell to slightly more than 10 percent during the 1989 reforms, with intermediate goods facing lower tariffs than capital goods. In general, effective protection in industry fell significantly at first but remained almost unchanged between 1987 and 1989.

Table 3.3: STRUCTURE OF TARIFFS IN 1987-91
(percent)

SECTOR	MEAN	STANDARD DEVIATION	WEIGHTED MEAN	IMPORTS SHARE	COLLECTION RATE
1986-87					
Whole economy	37	30	25	100	46
Agriculture	61	42	58	2	39
Mining	15	0	15	1	62
Manufacturing	37	30	24	97	46
Consumption goods	57	33	31	38	52
Intermediate goods	25	20	20	33	40
Capital goods	23	16	20	27	41
1988					
Whole economy	36	31	24	100	53
Agriculture	63	41	22	1	81
Mining	20	1	20	0	88
Manufacturing	35	30	24	98	52
Consumption goods	55	35	31	40	54
Intermediate goods	26	18	20	29	58
Capital goods	20	16	17	29	38
1989					
Whole economy	30	30	19	100	50
Agriculture	59	44	17	0	63
Mining	11	5	12	0	53
Manufacturing	29	28	19	99	50
Consumption goods	49	32	29	42	52
Intermediate goods	17	18	11	31	51
Capital goods	18	17	13	27	45

a/ Excludes statistical/service tax. Fuel products subject to specific taxation also excluded.

Source: Data provided by authorities.

Tariff Policies for the 1990s

94. The prevailing tariff system remains inadequate. The nomenclature does not allow appropriate categorization of imports. This problem is likely to be resolved once the more appropriate Harmonized System (HS) is adopted in 1992 in the context of the implementation of an improved customs system (SYDONIA). Maximum tariff rates should be lowered to reduce protection. The statistical/service tax is an unnecessary complication, collected in only about 50 percent of cases, and it should be eliminated. Finally, exemptions should be generally eliminated.

95. In order to achieve the objective of lowering effective tariff protection, while encouraging local production, top tariff rates should be about 25 to 30 percent and all goods should face a tariff of at least 5 percent. The consumption of luxury goods should be discouraged by applying an additional 75 percent excise tax to imports and domestic products (Table S18). Investments may be encouraged by making a few capital goods subject to zero tariffs (Table S17). Finally, in order to increase transparency of the system, tariff rates should be equalized for products belonging to the same four-digit products group. Such a tariff structure was simulated, using present product definitions (see Table 3.4). The simulation shows that the narrowing of the difference between maximum and minimum rates would result in fewer distortions induced by high tariff spread but decrease the average tariff rates to 11 percent.

Table 3.4: TARIFF SIMULATION

SECTOR	No OF HEADINGS	MEAN	STAND DEV.	WEIGHTED MEAN
Whole economy	2,316	13	10	11
Agriculture	83	18	18	6
Mining	35	6	4	6
Manufacturing	2,198	13	10	11
Consumption goods	836	21	7	18
Intermediate goods	759	9	8	6
Capital goods	602	5	7	5

96. Fiscal Impact. The proposed changes would cause a fall in revenues of about 50 percent from present levels[13], or FBu 1.4 billion, given 1989-90 import levels, exchange rates, and collection rates. Therefore, complementary actions would be needed to cushion the negative revenue impact: (a) the fall in tariffs should be compensated for by an adjustment in the exchange rate (by about 11 percent) to maintain the trade balance; and (b) tariff collection should be boosted by eliminating tariff exemption to less than 40 percent of imports (embassies and transactions covered by international treaties). These measures, together with the recent growth in imports and additional devaluations that may be required to achieve macroeconomic stability (para. 76), would compensate for about 80 percent of the revenue shortfall. The revenue loss from one year to the next could also be cushioned by implementing an alternative tariff structure, with minimum rates of 10 and maximum rates of 30 percent. The simulation of this scenario shows that with appropriate exchange rate action and improved collection efficiency, the fiscal shortfall would be negligible.

13/ Excises on luxury goods would generate revenues equivalent to about FBu 200 million.

D. TAXATION

97. Taxation plays a dual role in the Burundi economy: (a) it generates revenues needed to support government spending, consistent with macroeconomic stability; and (b) it influences production decisions by creating a wedge between social (economic) and private returns on investments. Tax exemptions also affect competition and efficiency. The level of tax collection effort in Burundi is adequate.[14] However, the direct taxation system distorts investment decisions. On average, during the 1986-89 period receipts from corporate income tax and other taxes accounted for only about 14 percent of total tax revenue, less than FBu 3 billion, which implies it is feasible to reform the system without significant fiscal losses.

98. In theory all registered business entities, both private and public, face the same tax system. The corporate income tax is calculated based on sale receipts, and there is no adjustment for inflation in calculating capital gains or depreciation allowance. Interest expenses are deductible from profits, but dividends distributed are not. All company-level income is taxed at a flat rate of 45 percent. Where net income is less than 2.2 percent of turnover, a minimum tax equal to 1 percent of gross receipts is applied. Losses can be carried forward for a period of four years; however, taxes paid under minimum tax rules cannot be credited against future tax liabilities.

99. Additional company-level taxes include (a) the turnover tax of 15 percent on all goods (inputs and output) and 7 percent on services; (b) local property taxes, collected by the local government in Bujumbura, assessed on land, structures, and vehicles; and (c) the tax on increases in capital equivalent to 1.2 percent of the amount of the capital or increase, payable to the "Tribunal of Commerce." Another key tax from the investor's point of view is the 20 percent tax levied on dividends, which are not taxed further at the personal level.

Key Features

100. The implementation of the tax code is uneven. Firms can receive exemptions through the investment code, nonprofit organizations are not subject to the TT, PEs are often de facto tax-exempt, some firms are not registered with the authorities, and the informal sector is taxed lightly. The tax administration is weak and suffers from unclear rules and insufficient physical and human resources. The inadequate financial accounts maintained by many enterprises hinder taxation. Finally, the TT is levied on both industrial input and output a cascading structure that leads to distortions.

101. Taxes "matter" at the firm level because many registered enterprises, particularly large, foreign-owned ones, are actually assessed. A dichotomy can be observed in the patterns of tax receipts for 1988 and 1989, however (see Table 3.5). Half the number of enterprises taxed pay only the minimum tax. Thus, more than 80 percent of the corporate income tax originated from fewer than half the firms. This pattern is indicative of tax evasion and uneven implementation of the fiscal provisions.

14/ See Burundi - Public Expenditure Report (1990), the World Bank.

Table 3.5: SUMMARY OF ACTUAL INCOME TAX RETURNS, 1988-89
(Millions of FBu)

	1988				1989			
	# OF FIRMS	TURNOVER	NET INCOME	TAXES PAID	# OF FIRMS	TURNOVER	NET INCOME	TAXES PAID
Public enterprises								
Paying regular tax	9	4,375	851	383	5	1,939	444	200
Paying minimum tax	9	14,048	(129)	72	6	14,508	(104)	139
Total	18	18,423	722	455	11	16,447	340	339
Private and Public Enterprises								
Paying regular tax	132	32,933	4,428	1,651	85	20,247	2,812	1,167
Paying minimum tax	111	25,480	(994)	251	120	26,412	(922)	300
Total	243	58,412	3,434	1,902	205	46,659	1,891	1,467

Source: Ministry of Finance, Tax Department.

Marginal Effective Tax Rates[15]

102. A large number of the provisions of the company and personal income tax as well as features of the property tax, transactions tax, and customs duties affect decisions to invest in capital assets. The net impact of these taxes can be quantified in marginal effective tax rates (METR), defined as the difference between the gross of tax and the net of tax real returns to an investment, expressed as a percentage of the gross return. The higher the METR the higher the rate of effective taxation is.

103. The analysis shows that significant distortions exist (see Annex 3). Debt financing is favored over equity financing, particularly where there is inflation and where assets appreciate slowly. Trade taxes on capital goods also significantly lower capital income and discourage investment. Finally, the taxation of realized nominal capital gains raises effective taxation on investments financed with retained earnings. The simulations also show that under reporting and tax holidays are effective in reducing the tax burden. The former is most important in the case of rapidly depreciating assets. The latter affects most investments not financed through debt.

Recommendations

104. A precondition to reforms is that tax administration should be revamped. This should include training tax inspectors, creating a computerized tax information system, and improving accounting practices. Moreover, the present tax code is unclear and should be revised to enhance its clarity for both tax authorities and taxpayers. On the incentives side, ambitious and deep tax reforms should be an integral part of the strategy to stimulate investments and supply response. These reforms should be driven by a recognition of Burundi's need to attract foreign and local investment by offering an attractive tax environment. It should thus be inspired by the tax system of such countries as Mauritius.

105. During a recent dialogue with the private sector, the Government has was made aware of the problems caused by the heavy tax burden and indicated its willingness to reform the tax system. In order to improve resource allocation and encourage viable investments, the Government should adopt a tax regime that does not favor certain activities over others; tariffs and the investment code already serve that purpose. A lower rate of corporate income tax is also justified because it would help attract new investments. The revenue losses that would result from reducing most taxes on existing firms are not expected to be very significant. Nevertheless, the timing of changes should be such as to minimize the impact on the fragile fiscal equilibrium. Specific measures to be taken are described below.

15/ See study prepared by Zodrow (1990), "Capital Income Taxation in the Industrial Sector in Burundi."

106. In the case of the turnover tax: (a) to avoid undesirable cascading effects, a system of tax credits on inputs, should be adopted; (b) financial transactions should no longer be subject to the TT, as long as interest rates remain market-determined (para. 197); (c) the TT on realized nominal capital gains, with no inflation adjustment, should be eliminated; (d) larger non-profit organizations should be subject to TT on sales; and (e) the appropriateness of the TT rate of 15 percent should be evaluated, and the feasibility of and the timetable for the eventual implementation of VAT should be assessed.

107. Dividend taxation is redundant and discourages investment. The present rate of 20 percent should be at least halved and may be eliminated altogether within a reasonable period

108. Income tax reforms concern mainly corporate taxes. On the personal side, adequate reforms have already implemented by the Government following IMF recommendations; they have introduced a zero tax rating for incomes equivalent to about twice the country's GNP per capita. On the corporate side, the following measures should be taken: (a) the present rate of taxation is too high and should be lowered to 30 percent, within two to three years, with alignment with Mauritius (15 percent) being an appropriate five-year objective; (b) the lack of inflation accounting and depreciation allowance, which biases investment incentives toward short-lived assets and debt financing, should be partly counteracted through more rapid depreciation allowances on machinery and equipment, as well as carry forward of losses for five years; (c) in the short term the minimum tax rate could be doubled to discourage tax evasion; (d) banks should be allowed to deduct provisions for bad loans; (e) relatively large informal enterprises, employing 10 people or more, should be taxed moderately on a presumptive basis; and (f) the tax/fee of 1.2 percent on capital (paid to the "gref du tribunal du commerce") should be abrogated.

109. Certain other individual taxes that bring in little revenue should also be revised. Capital gains are taxed at individual rates (present maximum rate is 60 percent) without adjustment for inflation. A lower flat rate of 20 percent is more appropriate. Rental income (a local tax in Bujumbura) is taxed at individual rates based on 80 percent of gross receipts, with interest exemptions for new properties. Actual average marginal rates are about 23 percent. A new single rate of about 15 percent of gross receipts (equivalent to the TT) could be set to simplify the system and make it more transparent. Finally, government securities should no longer benefit from a tax-exempt status; this tends to distort the interest rate structure.

IV. LEGAL AND REGULATORY CONSTRAINTS

A. Regulatory Environment and the Enterprise

110. Administrative regulations hinder businesses in many critical areas, including enterprise creation (incorporation) and initial operation (industrial and commercial licensing). Administrative delays have constrained supply response to liberalization of the external regime. For example, during the second half of the 1980s, incorporation could take a year or more, and the simple procedure of being accredited as an importer took an average of 108 days. This regulatory system originated in the 1970s and 1980s, when layers of bureaucracy built up during succeeding administrations. Procedures became complex and time-consuming and deterred many would-be entrepreneurs. These requirements were justified, in part, by the argument that they would help "shield" private individuals from their own mistakes.

111. The Government is cognizant of many of the problems associated with the present regulatory framework, and following a directive by the President in the fall of 1990, some of the laws were revised in 1991. In order to help in the process, key aspects of the regulatory system were studied

in the context of this report and proposals for rationalizing the existing system, described below, were discussed with the authorities.[16] The objective set was to implement laws consistent with freedom of enterprise. The process agreed upon is to (a) simplify the system; (b) eliminate long delays; (c) adopt and implement transparent rules; and (d) publish and codify the requirements to reduce private sector uncertainty and deter progressive backsliding.

Key Procedures before 1991

112. The system of regulation and institutional responsibility existing 1990 was founded on three layers of checks and balances and driven mainly by a dirigiste concept of prior authorization. The first level was reflected in the law that required the prior authorization of the Minister of Justice in order to incorporate an activity. The second level, also often linked to laws, stated that to engage in economic activities one needed further permissions in the form of various accreditation. The third level consisted of procedures, without direct legal foundation, implemented in order to ensure (a) information needs; and (b) economic control.

113. Key institutions involved in incorporation included (a) the Ministry of Justice; (b) technical ministries, particularly the Ministry of Commerce and Industry; (c) the "directeur de notariat," responsible for checking the conformity of enterprises' statutes with the law; and (d) the Tribunal of Commerce, which maintains the company registry. The Ministry of Commerce and Industry also played the role of intermediary on behalf of the Ministry of Finance and the Chamber of Commerce and Industry of Burundi (CCIB), checking on whether the enterprise had been registered with these institutions, and also collected the obligatory savings. This ministry, together with the BRB, was responsible for regulating external transactions and commercial licensing.

Obtaining Legal Status and Permits

114. Incorporation and industrial licensing was governed by a series of long and cumbersome procedures. The following six stages could be identified:

(i) Prior authorization had to be obtained from the Minister of Justice. Technically, refusal was possible on the grounds that (a) that company's statutes did not conform with the law; (b) one of the founders was incapacitated; and (c) the creation of the company ran against the "general interest." Additional information required included: (a) three copies of the statutes; (b) an extract of judicial/police records for all the partners; (c) proof of identity delivered by local authorities; (d) a document delivered by tribunals stating that none of the partners had experienced bankruptcy; (e) certification from a bank that equity had been paid in; and (f) an assessment of the value of contribution in kind, delivered by appraisers.

(ii) The notion of general interest was undefined and the Minister did not have to justify his refusal should he exercise his prerogative. In practice, the Minister of Justice requested the approval of technical ministries. Requests for incorporation was not granted without a favorable written response.

16/ Based on reports by Nguyen (1990), "République du Burundi - Cadre Administratif et Réglementaire de Promotion," and Phillips and Nicimpaye (1989), " Doing business in Burundi," prepared as background to this study.

(iii) The statutes of the company had to be ratified and signed in the presence of the "directeur du notariat." This notary is a public servant and there was still only one such person in Burundi.

(iv) Once the above conditions were satisfied, the authorization by the Minister of Justice was delivered through a ministerial "ordonnance."

(v) The status of the company had to be recorded at the Department of Judicial Affairs of the Ministry of Justice, which in turn is responsible for publishing it in the Official Bulletin of Burundi ("bulletin Officiel"(BOB)), which comes out very infrequently.

(vi) Finally, the company's existence had to be registered at the commercial register ("registre du commerce"), recently relocated at the tribunal of commerce. Relatively heavy fees are associated with this procedure (1.2 percent tax on capital, para. 99). [17]

115. Once these steps were completed, the company had a legal status but could not engage in business activities. There was a secondary process of accreditation, which involved: (a) obtaining a trader card ("carte de commerçant"); (b) being accredited as an importer ("code importateur"); and (c) receiving the status of exporter ("code exportateur"). Without these, a firm could not legally sell its output, import raw materials, or export. In practice, larger industries operated without a valid trader card, were allowed to import as long as they were occasional importers (at the discretion of the BRB), and could export, but could not obtain advantages provided under the export promotion law.

116. Each permit required more paperwork, often duplicating information given earlier at the time of incorporation.[18] The delivery of the **trader's card** could take up to two months. This requirement was motivated by (a) a need to inform regional and fiscal authorities (population management and taxation); (b) collection of dues for public or semiprivate institutions (obligatory savings and membership fees to the CCIB); and (c) registering informal activities. In the first two cases, these goals were not in any way linked to legitimate regulation of trade and commerce. In the latter case, effective implementation was difficult.

117. The **exporter code** was granted by the Ministry of Commerce, following approval by the BRB. The information requested was mainly economic and financial (balance sheet, cost structure, and so on). At a time when export promotion was one of the main goals of the Government, there was little justification for this code and even less for the involvement of the Central Bank. Both the Ministry of Commerce and the BRB were also involved in granting the **importer code**, with procedures similar to those for the export code but more burdensome. In both cases, the information requested was redundant. Foreign importers were further restricted by minimum capital rules and obligatory deposit requirements.

Simplified System

118. The objective of reforms should be to implement in practice the principle of freedom of enterprise stated in the investment code (article 3). The basic governing principle should be that whatever is not specifically prohibited is authorized. This would eliminate most of the heavy administrative

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17/ Fees are as follows: (a) FBu 5,000 for a limited liability partnership (SPRL); and (b) 1.2 percent of capital for a corporation (SARL).

18/ Details of requirements are outlined in Nguyen (1990), pp.4-8.

requirements. For incorporation all that would be needed is that the activity be registered. Promoters would still have to conform with the law (they should not be incapacitated, statutes must conform to company law, and so on). Additionally, no one should have to prove that he or she is a citizen in good standing (casier judiciaire). Promoters could be asked to provide an affidavit declaring (a) that they have no criminal record; (b) that they have not been bankrupt; and (c) other information that is required. It would be up to the Ministry of Justice to check judicial records if needed.

119. Remaining steps would be the following:

(i) **Incorporation** would consist of (a) signing the statutes of the enterprise in the presence of the notary public; (b) registering at the commercial registry; and (c) informing the public of the enterprise's creation in the BOB or any other national publication (newspapers).

(ii) The **commercial registry** would require proof of identification from the promoters and, in the case of a commercial enterprise, a copy of the statutes. This process should be automatic, in the sense that it should not involve any administrative approval, and very rapid.

(iii) The **commercial card** should be eliminated, except in the case of informal activities. Delivery of the card would be based on payment of an appropriate fee and proof of identity.

(iv) Accreditation via the **exporter/importer code** should be eliminated. As an interim measure, traders might still be required to make themselves known. This should be through a registration procedure, requiring no approval from civil servants.

(v) The enterprise law should be modified to **eliminate a priori control by the Ministry of Justice**; ideally it should be replaced with a statement on freedom of enterprise.

Unified One-Step Procedure

120. Unified Single Form (UFS). The first step in the simplification of registration should be the design of a single, multi-copy form that would contain the information needed by the whole administration. The form should be designed by integrating all necessary information, once redundancies are eliminated. This form could be prepared under the leadership of the Ministry of Plan and should be approved by all interested parties and discussed with the private sector. Subsequent changes to it should also be subject to such exchanges.

121. Information Management. Certain administrative procedures were justified in the past by the fact that information was not flowing properly between the organization responsible for registering the enterprise and other interested parties (tax authorities, the CCIB, and so on). The new system may fail if proper information flow is not ensured. Therefore, there should be an entity responsible for managing the circulation of information between the entrepreneur and relevant institutions and vice versa. In this way, separate copies of the UFS would be circulated to various agencies so that they could respond appropriately (provide taxpayer ID, for example). Once a response is received, the promoters would be notified accordingly.

122. Responsibilities. The promoter's only responsibilities would be to ensure that the information provided is accurate and that he meets the requirements of the laws. The administration's

responsibility would be to handle all paperwork in a timely manner. In theory, enterprises could start operating without having received such information as taxpayer ID. In practice, administrative lethargy could lead to the imposition of new layers of bureaucracy. This should be avoided through a combination of (a) introducing mandatory maximum response times; and (b) monitoring the processing of the requests and linking rewards for officials to their performance.

123. Operational Manual. An operational manual should be produced to anchor the reforms. This document should set transparent rules and procedures, initially for enterprise creation and related regulatory provisions, to be followed by the administration and the private sector. Coverage could be extended progressively as reforms are broadened to include other areas of general and specific regulations. This manual should be devised as quickly as possible, tested, and implemented. Once it is shown to work in practice and there is a consensus among various administrations that it covers their needs, the manual should be formally adopted by the Government. This would prevent backtracking by individual elements of the administration.

124. Enterprise Creation Facilitation Unit (ECFU). The creation of a small unit (two to three people) is one possible way to ensure proper management of information flow within the agencies and to facilitate incorporation. The initial mandate for this unit[19] could also include helping the promoter fill the UFS and receiving on his behalf feedback from the administration. There should, however, be no obligation for entrepreneurs to go through this institution. The unit should have no say about whether a project is desirable or in granting the necessary IDs, but would be responsible for monitoring implementation of procedures and keeping track of delays by the Government. The nature of the work and the need to interact freely with the private sector suggest that the ECFU should have its own offices, away from the public administration. Eventually, the role of the unit could be expanded to cover other areas, such as providing information on the regulatory system as a whole, and emerging as a one-stop shop for foreign investors.

Recent Reforms and Conclusions

125. The initial results of reform efforts aimed at improving the regulatory environment are embodied in a number of recent decrees and application ordinances, covering certain aspects of (a) exporters; (b) importers; and (c) commercial activities. The reforms are partial in their specifications, and the private sector was not consulted sufficiently. The commercial card is still required, but its delivery is solely conditional on registration at the commercial registry. This requirement should be eliminated for the formal sector and maintained for the informal sector, as long as procedures are kept very simple, in lieu of legal status. Accreditation of importers and exporters is also maintained, even though approval by the BRB is no longer required. However, the Ministry of Commerce and Industry can still deny or delay accreditation and the paperwork requirement is too complex. As an interim measure, only a requirement of registration of traders could be maintained, formalizing what is already done in practice. The new system, despite its flaws, has already shown to have improved matters. Over 200 new importers have been registered in 1991 and most registration procedures are completed within one month, which is arguably still too long.

126. The removal of the system of a priori controls, such as the recent abrogation of authorization for incorporation by the Minister of Justice, and the simplification and clarification of regulatory requirements should be the basis of regulatory reforms. Despite encouraging initial steps, much remains to be done. The adoption of a UFS and an operational manual as well as the creation of

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19/ The detailed status and responsibilities of the unit are developed in Nguyen (1990), pp.21-28.

an ECFU--under way at the CCIB--are additional steps in strengthening the new system. The changes discussed herein constitute only a first step in overall legal and regulatory reforms. Further reform should focus on the elimination of controls at the general level, specifying clearly domains where controls persist and the rationalization, strengthening, and effective implementation of specific regulations in areas where market failures occur--such as health regulations and environmental rules.

B. Business Law

127. The system described herein is evolving. Apart from ongoing revisions to individual laws, a broader study of the legal environment is currently under way. Also, the legal framework of PEs has already been reformed over the past four years. While stopping short of bringing PEs into the general regime of the private commercial code, the reforms have increased the responsibility of management in daily decisions and have led to the creation of boards of directors.

128. The legal framework in Burundi has certain key characteristics. First, Burundi legislation was inspired by the Belgian system. Many of the laws still in the book originated in colonial times. A key feature of this system is the importance of written law and the more limited role of interpretation precedence ("jurisprudence"). Another is that there is a certain formality and solemnity to legal acts. This adds to a heavy administrative system not necessarily well suited to a developing country. A related aspect is that colonially inspired laws do not take into account practices within the country, can be at odds with local traditions, and may not be favorable to broad-based economic development.

129. Second, there is no clear demarcation among judicial, legislative, and executive authorities in Burundi. As a result, the legal system is hampered by lack of countervailing power and suffers from poor transparency; often the same individual is responsible for drafting the law, interpreting and executing it, and settling disputes--the courts play a limited role. The "system" tends to work against the private sector, both with regards to claims against the Government and in the enforcement of contracts with individuals. The newly-created, relatively-independent tribunal of commerce is expected to alleviate this problem and expedite the resolution of conflicts. However, it severely lacks means--for example, most judges' participation is not remunerated.

130. Third, many laws are obsolete and suffer from confusion associated with successive layers that have been built on top of each other without sufficient regard for consistency. Typically, there is a hierarchy linked to the level of the law (decree versus ordinance) and precedence is given to the most recent acts. Previous dispositions are not canceled explicitly. Each new legal document contains a statement whereby any disposition contradictory to the latest decision is declared void. Therefore, there can be a considerable grey zone where significantly differing interpretations are possible. In practice, when in doubt, public officials revert to the system with which they are familiar--a real problem when a control-oriented economic system is being changed to a liberal one.

Corporate Law

131. The statutes of private enterprises are primarily governed by decree no. 1/1 of January 15, 1979. Four types of companies are recognized: (a) cooperatives (SNC, "Société en Nom Collectif"); (b) partnerships (SCS, "Société en Commandite Simple"); (c) limited partnerships (SPRL, "Société de Personnes à Responsabilité Limitée"); and (d) the most common form corporations (SARL, "Société Anonyme à Responsabilité Limitée"). This decree also refers to previous texts, particularly in the case of SARLs. These are various royal "arrêtés" and laws dating to 1928.

132. A number of articles are worth pointing out: (a) Article 3 requires prior authorization by the Ministry of Justice for incorporation (para. 112); (b) Article 4 specifies that the entity is constituted for a maximum lifetime of 30 years--not a problem if incorporation formalities are simple; (c) Article 10 makes fiscal provisions specifying registration fees; and (d) Article 11 provides penal dispositions in cases of fraud.

133. Coherence. Burundi corporate law suffers from a lack of clarity and coherence. First, the hierarchy of the texts is unclear due to the maze of documents and the excessive number of cross-references. For example, in the case of a SARL, the texts refer to six laws enacted between 1926 and 1954, which makes it almost impossible to gain a clear understanding of the provisions of the law. Second, the set of texts suffers from a lack of proper organization and poor presentation. For example, the penal and "other" provisions occur before the section on SARLs; it is not clear whether these provisions concern SARLs. Third, fiscal provisions should be made under the tax code. Finally, there is a lack of harmony between the rules for SNCs and SCSs and those for SARLs and SPRLs.

134. Recommendations. The laws and their application should be strengthened. First, the commercial tribunal has been operating with a fairly broad mandate since 1987. Its creation is a very positive step, but being a new institution, its functioning should be monitored and improved accordingly. This tribunal should play a central role in the implementation of bankruptcy laws (para. 138). Second, the process of revising and clarifying enterprise laws should be started so that implementation of the rules becomes feasible. This process could take a few years.

Notaries and Auxiliaries of Justice

135. The absence or insufficient development of auxiliaries of justice and notary publics is a serious shortcoming of the legal structure in Burundi. An important role of these auxiliaries should be to implement decisions of the courts with respect to the repossession and liquidation of assets. These professions should be exercised by private individuals with authority granted by the state.

136. In Burundi, there exists only one notary public, located in Bujumbura. A comparison with countries having a similar system (West Africa) reveals that four to eight such notaries might be needed. The existing law provides for the possibility of regional public notaries with limited responsibilities. The role of the notary is (a) to issue authenticated acts; and (b) to register and keep titles and deeds. By law only the Bujumbura notary public is authorized to register companies. A review of the relevant texts shows that they adequately define the role of public notaries and do not suffer from any obvious problems. As for other auxiliaries of justice, their functions are limited and they are civil servants employed by the Ministry of Justice.

137. Issues and Recommendations. The interdiction of private practices in notary public and other legal auxiliary activities (e.g., as process-servers, auditors, evaluators, receivership judges, auctioneers) constitutes a constraint to simplifying and speeding contract processing and enforcement. In conjunction with the longer-term exercise of revamping existing legal texts, the following priority actions can be taken fairly quickly:

(i) reforming the Directorate of Notary Public so as to limit its role to that of custodian of titles and deeds. In parallel, the number of notaries should be increased and a longer-term action would be to privatize the notary public functions.

(ii) allowing the existence and functioning of the private auxiliary legal professions and to reform relevant existing regulations accordingly. The creation of these functions takes priority over other actions, such as privatizing the notaries.

(iii) simplifying the lengthy procedures of property title and deed creation and administration so as to speed mortgage registration and the execution of related loan contracts.

Bankruptcy Law

138. There are two decrees governing bankruptcy laws, enacted on July 27, 1934, and December 12, 1925. Neither law is applied. Bankrupt businesses close usually without formal notification, simply ceasing operations. This creates a climate of distrust, and creditors cannot easily recuperate outstanding debts. As a result, credit from banks is more expensive, reflecting the risk, and relationships with suppliers may be difficult, particularly for new companies.

139. In contrast with other legal texts, the decrees on bankruptcy form a homogeneous and complete structure. The reason for their non-application is their excessive sophistication. These decrees incorporate about 170 articles whose principal aim is to ensure payment to creditors. However, the existing legal system is not performing enough to implement the law. For example, the country does not have the qualified "curators" required to implement bankruptcy. This phenomenon is understandable, as bankruptcy laws in most countries evolve in time with commercial exchanges. In the present case, the decrees have their origins in Belgian and French law and have been imposed on a country with significantly less judicial tradition and with nascent entrepreneurship.

140. Recommendations. The revision of bankruptcy laws is needed. The process followed in revising these laws should (a) assess the real needs of the private sector through effective exchanges between the sector and the Government; and (b) draw on actual customs and practices of the country. The resulting arrangements should be transparent and as simple as possible, so that they can be implemented effectively by the judicial system.

Air Transport Regulations

141. Because Burundi is landlocked, adequate access to air transport towards key destinations at reasonable prices is critical to the development of an export-oriented private sector. Airfreight to Europe, except for the occasional charter, is provided by commercial carriers operated by Air France and Sabena. A few new carriers--including Swissair, Lufthansa, KLM and possibly South Africa Airways--are at the early stages of negotiating flight rights to Burundi because this country is a logical stopover point for possible future flights to South Africa--following further normalization of the political situation.

142. Satisfactory airport infrastructure already exists, and little in the way of new investments is required. However, two factors may delay the entry of new carriers: (a) existing carriers are likely to lobby against the extension of landing rights to competitors; and (b) Air-Burundi, which enjoys a legal monopoly on the collection of fees and the granting of landing rights, may be an obstacle.

143. Key Legislation. Four key legal texts, dating to 1978 and 1989, regulate air transport in Burundi. These laws embody protectionist and anti-competitive tendencies through the monopoly position of Air-Burundi, and discrimination through uneven taxation and the discretionary power of the Ministry of Defence. These hinder the development of air transport, particularly freight charters.

144. Air Transport Policy. Air-Burundi is a small company that provides internal and regional air transport and implements air transport regulations. The technical ministry overseeing the company is the Ministry of Defence, an unusual arrangement partly explained by the fact that the pilots are serving in the military. The company has a monopoly on (a) internal air transport; and (b) the collection of the proceeds resulting from taxes and fees levied on regular or unscheduled international commercial flights into or out of Burundi. International flights are granted through contracts negotiated by the Government with international companies. This mitigates the influence of Air-Burundi. However, these contracts incorporate a clause whereby they can be abrogated following an unspecified notification period, which creates uncertainty and discourages new entrants, particularly in the case of charter flights.

145. Fiscal Considerations. Various air transport taxes and duties are collected for: (a) lighting the runway; (b) landing; (c) parking; and (d) overflight. It is unclear whether these fees are consistent with cost recovery. The national airline benefits from permanent reductions of 50 percent in all statutory fees. The law also provides a reduction of 80 percent in some of the fees for private aircraft registered in Burundi. This incentive appears to be marginal at best, because the main costs are associated with obtaining the rights to operate. It was not possible to assess here whether or not Air-Burundi fully remits to the Government the fees collected, after deducting legitimate expenses, and whether there are significant delays in such remittances. Under the present arrangements, there is a potential for irregularities and disguised subsidies.

146. The Ministry of Defence. The technical ministry plays a critical role in the transport sector. In particular, (a) it can grant exemptions from various fees, if it is in the "general interest," and (b) only this ministry is able to grant landing rights to non-regular transport operators.

147. Conclusions and Recommendations. Air transport laws and regulations incorporate protectionist tendencies that hinder the development of the sector as well as of exports. There is a need to create regulatory agency under the supervision of the Ministry of Transport or the Ministry of Industry and Commerce. The agency should work out simple and transparent rules so that charter operators can rapidly obtain landing rights--particularly for cargo flights and tourism operations. Membership in the board of this agency should also be opened to representatives of the private sector who use these services and who can help identify the real needs. The fiscal and regulatory responsibilities given to Air-Burundi should revert to the aforementioned independent regulatory agency. Given the fairly small size of the country and the good road network, there appears to be very little need for a national airline for passenger transport, except on security grounds. To the extent that the existence of this Air-Burundi may delay liberalization of air transport, restructuring this enterprise should be given priority.[20] Moreover, Air-Burundi's plans to buy new planes and all other such investments should be suspended pending a decision on its future.

C. Labor Laws

148. The private sector development strategy is based on the expansion of labor-intensive activities. Labor costs will, therefore, be a key determinant of the price competitiveness of exports and economically viable import-substitution activities, and should be set at competitive levels by the labor market. In Burundi, the basic motivation behind labor legislation is social equity not economic efficiency. A complex set of labor laws regulates entry and exit into the labor market and establishes minimum wages for various categories of permanent workers. The law also mandates automatic wage increases

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20/ A detailed study of air transport is scheduled to be launched. This study is expected to review the framework of the sector and make specific proposals on Air-Burundi and other issues raised here.

for workers at various intervals. As a result, labor costs are raised by a factor of four, and capital-intensive activities are encouraged.

149. The labor market in Burundi is segmented into the modern sector and the informal sector. The modern sector is essentially concentrated in and around Bujumbura and Gitega and the informal sector dominates in the rural parts of the country. The informal sector provides the bulk of the available employment opportunities. The approximately 80,000 employees in the modern sector in Bujumbura amount to only 3.3 percent of the labor force. The employers in the modern sector are the Government and a limited number of parastatal and private enterprises.

Labor Policies and Labor Cost

150. The minimum conditions of employment are governed by the labor code. The first such code was adopted in 1966 and has been subject to a number of revisions. This code's main objective is the protection of workers, but in practice it acts against the interests of most of the country's workers, who are not employed in the modern sector. The law sets conditions of employment for permanent workers and limits the scope of temporary employment to a maximum of 12 days per month for three months for a given employer. Following this period, the temporary worker is considered to be hired permanently. In practice, the high cost (paras. 152-154) of permanent labor forces many employers to rely on temporary workers. Some employers keep these workers for the maximum periods before replacing them, at a significant cost in terms of training and the loss of industry-specific skills. In other cases, temporary workers are retained indefinitely by falsifying the records with the workers' cooperation.

151. The hiring of workers is supervised by the Ministry of Labor, which maintains a data base on people demanding employment and tries to match them with job offers. In the past, the system was very constraining as the employer had to fill available positions with candidates proposed by the ministry. This condition was relaxed in 1988-89 and, in principle, the only requirements are that jobs should be advertised and that the selected candidate should be registered. In practice, there is evidence that implementation is still imperfect and that the ministry controls the process fairly closely. Moreover, in cases where unregistered workers are hired, the employer is still subject to a statutory fine.

152. The law sets minimum daily wage rates, which are referred to as the SMIG (salaire minimum industrial garanti, set at a rate of about US80¢/day). The latest increase in the SMIG was enacted on May 1, 1988. The SMIG provides the base rate for a number of different daily wage rates. A reduction applies to adolescents and children. The labor code also provides for the categorization of employment into six broad classes (from unskilled to management). Each category benefits from a statutory minimum wage, which rises rapidly with the skill level. In practice, the SMIG is not very high by international standards. However, once the worker is classified in categories above unskilled, the resulting compensation is relatively high.

153. Information on total labor cost indicates that non-wage costs are about 40 percent of the basic wage. In manufacturing, the monthly labor cost varies with the skill level, from US$80 for the lowest skill category to US$866 for the most highly skilled employees--at the 1988 exchange rate.

Conclusions and Recommendations

154. Labor costs in Burundi's formal sector are too high relative to productivity. First, labor compensation in the informal urban sector is less than US$20 per month. This significant divergence from formal compensation--about US$80--is due to labor policies. In practice, wage and non-wage

regulations and constraints on labor mobility almost quadruple labor costs. Second, labor costs in Southeast Asia for semiskilled workers employed in formal manufacturing[21] activities are less than US$1 per day. This makes Burundi internationally uncompetitive under present conditions, and labor markets should be effectively deregulated to decrease labor cost and improve international competitiveness.

155. The problems ensuing from past and present labor laws can be classified into two areas. The first concerns how to protect the employment and income of those who are already employed. This group, particularly redundant public sector employees, is highly visible and politically powerful. However, their relatively low numbers make the problem manageable, at a cost. The proposed program of "reconversion" of public sector employees--less than 1,000 in all--is one such effort. Also, those who are already employed by enterprises are effectively protected by existing laws governing firing. The second set of problems concerns another group of people that is far less visible but much more important, composed of newcomers to the job market--about 100,000 per year and growing. Giving this group access to adequate employment is the challenge facing the Government.

156. Increased employment will depend on greater labor mobility and lower labor costs. Greater labor mobility will require full implementation of the changes in labor laws already decided upon and further liberalization of hiring regulations. A related issue is regulations concerning firing workers. Clearly, protection of employment is a social and political imperative that exists in almost all countries. However, in order to minimize economic costs, there may be scope for revising statutory compensation given to laid-off workers and making firing procedures more transparent.

157. The process of bringing labor costs into line with international norms for a given level of productivity has already begun through successive real devaluations and greater informal sector employment. A window of opportunity had been opened with reforms of personal income tax (para. 108), which exempted yearly incomes of around $500 per year from personal tax and thus significantly raised the disposable income of workers. This would have allowed decreases in new workers' nominal compensation while maintaining their take-home pay at levels equal to or greater than levels before the tax reforms. Although this opportunity was missed, wage laws should nevertheless be simplified by scrapping the minimum wage structure, retaining only the SMIG, at its current nominal level. This should eventually significantly reduce the differential between formal and informal sector wages and greatly increase Burundi's competitiveness. Measures to reduce non-wage costs to employers should also be taken. Two areas where such reductions seem possible are (a) downward revisions of contributions to social security by employers; and (b) the adoption of a health insurance scheme, with partial contributions by the employees, to decrease the burden of health costs on firms.

V. DEVELOPMENT CONSTRAINTS AND INDUSTRIAL STRATEGY

A. Central Development Issues

158. The industrial strategy should be considered in the context of broad development issues. Foremost amongst the challenges facing the Government and its partners in development are poverty alleviation and tackling high population growth. These two issues are not discussed in this report.

159. The Role of the State. Burundi's formal economy is still overwhelmingly public sector and is supported by substantial official development assistance. A major challenge for the years ahead

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21/ Excluding informal, so-called "sweatshops."

is to shift to a smaller, more efficiently managed public sector coexisting with an emerging private sector. This transition will take time. However, this should not be a reason for inaction. A key instrument already in place is the strategy of public disengagement from productive sectors, which needs to be implemented more actively through privatization. The Government will also continue improving public sector management while concentrating on the removal of bottlenecks at the micro/sectoral level (paras. 164-169) in order to stimulate growth. Finally, more effective exchanges will have to be promoted with representatives of the private sector, in order to identify problems at an early stage and to secure their active participation in the reform process.

160. Diversification of the Economy. Sustained growth in Burundi should result in a reduction in the country's dependence on the primary sector and coffee exports. Continued efforts to liberalize the economy and, in particular, to provide an adequate legal and regulatory framework will create a favorable enabling environment for export-led private sector growth over the medium term. In the short to medium term, efforts to diversify the economy will also focus on improving the efficiency of existing enterprises (both public and private), with an emphasis on a major restructuring of agro-industries. Nevertheless, such constraints as the mountainous terrain, the lack of direct access to the sea or to a large neighboring market, and the small size of the domestic market will tend to limit the rapidity with which the economy's structure can be modified, and expectations should be set realistically.

161. Distortions in Factor Markets. The public sector resource allocation process has generally bypassed domestic factor markets (financial and labor). Wages have been set by the Government, due to the quasi-monopolistic position of the public sector in the labor market (paras. 148-157). Capital financing for the public sector has been obtained primarily from external donors on grant terms or at subsidized interest rates rather than through the domestic banking sector. However, with an increasing role for the private sector in productive activities, the need for market-determined pricing of capital and labor has become apparent.

162. The experience with the Bank's line of credit to enterprises through commercial banks demonstrates that, despite reforms, the competitiveness of the financial sector (paras. 196-199) still needs improvement. Commercial banks are reluctant to lend for investment projects even when the projects' potential financial viability can be demonstrated. The banking sector's lack of interest in medium-term lending has also placed a damper on efforts to increase domestic resource mobilization. Similarly, distortions in the labor market have persisted because of excessive regulations imposed by the labor code.

163. During the past five years, the Government of Burundi has taken steps to remove the policy distortions in the aforementioned areas as well as in the area of exchange rate and trade regime. However, the earlier analysis showed that implementation has been weak and that ongoing efforts should be continued.

B. Constraints at the Enterprise Level

164. Policy-induced problems at the macroeconomic level, regulatory and legal barriers, deficient institutions hinder private sector development. Enterprises also face other obstacles that put a brake on their ability to increase supply in response to incentives.

165. Demand for the manufactured products of Burundi is constrained by the small size of the domestic economy and the difficulties in gaining access to the regional market. Past policies that have limited rural revenues from cash crops affect the majority of the population (para. 51). The urban population has higher incomes, but also has more import-intensive consumption. Better income distribution would tend to increase overall demand for locally manufactured products. Exports to

neighboring countries are hindered by trade barriers (para. 57), as well as by the lack of complementariness in regional production. Informal exports are one way to get around restrictions. However, such exports are not always feasible and may involve high transaction costs, and competitiveness remains low.

166. Being landlocked simultaneously creates constraints as well as opportunities. Presently the former are more important, increasing production costs because of the high transport costs for inputs and the need to keep relatively high stocks. The latter can be exploited by developing resource-based industries protected by the same transport costs, which could competitively export to the regional market.

167. The lack of capital to fund equity is a problem faced by most entrepreneurs, particularly those just starting up. This is a reflection of the low savings rates in the country. Mechanisms for financing risk capital do not exist, and leasing arrangements are made very difficult by complications in enforcing contracts--a leasing company was set up by Meridien bank in 1991, but it is too soon to assess its effectiveness. The size of the physical investments is increased by the lack of commercial buildings and related infrastructure, which can account for 50 percent of total expenditure (paras. 23-27). Investments are further constrained by the difficulties in obtaining long-term credit encountered by small or new businessmen and the excessive collateral guarantees demanded by banks, which can exceed the investment by a factor of two or three.

168. There are few well-qualified entrepreneurs. Management in established firms is often primitive, and accounting nonexistent. Operations are conducted on a day-to-day basis, and strategic planning and marketing is not undertaken (para. 40). Management capacity should be developed through a combination of increased competition, lower protection, and the entry of new promoters. These entrepreneurs would include those already successful in the informal sector who are discouraged from expanding their activities into the formal sector because of the high labor costs, regulatory constraints, and taxation. The labor force also has similar shortcomings, lacking basic industrial skills. However, agriculture labor discipline exists, and appropriate training would help in the acquisition of industrial know-how. In this respect, education and vocational training should take on a greater importance and become an integral part of the private sector development strategy (paras. 230-231).

169. The existing capital stock in the private sector is frequently found to be obsolete, because uncertainty and high domestic protection discourages rehabilitation of the means of production. Instead, with their equipment often fully amortized, firms maximize short-term profits. This is reflected in low factor productivity and low-quality products. Finally, the presence of subsidized PEs in most lines of business discourages the growth of small and medium-size private firms, which cannot compete on equal footing.

C. Intersectoral Linkages

170. Given the absence of significant rich natural resources and the diminishing availability of land, the development of a private export-oriented industrial sector is the only way to achieve positive per capita growth in Burundi. The development of industrial opportunities will depend also on the status quo being changed in other sectors, primarily agriculture and PE, as the industrial sector is affected by overlaps and indirect links with these sectors.

171. The direct link with the agricultural sector is strongest. Over 90 percent of the inhabitants of Burundi earn their livelihood from primary activities. Much of this potential demand for industrial goods remains untapped, in part because of poor distribution systems in rural areas. However, the

biggest constraint on rural demand stems from low rural revenues. Liberalization of cash crop prices can be expected to lead to increased monetization of the economy and to boost industrial demand.

172. On the supply side, agro-industries (mostly PEs) directly contribute to over 40 percent of industrial output. The privatization, rehabilitation, and rationalization of coffee, tea, sugar, cotton, and other operations should lead to the creation of a more efficient industrial sector. An example is tobacco production, which has been expanding rapidly, unhindered by limits on producer prices. Once production reaches about 2,500 tons (it is currently about 1,000 tons), mechanical threshing of tobacco will be a viable industrial investment of about US$7 million, which can be recouped over a period of about four years. This modest investment would enable export receipts from tobacco to surpass those in tea, at a much lower cost, considering that tens of millions of dollars have been invested in tea factories (US$8 million is planned for 1991 alone).

173. Another important aspect of agriculture is that some of its branches can be a proving ground for export-oriented entrepreneurs. The most promising line of activity is the export of horticultural products (fresh fruits and vegetables and cut flowers, para. 52), in which Burundi businessmen have been active in recent years. Success in this line of business requires a good initial project concept, tight management, and meeting the production schedule. It also requires access to foreign commercial marketing channels on a commission basis. Successful entrepreneurs could subsequently use their export and management know-how in industrial activities. Up to recently, foreign exchange regulations have been responsible for slowing the development of horticultural exports because of the insufficient appreciation of the BRB of the fact that commissions of 20 percent were within international norms. Concerns about the repatriation of foreign exchange have legitimized the questioning of these commissions, questioning which has deterred exporters.

174. While the development of the agricultural sector tends to create industrial opportunities, the presence of an industrial and commercial PE sector tends to restrict private sector development. Besides the aforementioned drag on agricultural activities, PEs impose two other types of constraints on private firms. First, as shown by past experience, once a public investment in an activity is made, the private sector is effectively excluded from that line of business because the scale of investments usually exceeds domestic demand, and financial and regulatory concessions granted to PEs by the administration hinder potential competition from the private sector. COTEBU is the clearest case in point. Rather than extending existing lines of production, it would have been far more effective to encourage the establishment of a competing private firm, producing higher-quality cloth. A related problem is that managers of PEs are rarely qualified and able or motivated to become successful businessmen. Thus, public industrial investments contribute little to the pool of new entrepreneurs. This situation should begin to be addressed by at least privatizing PE management.

175. Second, PEs have a restrictive impact on the financing of the private sector. On the resource mobilization side, these enterprises have, until recently, accepted making large, unremunerated deposits in commercial banks. This has led to low deposit rates and high margins for banks and has discouraged private savings. Until 1991 lending to public firms, particularly for export crops, was guaranteed by the state and provided adequate risk-free returns to banks. This fact, together with the banks' own shortcomings in project evaluation, has restricted long-term lending to the private sector.

176. A more rational policy toward agriculture, together with effective disengagement of the public sector from productive activities and restructuring of remaining PEs within a reasonable time (three to five years), is critical to the development of the industrial sector. While the industrial sector has crucial links with agriculture and the public sector, it also depends on the rest of the economy for its growth. Other key direct links include those to (a) public utilities; (b) the financial sector; (c) the

international transport sector, including Tanzanian railways and air links, without which industries will have added production costs and difficulties exporting; and (d) all other private activities, including small-scale mining, trade, and tourism, in which entrepreneurship can be exercised.

D. The Industrial Sector and Comparative Advantage

177. The industrial sector can be characterized by (a) its small contribution of both formal and informal output to the economy, even by African standards; (b) activities established under an import-substitution regime still sheltered by high tariffs (para. 36), within which agro-industries dominate; (c) poorly developed inter- and intrasectoral linkages and high dependence on imported inputs; (d) a predominance of European equipment and an insufficient use of information on other suppliers; (e) insufficient industry-specific infrastructure; (f) inadequate management; and (g) export-oriented ventures hindered by an anti-export bias and difficulties in gaining access to the regional market.

178. The existing industrial sector, lacking in such key areas as management and modern equipment has a limited potential for expansion and growth. Some restructuring of industrial enterprises is possible through a combination of increased competition, lower protection, and investment incentives to help rehabilitate obsolete machines. Therefore, more efficient investments are needed to promote growth. Therefore, industrial policy should be devised to attract new, viable, export-oriented investments, while maintaining a system of incentives that promotes efficient import substitution. Helping the existing sector, which is all that can be done in the long term, should be given priority. However, this help should not conflict with the main objective. Thus, it would be appropriate to help the sector acquire know-how and improve its operations, but it would be inappropriate to protect it.

179. Burundi's comparative advantage is limited, and agriculture is likely to remain the principal production sector in the 1990s. The country is not well endowed. Land is scarce, which is already forcing the move toward higher value added production, and being landlocked is an added problem. Human resources with respect to managerial talent and skilled labor are few. The principal abundant resource is unskilled labor. Therefore, the comparative advantage of Burundi is in labor-intensive activities that do not require high human capital and whose minimum efficient scale is small. As skills are upgraded, opportunities will also increase. Another source of comparative advantage is the temperate climate, which provides the opportunity to export horticultural products almost year-round, particularly during times when importing countries are not producing.

180. Predicting ahead of time precisely which industries will succeed and which will not is not possible. Policies should, to the extent possible, avoid discriminating between activities. Nevertheless, increases in total industrial investment and the growing share of the private sector suggest that viable opportunities exist and that the private sector is capable of taking advantage of them. Moreover, the survey of the business sector indicates that there are many project ideas; some are at the point of being implemented, but that others are being held back until conditions become appropriate.

E. Industrial Strategy

Investment Strategy

181. The Government's industrial strategy should be aimed at promoting equally investments in efficient import-substitution and export-oriented ventures. Within this strategy, specific attention should be given to attracting foreign investors who can provide know-how and capital as well as adopting specific measures to encourage exports. The dearth of local entrepreneurs and the limited internal market

underlines the importance of promoting export-oriented SSEs and foreign investment in Burundi. The implementation of the investment policy should be based on a three-pronged approach.

182. First, there should be an appropriate investment climate. The thrust of the Government's efforts should be aimed at facilitating rather than regulating private investment, providing an appropriate enabling environment, and reducing uncertainty. This will involve continuing to pursue stable macroeconomic policies and liberalizing the economy. Among the new measures to be put in place, priority should be given to (a) providing freedom to invest without restrictions on the size of the investment, the sector, and ownership, both domestic and foreign; (b) eliminating industrial licensing, except in activities specified in a short negative list, and simplifying company registration and business licensing, so that required registrations can be completed within days, if not hours; (c) adopting a modern legal framework that reinforces property rights and strengthens the enforcement of contracts; (d) increasing international competitiveness through tax and trade reform programs; and (e) effectively liberalizing factor markets, particularly easing labor practices with respect to compensation and hiring.

183. Second, the Government should carefully monitor and improve its effectiveness in implementing measures and in providing public services. Besides the policy areas listed above, or those expanded below, the Government should (a) continue its effort to secure reciprocal opening of regional trade in goods and services; (b) provide necessary industrial infrastructure; and (c) ease the access to secure and efficient international transport.

184. Finally, the Government should ensure adequate provision of investment assistance and support the acquisition of know-how and the development of private sector institutions (paras. 237-248), particularly the CCIB. This support should be given mainly indirectly and should be provided and managed by private institutions, including the CCIB. All private firms would be eligible for help, possibly at subsidized rates, in such specific areas as project preparation, production management, accounting, and export development. The donor community would be expected to participate in this effort by financing well-conceived assistance at concessional rates.

Public Enterprise Reform

185. The strong links between the private and public sectors have already been identified (paras. 172-176). In view of the very limited success of past PE reform efforts and disappointing concrete results, a more global approach is needed. On the one hand, this approach should be ambitious, in the sense that it sets objectives and envisages practical ways to effect the disengagement of the state from productive activities and to ensure that what remains operates efficiently. On the other hand, a certain amount of realism is needed in setting the objectives and implementing the strategy, reflecting the fact that a successful effort is likely to take some time, a matter of years probably.

186. The starting point in formulating the strategy is the classification of firms into the following groups: (a) those to be rehabilitated, while remaining in the public domain; (b) those to be managed by the private sector; (c) those to have their capital privatized partially or fully; and (d) those earmarked for liquidation. The implementation of these decisions will require the following accompanying measures: (i) mobilization of the human and financial resources required to support the technical work; (ii) adoption of a mechanism to provide feedback and monitor the reforms; (iii) reflection on ways that the possible problem of financing privatization could be tackled; and (iv) implementation of a fund to finance the reconversion of PE staff made redundant.

187. The privatization effort might be hindered by a number of issues that need to be resolved. First, the operational environment of PEs and the limits of ownership need to be determined. The basic

principle governing privatized PEs is that they should operate on the same footing as the private sector and, thus, not benefit from special privileges, including the investment code and protection through an import surcharge. As for ownership, there may be negative political repercussions if some "strategic" firms are taken over by foreign investors. However, there may be good economic reasons that such a foreign participation would be desirable, notably because of know-how. Thus, if foreign ownership is to be limited at all, it should be for only a small number of firms, to be identified up front.

188. Second, technical considerations have hindered the Government's efforts to adopt a target timetable for privatization; this should be done as a matter of priority. However, the process can be simplified. For example, when public ownership is less than 30 percent, privatization should be relatively straightforward, by selling the shares to the other partners. In other cases, a market- oriented approach could be adopted, with the private sector providing input on which firm is more desirable and, therefore, easier to privatize. In order to prepare good bidding documents, priority should be given to collecting the necessary information on firms' situations with respect to assets and inventory, client base and accounts payable and receivable. Finally, in order to maintain as much flexibility as possible, it is important that a moratorium on investments be adopted for firms targeted for privatization.

Export Promotion

189. In view of the weak productive base, the starting point of export promotion should be to encourage viable investments (paras. 181-184). However, additional measures aimed at promoting export-oriented ventures are also needed, even though it is important to have realistic and modest expectations regarding the potential for short-term response. Additionally, the export-promotion strategy will have to be dynamic so as to be able to adapt to the changing circumstances of the country and to address important bottlenecks as they appear. At this early stage, the experience of Mauritius (whose export policies can be characterized by their promotion of foreign and domestic investment in manufacturing under bond, supported by a 15 percent income tax) can inspire a potentially successful approach. The general elements of the strategy proposed for Burundi, which should aim to go even beyond best practices in Mauritius, is presented below, and critical components are expanded in other sections this report.

190. Export Sectors. Export receipts can be expected to be generated from the following activities: (a) traditional exports (coffee, tea); (b) other traditional primary products (cotton, tobacco, and hides and skins); (c) mining; (d) horticulture; (e) manufacturing; and (f) tourism. The restructuring of the traditional sectors is already under way thanks to policy on PE sector reforms. Nontraditional exports by existing firms are also encouraged by export-promotion measures taken since 1988 (paras. 205-206). However, despite technical assistance nontraditional exporters (horticulture) have recently failed because the assistance was in marketing, but the problems they faced were due to logistics (access to water). There should be a mechanism, with both private and public links to identify actual problems as they develop and either to help in providing solutions or to provide feedback on the strategy so as to avoid such difficulties later on.

191. Matchmaking. Many of the possible export-oriented activities are unlikely to be created or to succeed without joint ventures with external partners or direct foreign investment. There is growing evidence, including from Africa,[22] that export competitiveness often requires the catalytic collaboration between foreign and domestic enterprises. However, because of the information gap between potential

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22/ This subject is being studied jointly by the World Bank and the USAID. Preliminary results from an extensive analysis are reported in a report entitled "Building a Competitive Edge in Sub-Saharan Africa," dated December 10, 1991.

foreign and domestic collaborators, few ventures materialize. These need to be encouraged through appropriate matchmaking. However, such efforts have failed in the past because of reliance on public institutions or foreign consultants. Future efforts should rely more on private mechanisms, which still need to be developed in Burundi, and donor or public subsidies should be provided to cover part of their costs. Recognizing that many potential investors are unlikely to be familiar with Burundi, an appropriate starting point may be to launch a promotional and advertizing campaign to "sell" Burundi. Thinking is still required to identify the type of investors to be targeted and to determine which institution(s) should be responsible for executing and overseeing the campaign.

192. Free-Trade and Export-Processing Zones (EPZ). A recent USAID study has concluded that the creation of EPZs is premature at present. However, certain measures aimed at creating a free trade environment for exporters should be taken and enacted in a law (paras. 207-210) that would permit (a) manufacturing under bond; (b) giving EPZ status to individual firms; and (c) reexports.

193. Building Export Know-how. A lack of quality standards and timely production and delivery, and insufficient knowledge of export markets requirements and opportunities constrain Burundi exporters. There is a need to provide consulting services to the private sector and to help build its export capacity (paras. 249-253). Promising lines of exports (e.g., horticulture and garments already benefiting from assistance from the USAID and the Fond Européen de Développement (FED)) should be identified and tailor-made help extended to these subsectors at free or subsidized rates. The institutions managing these programs should, as much as possible, be private.

194. Export Markets. Exports are presently directed either toward Europe or to the regional markets. However, these markets need to be developed further, and diversification opportunities within Europe should be investigated. Possibilities for diversification to other markets (Middle East) may also exist. In the European and OECD markets Burundi should take steps to take advantage of existing initiatives, such as the Lomé Convention. Regional trade also needs to be developed through regional integration, including with Southern Africa. Finally, exporters should be able to find ways to transport their merchandise easily. This requires full liberalization of air transport and the adoption of low fees and simple flight and landing procedures (para. 147).

195. Institutions. The success of an export-promotion drive depends partly on the existence of appropriate institutions. A private unit should eventually manage the bulk of technical assistance to exporters. There is also a need to create a lobbying group of exporters. This could be done within the CCIB or by developing nascent groups, including private coffee exporters, who have recently created their own association. Finally, the Government is expected to promulgate a general system of weights and measures and other standards. This system may need to incorporate specific provisions for exports.

VI. INSTITUTIONAL AND PROMOTIONAL ARRANGEMENTS

A. The Financial Sector

The Sector.

196. In addition to the BRB (the Central Bank), the financial sector comprises eight banking and four non-banking institutions. To these, one should add five credit-making "special funds," chiefly in housing financing and guarantee operations, and the system of cooperative savings and loan institutions (COOPECS). The eight banking institutions include four commercial banks, three development banks, and the savings bank (CADEBU). The four non-banking institutions include two insurance companies, the social security and pension fund, and the marginal postal savings system. One joint-venture holding

bank between Arab and government partners and the virtually bankrupt savings bank (CADEBU), are being liquidated. Although the sector is heavily dominated by the Government, either directly or through public sector entities, management is relatively free from government interference.

Recent Policy Reforms

197. Reform measures have been progressively implemented in the financial sector by the Government during the past few years. Their objective was to improve credit and monetary policies and to lay the foundation for (a) increasing the efficiency of the financial intermediation process; (b) raising the level of funding of productive investments; and (c) improving resource mobilization by banks and financial institutions. The reforms have liberalized interest rates which are now set freely for all operations. This was achieved by the establishment of an auction market for Treasury certificates which provides market determined reference rates. In order to increase investment financing by banks, the Government repealed a clause in its real estate regulations limiting lenders' rights to first mortgage sales proceeds in favor of the Public Treasury.

198. In practice, the implementation of the reforms has been slow and incomplete, but it is now being accelerated. The reforms were originally designed to break the commercial banking oligopoly. However, they were designed without an adequate analysis and sufficient knowledge of the sector's financial structure, position, and performance (e.g., quality of portfolio, cost of intermediation), and without adequate attention to monetary credit and prudential regulatory policies. The newly adopted reforms aim to strengthen the institutional capacity of the BRB, to supervise the financial sector, and to conceive and implement the new credit policies. Institution-building efforts also target banks with a view to strengthening them and weeding out nonviable institutions.

199. Issues. A detailed analysis of the financial sector by the Bank is currently under way, and its results are expected to be available in mid-1992. From the point of view of the industrial sector, the problems include access to long-term credit. This difficulty is partly explained by policy distortions, including mortgage laws and the profitability of low-risk coffee operations. For the banks, an inadequate appraisal capacity is also a problem. These factors explain the reluctance of banks to engage in long-term lending. Another issue is that of inadequate domestic resource mobilization, partly attributable to negative interest. A significant part of the problem was caused by excess liquidity in banks attributable to deposits by PEs, which accepted low rates up to 1991. This liquidity is being slowly reduced as a result of PE sector reforms. The policy and institutional reforms to be implemented in the next two years should aim at (a) strengthening the capacity of the BRB to control and supervise banks; and (b) improving management and risk assessment capabilities of banks.

B. Special Incentives and Institutions

The Investment Code

200. Since its introduction during the 1970s, the investment code of Burundi has gone through periodic revisions, the latest of which is currently in progress. The motivation behind the code is an implicit recognition that the tax burden within the general regime discourages new investments (para. 105). However, the current code favors large firms and, in practice, neither financial nor economic viability are considered as a criterion by the investment commission. On the contrary, the tax breaks may make economically unviable projects financially profitable.

201. The advantages can be classified into four broad categories: (a) duty-free import of equipment; (b) exemption from taxes on imported raw materials and inputs; (c) income tax holiday; and

(d) other exemptions, usually from duties on spare parts and property taxes. The investment code also provides for specific advantages for exporters, but these were rendered redundant by the export-promotion measures adopted in 1988 and implemented in 1989 (para. 205). Between 1986 and April 1990, 45 investments were granted some special benefits under the investment code (see Table 6.1). About half of the beneficiaries were existing enterprises.

Table 6.1: SUMMARY OF ADVANTAGES GRANTED TO ENTERPRISES, 1986-April 1990

	TOTAL	EXEMPTION			
		EQUIPMENT	RAW MATERIAL	INCOME TAX	OTHER
Total beneficiaries	45	32	13	35	10
- Average years		2	3	4	

Source: Ministry of Plan.

202. The table shows how exemptions are granted in practice. In the majority of cases--over 70 percent--benefits are in the form of lower corporate income tax over four years and duty-free capital goods imports. In the minority of cases--fewer than 30 percent--firms received exemptions from import duties on inputs or from other taxes. Despite simplifications, the process of obtaining the benefits is quite time-consuming and can be tedious; the process takes several months, requires approval by the Council of Ministers and the advantages are formalized in an ordinance. Moreover cheating can occur because of the difficulties of monitoring the application of the exemptions once they are granted. For example, in the case of investments aimed at extending existing activities, it is often impossible to differentiate between profits from existing and new lines of activities. As a result, existing amortized production lines also often benefit from the tax holidays.

Reforms

203. The Government has recently set out to revise the investment code. However, the resulting draft document is more complicated than the existing one, and further revisions are being undertaken with World Bank assistance. From a long-term point of view, the investment code is mostly redundant, because most desirable advantages could be incorporated into common law. However, the implementation of a generalize tax reform may still be a few years away. One could, therefore, envisage an investment code with two regimes. The first regime would be automatic and open to all newly created productive enterprises regardless of size. It would grant two special privileges: (a) duty-free import of capital goods for a year following incorporation--the Ministry of Finance should be notified of the of investment goods to be imported, and controls would take place ex post; and (b) lower corporate income tax--10 percent or less--for a period of five years. Exempting capital goods would help reduce initial outlays but should not create a serious bias against labor-intensive technologies--as the greatest source of distortion is high labor costs (para. 154). Newly created firms would be required to register themselves with the Investment Commission. The resulting administrative process would become transparent and very simple; accreditation would be automatic, and neither authorization nor adoption of an ordinance would be required.

204. The second regime, which would grant benefits beyond what is available under the first regime, may be needed for those enterprises for which the automatic regime is insufficient--for example, for investments with long gestation periods or for existing enterprises not eligible for automatic

exemptions. However, view of the proposed tax reforms (paras. 104-109), the case for having such a regime is weak. Sh . d this system be justified, the Investment Commission will continue to assess the requests on a case-by-case basis, giving increased weight to financial and economic viability. The Commission would also be responsible for granting the benefits, thus eliminating the need for approval by the Council of Ministers and the adoption of an ordinance.

Export Incentives

205. In April 1988 the Government adopted a decree on export promotion that provided three sorts of privileges to accredited exporters: (a) a simplified drawback equivalent to 10 percent of export value; (b) compensation for the TT; and (c) a lower profit tax, equal to half that of the statutory rate. The implementation of these measures was delayed by a series of technical problems. In practice, only the first measure is relatively effective, about 25 exporting firms having benefitted from it since late 1989 (drawback provisions had existed on the books for over a decade, but almost no one had benefitted from them). This relative success needs to be built upon, but within a simpler system.

206. The following technical improvements are needed to make incentives more effective:

(i) **Drawback.** The drawback of 10 percent should be granted automatically with minimal paperwork to all exporters of nontraditional products, regardless of whether or not they have imported directly. Banks would act as intermediaries, verifying repatriation of foreign exchange.

(ii) **Transaction Tax (TT).** Deductibility of the TT (para. 106) should eliminate the need for special treatment for exporters.

(iii) **Corporate Income Tax.** The existing law states that the income tax rate for exporters will be half of the statutory rate paid by others--currently 45 percent. This provision should be implemented by lowering the overall tax rate for exporting firms in proportion the share of exports in total turnover.

(iv) **Implementation.** The delays for receiving the benefits should be monitored and kept to a minimum.

Free-Trade Zones

207. Free-trade zones (FTZ) are an important instrument in pursuing outward-oriented development strategies. The conceptual framework for free-trade zones is based on a recognition of the fact that, for a developing country, entering the export market is difficult because of (a) insufficient technical, marketing, and managerial know-how, inadequate information on world markets, and a lack of appropriate machines to produce export-quality goods; (b) policy-induced anti-export bias that reduces international competitiveness; and (c) inadequate access to physical and human infrastructure.

208. The FTZ concepts can take many forms: (a) commercial free zones consisting of temporary storage and re-exportation; (b) the processing of manufactured exports; and (c) provision of financial services, including offshore banking and corporate registry. In assessing the viability of FTZs, two issues have to be kept in mind. First, benefits that can be derived from these zones are partly

attributable to the fact that costs originating from distortions existing within the economy are avoided. Therefore, before proposing an FTZ, there is a need to assess whether it is possible to remove the source of the distortion directly, so that the economy as a whole can benefit. Where the problems cannot be tackled directly, the second-best solution is to create an enclave that circumvents troublesome distortions. Second, dynamic gains are difficult to measure ex ante. Therefore, when choosing among various options, it is preferable to select those yielding the highest demonstrable static benefits.

209. Burundi, the establishment of a large free-trade zone appears premature,[23] as some of its advantages can be captured through other measures. The evolving policy framework is progressively reducing the macroeconomic benefits to be derived from circumventing distortions. FTZ-specific infrastructure does not yet exist, and air transport needs to be developed. Finally, the transfer of know-how to entrepreneurs is planned through various technical assistance efforts, although FTZs would provide complementary technology transfer through joint ventures.

210. Given the ongoing and proposed reforms aimed at removing economic impediments, the main static benefits of FTZs would be to alleviate problems associated with high labor costs and to attract foreign investors. Despite recent reforms, Burundi's labor laws and regulations have been shown to cause labor costs to more than triple (para. 154). As a result, export-oriented activities are significantly penalized. However, labor reforms are particularly sensitive and are likely to be slow and to continue to discourage investments. Therefore, free-trade zone status should be granted to selected firms on an experimental basis, under which labor remuneration is freely negotiated by the enterprise. This would tend to align wages with those of the informal sector. Also, the benefits of a commercial free zone may be captured through extensions of the existing private entrepôt regime. Finally, corporate registry appears viable at a reasonably low cost. The Virgin Islands, which have succeeded in rapidly developing this area since 1985, may be the most appropriate model to use. This would involve Burundi collecting a fee from international companies in exchange for a recognized legal status. In order to create a transparent FTZ system, all relevant provisions need to be spelled out in appropriate legislation.

Other Measures

211. Foreign Importers. Independent of export-oriented FTZs, Burundi also needs to attract foreign investors in domestic activities and trade. There are fewer than 300 importers, more than half of which are industrial firms, operating in Burundi. On average, each imports about 17 products, out of a possible total of about 2,000, and the market for many products is monopolistic (para. 79). This provides a strong case for attracting more importers, including foreign ones who can also bring knowledge of the least expensive alternative supply sources. Therefore, discrimination against foreign importers is not justifiable. The present system discriminates against this group through a deposit requirement (of about US$50,000). This provision, which has already been relaxed considerably for those in the interior of the country and those who have invested in production activities, should be abrogated.

212. Price Controls. Price controls on most industrial products have been liberalized during the past four years. Except for beer, the present system requires only that the Ministry of Commerce be informed of price changes, and further simplifications are being introduced into the system. Sectors that remain affected are export crops (para. 51) and utilities (and natural monopolies in general). A more transparent and less restricting system is now being envisaged for both.

23/ This conclusion is based on a major study financed in 1990 by the USAID.

The Chamber of Commerce and Industry

213. The CCIB is expected to take on increasingly important roles in the context of private sector promotion. However, it has only recently (1989) gained fully independent status, having previously been run primarily as a PE staffed by civil servants. As a result, the institution remains weak and has not yet shown that it can effectively represent the private sector.

214. The CCIB is a lobbying group for the private sector. In order to be effective as a lobbying organization, it has to be trusted by its members and considered a credible interlocutor by the Government when formulating policies or when hearing grievances of the private sector. Neither condition prevails at present although, after obligatory membership was ended, the quality of the CCIB services improved and the institution even managed to increase its receipts from dues.

215. The responsibility of the CCIB to supply public services is growing. At present, its intervention is limited to such areas as representing the country in trade fairs, organizing seminars within the country, and providing limited technical assistance to the private sector--help promoters in project preparation through the APEX unit. This role is likely to grow in the future, as the institution's capabilities are built up, and to encompass new areas, such as (a) maintaining the commercial registry, as is the case in a number of other African countries; (b) operating the one-stop shop for enterprise creation (para. 124); and (c) offering a broader range of assistance to the private sector, including giving information on equipment suppliers (para. 242) and arranging for technical assistance to firms that request it.

216. Despite recent efforts, the CCIB is not yet fully competent to perform its mandate. One problem is its inefficiency. For example, small groups have recently been created within the organization to focus on problems that tend to be specific to subsectors. However, these groups have no seconded or permanent staff--particularly a permanent secretary--despite the fact that decentralization should have freed up resources from the central management. An in-depth analysis of the organization and follow-up technical assistance is needed to assess whether or not overall resources are sufficient and allocated efficiently, and to evaluate how the CCIB conducts its business and help implement suggested improvements.

217. The financing of the CCIB merits attention and follow up. Until recently, the main source of financing was obligatory contributions collected from enterprises. There was little justification for maintaining compulsory membership fees, except on the grounds that they were needed temporarily while the CCIB was being strengthened. Now, membership is voluntary, and will have to be justified by services that are offered. Other sources of financing are the Government and donors for specific tasks--such as the APEX unit. To the extent that the CCIB performs a public service--for example, if the commercial registry were to be located there--it should be compensated. The financial resources and obligations of the CCIB need to be reviewed. A short-term deficit attributable to the low rate of collection of membership dues and high legitimate operating costs may exist. This too should be financed, through government or donor grants, with the proviso that this subsidy should be limited to three years at most. In the long term, the financial viability and independence of the institution should be based on its ability to deliver appropriate services to its members, who in turn should pay dues at levels sufficient to cover costs.

VII. DEVELOPING INDUSTRIAL OPPORTUNITIES

A. Industrial Opportunities

218. There has not been any systematic analysis of viable industrial opportunities in Burundi. In the context of interviews with existing businessmen in the country a number of potentially viable ventures were mentioned, ranging from horticulture to mass-produced shirts, and most existing businesses can be extended. Based on information on successful undertakings in other developing countries, some other activities not currently under consideration are described below. This list is not exhaustive but aims to show that a varied concrete manufacturing potential does exist.

219. Manufacture of Malathion. Malathion is an insecticide with low toxicity to mammals, effective in controlling a wide range of insect pests, including malaria-carrying mosquitoes, and for the protection of grain crops. Its production process is unsophisticated and accessible for countries that lack an established chemical industry. Investment costs range between US$2.25 million and US$3 million, about 70 percent of which would be for equipment. The key parameters for operations include (a) power requirements of 95 kilowatts (KW); (b) steam consumption of 1 ton per hour; (c) fuel oil consumption of 600 tons per year of fuel oil use and (d) employment for about 75 people.

220. Re-refining of Used Oil. A small plant can process 350 to 400 tons of used lubricating and transformer oils into a high-grade motor oil--25 percent of Burundi's consumption. This process requires neither sophisticated skills nor elaborate equipment. Re-refined oil can have quality characteristics very similar to those of virgin oil. The value of the imports substituted for by such an activity would be about US$400,000. Total investment costs would be approximately US$250,000, two-thirds of which would be for equipment. Operational parameters include: (a) power requirements of 10 kw; (b) steam consumption of 0.1 ton per hour; (c) fuel oil consumption of 50 tons per year; and (d) employment for about 20 people.

221. Production of Aluminum Conductors. Aluminum conductors, with and without a steel core, are employed in rural electrification and could be produced in Burundi. Raw materials, aluminum rods, and carbon steel wire will have to be imported, but are widely available. Basic wire drawing and stranding equipment can produce the required cables to any specification. Manufacturing aluminum conductors is a moderately complex mechanical process. The operation and management can be compared to the production of building-grade steel tubes by SOBOX in Burundi. The plant could have a production capacity of between 1,200 and 2,000 metric tons of aluminum conductors yearly. The total investment costs can be estimated at US$750,000, 80 percent of which represents the cost of machines. The plant would employ about 80 people.

222. Silkworm Rearing by Smallholder. Silk cocoons can be produced by smallholder in simple farm sheds, using the leaves of mulberry trees as the principal feed for the silkworms. Cocoons can be dried and exported to the world market, which is currently dominated by China. The project could start with 500 hectares (ha.) of mulberry trees, which should produce 150 tons of dried cocoons six years after first plantings. It would yield a gross return, at current prices, of about US$3 million cif Japan, equivalent to approximately US$2.5 million fob Burundi. The total investment in the cocoon-drying plant would be about US$1.5 million, to be spent equally over five successive years. Silkworm eggs will have to be imported and technical assistance would also be needed.

223. Profiles of Other Potential Ventures. Small, single-family, biogas installations are used in many countries, notably in India, to augment the energy available for household use. An impermeable tank is constructed underground, and human and animal wastes are introduced into it. Biological action,

similar to fermentation digests the wastes, producing among others a flammable gas which can be piped into the house and used as fuel. Designs for these installations are simple, are readily available and can be obtained from FAO, UNIDO as well as one of the Indian institutes for the promotion of SSEs.

224. Small hammer mills, powered by an electric or diesel engine, are versatile instruments for multiple use of grinding grains, cassava or other tubers in rural areas. The construction of these mills is fairly simple. Imports would include steel plate, bearings, the impact blades of the mill and the power source. Exports to neighboring countries may be possible. A company making hammer mills could also produce small implements, such as hoes, shovels, pick-axes, and pitchforks whose production processes are very similar.

225. Two existing industries in Burundi that could diversity their production with a logical extension of existing activities are the tube manufacturer (SOBOX) and the nail manufacturer (SAMCHI). The former could produce 200-liter drums and other size steel containers. The latter could diversify into the production of nuts and bolts, by acquiring at least one simple lathe and appropriate cutting tools. The manufacturing of voluminous items such as drums and other containers has a natural protection due to the high transportation costs facing competing imports. In the case of nuts and bolts, a careful evaluation of the competitiveness of local production versus imports would be needed.

226. Only three countries in Africa--Kenya, Malawi, and the Republic of South Africa--produce macadamia nuts. As these are often grown in tea-producing areas, the growing conditions in Burundi may be appropriate for this tree crop as well. Production areas in Malawi range from a 500-acre plantation to one-acre smallholder plots. Crop maintenance and harvesting are simple. However, the selection and introduction of the appropriate varieties is critical. Processing macadamia nuts is not complicated, although it is somewhat costly since it involves substantial drying. Detailed processing know-how is not readily available. Existing operations--for example, in Hawaii and Australia--use proprietary processes that are closely guarded. The United Kingdom's Tropical Products Institute has assisted Malawi in the development of its industry. In the case of Burundi, a suitable technical partner will have to be chosen.

Ministry of Industry Data Base

227. One way of encouraging the private sector to engage in new ventures is to provide it with detailed information on opportunities. To achieve this aim, the Ministry of Industry and Commerce, with support from the Ministry of Plan, created a project data base in 1990. Following the identification of promising lines of business pre-feasibility studies are undertaken; and are made available to interested parties. About 10 studies were complete in 1990, but this project was halted in 1991.

228. The original conception of the database suffered from a number of flaws: (a) no procedures were established for disseminating the information to the private sector (at issue is who can have access to the studies and at what cost); (b) the initial project selection was inadequate; a number of projects identified were unlikely to be viable (banana wine), and others (plastic bottles) were already under study by the private sector, with the result that scarce funds were wasted; and (c) the terms of reference for the studies were vague and unlikely to result in suitable studies. A specific problem associated with the terms of reference was the insufficient emphasis on the need to assess and present scale and technology alternatives. In all studies the scale was too large and only one type of technology was studied.

229. The project data base may still be made operationally more relevant for the private sector. In order to minimize wasted resources and implement a transparent process, the following is warranted:

(a) "privatizing" the data base, which could possibly be managed at the BNDE or the CCIB, even if this activity is subsidized; (b) making all pre-feasibility studies available on a first-come, first-serve basis to anyone at no cost or at a very low cost; (c) seeking greater upstream input from the private sector regarding the projects to be analyzed; and (d) asking consulting firms to present alternatives both for scale (particularly on the lower end of the spectrum) and for machines (equipment supplier and type of technology). Because the future of the "Centre de Promotion Industrial" (CPI, funded by the UNDP) is uncertain (paras. 239-240), the aforementioned data base should also incorporate project profiles developed by that institution.

B. Human Capital Deepening

230. Background. The acquisition of skills by the labor force and of managerial know-how by white collar workers is a key prerequisite for the development of a competitive private industrial sector in Burundi. This requirement calls for an appropriate mix of long-, medium-, and short-term interventions focused on improving the educational system at various levels and transferring capabilities to the private sector. The thrust of the long-term effort should be to continue improving primary and secondary education and reorienting the curriculum toward mathematics and sciences. The medium-term effort should be aimed at creating and enhancing existing professional training facilities. As the issue of improving primary and secondary education is long-term and well beyond the scope of this study, this section and the next focus on assessing medium- and short-term interventions.

Vocational Training[24]

231. The Setting. There are mounting problems related to the high population growth rate of rate of over 3 percent a year, and limited arable land, which restricts rural employment. Unemployment is already emerging as an issue in urban areas, where 25 percent of the active labor force is unemployed. Those worst affected are unskilled workers. Labor policies do play an important role in the problem (paras. 150-153), but an aggravating factor is the inadequacy of vocational training. The problem begins in primary and secondary education. Although, thanks to recent efforts, about 70 percent of the schoolchildren benefit from primary education, fewer than 30 percent go beyond the sixth grade. The primary school curriculum is not adapted to preparing the children to play a productive role in an industrializing society. The percentage of illiteracy in the population at large is also high (66 percent in 1985). In addition, the use of the French language in business also creates difficulties for those who know only Kirundi. The Chart of Unity addresses these issues and proposes a strategy based on strengthening vocational training and apprenticeship. Vocational training is offered by a number of institutions, including the vocational training center of Bujumbura (CFPP, "Centre de Formation Professionnelle et de Perfectionnement"), specialized centers linked to 13 ministries, the artisanal center sponsored by the UPRONA party, and various NGOs. In general, existing vocational training programs are inadequate; most lack physical equipment and human resources to operate effectively and suffer from insufficient decentralization. Also, the types of training available do not address the identified requirements of the private modern sector (such as laboratory assistance, diesel engine mechanics, computer operators).

232. Main Target Group. Vocational training can be targeted to a number of identifiable groups, the most important of which are those who drop out of school after the age of 12 (40,000 each year). A multifaceted approach can be envisaged one, which includes internship with an artisan and

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24/ This discussion is based on a preliminary report by Francois Ducloux (consultant to ILO), "Evaluation des Besoins de Formation Professionnelle."

preparation for self-employment through basic business training. The other groups include (a) high school drop-outs, only a few hundred each year; (b) women, who could improve their living conditions and productivity through simple, ILO-sponsored training programs already successfully experimented with in Mali and elsewhere; and (c) redundant public sector employees, who could be retrained through CFPP programs.

233. Strategy. Supply-oriented, broad-based vocational training, primarily government-sponsored, should be developed according to identified demand on a number of parallel axes: (a) long-term training programs in such areas as auto repair, requiring relatively sizable investments in training equipment and the extension of CFPP facilities; (b) complementary training and specialized skills taught over a period of one to three months; and (c) training in production techniques for informal entrepreneurs and artisans. A narrower, demand-oriented, private sector-managed approach to know-how acquisition, based on the specific needs of dynamic promoters with demonstrated entrepreneurship, is discussed elsewhere (paras. 237-253). Nevertheless, regardless of the approach chosen and the groups targeted, the inescapable conclusion is that primary school and vocational training need to be strengthened and extended considerably to satisfy the needs of a developing private sector economy.

Management Training

234. The existing emphasis in higher education tends to be on law degrees; one consequence is a scarcity of graduates trained in business and sciences. The two main institutions responsible for providing university-level business education are ISGE (Institut Supérieur de Gestion des Entreprises) and the Faculty of Business and Economics at the University of Bujumbura (FSEA).[25] Although the teaching material is adequate, the ISGE approach has two shortcomings in terms of: incoherence and redundancies in the overall program; and low graduation rates--fewer than 40 percent of students take the final exams. Among the problems are (a) the heterogeneity of the students; (b) conflicting demands on students' time by their employers; and (c) a lack of adequate facilities.

235. The above problems need to be addressed through a combination of actions (a) upgrading the curriculum and providing an adequate library of textbooks; (b) setting an entrance examination and relying more on five to ten days of full-time sessions at the beginning of each semester; (c) possibly raising the tuition fees; and (d) establishing linkages with other established business schools. Another critical element is the strengthening of the relationships with the FSEA, including the joint appointment of faculty members.

236. The FSEA currently offers a four-year undergraduate training course in general business administration with no specialization in such areas as accounting, marketing, finance, and information systems. The main problem is the inadequate number of qualified faculty members. The proposed joint faculty nominations with ISGE would thus also address a need of the university. As both institutions in the short term need to hire expatriate professors, continuing and expanding the existing financing of technical assistance should also be given serious consideration by donors.

25/ These institutions were evaluated by Peter Holzeer (consultant) during a visit to Burundi in July 1990. What follows is based on his assessment.

C. Capacity Building in the Private Sector[26]

237. A number of initiatives are already under way in Burundi to transfer know-how to local industrial enterprises and exporters. Many of these programs are relatively new and tend to target specific problems. This section develops a more comprehensive approach and identifies priorities. Because view of the country's low level of industrialization, eligible groups should be defined broadly, and reliance upon time-bound subsidies to beneficiaries, financed by grants from donors, in this case would be legitimate. A critical aspect, however, is that this financing should not limit the choice of consultants to citizens of a single country or a small group of countries--this might restrict the involvement of some bilateral donors-- and beneficiaries should be involved in devising the intervention and in selecting of consultants.

Project Preparation

238. Many potential local promoters of industrial activities are existing entrepreneurs involved in trade or operating in the informal sector, as well as some civil servants. Their move into the industrial sector can be motivated by a project idea or the desire to invest available funds in productive undertakings. Market failure can occur because these promoters do not know how to implement an industrial project, particularly with respect to the choice of technology, and how to assess the viability of their ideas. Assistance at this stage can guide investors.

239. On paper, the capacity for project appraisal in Burundi is adequate. Recently created private consulting firms, which often have collaborative arrangements with foreign firms, can be hired to prepare a project appraisal. Other institutions capable of preparing feasibility studies acceptable from the standpoint of financial and economic analysis include (a) the CPI, established by the UN and being restructured to prepare it for eventual privatization; (b) the APEX unit at the CCIB, set up with the help of the World Bank to help SSEs; and (c) the BNDE, a development bank.

240. In practice, there are serious shortcomings. The commercial banks' appraisal capacity remains inadequate--this problem is being addressed through a combination of technical assistance and tighter regulatory requirements. The CPI, better suited to undertake studies of larger projects, has suffered from a series of internal problems that have necessitated its restructuring. The APEX bureau is a relatively new institution, and it is stronger in economic and financial analysis of projects than in helping in the selection of best-suited equipment. The same observation is valid for the BNDE. Overall, the capacity to evaluate projects quantitatively exists and is improving, but there is little in the way of assistance in technological choices, other than from existing traditional distributors. As a result, some firms have purchased the operation of which they have not been able to master (para. 42).

Issues and Recommendations

241. Some consulting institutions benefit from subsidies (CPI and APEX), while others have to charge customers for preparing appraisals (private firms). This results in a distortion in the relative price of the services: the cheapest source may not be the best, and the purely private consulting sector is discriminated against. At the center of the problem is whether or not it is justifiable to subsidize this type of assistance and, if so, how to administer the subsidy. While subsidizing project evaluation seems

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26/ Many of the ideas presented here broadly follow recommendations made in Keesing and Singer (1990),"How Can Support Services Expand Manufactured Exports?" World Bank, PRE Working Paper Series No. 544. The main difference in the case of Burundi is that the target group includes exporters as well as emerging local producers.

to be justified, the promoter should be free to choose whom to turn to for help. A better system would subsidize part of the costs of all feasibility studies, up to a maximum limit, for the next five years. In exchange, after a reasonable delay, the feasibility document would become public and be incorporated into a project data base, preferably one maintained at the CCIB.

242. The issue of the diffusion of information on technology is complex. A first step might be to take stock of what exists by creating a data base on equipment commonly used in Burundi and containing information of a technical and financial nature. This data base should be maintained at the CCIB for consultation by promoters. Its key information should be computerized and be made available to all relevant institutions. Representatives from suppliers, including such nontraditional sources as India or East Asia, should be encouraged to contribute to this data base; many such representatives do come to Burundi, but there is no mechanism in place through which they can contact local entrepreneurs. A second step might be to provide businessmen with the opportunity to consult international experts with applied knowledge on appropriate technologies. This could be achieved through short-term technical assistance. The specific needs of enterprises and promoters should be identified through a survey of businessmen, following which suitable international consultants could come to Burundi for short periods to provide the necessary advice.

Financial Management

243. A common characteristic of most public and private industrial firms is their lack of or their inadequate cost accounting. The problem is linked to the absence of chartered accountants, the scarcity of qualified accountants, and the poor financial management within the firms, as well as to the desire of some firms to avoid taxation. The latter should be less of an issue after the implementation of tax reforms. The creation of an order of chartered accountants and the overhaul of the "plan comptable" have been discussed with the Government and should be implemented as a matter of priority. French and Belgian financing and technical assistance are likely to be available for part of this task. An area where a gap exists and additional assistance may be required is the implementation of cost accounting and in encouraging managers to adopt it as an internal management tool. This is particularly important for producers with excess production capacity who need to make decisions based on their variable costs, on whether to export.

244. Recommendations. About half of the existing 200 industrial enterprises keep, at best, rudimentary accounts. These enterprises could be targeted for specific support, composed of (a) a personal computer (PC) and accompanying accounting software; and (b) hands-on training for the company accountant in operating the software and in training managers to use the output from the information system. This type of assistance can be provided quickly and cheaply. The equipment would be a basic PC and a printer (costing no more than US$2,500). The software would preferably be off-the-shelf, possibly with some custom-made functions (about US$1,000 per user). The technical assistance would be in the form of seminars of about one week, with appropriate, regular follow-ups. The whole program is likely to cost about US$500,000. Partial or full cost recovery on the equipment is warranted. However, the software, the initial training, and the follow-up--say, over a period of one year--may be given free of charge.

Production and Design

245. In the course of discussions with the private sector and visits to enterprises, many product designs were found to be obsolete. The production techniques, even the simplest ones--for example, in cutting a metal sheet or textile fabric to minimize wastage and in the choice of inputs to use to produce a given good--were found to be in need of improvement. For both issues, the problem of production for

the local market is somewhat different from that of production for the export market. Given the low income levels of consumers in Burundi, products intended for the domestic market should be reliable and inexpensive. Export products should not only have these qualities, they should also be perceived as being of high quality. Some dimensions of quality are objective--pure cotton versus synthetics--while others are subjective--the stitching of a shirt or its design. Export products should also strictly conform with international norms and the specific requirements of the foreign customer.

Issues and Recommendations

246. There is a need for norms and standards, not only for export products but also for locally sold goods. The creation of a Bureau of Standards was one of the objectives of the second structural adjustment program, but it was delayed by concerns that the institution might merely become another regulatory brake; the initial conception of the Bureau, which was never ratified, envisaged it as being primarily a part of the public administration without any formal links to the private sector, with emphasis on its role of regulatory enforcement. What is needed is one of a semiautonomous organism that has close links to the private sector, including the CCIB and other professional organizations, and which educates the sector on standards. The Bureau would have two roles: (a) adopting and specifying norms and standards; and (b) promulgating and encouraging conformity with norms. The standard already recognized in the country is the metric International Standard (IS). A qualified international consultants should be hired to adapt this standard to local conditions and to promulgate it. One such bureau is AFNOR, whose services can usually be financed through French grants.

247. The implementation of norms may be helped by requiring simple product labeling. Additionally, the seal of "Burundi standard" could be granted to products that conform to the norms. This seal could also be used as a way to guarantee the quality of export products. In enforcing the norms, an important distinction should be made between products that do not conform with norms and those whose labeling is untruthful. Producers should be encouraged to conform with norms because doing so would lower their costs--with fewer custom-made products and longer production runs, their production would be rationalized. However, they may decide to deviate from size norms because of a marketing test or another reason; such deviations should be left up to the producer. Untruthful labeling is usually related to fraud and needs to be monitored and stopped. Thus, in addition to explaining the norms to the private sector, the Bureau of Standards should also randomly monitor the correspondence between the label and the product.

248. Many producers need assistance in improving their production techniques and product design. The needs of similar activities should be identified, and qualified international experts should be hired to provide the necessary training and advice. For example, horticultural exporters might benefit from a two-week training course on seed selection, production conditions, and quality control; local furniture producers could be shown how to revamp their designs and mix and use inputs more efficiently. The identification of the needs (with special attention given to helping emerging nontraditional exporters) should be undertaken by the CCIB and private professional organizations, and the necessary training organized by one of these groups.

Support to Exporters

249. Exporters have specific needs related to the difficulties in penetrating export markets, notably: (a) timely delivery; (b) marketing; and (c) knowledge of regulatory conditions in the recipient country. The first problem is linked mainly to the inadequate air transport and insufficient planning by firms. In marketing, the biggest problem for small-scale exporters is identifying and attracting a potential

buyer. In the case of some of Burundi's potential exports, such as horticultural products, this is relatively straightforward, but not easy. The main markets include Holland (flowers) and Paris (fruits and vegetables), and selling and buying is usually centralized. For such products, the challenge is to find a reliable correspondent to sell the product in daily auctions. For other products, such as garments, finding the right buyer is more difficult--this may best be addressed through joint ventures.

250. Regulations in the recipient country can either help or hinder Burundi's export. Many countries have rules regarding standards for products. An example is the United States, where food imports are subject to very strict hygiene standards; this is less of a problem on the European market. Another area where problems can occur is the documentation required by the importing country from the exporter. This can range from a certificate of origin to other, more complex documents. Not all rules work against the Burundi exporter, who, for example, under the Lomé Convention, has preferential access to European markets. Similarly, there can be special bilateral deals, such as the barter arrangements with Uganda of 1987, from which an aggressive exporter can benefit.

Issues and Recommendations

251. Many of the problems encountered by new exporters are attributable to imperfect information regarding potential markets or customers, and the rules and regulations of importing countries. In addition to disseminating fairly broadly information on potential export markets, there is a need to identify a limited number of dynamic firms with potentially viable export products and actively assist them in the key aspects of exporting. This is being explored with USAID financing. The FED also has a project under way to help exporters of horticulture products. These types of intervention need to be sustained for at least two years before their effectiveness can be assessed.

252. A broader approach would avoid picking winners among exporters and concentrate instead on providing information on demand in a number of areas, such as rules and regulations in selected countries and correspondents to contact in various subsectors. This would require preselecting countries that are most likely to import from Burundi--first and foremost, Europe (particularly France, Belgium, Switzerland, and Holland). Regional exports might be possible, particularly if the PTA arrangements result in lower non-tariff barriers (paras. 57-59). However, information on these markets and contacts already exist. Finally, the richer Gulf countries have also been explored as a potential export market. The main potential appears to be for exports of horticultural products. However, due to the almost total absence of trade links with these countries, more market research is needed.

253. The final question is who should gather the aforementioned information. Clearly the CCIB, with its many contacts with chambers of commerce in France and other countries, would be expected to take a leading role in this respect. Another set of potential actors are the commercial attachés of key embassies. However, this requires people who are qualified, setting up the right sort of reward system, and developing the trust of the private sector. This approach has been successfully implemented by some Asian countries but very few, if any, African countries, and may merit trying.

Conclusions

254. Well-directed institutional development and subsidizing the acquisition of know-how by firms should be integral parts of the industrial and export-promotion strategy. Given the scarcity of resources, many of these interventions will have to be directed toward preselected "winners," particularly dynamic exporters; others should be directed more generally toward the industrial and export sector at large. The relatively small number of enterprises involved makes this solution feasible in Burundi. Firms with majority foreign ownership should have much more restricted access to subsidized help, however. It should be emphasized that much of the subsidized support, particularly that given to

individual firms, should be time-bound; the same firms should not continuously benefit from the same type of support. In addition, much of the assistance envisaged should be channelled through private organizations, particularly the CCIB and other professional groups. At present this creates a sequencing problem, because the CCIB is still a weak institution that needs to be significantly strengthened before it can operate efficiently. Similarly, most professional groups are still in the process of being created, and they too should be strengthened before they can play an active role. Financing is already partially provided in the form of grants and highly concessional loans by a number of donors. As this type of promotion effort is developed, better coordination among donors and with the private and public sectors will be needed. The success of the promotion program hinges on ensuring the people implementing it--including consultants--being qualified and credible. Failings in this respect have been a major reason why many technical assistance programs have not reached their goals in Burundi and other African countries.

ANNEXES

THE INDUSTRIAL SECTOR

A. Past Industrial Policies

Before Independence

1. There is little trading, handicraft, or industrial tradition in Burundi. Significant industrialization was first initiated by the Belgian administration through a ten-year economic plan for the Rwanda-Burundi region in 1950. It was envisaged that Burundi would have an industrial zone that would produce goods for the region, including what is now eastern Zaire. The strategy relied on essentially selective import substitution and the development of resource-based activities. Priority was given to agro-industries (food processing and textiles) as well as to some metal products, construction materials and chemicals. To a great extent, these industries were protected by high transport costs and were expected to benefit from the economies of scale made possible by the fairly large market. About 16 private industrial enterprises were created during the 1950s. They formed the core of the industrial sector at independence. Six of these firms still exist today,[1] with the majority of their capital in private hands. Most of the other lines of business also continue to operate, except for the extraction of cement clinker and lime.[2]

Independence to 1972

2. The main post-independence problem was that easy access to the regional market was cut off. As a result, the industrial sector experienced a decline and excess capacity existed almost everywhere. There was little specific industrial policy, except within the framework of the first five-year plan implemented in 1968. The Government adopted essentially a laissez-faire attitude in the sector, but it did try to address the questions of access to the traditional markets and investment financing through (a) political initiatives and bilateral agreements; (b) the introduction of a duty drawback to encourage exports; and (c) the establishment of a development bank (BNDE) to finance private sector investment, even though private investment was not directly encouraged. These efforts were not successful. Regional cooperation and reciprocal access to local markets were never effectively granted in practice, a problem that remains unresolved even now. Both foreign and local private investments failed to materialize, with less than US$700,000 invested each year in industry.

3. In hindsight, a number of reasons can be given for this poor response. First, very few positive efforts were made to promote private industry (i.e., easing access to infrastructure and services, providing good access to foreign exchange and establishing tax incentives), and few initiatives were undertaken to create a new class of indigenous entrepreneurs. Second, the new government was inexperienced and faced political and ethnic turmoil. Therefore, industrialization was not given high priority. Finally, uncertainty discouraged existing entrepreneurs investing in long-term projects. In fact, the business environment was far more conducive to disinvestment and capital flight.

1/ Namely RAFINA (cotton oil seed), BRARUDI (beverages), COGERCO (ginning), LOVINCO (blankets), METALUSA (boilers), and CHANIC (oxygen).

2/ The abandonment of clinker was in part due to the fact that the cement industry is not viable at present. Lime is thought to have good potential as an input for agriculture, and small-scale enterprises are expected to start production in the sector in the 1990s.

The Period 1973-85

4. The onset of a second five-year plan in 1973 was accompanied by a new industrial strategy. Its main thrust was based on direct public investment in import substitution and natural resource-based industries. By all accounts, this intervention was initially motivated not by ideological reasons, as was the case in many other African countries, including neighboring Tanzania. Instead, it was inspired mostly by the desire to fill a void created by the apparent unresponsiveness of the private sector. The Government also continued its efforts to gain access to the regional market. Shared interest by Burundi, Rwanda and Zaire in regional cooperation led to the creation of the Great Lakes Community (CEPGL) union. Between 1973 and 1988 industrial investment in Burundi averaged under US$3 million a year, which is four times higher than during the previous five years. There was heavy public investment, particularly after 1975-76, with technical assistance and financing resources provided by the donor community. It was during this period that most large PEs existing today were created.[3]

5. This upward trend in investment continued until 1985 with increasing public involvement, and financed also by windfall revenues from coffee exports. However, as these revenues fell, there was increased reliance on external financing on hard terms. The most notable case is SOSUMO (sugar), for which some of the debt contracted carried interest rates of close to 10 percent. This was a heavy burden for a country whose average interest on external debt, excluding grants, is about 2 percent. As noted above, the initial public involvement was probably driven by pragmatism and possible misdiagnosis of the problem. Nevertheless, the establishment of these enterprises led to the creation of a powerful rent-seeking lobby, whose welfare was linked to the continued existence of these enterprises. At one stage, safeguarding the interests of this group implicitly became an inherent part of the industrial strategy.

6. A number of other actions were also undertaken, particularly in the early 1980s, which created serious distortions in the economy. These included:

(a) Administrative measures prompted foreigners to leave Burundi in a series of episodes. The net result was a loss of human capital and very conservative, short-term profit-maximizing behavior by the remaining foreign community.

(b) External exchange restrictions increased considerably, leading to a strong anti-export bias. Formal and informal trade restrictions and high protection almost guaranteed the financial profitability of import-substitution activities, whose only competition came often from smuggled goods. Although the small size of the country limited the opportunities for industry and trade, private investment picked up, averaging about US$2.5 million a year between 1978 and 1981. Exports, on the other hand, were discouraged by the policy regime, particularly by the overvalued exchange rate that prevailed for most of the period.

(c) Laws and regulations adopted during the period affected almost all aspects of economic life, notably the hiring, firing, and compensation of workers, and created a system under which accreditation and authorization was required before any business activity could be undertaken. New rules were superimposed on existing ones, creating a burdensome and confusing regulatory system. Moreover, strict application of the word of law resulted in

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3/ Namely, COTEBU (textiles), MINOTERIE (wheat milling), ONAPHA (pharmaceutical products), VERRUNDI (bottles), and SOSUMO (sugar).

severe delays and blockages; for example, not a single enterprise managed to benefit from the export drawback system.

(d) The policy regime was implicitly and explicitly discriminatory in nature. As a result, business people who obtained an import license or whose enterprises were granted tax exemptions were not necessarily the most qualified entrepreneurs nor were their businesses always worthy of special consideration. At the same time, viable opportunities were probably forgone because the promoter did not have the proper contacts to go around obstacles and because the general regime was stifling.

7. It is not clear that all these actions were the results of a deliberate strategy. Nevertheless, the strategy that emerged ex post can be characterized as one that relied heavily on bureaucratic influence in economic decisions. Additionally, the overvalued currency and labor laws encouraged capital flight and raised labor costs. As a result, capital-intensive, oversized investments were effectively stimulated. Finally, it needs to be recognized that the donor community played an important in financing unviable investments. For example, in SOSUMO's case, intense lobbying by the equipment producers overseas and the desire to finance this investment clouded economic and financial judgment. While most of the donors have become more careful in exerting their influence since the mid-1980s, the problem still resurfaces occasionally--for instance, in the COTEBU extension and the planned rehabilitation of ONAPHA.

The Reform Period, 1986-90

8. Burundi's industrial strategy since 1986 has focussed essentially on (a) the removal of some barriers facing the sector, particularly through exchange rate and trade policy reforms; (b) significant reduction of direct public investment and restructuring of PEs; (c) promotion of exports, through preferential income tax, simplified drawback, and creation of the APEE (Agence de promotion des échanges extérieurs) and of an independent Chamber of Commerce; (d) the establishment of a project data base in the late 1980s, designed to help the private sector identify viable projects; and (e) the adoption of more transparent regulatory requirements.

9. In general, the direction of the reforms was appropriate, but their implementation was deficient. The effective restructuring of industrial PEs is yet to be achieved. Export-promotion measures were implemented late and only partially. The APEE's usefulness is still open to question, and the Chamber of Commerce remains a weak institution that needs to be strengthened. On the whole, the industrial policy of the late 1980s failed to recognize inter-sectoral linkages explicitly. This was particularly true of the link with the agricultural sector, where heavy public involvement and policy constraints remained. As a result, some viable opportunities for the private sector failed to materialize. This problem is beginning to be addressed in the coffee sector through privatization.

10. These measures did succeed in eliciting a supply response in the form of investments of at least US$10 million per year, by both existing firms and a handful of new enterprises. Latest estimates for private industrial investment are close to US$25 million. Based on recent trends and the willingness of the Government to deepen export-oriented reforms, investments are expected to continue to grow in the 1990s, supporting positive per capita industrial growth.

B. Prevailing Technology and Know-How

11. The choice of technology is an essential part of successful industrialization. Inappropriate decisions with regard to scale, sophistication, degree of labor intensity, ability to obtain spare part and supplier assistance in operation and maintenance can cause a potentially viable activity to fail. The typical case is VERRUNDI (bottles), for which the choice of experimental electric furnace technology, combined with excessive scale, even given the regional orientation of the activity, has created a situation in which a potentially profitable line of business is experiencing continued losses. Visits to more than 40 public and private enterprises allowed the qualitative assessment that follows. The notion of technology is used broadly here, also covering such areas as management capacity, product quality, and so on.

Technology in the Public Sector

12. A good part of the problems experienced by industrial PEs can be attributed to their inappropriately large scale and overinvestment, inadequate management, and inherent lack of viability. An additional problem, illustrated below, is the inadequate choice of production technology.

- ONAPHA is a company that has experienced problems since its inception. Its production process consists of mixing some imported ingredients, both liquid and powdered, and producing a limited range of basic medicines. A moderately sophisticated Swiss-made drier was installed in 1984. Despite various attempts, it has never operated successfully. Given the easy availability of cheap generic drugs, this activity is not viable. Continued operation, using the existing process, would require rehabilitation of the plant and much improved hygiene. However, its economic viability would still not be assured.

- COTEBU is an integrated cotton textiles operation. It operates equipment imported from China. An extension that will double its capacity is now under way. Although the viability of the original investment remains in question, the technology is relatively simple and was probably appropriate when the investment was conceived; the firm benefitted from a protected local market and subsidized local cotton. Know-how has also been gained and the present management is knowledgeable and competent, having mastered key aspects of production. However, the extension is inappropriate on technological grounds. At best, this new investment can be justified if most of the output is exported. Despite the good quality of the cotton, the machines are incapable of weaving the fine and uniform fabric demanded in Western markets. Therefore, most of the production will have to be sold on the local or regional markets, which are already close to saturation. The situation of the enterprise is likely to deteriorate further if the liberalization of domestic cotton sales results in increased costs and greater reliance on lower-quality imported cotton. The enterprise could make its finished products more attractive by receiving assistance in designing its printed cloth.

- VERRUNDI is a bottle maker that suffers from problems linked to excess capacity and the wrong technology. The bottle-making process is a fairly standard continuous process. However, the choice of furnace technology (electric) was inappropriate and unusual, and it led to technical problems. Another problem is posed by the fabrication process itself. The bottles are too heavy when compared with international norms. As a result, they break about four times less frequently than is usual but cannot command a higher price for this quality. Management has been slow to implement the proposed solution of producing lighter bottles whose surface would be treated to increase their strength.

- SOSUMO is a producer of sugar. This activity has been plagued by poor management, overinvestment to achieve technical standards well above what was required, and excessive stocks of spare parts. The equipment chosen was German. This was an expensive choice, particularly in view of the availability of relatively new, inexpensive, and reliable secondhand factories on the world market. Also, there was significant overinvestment. Production has been affected by two types of technical problems. First, the machines were sophisticated and required delicate adjustments were not easily achieved. Second, the consumers were accustomed to fully-white sugar, the production of which requires refining raw sugar twice. The technique used refined the sugar only once. As a result, the product was slightly yellow and was not readily accepted at first. Another problem faced by the enterprise was inadequate management, particularly in the areas of accounting and marketing.

- The palm oil refinery, which has significant public ownership through the local "Societé Regionale de Developpement" (SRD), has been operating for about five years. Such refineries use standard technologies, and most of the basic operations have been mastered by the management. The initial problems were due mostly to lack of raw material supply. Now that operations are at full capacity, two problems have come to the forefront. First, the biomass energy conversion technology, which is not essential to operate the equipment, has never been made operational. As a result, the machines purchased for this purpose remain idle. Second, as capacity has increased, problems have occurred with sewage and the disposal of waste. This is an example of a case in which economies of scale exist primarily on paper. In practice, there are diseconomies of scale associated with higher production, caused by management's limited capacity to oversee larger operations and by technical bottlenecks. A doubling or quadrupling of this capacity is currently under consideration. In view of the aforementioned experience, it would be preferable instead to build a competing factory, on the grounds of technical efficiency and in order to increase competition.

Technology in the Private Sector

13. By and large, the technology observed in established firms within the private sector appears to be appropriate for Burundi with regards to both type and scale. Problems of a technical nature are most often due not to the choice of technology, although this is occasionally the case for more recent investments, but to (a) the lack of training of operators; and (b) the tendency by owners to postpone improvements, renovations, and general maintenance and repair. The first problem is general, linked to the still relatively low education of the work force and its insufficient industrial experience; the latter can be attributed to uncertainty.

14. The following observations emerged from visiting the firms:

- Maurice Delens is a standard, well-equipped construction company, appropriate in size, management, and machinery for Burundi's conditions. Probably the main source of inefficiency is the company's monopolistic situation. However, it is doubtful that the Burundi market can support another such company.

- SAVONOR, the local soap manufacturer, is appropriately equipped for the production of the common household and toilet soaps sold in most African markets. Its equipment is old and worn-out and will need to be renabilitated--particularly the basic soap-making tanks. Competition, which has appeared in the form of a restructured INDURUNDI, may spur a

move toward the production of higher-quality soaps, such as powdered and liquid laundry soaps. Like many other enterprises, this firm does not hold significant stocks of finished goods; it produces against orders but keeps sufficient raw material inventories.

- ETERNIT is a multinational firm. It produces building materials in a number of African countries, fibre-cement roof coverings, and other products made of the same material. The enterprise is appropriately equipped and manufactures a good-quality product. As a result of marketing problems linked to the use of asbestos, the firm is experimenting with new production techniques using locally available cellulose. Unfortunately, the resulting product is structurally weaker.

- Fer-Al and a number of similar companies are traditional metal plate workers, producing such bulky items as furniture and safes, whose size and weight increase transport cost to a point at which imports cannot be competitive in price . The equipment in use within this particular company is old and worn-out. There also appears to be insufficient management capacity. The items produced were based on the outdated original designs of its Italian founder, who sold this business to the current owner in the early 1980s. The latter did not appear to be willing to replace obsolete equipment or to expand operations. The subsector as a whole would benefit from technical assistance aimed at improving and updating the designs of the products.

- LOVINCO, a blanket manufacturer, still operates with machinery of 1950s vintage, appropriate for the product made, but old and worn-out. Its main raw material, acrylic waste, is probably the least expensive raw material available for blanket manufacturing in Burundi. However, the product is of very poor quality and is unlikely to last beyond two years. The demand for higher-quality products is constrained by the low purchasing power of consumers. The company is in the process of rehabilitating and replacing some of its machinery to improve quality and is actively seeking export markets; it recently gained a foothold in Uganda.

- FABRIPLAST, a manufacturer of plastic products, uses a bubble extrusion process that is rather sophisticated and not commonly used in many African countries. The company operates well below its rated capacity, ostensibly because of marketing problems. However, the plant was also hampered by technical problems linked to the high-technology process.

- The match factory has appropriate technology, although input waste appeared high. It is not competitive with imports because it does not benefit from the economies of scale enjoyed by competitors. A problem in the past was the product's poor reliability. Although this problem has been remedied, consumer preference leans toward imported products.

- NAB, a manufacturer of garments, has good and new equipment, including automated cutting equipment for the mass cutting of shirt pieces. Its management is competent. However, the experience of this company and its management provides an example of the problems caused by inexperience and a lack of continued exposure to international competition. NAB's export market is limited to a few specialized buyers in Western Europe. As a result, the company is very vulnerable to changes in fashion which it cannot replicate. Another problem has been the choice of an Italian supplier for an extension to produce socks. The supplier has failed to provide sufficient support, as had been promised, and the management has been slow to pursue an alternative source of assistance, which was available. As a result, the company's equipment does not function properly.

- FRUITO, the fruit juice manufacturer, is also a new enterprise. This company has chosen appropriate technology, but it is hampered by its management's inexperience and by a lack of business-related support.

- The shoe manufacturer BATA remains in operation only because the Government rejected the company's request to close the plant and consolidate its operations in Kenya. A subsequent fire in one of the Kenyan factories has helped this activity. The local company now produces only injection-molded plastic shoes and sandals and imports all other shoes sold in the four BATA shops in Burundi. Its technology was standard and appropriate.

- SOBOX is a successful example of the Government's policy to encourage traders to move into manufacturing. The company uses a secondhand machine to produce round and rectangular building tubes. The equipment is appropriate for Burundi's conditions, and the product, a basic building material, has a ready market. The company's management appears good, dynamic, and knowledgeable.

- RAFINA, the refiner of cotton oil, suffers from poor management whose strategy is to maximize short-term cash flow. Hygiene in the plant is poor, and the equipment is obsolete. Despite the fact that the plant's capacity utilization is relatively low, requests by outsiders for custom refining of oils have not been accepted. The main causes of the firm's lethargy seem to be the lack of competition and the arrangement with COGERCO under which the cotton seeds are obtained at a low cost.

- SNP is a former tannery. This company was profitable until 1982, with British management and the benefits of the protection granted through a trade monopoly on hides and skins. In 1982 the company was acquired by private Burundi interests, but the company's trading monopoly was discontinued soon afterward. Since then, the tannery has been closed, and the company is now one of half a dozen or so exporters of goat skins. The original equipment was appropriate, but would need to be rehabilitated if the tanning process is restarted.

- Boucherie Nouvelle, BANDAG, and ALTEBU are companies owned by a new generation, born in Africa, with ancestors from other continents, and with their formative years falling after independence. They are familiar with the environment, operate appropriately equipped companies, and are in the forefront of cautious, but valuable, further industrialization.

- CHANIC has diversified operations, including the production of oxygen and acetylene. Traditionally, oxygen was produced through a simple technology involving the cooling and liquefying of air. The old plant was scrapped and replaced with a modern, U.S.-made process operating on the principle of selective diffusion. This more advanced technology has not been easy to master, and reliability has not yet been attained.

15. The technology used in Burundi remains relatively simple, but not always most appropriate for the conditions existing in the country· for example equipment suppliers are mostly from Europe where their home-market conditions promote the use of capital-intensive technology. Management was found to be often inadequate, particularly in the areas of design and marketing and financial control.

TARIFFS

A. Evolution of Tariff Policies

Background

1. Taxation of imports--through the turnover tax and tariffs--has evolved significantly over the past four years. Coinciding with the progressive liberalization of imports, tariffs now play a more significant role as instruments of protection. Import taxes are also an important source of fiscal revenues (about 20 percent of fiscal receipts, including grants, in 1989). The increased reliance on the turnover tax (the TT, which was raised from 12 to 15 percent and began to be collected at the source in 1989) has reduced the importance of tariffs from the standpoint of revenue generation. Tariffs can now primarily reflect protection and industrial promotion policies. At present, imports are overtaxed; this increases production costs, encourages fraud, and creates a significant anti-export bias. Moreover, firm-level calculations show that effective tariff protection rates are too high (see Statistical Annex Table S6).

2. Burundi has implemented three main tariff reforms since August 1986. Each phase of the reforms is analyzed below mainly from the standpoint of its impact on incentives. Following an assessment of the prevailing tariff code, options for the next phase of tariff reform are discussed. In the future tariffs should be seen primarily as a tool for providing moderate industrial protection and that rates should be low enough to minimize the anti-export bias while broadly maintaining fiscal revenues. The subsequent analysis shows that these objectives can be reached by lowering tariff rates and improving collection performance, which presently hovers around 50 percent.

3. Before 1986 the tariff system in Burundi was unnecessarily complex.[1] The maximum rate was 159 percent and the minimum rate was 4 percent. Tariffs had three components: (a) fiscal duty; (b) entry duty; and (c) statistical tax. These taxes were additive. There was considerable variation in rates among categories and many applicable rates, except for the statistical tax levied at a flat rate of 4 percent on all products. While most rates were set on an ad valorem basis, there were also a significant number of specific duties. The structure of tariffs was cascading, with raw material and capital goods usually taxed lightly and final products heavily. From the point of view of industrial protection, tariffs tended to be redundant; QRs and the foreign exchange allocation mechanism usually led to effective protection rates far higher than those provided by tariffs. The tariff nomenclature (Brussels Tariff Nomenclature, BTN), still in place today, covered about 2,000 categories of products.

Tariff Reforms, 1986-90

4. In August 1986 Burundi embarked on a comprehensive program of multiyear tariff reform, the latest round of which was completed in August 1990. During the first phase, fiscal and entry duties were merged into a single rate, but the statistical tax of 4 percent was maintained. The reform program had set the implementation of an almost uniform tariff rate as an eventual objective, whereby input and capital goods would be taxed at 25 percent and final products at 30 percent. For luxury goods, tariffs were to be set at 100 percent. In 1988 this objective was recast in the light of the perceived need to maintain industrial protection and the fact that revenue objectives were being partially addressed through the TT. An alternative structure was envisaged, with lower tariff rates for capital goods, a lower maximum rate for finished products, and a downward adjustment to the minimum rate for intermediate

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1/ Its structure is detailed in the study by Maxwell Stamp Associates (1986), entitled "Etudie du Système Tarifaire au Burundi."

goods. Tariffs on luxury goods were also to be set at the maximum rate, with consumption discouraged through a high excise tax. The tariff code adopted in 1989 reflects some of these principles.

5. The three tariff structures adopted in August 1986, December 1987, and August 1989 are shown below.

Table A2.1: Tariff Rates by Broad Classification
(percent, excludes statistical tax)

Category	1986-87	1988-89	1989-Present
Luxury goods	100-110	100-150	100
(% in total)	(16)	(16)	(13)
Finished products	50	45	40
(% in total)	(22)	(22)	(27)
Essential	15-40	15-25	15
Raw material	15	20	10
Capital goods	20	15	12
Simulated Average Effective Tariff Rates			
Inputs/gross output			
0.3	65	55	50
0.5	85	70	65
0.7	130	105	100

Source: Ministry of Finance.

6. The reforms supported the reclassification of products. For example, between 1987 and 1989, the number of products categorized as luxuries fell from about 360 (16 percent of the total) to about 300 (13 percent of the total). Some other general tendencies can also be observed. First, nominal protection on finished goods decreased. Second, tariffs on raw materials also fell, but relatively less than for processed goods. As a result, effective tariff rates[2] (ETR) fell on average, as shown by the ETRs[3] simulated above. These estimates were based on assumptions on the share of raw materials in gross output, according to available data, however, input-to-gross-output ratios of 0.7 are typical for Burundi industries. Finally, tariffs on capital goods were reduced by 8 percent between 1987 and 1989. Considering that these previously exempt products became subject to the 15 percent TT, the total import tax on these goods went up, possibly discouraging investment.

Methodology

7. Basic data on imports and tariff revenues at six-digit BTN were provided by the BRB (equivalent data on the TT were not available). Adjustments were made to correct probable data entry errors--for example, where implicit tariffs (revenue divided by imports) exceeded the tariff rate. Additionally, 20 or so items for which tariffs were specific and not ad valorem (mainly petroleum products) were dropped. The adjusted data were aggregated a[illegible] analyzed using the SINTIA software. This computer program calculated weighted and unweighted average tariff rates, maximum and minimum

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2/ The effective tariff rate captures the impact of tariff protection on value added. It is defined as the percentage deviation between value added at domestic prices and value added at world prices.

3/ These figures are meant to be indicative only and they have not been corrected to account for overvaluation in the FBu, which varied from one period to the next.

rates, tariff spread, and collection rates by sectors. The data were aggregated using import weights and standard sector definitions. The degree of aggregation ranges from highly aggregated (agriculture, mining, and manufacturing), through less aggregated sectors (nine industries defined at two-digit ISIC) to about 80 disaggregated industries (defined at four-digit ISIC presented in the statistical tables). In practice, agriculture and mining imports are almost negligible, and most of the focus below is on the two-digit ISIC industries.

First Phase of Tariff Reforms

8. The first phase of the tariff reforms was implemented in August 1986, and the resulting tariff code was effective until December 1987. Data were available only for 1987, thus the analysis covers only the 12 months of 1987 (see Table A2.2). More detailed information on the structure of tariffs at the four-digit ISIC is provided in the Statistical Annex (see Table S13).

9. The average weighted and unweighted tariff rates for the economy as a whole are estimated at 37 percent and 25 percent, respectively, with a standard deviation of 30. The relevant indicator is the weighted one, discussed from here on. Average collection rates were only 46 percent. This indicates widespread exemptions and implies that theoretical effective tariff protection overstates actual effective tariff protection. At the broad sector level, only agriculture benefitted from high levels of nominal protection (58 percent), although collection rates were below average (39 percent). Similarly, for wood products (ISIC 33), the tariff was 69 percent, but 93 percent of the imports were exempt from duty. In contrast, textiles (ISIC 32) enjoy both high tariffs and high collections rates (probably related to the concern with protecting COTEBU). For other two-digit sectors, tariffs ranged between 20 percent and 30 percent and collection rates showed more variation, ranging from 35 percent to 70 percent.

Table A2.2: Structure of Tariffs in 1987
(January-December)

ISIC	SECTOR	No OF HEADINGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
	Whole economy	2,314	0	110	37	30	25	100	46
	Agriculture	83	0	110	61	42	58	2	39
	Mining	35	15	15	15	0	15	1	62
	Manufacturing	2,196	0	110	37	30	24	97	46
	Consumption goods	833	0	110	57	33	31	38	52
	Intermediate goods	760	0	100	25	20	20	33	40
	Capital goods	602	0	100	23	16	20	27	41
31	Food, beverages & tobacco	220	15	110	81	31	29	11	56
32	Textiles & leather	215	15	110	48	28	45	4	83
33	Wood, cork & products	50	15	100	58	36	69	1	7
34	Paper & printing	84	0	100	31	23	28	4	37
35	Chemicals, petr, coal	411	0	100	22	16	20	19	58
36	Nonmetallic minerals	99	15	100	38	27	23	4	28
37	Basic metal industries	103	15	100	24	20	20	7	66
38	Metal prods, machinery	915	0	100	27	20	23	48	35
39	Other manufacturing	98	0	100	66	35	29	1	69

Note: Excludes statistical/service tax. Fuel products subject to specific taxation are excluded.
Source: Statistical Annex Table S13.

Second Phase of Tariff Reforms: January 1987-August 1989

10. The second phase of the tariff reforms was enacted in January 1988, and the resulting tariff code was effective until August 1989. The analysis below covers this 19-month period (see Table A2.3). More detailed information on the structure of tariffs at four-digit ISIC is provided in the Statistical Annex (see Table S14 for 1988 and Table S15 for the first eight months of 1989).

11. During this period average, tariffs and dispersion changed marginally from their previous levels. The former declined from 25 percent to 24 percent and the latter, as measured by standard deviation, increased from 30 percent to 31 percent. The collection rate improved significantly, rising from 46 percent in 1987 to 53 percent in 1988 and to 56 percent in 1989. At the sector level, the most notable change was the reduction in tariffs in agriculture (22 percent), to below the average rate for all imports, and a noticeable improvement in the collection rate (about 90 percent). Another change was the lower rate applied to capital goods (17 percent). Despite lower overall rates for the two-digit industries, the textiles and wood subsectors remained protected by relatively high tariffs; the collection rates for imports of wood products remained low, however.

Table A2.3: Structure of Tariffs in 1988 to mid-1989
(January-end July)

ISIC	SECTOR	No. OF HEADINGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE 1988	1989
	Whole economy	2,315	0	150	36	31	24	100	53	56
	Agriculture	83	0	110	63	41	22	1	81	98
	Mining	35	15	20	20	1	20	0	88	72
	Manufacturing	2,197	0	150	35	30	24	98	52	55
	Consumption goods	834	0	150	55	35	31	40	54	58
	Intermediate goods	760	0	100	26	18	20	29	58	55
	Capital goods	602	0	100	20	16	17	29	38	50
31	Food, beverages & tobacco	221	15	150	81	33	34	10	51	56
32	Textiles & leather	216	15	110	46	27	43	6	77	75
33	Wood, cork & products	50	15	100	57	35	60	1	22	25
34	Paper & printing	84	0	100	30	22	28	3	39	53
35	Chemicals, petr, coal	411	0	100	24	14	20	20	59	73
36	Nonmetallic minerals	99	15	100	36	26	18	5	32	30
37	Basic metal industries	103	15	100	25	20	19	7	81	72
38	Metal prods, machinery	914	0	100	24	20	20	45	44	44
39	Other manufacturing	98	0	100	64	36	32	1	77	82

Note: Excludes statistical/service tax. Fuel products subject to specific taxation are excluded.
Source: Statistical Annex Tables S14 and S15.

Third Phase of Tariff Reforms: August 1989-Present

12. The third phase of the tariff reforms became effective during August 1989. At the time of the analysis, data were available for only a five-month period, through January 1990. Summary results are presented below (see Table A2.4). More detailed information on the structure of tariffs at the four-digit ISIC is provided in the Statistical Annex (see Table S16).

Table A2.4: Structure of Tariffs in 1989-Latest
(August-January)

ISIC	SECTOR	No. OF HEADINGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
	Whole economy	2,316	0	100	30	30	19	100	50
	Agriculture	83	0	100	59	44	17	0	63
	Mining	35	10	40	11	5	12	0	53
	Manufacturing	2,198	0	100	29	28	19	99	50
	Consumption goods	836	0	100	49	32	29	42	52
	Intermediate goods	759	0	100	17	18	11	31	51
	Capital goods	602	0	100	18	17	13	27	45
31	Food, beverages & tobacco	221	10	100	66	34	30	12	48
32	Textiles & leather	216	10	100	40	27	37	5	83
33	Wood, cork & products	50	10	100	36	25	30	0	40
34	Paper & printing	84	0	40	21	15	22	4	60
35	Chemicals, petr, coal	412	0	100	15	14	14	22	56
36	Nonmetallic minerals	99	10	100	32	28	14	5	34
37	Basic metal industries	103	10	100	17	22	10	8	57
38	Metal prods, machinery	914	0	100	22	20	19	43	40
39	Other manufacturing	98	0	100	66	36	31	1	76

Note: Excludes statistical/service tax. Fuel products subject to specific taxation are excluded.
Source: Statistical Annex Table S16.

13. The most notable structural change from the previous code is the significant decrease in the average tariff rate (19 percent). The change in the standard deviation, on the other hand, is almost negligible; the fact that tariff collections fell to 50 percent should also be noted. The data cover only five months and may thus suffer from seasonal fluctuations; In manufacturing, the fall in the average tariff rate is reflected in all sectors, although the reduction was uneven. Capital goods now face a higher tariff than intermediate goods. Finally, for two-digit industries, average rates are less dispersed than before (minimum 10 percent, maximum 37 percent), but collection rates vary significantly among subsectors (minimum 34 percent, maximum 83 percent).

Assessment of Reforms

14. Tariff reforms have met many of the objectives set in 1986. However, the present structure still has shortcomings.

15. **Nomenclature.** Product definitions should allow appropriate categorization of imports. The BTN structure has deficiencies, and Burundi is committed to adopting of the more appropriate Harmonized System (HS). This nomenclature is already in place in many countries, including Zaire and Madagascar. Implementation of the HS is under way in the context of a general effort aimed at improving customs administration, which involves putting in place a computerized customs system called SYDONIA, with French assistance. This system may not be in place until the end of 1992. Nevertheless, the HS nomenclature should be used in future tariff revisions.

16. **Tariff Rates.** Consecutive tariff reforms lowered average tariff rates from 25 percent to 19 percent between 1986 and 1989. From a revenue standpoint, the decline in tariffs has been compensated for by the increase in the rate and the base of the TT. From the point of view of incentives, current tariffs remain too high. Maximum rates of about 25 percent and minimum rates of about 5 percent (the 5-25 structure from here on) would provide adequate tariff protection (ETRs between 50 and 70 percent) while reducing the anti-export bias. In the absence of domestic capital goods production, tariff exemptions may be warranted for a limited number of well-defined capital goods, most of which are already de facto exempt. A proposed revised list of capital goods has been compiled (see Statistical Annex Table S17). In contrast, luxury goods should

be taxed differently through an excise tax. At present, about 300 six-digit BTN products are classified as luxury. A narrower definition should be used for luxuries goods (see Statistical Annex Table S18).

17. **Statistical/Service Tax.** The statistical tax was renamed the service tax in 1988. The justification for this tax (which is an additional tariff) is that it is a minimum tariff paid by all. In practice, this is not the case. Data collected for all private sector importers (about 260 economic agents) show that on average the collection rate was about 50 percent or less; the implicit rates for 1987, 1988, and 1989 were 1.5, 1.7, and 1.8 percent, respectively, as compared with the statutory rate of 4 percent. In general, there is a direct correspondence between goods exempt from tariffs and those exempt from the statistical tax. Therefore, this measure is redundant and should be eliminated, leaving only one type of tariff.

18. **Tariff Variation.** One objective of the tariff reforms was to implement a simpler and more transparent system by (a) reducing variations in tariffs; and (b) lowering the number of applicable rates. The second part of the objective was almost fully attained in the course of the first tariff reform. The first part, however, was only partially reached. Following an initial decrease in 1986, the standard deviation of tariffs remained constant, at about 30 percent, during 1986-90. This causes inter-sectoral distortions, which need to be minimized in the course of the next round of reforms; the 5-25 tariff structure would reduce the overall standard deviation to less than 10 percent (see para. 21 below).

19. **Tariff Collection.** In 1985 an increase in tariff collection rates to more than 60 percent was set as a target following reforms.[4] Except for the first half of 1989, actual collection performance has been well below this level. A review of the details of the best performance, which occurred during the first half of 1989 (see Table S14), reveals that almost all four-digit sectors still benefit from significant exemptions. This shows that there is a need to close various loopholes. In the recent past, the main sources of leakage were PEs, the public administration, and exemptions granted through the investment code. The decision to eliminate PE sector exemptions has already been made, although some PEs may be eligible for the advantages granted under the investment code. The main problem is in the implementation of this decision. With regard to the public administration's duty-free privileges, the debate revolves around the question of whether or not there would be a net impact on the budget. The primary justification for eliminating these exemptions is to eliminate the distortions attributable to the price advantage of directly imported goods over local products or similar imports. The administration's duty-free privileges should be eliminated with a new fiscal exercise, which will take time to prepare. As for the investment code, there is no justification for distorting incentives by granting additional protection to selected industries through the exemption of inputs.

B. Tariff Policies for the 1990s

20. Issues related to tariffs include (a) the implementation of effective measures to reduce exemptions; (b) the adoption of the HS nomenclature; and (c) the reduction of effective tariff rates. The narrower range of tariffs--for example, between 5 percent and 25 percent--has implications with regard to sectoral tariffs and revenues, illustrated in the example below.

4/ See Maxwell Stamp and Associates (1986).

Table A2.5: Tariff Simulations

ISIC	SECTOR	No. OF HEADINGS	MIN	MAX	MEAN	STAND DEV	WGHTD MEAN
	Whole economy	2,316	0	25	13	10	11
	Agriculture	83	5	25	18	18	6
	Mining	35	5	25	6	4	6
	Manufacturing	2,198	0	25	13	10	11
	Consumption goods	836	5	25	21	7	18
	Intermediate goods	759	5	25	9	8	6
	Capital goods	602	0	25	5	7	5
31	Food, beverages & tobacco	221	5	25	23	6	17
32	Textiles & leather	216	5	25	20	8	22
33	Wood, cork & products	50	5	25	19	9	16
34	Paper & printing	84	5	25	13	10	13
35	Chemicals, petr, coal	412	5	25	8	8	9
36	Nonmetallic minerals	99	5	25	16	10	8
37	Basic metal industries	103	5	25	7	6	5
38	Metal prods, machinery	914	0	25	10	10	10
39	Other manufacturing	98	5	25	22	36	16

Source: Statistical Annex Table S19.

21. The tariff structure simulated above incorporates (a) maximum rates of 25 percent for finished products and luxury goods; (b) normal minimum rates of 5 percent; (c) a rate on essential products of 15 percent; (d) consistent rates within four-digit categories; (e) an additional excise tax of 75 percent on a limited number of well-defined luxury products (see Table S18); and (f) no tariffs on well-defined capital goods products (see Table S17).

22. In the simulations, existing product categories are broadly maintained. The exceptions are in the aforementioned cases of capital goods and luxury products, as well as in cases in which the structure within a particular four-digit group was inconsistent. This inconsistency is typified by cases in which a majority of six-digit products within a four-digit group are subject to one rate, and one or two (usually within the "other" category) are subject to a different rate or in cases in which there is an attempt to differentiate a homogeneous product based on end use. One of many instances of this type of problem concerns imported cords (BTN 5904): if the cord used to make or repair fishing nets, the applicable tariff is 10 percent (BTN 590420)--otherwise the applicable tariff is 15 percent.

23. The proposed tariff structure has desirable features from the standpoint of incentives and transparency; the variation of protection among sectors and the effective protection to final products are reduced. The main problem appears on the revenue side, due to the significant fall in average tariffs. Average theoretical tariffs are now 19 percent, plus a 4 percent statistical tax--that is 23 percent. Under the types of structures proposed, tariffs would fall to 11 percent. Ceteris paribus, this implies a loss of about one half of revenues,[5] or about FBu 1.4 billion given prevailing collection rates.

24. Two complementary actions are needed to cushion the negative revenue impact on revenues. First, the fall in tariffs leads to a decrease in the price of imports in local currency of about 11 percent and boosts import demand. In order to preserve the same level of trade deficit in foreign exchange while ignoring possible immediate responses in exports, a corresponding adjustment in the exchange rate would be warranted. Tariff revenues in local currency would thus be boosted by about 12 percent. Second, as noted before, tariff collections remain well below their potential. If a collection rate of at least 60 percent is taken as a realizable

5/ An excise on luxury goods would generate revenues equivalent to about Fbu 200 million, slightly less than 1 percent of imports.

target, and assuming that demand for exempt product is fairly inelastic, tariff revenues would be boosted by another 20 percent. Putting all these numbers together, it seems that, under the proposed scenario, tariff revenues would decrease by less than FBu 500 million. Finally, imports have been growing rapidly in real terms in 1991. This trend is expected to continue and to lead to greater revenue from tariffs and the TT, ceteris paribus.

25. An alternative scenario was also calculated for the case where tariffs are adjusted to the 10-30 percent range. The simulations show that with appropriate exchange rate action and improved collection efficiency, the fiscal shortfall would be negligible. However, the anti-export bias would be greater than in the previous case.

THE MARGINAL IMPACT OF THE TAX SYSTEM ON INVESTMENTS

A. Overview of the Tax System

1. Taxation plays a dual role in the Burundi economy: (a) it generates revenues needed to preserve macroeconomic stability; and (b) it influences production decisions by creating a wedge between social (economic) and private returns on investments. Exemptions affect both competition and efficiency. In general, the overall level of tax revenue in Burundi is adequate.[1] The question from the point of view of incentives is whether or not the same level of revenues from corporate taxation can be maintained with fewer distortions. Thus, the discussions here focus on key corporate taxes that affect competition and investment in the industrial sector.

2. On average during the 1986-89 period, four indirect taxes--the transaction tax (TT), the tax on beer, import duties, and export levies--accounted for more than 70 percent of fiscal receipts. During the same period, personal and corporate income tax accounted for about 10 percent and 9 percent, respectively, of public revenues. Other taxes, from property, dividends, and so on, contributed less than 5 percent to public revenues. In total, from the point of view of budgetary equilibrium, receipts from corporate income taxes and other taxes account for only about 14 percent of total tax revenue, less than FBu 3 billion. Therefore, there is considerable scope for reforming corporate taxation without creating significant macroeconomic imbalances.

Features of Company-Level Taxation

3. The system described here applies generally to all registered business entities, including both corporations and partnerships. Similarly, in principle, no distinctions are drawn between public and private enterprises. In practice, there are exemptions because many PEs fail to pay taxes and private firms benefit from tax holidays. The main features of the corporate tax system are the following.

4. Corporate Receipts. All declared sales receipts are included in the tax base. Nominal capital gains are taxed on a realization basis (without indexation for inflation). Dividends received from other firms are exempt from taxes to avoid double taxation. Interest received on loans to other economic agents is subject to a final withholding tax of 20 percent.

5. Depreciation Allowances. Deductions for depreciation are based on the straight-line method and are not indexed for inflation. There are five categories of assets, but their depreciation rates are not established by law; however, there are guidelines followed by most firms and tax officials (there are no depreciation deductions for land and inventories). The five categories and depreciation rates allowed by the tax system, based on historical costs, are as follows: (a) **buildings**, which for tax purposes are depreciated at rates that vary between 3 and 5 percent; (b) **office equipment and furniture** (OE&F), which is depreciated at a rate of 10 percent per year; (c) **industrial equipment and machinery** (IE&M), which is also depreciated at a rate of 10 percent, with a straight-line life of 10 years; (d) **vehicles**, which are depreciated at rates that vary between 20 and 25 percent; and (e) **tools**, which are depreciated at a rate of 33 percent.

6. Inventories. In accounting for the cost of goods sold from inventories, firms are allowed to choose (a) last in, first out (LIFO) inventory accounting, (b) first in, first out (FIFO) inventory accounting, or (c) an average of the LIFO and FIFO methods. In practice, most firms minimize their

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1/ See Burundi - Public Expenditure Report (1990).

tax liability by using the LIFO inventory accounting approach, thereby reducing to the extent possible the taxation of purely inflationary inventory profits.

7. Interest Expense. All nominal interest expense is generally fully deductible. No attempt is made to index such deductions for inflation--that is, both the real and the inflationary components of interest expense are deductible.

8. Dividends Paid. No deduction is allowed for dividends paid. Taxes paid on dividends at the entity level are not subsequently credited at the individual level.

9. Losses. Losses can be carried forward (deducted against future income) for a period of four years. There are no provisions for loss carryback or for the payment of interest on losses carried forward.

10. Foreign-Owned Firms. Foreign-owned firms are generally subject to the same rules as domestic firms. The only exception is that 50 percent of profits are assumed to be distributed (even if they are retained); such imputed "distributions" are subject to the withholding tax on dividends.

11. Rate Structure. All company-level income is taxed at a flat rate of 45 percent.

12. Minimum Tax. Firms with a net income of less than 2.2 percent of their gross receipts are subject to a minimum tax equal to 1 percent of gross receipts; taxes paid under this minimum tax are not creditable against future tax liabilities under either the regular income tax or the minimum tax. Small firms are subject to a similar tax, called the "taxe forfaitaire," equal to 1 or 2 percent of estimated gross receipts. This tax does not apply to most informal firms.

Additional Company-Level Taxes

13. Transaction Tax (TT). The turnover tax of 15 percent applies to all imports. In the case of capital goods, the amount of the TT tax is not deductible from the base of the company tax in the year of purchase; however, the tax is included in the depreciable basis of the asset, as are import duties. Finally, interest paid on loans from banks is also subject to the TT, at a lower rate of 7 percent.

14. Property Tax. Local property taxes, collected by the local government in Bujumbura, are assessed on land, structures, and vehicles; property taxes are deductible from companies taxable income. In general, the value of property subject to tax is based on rough rules of thumb. For example, there are three "types" of land (depending on the location). Similarly, there are three types of structures (depending on the type of construction). Finally, vehicles are assessed solely on the basis of horsepower; no adjustment is made for the age of the vehicle or for any other characteristics. Assessments are not indexed for inflation; the valuation factors have not changed since 1963. The best available estimates by the authorities indicate that actual effective property tax rates are quite low--in the neighborhood of 0.2 percent for land and structures and 0.4 percent for vehicles. The property tax is not applied to agricultural land, but is applied to agricultural structures. Finally, property taxes are not deductible from rental property income.

15. Tax on Increases in Capital. Firms must pay a special tax to the commercial registry maintained by the commercial tribunal when they obtain a permit to create an enterprise or to increase their capital stock. The tax rate is 1.2 percent of the amount of the capital or increase; this tax is not deductible from the income tax. In practice, this tax is collected only for new firms and for major additions to existing capital stocks.

Taxation at the Individual Level

16. Dividends and Interest Income. Dividends and interest income paid by corporations are subject to a final withholding tax at a flat rate of 20 percent. Interest income is not indexed for inflation--that is, both the real and the inflationary components of interest income are subject to tax. Income derived from some government securities is tax-free.

17. Special rules apply to partnership distributions. Dividends paid by a partnership to its owners are included in the base of the taxable wage and professional income, which has rates that vary from zero to 55 percent. Estimates based on tax return data for 1988 indicate that the average marginal tax rate applied to dividends and income is about 30 percent. Interest paid on loans from active partners is not deductible, but it is not taxed at the individual level; effectively, such interest is subject to a final withholding tax at the company tax rate of 45 percent. In addition, special provisions imply that salaries paid to partners are effectively taxed either at the maximum of 45 percent or at the partner's marginal tax rate under the tax on wage and professional income, whichever is higher.

18. Capital Gains. Capital gains are taxed on a realization basis--with no adjustment for inflation--under the tax on wage and professional income; in addition, such gains are subject to a transactions tax of 7 percent. Similarly, gains transferred at death are subject to carryover of basis. Based on available information, the average tax rate applied to realized nominal capital gains is about 36 percent.

19. Foreigners. Interest and dividends paid to foreigners are also subject to a final withholding tax at a rate of 20 percent. Capital gains earned by foreigners are exempt from tax.

20. Rental Income. A special regime applies to rental property income; this tax is administered by local authorities. Costs, including depreciation and maintenance, are assumed to equal 20 percent of gross rents. The remaining 80 percent of gross rents is taxed at rates that vary from 20 percent to the top personal income tax rate. In addition, deductions for interest expense are allowed only for new construction. Discussions with officials in the Office of the Mayor of Bujumbura suggest that very little income is taxed at rates greater than 25 percent.

B. Qualitative Assessment of Tax-Induced Distortions

Tax Holidays and De Facto Exemptions

21. Investment Code. The investment code is administered at the technical level by an interministerial commission under the auspices of the Ministry of Plan. The procedure for obtaining advantages is fairly complicated; the documentation required is almost as extensive as that required at the time of enterprise creation. Once the commission recommends that a firm should benefit from the code, a fairly solemn process for approval ensues, including review by the council of ministers. The benefits vary among firms, but usually include an income tax holiday. The main issue in this area is whether the investment code has a role to play in a context in which the general tax code is appropriate.

22. Export Incentives. Accredited exporting firms qualify for specific tax incentives. Such firms face a reduced corporate tax rate of 22.5 percent and are exempt from the transaction tax on exports. In addition, they are nominally exempt from customs duties on raw material imports used in exports; for the sake of simplicity, this provision is implemented in an ad hoc fashion by assuming that customs duties equal 10 percent of export revenues.

23. **Nonprofit Organizations.** A number of organizations, usually NGOs--many sponsored by religious organizations have a tax-free status because they are nonprofit organizations; their exemptions include those from income taxes and import duties. These organizations perform valuable social services for the poor and needy and are not very significant in the industrial sector. Nevertheless, in certain subsectors, particularly the meat industry (beef, poultry, and so on), the size of their operations is significant. This causes unfair competition with private entrepreneurs, and raises the question as to whether these activities should pay indirect taxes.

24. **The Informal Sector.** The informal sector appears to be prospering. This is in part because of the attitude of the Government, which appears to have adopted a hands-off policy, with minimal central taxation. Microenterprises provide a fertile ground for the development of would-be formal entrepreneurs, who are still scarce in Burundi. However, some informal enterprises have become fairly large, particularly in certain subsectors, such as soap. Thus, existing firms in the formal sector face unfair competition. The policy issue is how large an informal enterprise should become before it can be brought into the central government tax base, and, given that accounting is primitive, how can taxes be administered simply.

Excise Tax

25. The excise tax is specific to beer, which accounts for the bulk of the revenue, and cigarettes. Price controls on beer impose a limit on the amount of taxes that can be passed on to customers. This became a problem during the round of tax increases in 1988, when the profits of the brewery fell significantly.

Tax Administration

26. Tax administration is weak and suffers from unclear rules and insufficient physical and human resources. Two elements of the tax administration have led to a situation in which some economic agents are taxed more than others. First, not all formal enterprises are known to the tax authorities, despite a complicated regulatory system designed to prevent such cases. Perhaps computerization and better information links with the corporate registry would help alleviate this problem. Although the formal enterprises that escape the tax net tend to be relatively small and are not critical from the revenue standpoint, there can be a distortion of competition at the subsector level.

27. Second, poor accounting, even in such large enterprises as SOSUMO, is a common problem in Burundi. As a result, tax inspectors have a significant amount of discretionary power in judging whether or not tax returns are realistic. This approach has basic problems: (a) the inspector is frequently not qualified to assess the accounts and, as a result, some of the corrections are unrealistic; (b) in the past, political factors came into play, leading to some accounts being reviewed more stringently than others; and (c) the system is biased against medium-size and large firms because tax inspectors receive a bonus in line with the additional tax assessment. The solution to these problems includes improved accounting norms and the creation of an order of independent auditors, as well as better-trained tax inspectors. Also, a more simple and transparent tax system would decrease the instances of falsified accounts.

Cascading Effect of the Transaction Tax

28. The TT was implemented to be collected at points of sales for local products and by customs for imported products. However, this system distorts incentives because the TT paid on intermediate goods, which is reflected in turnover, is not deducted. As a result, there is a superimposition of taxes.

The long-term solution to this problem is the introduction of a VAT, which may not be possible right away. An approximate equivalent, provided for in the tax law but not yet implemented, is to give enterprises credit on the TT paid on intermediate purchases.

Tax Base

29. Whether or not taxes "matter"--in the sense that their statutory rates are implemented and that taxation thus influences incentives--depends on how many enterprises are taxed. In order to address this issue, income tax declarations for all companies reporting to the tax authorities were reviewed and summary information compiled (see Table A3.1).

Table A3.1: Summary of Actual Income Tax Returns, 1988-89
(millions of FBu)

	1988				1989			
	# OF FIRMS	TURNOVER	NET INCOME	TAXES PAID	# OF FIRMS	TURNOVER	NET INCOME	TAXES PAID
Corporations								
Paying regular tax	46	20,920	2,768	942	32	13,014	1,679	685
Paying minimum tax	34	8,326	(638)	149	37	7,531	(648)	75
Total	80	29,245	2,130	1,091	69	20,546	1,030	761
Partnerships								
Paying regular tax	77	7,637	808	326	48	5,294	690	282
Paying minimum tax	68	3,106	(227)	29	77	4,373	(169)	86
Total	145	10,743	582	356	125	9,667	521	367
Public Enterprises								
Paying regular tax	9	4,375	851	383	5	1,939	444	200
Paying minimum tax	9	14,048	(129)	72	6	14,508	(104)	139
Total	18	18,423	722	455	11	16,447	340	339
Total								
Paying regular tax	132	32,933	4,428	1,651	85	20,247	2,812	1,167
Paying minimum tax	111	25,480	(994)	251	120	26,412	(922)	300
Total	243	58,412	3,434	1,902	205	46,659	1,891	1,467

Source: Ministry of Finance, Tax Department.

30. The numbers show that most formal enterprises pay income taxes. In 1988 and 1989, 243 and 205 enterprises reported to tax authorities; 1989 returns were incomplete. A review of the actual listing revealed that most major large and medium-size enterprises that engaged in commercial activities were present. However, on average, about 50 percent of enterprises, measured by number or turnover, reported financial losses or minimal profits for the period. Thus, more than 80 percent of corporate income tax originated from half the firms being taxed. The remaining enterprises were subject to the minimum tax. From this one can conclude that the tax system encourages underreporting of profits and that some firms are more successful than others at circumventing the supervisory system. The average size of highly taxed entities is approximately the same as those that were lightly taxed, but the first group includes most foreign-owned firms.

C. Marginal Effective Tax Rates [2]

Introduction

31. The following analysis attempts to quantify the impact of various taxes on incentives. It presents calculations of the marginal effective tax rates (METRs) on capital income earned in the industrial sector in Burundi under the current tax system. A large number of provisions of the company and personal income taxes in Burundi, as well as features of the property tax, transaction tax, and customs duties affect decisions to invest in capital assets. As a result, it is impossible to determine the effects of taxation on marginal investment incentives simply by looking at a single feature of the tax system, such as the statutory tax rate on company income or the treatment of interest income received by individual investors. Rather, the net effect on marginal investment decisions of all of the various tax provisions that affect the income from capital must be captured in order to gauge accurately the effect of the tax system on investment.

32. The METR is a tool that is specifically designed to measure this net effect of a tax system. It is defined as the difference between the gross of tax and the net of tax real returns to an investment, expressed as a percentage of the gross return; the calculation of METRs takes into account the effects of all features of the tax system on both the after-tax returns and the after-tax costs (including all depreciation allowances, investment credits, interest deductions, and so on) attributable to an investment. METRs can be calculated at the company or "entity" level, or they can also include taxes at the level of the "saver" or the provider of funds--individuals, foreigners, tax-exempt institutions, and so on.

33. The primary goal of a METR analysis is to describe the overall effects of a tax system on marginal investment incentives. It also provides information in four areas that are critical to understanding the effects of the existing tax system in Burundi and in evaluating potential reforms:

(a) METRs are very useful in identifying the extent to which the tax system distorts investment allocation decisions by asset and by business sector. In the absence of market imperfections and externalities, differential tax treatment is generally undesirable because it results in investment allocation decisions that are different from--and inferior to--those that would be dictated by market considerations. Such tax-induced distortions of a firm's decisions result in a disproportionate amount of capital being allocated to those sectors and assets in which tax treatment is relatively favorable, rather than to those sectors and assets in which investment would be most productive. Another way of stating this basic point is that the tax system should be economically "neutral" across investment decisions.

(b) METR analysis helps in identifying the extent to which taxes distort decisions regarding the choice among debt finance, equity finance derived from retained earnings, and equity finance derived from issuing new shares. Such distortions of investment-financing decisions are also undesirable as they distort the allocation of risk in the economy. For example, a tax bias toward debt finance may increase the overall indebtedness of firms and thus increase the likelihood that costly bankruptcies will be incurred during an economic downturn. In addition, tax differentials across methods of finance may discriminate against certain types of firms. For example, a tax system that results in relatively high METRs on equity finance in the form of new share issues will discourage investments by firms that tend to use such finance to a disproportionate extent--such as

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2/ This section is a summary of a study prepared by Professor Zodrow (1990).

new enterprises that have little retained earnings and limited access to debt finance. As above, neutrality with respect to such decisions is another desirable characteristic of a tax system.

(c) METRs provide an indication of the overall level of taxation of various forms of capital income; thus, the analysis demonstrates how effective tax rates on capital income differ from statutory income tax rates, when the effects of the latter are coupled with all the other provisions of the tax system. Effective tax rates that are far above or far below the statutory rate indicate potential areas for reform. This is especially true if relatively high tax rates are viewed as a strong deterrent to investment, and if negative METRs are viewed as a stimulant to investments that are socially undesirable because they earn a return lower than the opportunity cost of funds.

(d) A METR analysis demonstrates how the effects of a tax system on investment incentives vary with changes in the expected rate of inflation. Such an analysis identifies the extent to which both METR levels and differentials across assets vary with inflation. Such inflation-caused variation is undesirable, as it implies additional uncertainty for investment decisions and is thus likely to reduce the overall level of investment at any given inflation rate; it also results in increased difficulty in interpreting the effects of the tax system on investment decisions. In addition, inflation-caused variation in effective tax rates on debt-financed investments is likely to distort decisions regarding the maturity of debt, as both borrowers and lenders will tend to use more short-term debt in order to protect themselves against the effects of unexpected changes in the rate of inflation.

34. The model of the tax system in Burundi conforms with the description already provided above. The only additional point worth noting here is that METR calculations require information on the economic depreciation rate of assets. Because detailed information is lacking for most countries, the only available rates, calculated for the U.S. economy were used. This assumption can affect the results, but probably not significantly.

METRs for Burundi

35. The marginal investments analyzed differ in three dimensions--the type of asset, the method of finance, and the type of saver who is the source of investment funds; the categories considered are listed in Table A3.2.

Table A3.2: TYPES OF ASSETS, METHODS OF FINANCE, SOURCE OF FUNDS, AND BUSINESS SECTORS CONSIDERED IN METR CALCULATIONS

Types of Assets:	Methods of Finance:
Inventories	Retained earnings
Land	New share issues
Tools	Debt
Office equipment and furniture	
Structures	Sources of Funds:
Industrial equipment and machinery	Individuals
Vehicles	Foreigners

Results for the Basic Tax System

36. The METRs for the basic income tax system under various inflationary conditions--ignoring the effects of transactions taxes and customs duties but including the fairly minor effects of property taxation of land, structures, and vehicles--are presented in Table A3.3. Equity-financed investments are considered first. Column 1 presents the METRs for investments financed with retained earnings attributable to foreigners. Recall that the calculations assume that dividend taxes do not affect decisions regarding investments financed with retained earnings. Moreover, capital gains earned by foreigners are not subject to tax. Thus, these results reflect only the effects of income and property taxation at the company or entity level.

Table A3.3: MARGINAL EFFECTIVE TAX RATES
(No transaction taxes or customs duties)

Method of Finance:	RE	RE	NSI	Debt
Source of Funds:	F	I	I, F	I, F
	(Col 1)	(Col 2)	(Col 3)	(Col 4)
Inflation = 0%				
Asset:				
Inventories	45	59	56	20
Land	46	60	57	21
Tools	31	47	45	-1
OE&F	50	63	60	28
Structures	39	54	51	11
IE&M	40	55	52	13
Vehicles	37	52	49	8
Inflation = 5%				
Asset:				
Inventories	45	65	56	-3
Land	46	66	57	-2
Tools	44	64	55	-4
OE&F	69	87	76	33
Structures	46	66	57	-1
IE&M	54	74	63	11
Vehicles	51	71	61	6
Inflation = 10%				
Asset:				
Inventories	45	69	56	-25
Land	46	70	57	-24
Tools	56	79	65	-9
OE&F	85	106	88	32
Structures	50	74	60	-18
IE&M	65	87	72	3
Vehicles	63	86	71	1

RE = retained earnings; NSI = new share issues; I = individuals; F = foreigners; OE&F = office equipment and furniture; IE&M = industrial equipment and machinery.

37. It is convenient to consider first the METRs on investment in inventories, since depreciation deductions are not an issue in this case. The METR of 45 percent reflects only the effects of company-level income taxation at the statutory tax rate; it thus provides a "full" taxation benchmark that can be used in describing the taxation of other assets. Note that the METRs on investment in inventories are invariant with inflation since deductions for the cost of goods sold from inventories are

effectively indexed for inflation. The METRs on investment in land differ from those on investment in inventories only in that the former is subject to the property tax, with the effect of increasing each METR by 1.1 percent.

38. The patterns of the METRs on the five classes of depreciable assets--tools, office equipment and furniture (OE&F), structures, industrial equipment and machinery (IE&M), and vehicles--are fairly similar. In these cases, depreciation allowances are sufficiently close to economic depreciation at a zero rate of inflation that the METRs are relatively close to the benchmark rate of 45 percent. The METR of 50 percent on OE&F reflects the fact that the present value of the depreciation deductions allowed for tax purposes for this asset is slightly below that associated with economic depreciation, even in the absence of inflation. In contrast, all of the other assets face an effective tax rate somewhat below the statutory rate, reflecting relatively generous tax deductions for depreciation; investment in tools is the most tax-advantaged, with an METR of 31 percent. (Note that the METRs on investment in structures and in vehicles include the effects of the property tax.)

39. However, since depreciation allowances are not indexed for inflation under the tax system in Burundi, they lose value as inflation accelerates; as a result, the METRs on depreciable assets increase with inflation. Although these increases are not as dramatic as they would be with higher inflation rates, they are still significant, ranging from 25 to 35 percentage points as the inflation rate increases from 0 to 10 percent. In addition, the absence of inflation indexing favors investment in assets that depreciate slowly. For example, the METR on investment in tools increased from 31 percent in the absence of inflation to 44 (56) percent with a 5 (10) percent inflation rate. In contrast, the increase in the METR on investment in structures, which depreciate much more slowly than tools, is relatively small--from 39 percent in the absence of inflation to 46 (50) percent with a 5 (10) percent inflation rate.

40. The effects of inflation on tax differentials across assets are complicated. As noted above, in the absence of inflation, investment in inventories and land is taxed at or near the statutory rate, investment in tools, structures, IE&M, and vehicles is taxed somewhat below the statutory rate, and investment in OE&F is taxed somewhat above the statutory rate; the maximum METR differential across these assets is nearly 20 percentage points. As inflation increases, the METRs on depreciable (nondepreciable) assets increase (remain unchanged). As a result, at a 5 percent rate of inflation, increases in the tax rates on depreciable assets result in a tax system that is nearly neutral across all assets other than OE&F; investment in OE&F faces an METR of 69 percent, while all the other assets face METRs in the range of 45 to 54 percent.

41. Higher rates of inflation result in wider tax differentials. As inflation increases, investment in nondepreciable assets (inventories and land) becomes even more favored, as the METRs on such investments remain at or near the statutory rate; in contrast, investment in depreciable assets becomes increasingly tax-disadvantaged, especially for those assets that depreciate rapidly. The most pronounced METR increase is for investment in OE&F, which faces a relatively high tax rate in the absence of inflation and also depreciates fairly rapidly; at a 10 percent rate of inflation, the METR on this asset (85 percent) is 20 percentage points higher than that on any other asset. The other four depreciable assets--tools, structures, IE&M, and vehicles--are taxed at intermediate rates that vary from 50 to 65 percent when the inflation rate is 10 percent. Relative to the no-inflation case, the maximum METR differential doubles to nearly 40 percentage points.

42. Analogous effects are of course observed for the various business sectors; at any given rate of inflation, sectors composed of firms that invest relatively heavily in those assets are tax-advantaged (disadvantaged) and face relatively low (high) METRs. As inflation increases, changes in the pattern of sectoral METRs reflect the underlying changes in the METRs on the assets that these firms use.

43. Column 2 presents METRs for investments financed with retained earnings attributable to individuals. These results are analogous to those in Column 1, except that the METRs are higher in each case as they reflect the effects of the taxation of capital gains at the individual level. As discussed above, the effective accrued tax rate on capital gains is lower than the statutory rate due to the benefits of deferral; however, the tax applies to both real and purely inflationary gains as nominal (not indexed) gains are included in the base. The latter factor implies that the increase in METRs due to capital gains taxation increases with inflation. For example, the tax rate on investment in inventories (which is constant at 45 percent in the absence of capital gains taxation) is 59 (65, 69) percent at a zero (5, 10) percent rate of inflation; that is, the METR increases by 14 (20, 24) percentage points. The increases in METRs reported for each of the other assets are quite similar to those for inventories. As a result, the pattern of tax differentials is similar to that observed in the case of investments financed with retained earnings attributable to foreigners.

44. Column 3 presents the results for the remaining cases of equity finance not yet considered--new share issues. Since all dividends are subject to a 20 percent final withholding tax, these results apply regardless of whether the new shares are issued to individuals or foreigners. The effect of dividend taxation is most clearly seen in the case of inventories, where the METR of 56 percent reflects the combined effects of company-level taxation at a rate of 45 percent and dividend taxation at a rate of 20 percent ($0.56 = 1 - (1 - 0 \times 0.45) \times (1 - 0.20)$); that is, METRs increase by 11 percentage points relative to the results presented in Column 3, reflecting the added tax burden imposed by dividend taxation of corporate after-tax returns ($0.11 = (1 - 0.45) \times 0.20$). Recall that the calculations for investments financed with new share issues assume that only real returns are paid out as dividends; as a result, the METRs on investment in inventories are still invariant with inflation. Since similar increases occur for the other assets, the general pattern of the tax rates and the tax rate differentials is quite similar to that observed in the case of retained earnings attributable to foreigners (Column 1). However, tax differentials across assets are narrowed somewhat in the case of new share issues. For example, at a zero (10) percent rate of inflation, the maximum METR differential falls from 19 (40) percent to 15 (32) percentage points.

45. Consider next the METRs on debt-financed investments, which are presented in Column 4. Since all interest is subject to a final withholding tax at a rate of 20 percent, the METRs are identical regardless of whether the bondholders are individuals or foreigners. Two additional features of the tax code in Burundi are critical to an understanding of these results. The first is that interest payments are fully deductible at the company level for debt-financed investments. As a result, the returns to a marginal capital investment financed with debt are offset at the company level by the deductions for interest payments. This is seen most clearly for investments in inventories since, in the absence of inflation, this offset is exact; that is, there is no company-level tax and the METR is 20 percent, reflecting only the taxation of interest income at the individual level in the form of the 20 percent withholding tax.

46. The second critical feature of the tax code relevant to an understanding of the pattern of METRs for debt-financed investments is that interest expense is fully deductible. In the absence of inflation, such a deduction is perfectly consistent with income tax principles, as the interest expense represents a cost of obtaining income. However, in the presence of inflation, the inflationary component of interest expense represents a return of principal to the lender and thus should not be deductible to the borrower; analogously, the inflationary component of interest income should not be taxable to the borrower. That is, interest expense and income should be indexed for inflation, so that only real interest expense (income) is deductible (taxable).

47. Under the income tax system in Burundi, neither interest expense nor interest income are indexed for inflation. If all interest income were taxable at a rate equal to the company rate, the benefit

of deducting the inflationary component of interest expense would be offset by the cost of taxing the same component of interest income. However, interest deductions are taken at the company rate of 45 percent, while withholding implies that interest income is taxed at a 20 percent rate. The effective result is a net additional deduction equal to a 25 percent rate of the inflationary component of interest expense. Such treatment implies that debt finance is quite attractive even in a low-inflation environment.

48. The effects of this treatment of interest income and expense on METRs are significant. For example, the tax rate on debt-financed investments in inventories falls from 20 percent in the absence of inflation to -3 percent with a 5 percent rate of inflation, and -25 percent with a 10 percent rate of inflation. Thus, the tax code provides subsidies to debt-financed investments in inventories in the presence of inflation at rates of inflation of roughly 5 percent or more. (A METR of -25 percent implies that an investment with a gross of tax return of 10 percent results in a net of tax return of 13 percent.) Such negative METRs imply that in the presence of inflation the tax code encourages debt-financed investments that are not socially desirable--that is, investments with a return less than their opportunity costs.

49. The pattern of the METRs on investment in land is exactly analogous to that for investment in inventories; the rates are slightly higher due to property taxation of land. The pattern of the METRs for the other assets listed in Table A3.3 reflects the combined effects of unindexed depreciation allowances (discussed above) and the lack of inflation adjustment for interest income and expense. The latter effect dominates for each asset other than OE&F, as the METRs fall with inflation for these assets. In the case of investment in OE&F--which faces the greatest increase in METRs as inflation increases due to the absence of inflation indexing of depreciation allowances--the two effects are almost exactly offsetting, and the METRs are nearly invariant with inflation. At a 10 percent rate of inflation, investment in all assets other than OE&F is either nearly untaxed (IE&M and vehicles) or subsidized (inventories, land, tools, and structures).

50. The METR analysis demonstrates clearly that the features of the tax code described above encourage debt finance over equity finance, especially as the rate of inflation increases. In the absence of inflation, equity-financed investment tends to be taxed at rates near or above the company rate of 45 percent and METRs increase with inflation. In marked contrast, the results in Table A3.3 indicate that, in the absence of inflation, debt-financed investment tends to be taxed at rates near or below the withholding tax rate on interest income of 20 percent, and that METRs decrease (or stay roughly constant) with inflation. The wisdom of encouraging debt finance over equity finance--and, indeed, subsidizing debt finance--is open to question, especially in the light of the external debt problems that excessive use of debt finance is likely to create.

51. Finally, note that the inter-asset pattern of tax rate differentials is quite similar to that described above for equity finance. That is, in the absence of inflation, investment in inventories and land is taxed at or near the statutory rate--which in the case of debt finance is the withholding rate on interest; investment in OE&F is effectively taxed at a somewhat higher rate; and investment in the other four depreciable assets (especially tools) is taxed at somewhat lower rates. The maximum tax differential is nearly 30 percentage points. At a 5 percent rate of inflation, investment in OE&F faces a relatively high METR while investment in all of the other assets is subject to nearly uniform METRs. At a 10 percent rate of inflation, investment in nondepreciable assets is mostly tax-advantaged and investment in OE&F mostly disadvantaged. The maximum METR differential widens to nearly 60 percentage points.

52. Before proceeding with the rest of the results, it may be useful to summarize the three major factors that result in the pattern of METRs shown in Table A3.3. First, the nondeductibility of dividends paid, coupled with the full deductibility of interest payments, implies that debt finance is

favored by the system of company-level taxation. This effect is exacerbated by the taxation of dividends and capital gains at the individual level and is not offset by the relatively low rate of taxation of interest income at the individual level. Second, the tax advantage of debt finance is increased in an inflationary environment, since all nominal interest expense is deductible at a 45 percent rate while interest income is taxed at a 20 percent rate. Third, deductions for depreciation, based on historical cost, lose real value with inflation; as a result, METRs on depreciable assets tend to increase with inflation.

The Effect of Transaction Taxes and Customs Duties

53. Table A3.4 illustrates the effects on METRs of the imposition of the transaction or TT (at a rate of 15 percent) and a customs duty (at an average rate of 17 percent) on imports of tools, OE&F, IE&M, and vehicles. These results also examine the effects of the 7 percent transaction taxes on capital gains and on interest paid by banks.

Table A3.4: MARGINAL EFFECTIVE TAX RATES
(Includes transactions taxes and customs duties)

Method of Finance: Source of Funds:	RE F (Col 1)	RE I (Col 2)	NSI I, F (Col 3)	Debt I, F (Col 4)
Inflation = 0%				
Asset:				
Inventories	48	59	56	27
Land	49	60	57	28
Tools	105	104	115	108
OE&F	94	96	112	92
Structures	41	54	57	18
IE&M	78	84	93	69
Vehicles	100	100	112	101
Inflation = 5%				
Asset:				
Inventories	49	65	56	11
Land	50	66	57	12
Tools	121	128	115	109
OE&F	117	125	112	104
Structures	50	66	57	12
IE&M	94	106	93	11
Vehicles	117	125	112	104
Inflation = 10%				
Asset:				
Inventories	49	69	56	-6
Land	50	70	57	-5
Tools	134	147	125	108
OE&F	136	149	127	111
Structures	55	74	60	1
IE&M	106	122	102	70
Vehicles	131	144	122	104

RE = retained earnings; NSI = new share issues; I = individuals; F = foreigners; OE&F = office equipment and furniture; IE&M = industrial equipment and machinery

54. The imposition of transaction taxes and customs duties on capital goods imports results in dramatic increases in METRs, as can be seen by comparing the results in Table A3.4 with those in Table A3.3. These effects are so large both because the combined rate of additional taxation is quite large and because these taxes are based on the sales price of the asset (while the METRs reflect tax burdens relative to the annual net income generated by the asset). For example, for the case of

investments financed with retained earnings attributable to foreigners (Table A3.4, Column 1), the METRs on tools, OE&F, IE&M, and vehicles increase by between 37 and 77 percentage points, approaching or exceeding 100 percent in all cases.

55. In addition, the imposition of the transaction taxes and customs duties on only tools, OE&F, IE&M, and vehicles implies significantly large tax differentials favoring investment in the assets not subject to these taxes--inventories, land, and structures. These differential effects are much more important than the various sources of differential treatment described above; for example, even in the absence of inflation, the maximum tax differential across assets is 65 percentage points (in comparison with a maximum differential of 19 percentage points for the results reported in Table A3.3).

56. Several additional features of the results should be noted. First, the combined impact of the transaction tax and the customs duty on imported capital goods is larger for those assets that depreciate relatively rapidly. For example, the METRs on tools and on vehicles increase by 63 to 78 percentage points, while the METRs on OE&F and IE&M increase by 37 to 51 percentage points. This occurs because the impact of a flat-rate tax on the purchase price of an asset represents a disproportionate fraction of the present value of total costs for assets that depreciate relatively rapidly. Second, the costs imposed by the transaction tax and customs duty are independent of the rate of inflation since they are both paid in the year of purchase of the asset; as a result, the associated increases in METRs are roughly independent of the rate of inflation. Third, the effects of the transaction tax on capital gains is fairly minor; this is most clearly seen by examining the METRs for investment in inventories, which increase by only 2 to 4 percentage points, due solely to the imposition of this tax.

57. Columns 2 and 3 illustrate the effects of the transaction tax and customs duties on the METRs for the other two cases of equity finance--retained earnings attributable to individuals and new share issues attributable to either individuals or foreigners. These results follow exactly the same pattern as those just described, although the magnitudes of the METR increases are somewhat smaller.

58. In marked contrast, the results presented in Column 4 indicate that the effects of transaction taxes and customs duties are even more dramatic in the case of debt finance, as the METRs on tools, OE&F, IE&M and vehicles increase by between 55 and 117 percentage points, and the maximum tax differential across assets widens to over 115 percentage points. These results are partly attributable to the fact that the transaction tax on interest income implies that the effective tax rate on such income increases from 20 to 27 percent. This factor also implies that the negative effect of the transaction tax on METRs increases somewhat with inflation; this occurs because the company tax rate at which nominal interest income is taxed falls from 25 to 18 percent. Note that one positive effect of the imposition of transaction taxes and customs duties on capital goods imports is that the tax bias toward debt- rather than equity-financed investment in such assets is reduced.

59. These rather dramatic effects of customs duties on the METR calculations illustrate the importance of taking a comprehensive view of tax reform; changes in the basic income tax structure must also be accompanied by customs duties reform. Moreover, the extremely high METRS reported above indicate that the combined effects of income taxes, property taxes, transaction taxes, and customs duties in Burundi are likely to result in serious disincentives for investment.

The Effects of Tax Evasion at the Company Level

60. An obvious problem with the METR calculations presented thus far is that they generally assume complete compliance with the tax code on the part of taxpayers. As noted above, a probable problem in Burundi, as in all other developing and, indeed, developed countries, is tax evasion. The

calculations presented in this subsection consider the effects on METRs of one common form of tax evasion--underreporting of receipts with full reporting of all deductions. This is done by examining METRs on capital income when firms fail to report a fraction of their receipts in each year after the investment is made; this fraction is arbitrarily chosen to be 25 percent. The cases considered are equity finance in the form of retained earnings attributable to individuals and debt finance. To focus on the effects of the income tax evasion, transaction taxes and customs duties are ignored in this analysis. Results are presented in Table A3.5.

Table A3.5: MARGINAL EFFECTIVE TAX RATES WITH EVASION - 25% OF RECEIPTS UNREPORTED
(No transaction taxes or customs duties)

	Inflation = 0%		Inflation = 5%		Inflation = 10%	
Method of Finance:	RE	Debt	RE	Debt	RE	Debt
Source of Funds:	I	I, F	I	I, F	I	I, F
	(Col 1)	(Col 2)	(Col 3)	(Col 4)	(Col 5)	(Col 6)
Asset:						
Inventories	46	4	50	-19	53	-42
Land	47	5	52	-18	54	-41
Tools	-8	-82	7	-86	20	-92
OE&F	30	-22	50	-20	66	-22
Structures	37	-11	48	-23	54	-40
IE&M	27	-27	43	-31	55	-39
Vehicles	5	-62	21	-65	34	-70

RE = retained earnings; I = individuals; F = foreigners;
OE&F = office equipment and furniture; IE&M = industrial equipment and machinery.

61. Not surprisingly, these results indicate that the levels of METRs fall when receipts go unreported; the declines are frequently quite dramatic, given that "only" 25 percent of receipts are unreported. For the equity finance case considered, the declines range from 13 to 35 percentage points; for debt finance, the declines are even more dramatic, at 17 to 83 percentage points (compared with Table A3.3). The most pronounced declines occur for assets that depreciate rapidly, since a relatively large amount of the unreported receipts occurs soon after the investment is made and the gains from underreporting are not discounted as heavily as the gains from unreported receipts that occur later. For example, in the absence of inflation, the METR on debt-financed investment in tools falls by roughly 82 percentage points. By comparison, the METR on structures falls by only 22 percentage points in this case. As a result, tax differentials across assets are greater in the presence of tax evasion in the form of underreporting of receipts. For example, in the case of debt-financed investment in the absence of inflation, the maximum tax differential increases to 87 percentage points (from roughly 30 percentage points). Finally, note that the advantages of underreporting receipts (the magnitudes of the declines in the METR) are nearly invariant with inflation.

The Effects of Investment Incentives

62. The next set of results considers the effects of the investment incentives used in Burundi. As described in detail before, new firms may be subject to a "tax holiday," which provides for exemption from income taxes for 3 to 5 years, and may also be exempt from customs duties (but not transaction taxes) and property taxes; however, a firm under a tax holiday also loses the deductions it would normally receive for depreciation and interest expense over this period. Existing firms do not receive the income tax exemption, but may be exempt from customs duties and property taxes. Firms that produce goods for export face a reduced company tax rate of 22.5 percent and are also exempt from both transaction taxes and customs duties.

63. The effects of various combinations of such investment incentives on METRs are illustrated in Table A3.6. The results incorporate only the 5 percent tax scenario, which is close to the actual Burundi case. Consider first the effects of exemption from customs duties on investment in tools, OE&F, IE&M, and vehicles (as well as exemption from property taxes on land, structures, and vehicles). These are presented in Column 1 for the case of investments financed with retained earnings attributable to individuals and in Column 2 for the case of debt finance.

Table A3.6: MARGINAL EFFECTIVE TAX RATES
(inflation = 5%)

	No Customs Duties or Property Taxes a/		Firm with 5-Year Tax Holiday b/		Corporate Tax Rate = 22.5% b/	
Method of Finance:	RE	Debt	RE	NSI	RE	Debt
Source of Funds:	I	I, F	F	I, F	F	I, F
	(Col 1)	(Col 2)	(Col 3)	(Col 4)	(Col 5)	(Col 6)
Asset:						
Inventories	65	11	32	46	23	18
Land	65	11	32	46	24	20
Tools	97	59	26	41	20	16
OE&F	107	74	3	22	36	32
Structures	65	11	28	42	24	19
IE&M	90	48	17	33	26	22
Vehicles	97	58	30	44	26	22

RE = retained earnings; NSI = new share issues; I = individuals; F = foreigners;
OE&F = office equipment and furniture; IE&M = industrial equipment and machinery.

a/ Includes transaction taxes.
b/ No transaction taxes or customs duties.

64. These results are most easily interpreted by a comparison with Tables A3.3 and A3.4 (Columns 2 and 4). Note that, relative to the case in which both transaction taxes and customs duties are applied to capital goods imports (Table A3.4), exemption from customs duties implies a reduction of slightly less than one half in the combined tax rate applied to the purchase price of the affected capital assets. The METRs reported indicate that this in turn results in a reduction of somewhat under one half of the increase in METRs attributable to the combined effects of both transaction taxes and customs duties. That is, the effects on METRs of such "sales tax" provisions are roughly linear in the rate applied to the purchase price. Thus, the same effects on the METR levels and differentials are observed in Tables A3.4 and A3.5; however, the magnitudes of the effects are lower by slightly less than one half in the former case. Since the magnitudes of the increases in METRs attributable to the imposition of transaction taxes and customs duties are very large (as discussed above), exemption from customs duties represents a significant tax benefit. In addition, exemption from property taxes results in small reductions in the METRs on land, structures, and vehicles.

65. The next set of calculations assesses the impact of a five-year tax holiday from the company-level income tax. To focus on income tax effects, transaction taxes and customs duties are ignored in these results, which are shown in Columns 3 and 4. In addition, to simplify the analysis, property taxes that would normally be paid after the expiration of the tax holiday are ignored; since such property taxes are small and would be postponed for five years, this omission has a negligible effect on the calculations. The calculations consider first the case of entity-level taxation of equity-financed investment (investment financed with retained earnings attributable to foreigners) and then the case of investment financed with new share issues. Only cases of equity finance are examined because the King-Fullerton methodology employed in this report is ill-suited to considered debt finance; it assumes a

constant discount rate, while in the case of tax holidays the appropriate discount rate for evaluating the cash flows generated by a debt-financed investment project changes discontinuously from the before-tax to the after-tax rate of return when the tax holiday expires. However, note that the METRs for the equity finance cases provide approximations to the METRs for the analogous debt finance cases, since they illustrate the effects of losing deductions for interest payments during the tax holiday; the approximation is particularly good for those assets that depreciate rapidly.[3]

66. Consider first the results in the case of investments financed with retained earnings attributable to foreigners, shown in Column 3. This case isolates the effects of the tax holiday on the tax burden imposed by the company-level tax. The first thing to note is that the METRs under the tax holiday are generally higher than those with debt finance (Table A3.3), unless transaction taxes are included (Column 2); the major exception is investment in OE&F, which faces the highest METR under the regular tax system and thus benefits the most from the five-year tax holiday. Thus, exemption from transaction taxes provides a very significant tax benefit for investment in the affected assets; however, apart from this effect, the combination of depreciation deductions and full nominal interest deductibility is either more advantageous than or roughly as advantageous as income tax exemption for a five-year period for all assets other than OE&F.

67. The results demonstrate that income tax holidays unambiguously reduce the METRs on equity-financed investments. The reductions are particularly large for OE&F, ranging from 59 to 74 percentage points, depending on the rate of inflation. This result occurs because (a) OE&F face a METR greater than the statutory rate in the absence of the tax holiday, so the loss of depreciation deductions in the first five years of the investment has a relatively minor effect; and (b) in contrast to vehicles and tools, OE&F still receive five years' worth of depreciation deductions after the expiration of the tax holiday. The METRs on investment in the other assets are reduced by 0 to 40 points, with most of the reductions toward the lower end of that range.

68. Note also that the very large reduction in the METR on investment in OE&F reverses a tax bias across assets. Specifically, the introduction of the tax holiday means that this is the exact opposite of the result for the regular income tax. Otherwise, introduction of the tax holiday tends to reduce tax differentials across the other six assets by lowering all METRs; however, this effect does not always occur and is not very large.

69. Finally, the introduction of tax holidays results in METRs that fluctuate less with inflation--the absence of inflation indexing of depreciation is less important because such deductions are not taken during the tax holiday. Indeed, since the straight-line lives of tools and vehicles are shorter than the five-year period of the tax holiday, the METRs on investments in these assets are invariant with inflation.

70. Consider next the METRs for investment incentives in the form of a reduction in the company income tax rate from 45 to 22.5 percent; these results, which are shown in Columns 5 and 6, also ignore transaction taxes, customs duties, and capital gains taxation at the individual level in order to focus on the effects of a reduction in the rate of income taxation at the company level. The interpretation of the METR results for investments financed with equity in the form of retained earnings attributable to foreigners is straightforward; METRs are roughly 50 percent lower, in comparison with

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3/ In these cases, the effects of revenues and costs that accrue after the tax holiday expires are relatively small in present value terms and the use of a before-tax rather than an after-tax interest rate for discounting purposes is relatively unimportant.

the analogous results for the 45 percent rate shown in Table A3.3, as a result of the 50 percent reduction in the company tax rate.

71. However, the results for the case of debt-financed investments by firms subject to the 22.5 percent rate shown in Column 6 are less obvious. Consider first the results in the absence of inflation. Recall that for investments in nondepreciable assets, the METRs on debt-financed investments reflect only the effects of interest withholding at a 20 percent rate and any property taxation. As a result, the METR on investments in inventories is unchanged under the tax holiday and the METR on investments in land is slightly higher, reflecting the fact that property taxes are deductible at a lower company tax rate. Next, recall that under the regular income tax, all depreciable assets other than OE&F face METRs lower than the benchmark rate on debt-financed investments of 20 percent; this occurs because the present value of deductions for depreciation allowed for tax purposes exceeds economic depreciation. Accordingly, it is to the firm's benefit to take these deductions at a relatively high company tax rate. The somewhat surprising result is that the METRs on debt-financed investments in tools, structures, IE&M, and vehicles are actually higher for the firms subject to the 22.5 percent rate than for firms subject to the regular 45 percent rate. (The METR on investment in OE&F is slightly lower for such firms.)

72. Moreover, the tax bias against debt-financed investments by firms facing the relatively low 22.5 percent rate increases with inflation. This occurs because the tax advantage of deducting the inflationary component of interest expense virtually disappears; interest expense is deducted at a 22.5 percent rate (rather than at a 45 percent rate), while interest income is still taxed at a 20 percent rate. This is seen most clearly by examining the METRs for investments in inventories and land, which fall only slightly as the inflation rate increases; these modest declines are in marked contrast to the sharp declines in METRs that occur under the regular income tax. Furthermore, as inflation increases, the METRs on investments in depreciable assets all increase (modestly), since the loss in the real value of depreciation allowances outweighs the small benefit of deducting the inflationary component of nominal interest expense. This again is in marked contrast to the situation for firms facing a 45 percent tax rate, in which case the METRs fall or stay roughly constant as inflation increases.

73. The general implications of these results are clear. Exemption from customs duties and transaction taxes is extremely advantageous. However, five-year tax holidays and reductions in company-level tax rates are generally advantageous only for equity-financed investments.

Some Special Cases

74. The final set of results examines some special cases (Table A3.7). Column 1 considers the case of investments financed with new shares issued to a partner of a partnership. As noted before, dividends to partners are not subject to withholding at a rate of 20 percent but instead are taxed as ordinary income; as noted in the discussion of the taxation of capital gains, the average tax rate applied to such income is 28.6 percent. This increase in the tax rate applied to dividends increases slightly the METRs on investments financed with new share issues; the increases range from 2 to 6 percent and vary little with inflation.

75. Loans made to a partnership by its partners are treated rather harshly under the income tax system in Burundi, as interest deductions are denied for the interest expense associated with such loans. Thus, interest income is effectively taxed at the corporate rate of 45 percent rather than the withholding rate of 20 percent. This provision increases the METRs on debt-financed investments considerably, as can be seen by comparing the results in Column 2 with those in the general case examined in Table A3.3. The effects are clearest for the case of investments in inventories; exactly

analogous effects operate for investments in the other assets, but they are less obvious due to the added effects of the property tax and unindexed depreciation allowances.

Table A3.7: MARGINAL EFFECTIVE TAX RATES
(no transaction taxes or customs duties)

Subject to	Partnership Dividends		With 1.2% Capital Increase Tax	Firm Minimum Tax
Method of Finance:	NSI	Debt	RE	RE
Source of Funds:	I	I	F	F
	(Col 1)	(Col 2)	(Col 3)	(Col 4)
Inflation = 0%				
Asset:				
Inventories	61	45	46	1
Land	62	46	47	1
Tools	51	31	36	4
OE&F	64	50	53	3
Structures	56	39	40	1
IE&M	57	40	43	2
Vehicles	55	37	41	4
Inflation = 5%				
Asset:				
Inventories	61	45	46	1
Land	62	46	47	1
Tools	60	44	50	4
OE&F	78	69	72	3
Structures	62	46	47	1
IE&M	67	54	57	2
Vehicles	65	51	55	4
Inflation =				
Asset:				
Inventories	61	45	4[illegible]	1
Land	62	46	47	1
Tools	69	56	61	4
OE&F	89	85	88	3
Structures	64	50	51	1
IE&M	75	65	67	2
Vehicles	74	63	68	4

RE = retained earnings; NSI = new share issues; I = individuals; F = foreigners;
OE&F = office equipment and furniture; IE&M = industrial equipment and machinery.

76. In the absence of inflation, the METR on debt-financed investments on inventories financed by loans from partners increases from 20 percent to 45 percent to reflect the increase in the tax rate applied to interest income. Moreover, the METRs are invariant with inflation, since the advantage of deducting the inflationary component of interest expense is eliminated. As a result, the tax bias against this form of debt finance (relative to, say, debt finance provided by a partner but routed through a bank to avoid additional tax liability) increases dramatically with the inflation rate.

77. Another provision of the tax system in Burundi that has been ignored thus far is the 1.2 percent tax assessed by the Ministry of Justice on increases in capital. Column 3 illustrates that the effects of this one-time tax are fairly minor, as the METRS increase by between 0.5 and 6 percentage points, with

most of the increases toward the low end of this range. The effects of this tax on METRs are roughly invariant with inflation.

78. The final set of results considers the METRs applicable to firms subject to the minimum tax. These results are very relevant to discussions of tax reform in Burundi, since a large amount of economic activity is conducted by firms subject to the minimum tax. For example, in the private sector in 1989, 39.4 percent of total receipts were received by firms subject to the minimum tax; in the public sector, virtually all firms that pay tax are subject to the minimum tax (88.2 percent).[4]

79. The tax assessed under the minimum tax regime is equal to one percent of gross receipts; relative to the income tax, the tax rate faced by the company is lowered tremendously, but the firm effectively loses all deductions for depreciation and interest expense. In order to isolate the effects of the minimum tax relative to the regular company-level tax, the case considered is investment financed with retained earnings attributable to foreigners; that is, the focus is on the effects of the minimum tax at the entity level.[5]

80. The results in Column 4 indicate that the impact of this minimum tax is in fact fairly minimal--METRs range from 1 to 4.2 percent and are invariant with inflation (since there are no deductions for depreciation, interest expense, and so on). The METRs under the minimum tax are largest for investments in assets that depreciate rapidly; the loss of depreciation deductions is relatively more costly in present value terms for such assets. However, note that the METRs on such firms may still exceed those on debt-financed investments by firms subject to the regular income tax, especially at relatively high rates of inflation.

81. Note also that these results assume that the minimum tax burden on capital income arises only from the tax on the gross sales attributable to capital. If, instead all of the minimum tax were borne by capital income, the METRs in Column 4 would be multiplied by a factor equal to the inverse of the capital share in gross production costs; for example, if the capital share is 25 percent, the METRs should be multiplied by a factor of four.

Conclusion

82. The main results of the analysis of the marginal effect of the existing system of taxation in Burundi on investment incentives can be summarized as follows. First, the deductibility of interest payments, coupled with the nondeductibility of dividends paid, implies that debt finance is favored over equity finance by the system of company-level taxation. This feature of the tax system is not reversed by the taxation of interest income, dividends, and capital gains at the individual level.

83. Second, the tax advantage of debt finance is increased in an inflationary environment, since all nominal interest expense is deductible at the company rate of 45 percent, while withholding on interest payments implies that interest income is effectively taxed at an individual rate of 20 percent; negative METRs (subsidies to investment) are common in this case, especially at moderately high rates of inflation (in the neighborhood of 5 to 10 percent).

4/ Source: Data provided by the Tax Department, Ministry of Finance.

5/ Property taxes on investments in land, structures, and vehicles are also ignored in these calculations.

84. Third, deductions for depreciation based on historical cost lose real value with inflation. As a result, METRs on depreciable assets tend to increase with inflation. This effect is especially important for equity-financed investment, which does not benefit from the deduction of nominal interest payments.

85. Fourth, the tax system is not neutral across assets in the absence of inflation; however, the magnitudes of the effective rate differentials are not huge, with a maximum differential of roughly 20 percentage points. These differentials change in a complicated way as inflation increases, with different assets favored by the tax system at different rates of inflation; the maximum METR differential at a 10 percent rate of inflation is roughly twice that in the absence of inflation.

86. Fifth, the taxation of realized capital gains at ordinary income tax rates raises the METRs on investments financed with retained earnings. This is especially true as the rate of inflation increases.

87. Sixth, underreporting receipts dramatically lowers METRs, especially for rapidly depreciating assets. This also tends to increase the magnitudes of rate differentials across assets.

88. Seventh, customs duties and transaction taxes dramatically increase the METRs on capital income; METRs in excess of 100 percent on the affected assets are common in this case. This result occurs for both debt- and equity-financed investments, and is largely independent of the rate of inflation.

89. Eighth, the tax incentives offered in Burundi significantly lower the METRs on investments in assets that are exempted from transaction taxes or customs duties; tax holidays and company tax rate reductions also lower the METRs on equity-financed investments. However, METRs are not generally lowered for debt-financed investments; in particular, the rate reduction offered to firms that produce exports generally increases their METRs on such investment, especially at moderately high rates of inflation.

90. Finally, firms subject to the minimum tax regime face relatively low METRs at the entity level. However, the METRs on such firms may still exceed those on debt-financed investments by firms subject to the regular income tax, especially at moderately high rates of inflation.

STATISTICAL ANNEX

Table S1: EVOLUTION OF EXCHANGE RATE

Period	SDR/Fbu (1985=100)	NEER1/ (1980=100)	REER2/ (1980=100)
end 1985	100	126	127
end 1986	82	102	105
end 1987	76	94	100
end 1988	61	79	84
end 1989	58	76	87
mid 1990	53	68	78

Source: IMF, International Statistic
Note: Data for 1985-1989 is for fourth quarter average.
Data for 1990 is for second quarter average.

1/ Nominal Effective Exchange Rate.
2/ Real Effective Exchange Rate.

Table S2: INDICATORS OF IMPORT DIVERSIFICATION

	No. of Products	Imports (FBu Million)	No. of Products	Imports (FBu Million)
	1987		1988	
AVERAGE				
All Importers	16	77	18	77
Private	15	62	16	68
ACTIVE AGENTS				
All Importers	338		384	
Private	243		269	
	1989		1990	
AVERAGE				
All Importers	20	75	15	62
Private	17	67	14	51
ACTIVE AGENTS				
All Importers	400		364	
Private	286		263	

Source: Based on data provided by the BRB.
Note: Private includes PEs.

Table S3: IMPORT LICENSE VALIDATION

DATE	BANK1					BANK2		
	VALIDATED			REJECTED		VALIDATED		REJECTED
	TOTAL No.	BANK	BRB	No.	VALUE	BANK	BRB	VALUE
		(FBu Million)			(FBu Mil)		(FBu Million)	
May-88	532	522	749	97	440			
Jun-88	547	477	430	53	476			
Jul-88	377	385	772	45	116			
Aug-88	401	359	778	140	699			
Sep-88	363	291	683	79	340			
Oct-88	376	256	644	95	286	10	1	0
Nov-88	398	319	497	118	243	5	1	14
Dec-88	415	349	1072	103	506	0	10	0
TOTAL	3409	2958	5625	730	3106	15	11	14
Jan-89	428	390	586	85	303	7		61
Feb-89	395	428	550	51	230	58	1	22
Mar-89	429	400	676	76	355	57	218	4
Apr-89	378	406	447	85	309	22	210	44
May-89	393	393	415	52	175	103	12	4
Jun-89	479	421	1148	44	173	86	267	37
Jul-89	340	347	611	41	256	98	510	115
Aug-89	445	415	1051	65	737	47	375	10
Sep-89	355	337	350	32	66	121	416	31
Oct-89	430	259	786	39	264	58	156	20
Nov-89	430	430	651	36	82	91	597	39
Dec-89	287	346	564	27	205	53	211	27
TOTAL	4789	4573	7834	633	3155	800	2972	413
Jan-90	300	317	558	33	117	28	41	43
Feb-90	367	362	349	42	172	74	499	30
Mar-90	478	500	1179	23	81	764	529	100
Apr-90	398	924	562	22	20	72	587	54
TOTAL	1543	2103	2668	120	390	938	1656	227

Source: Commercial banks.

Table S4: PRODUCTION OF MAIN INDUSTRIAL PRODUCTS - 1985-90
(natural units)

	1985	1986	1987	1988	1989
FOOD BEVERAGES & TOBACCO					
Beer	115,875	143,116	139,935	144,737	140,183
Soft Drinks	1,762	1,871	1,810	1,755	1,937
Cottonseed Oil	346	602	535	602	645
Wheat & Corn Flour	7,933	5,088	6,203	6,017	1,404
Milled Rice	4,020	1,561	2,134	4,721	n.a.
Milk	n.a.	1,504	2,006	1,779	1,749
Dairy Products	n.a.	27	11	19	30
Cigarettes	288,195	288,340	271,169	285,090	332,605
Sugar				4,658	8,518
Animal Feed			823	2,528	2,629
AGRICULTURAL INDUSTRIES					
Coffee	32,494	31,767	37,344	35,312	
Tea	4,145	3,632	4,382	3,721	
Cotton	2,583	3,116	3,100	2,958	
CHEMICAL INDUSTRIES					
Polyethylene Film	179	184	322	502	381
Insecticides	2,181	2,783	2,753	3,037	2,431
Matches	17,948	31,423	31,436	40,329	28,712
Household Soap	2,557	2,780	2,524	2,395	2,885
Toilet Soap	272	278	296	221	275
Paint	645	612	683	610	673
Pharmaceuticals	84	132	136	100	139
Oxygen	31,882	31,193	39,276	40,699	49,890
Acetylene	6,249	5,596	4,997	6,717	6,610
Foam Plastic	22,239	52,780	147,531	37,644	32,490
PVC Pipes	161	156	206	202	268
School Chalk	18	38	49	63	n.a.
Bottles	2,654	2,223	5,669	6,419	2,266
Plastic Crates	235,765	192,696	122,656	78,023	154,362
Batteries		684	8,203	8,200	n.a.
LEATHER & TEXTILE INDUSTRIES					
Textile Cloth	9,966	10,260	10,977	12,461	14,387
Blankets	364,195	402,404	341,622	305,365	280,124
Shoes	372,811	367,840	398,331	148,976	285,435
METAL WORKING INDUSTRIES					
Nails	289	318	122	109	n.a.
Corrugated Sheets	1,801	1,290	2,133	2,441	2,476
Steel Profiles	n.a.	355	357	146	184
Stainless Tanks	n.a.	142	261	149	210
Steel Tubes					563
MISCELLANEOUS PRODUCTS					
Crown Corks	181,845	268,559	237,063	246,049	236,929
Printed Matter	1,001	1,102	1,201	730	n.a.
Toilet Paper	1,503	740	591	56	n.a.
Fibro-Cement Prod.	3,137	3,960	3,766	2,873	2,802
Peat	10,313	13,591	17,530	12,089	n.a.

Source: BRB.

Table S5: COMPARISON OF LABOR PRODUCTIVITY IN INDUSTRY - 1989

	Sales per Employee (FBu/yr)	Added Value per Employee (FBu/yr)
Private	1,427,323	372,985
Public	5,356,562	1,090,716

Source: Mission Estimate.

Table S6: NOMINAL TARIFF RATES AND EFFECTIVE TARIFF RATES ON IMPORT COMPETING ACTIVITIES

Activity/ Firm	Products	1985 NTR	1985 ETR	1989 ETR	Capacity 1981	Capacity 1985	Capacity 1989
Agricultural Exports and Primary Transformation							
OCIBU	Coffee	154	-2	121	47 b/	75	83 a/
OTB	Tea	154	7	154	42	77	110 a/
SRD	Rice	9	239	49	--	--	--
COGERCO	Cotton				34	38	43
Processed Food, etc.							
BRAGITA	Beer				--	9	51
BRARUDI	Beer		254	186	69	80	84
	Soft Drinks				38	42	51
PTC	Cigarettes	154	2017	190	43	49	55
LAITERIE CENTRALE	Milk	32	86	90	53	32	55
RAFINA	Cotton Seed Oil	77	448	218	46	46	83
Leather and Footwear							
S.N.P.	Hides and Skin	29	-4	24			
BATA	Shoes-Leather	36	60		80	65	57
	Shoes-Plastic	36	83				
	Shoes-Rubber	36	102				
Textiles							
QUAHI FRERES	Thread	34	56	247 a/	--	118	101
COTEBU	Cloth	44	124	87	23	111	160
SONACO	Jute Bags	14	12				
LOVINCO	Blankets			81	76	73	56
Wood and Paper Products							
METALBO	Wood Furniture	69	78	96	106 a/		
INABU	Printing	46	103				
FABRICAH	Notebooks	52	112	19			
HAYDRY	Matches	54	283	24 a/	15	30	46
CARTOBU	Cardboard Boxes			295			
Metal Products							
CAPCO	Bottle Caps	14	23	70	--	36	47
TOLIBU	Corrugated Steel	44	248	24			
BURUNDI WIRE	Barb-Wire	24	∞		20 b/	28	24
	Nails	39	213	114			
UTEHA	Profiles	14	16	24	--	64	31
	Containers	29	40	188	--	48	30
	Windows	54	205				
METALBO	Metal Furniture	69	111				
Chemicals							
CHANIC	Acetylene	19	119	19	55	39	34
	Oxygen	19	26	24	38	24	98
FADI	Insecticide (Leb)	9	9	32	62	73	108
	Insecticide (Fol)	9	17	24			
BBI	Batteries			24	--	51 c/	88
BURUNDI PLASTIC	Plastic Crates	19	∞	23			
	Bags				--	44	29
FABRIPLASTIC	Bags	19	32	24	68	59	29
TUBUPLAST	Polyethylene Tubes	34	96				
	PVC Tubes	34	100				
UTEHA	PVC Tubes	34	90	24	37	161	267
ROBBIALAC	Paints	64	150	58	65	62	39
COGETRAF	Foam Mattress	69	182	384	27 b/	25	30
Pharmaceuticals							
ONAPHA	Medicine (Aspirin etc.)	11	8	15			
SAVONOR	Soap (toilet)	57	∞	69	79	94	111
	Soap (Cleaning)	57	∞	136			
INDURUNDI	Soap	57	∞	164	--	17	36
Construction Goods							
SCI	Tiles	44	63	42			
ETERNIT	Flat Roof Covering	34	66	78	60	47	42
	Other Roof Covering	34	72	95			
Other							
VERRUNDI	Bottles	9	6	51	--	27	23
FABRICHIM	Chalk	19	44	9			

Source: Maxwell Stamps (1988,b) and Ministry of Plan (1990) for ETRs, and Ministry of Industry (1990) for capacity.

a/ rate is for 1988. NTR = Nominal Tariff Rate

b/ rate is for 1982. ETR = Effective Tariff Rate

c/ rate is for 1988. ∞ = Infinity

Table S7: EVOLUTION OF EMPLOYMENT AND OUTPUT IN SELECTED ENTERPRISES

ENTERPRISE	1984	1985	1986	1987	1988	1989
	NUMBER OF TEMPORARY/TOTAL UNSKILLED WORKERS (%)					
ETERNIT	0	78	73	94	90	21
UTEMA TRAVYDRO	0	63	8	10	63	14
AGGLOBU	0	0	86	74	74	98
EGB	46	0	77	95	86	0
CORETECO	0	0	0	92	92	0
MAURICE DELENS	0	0	0	75	49	73
BURSTA	0	0	0	0	55	54
IMPARUDI	0	0	11	0	28	53
ALTEBU	0	0	0	0	83	65
TOYOTA BURUNDI	18	3	12	0	3	
OLD EAST	22	17	0	74	57	
BURUNDI WIRES IND.	80	57	0	67	45	44
FABRIPLASTICS	0	0	56	79	56	0
SAVONOR	0	0	28	40	53	66
DECOBU	0	0	0	0	63	36
RAFINA	0	0	0	0	65	54
FABRICHIM	0	60	60	60	0	6
BATA	66	64	0	0	94	
AVERAGE	13	19	23	42	59	39
OBSERVATIONS	18	18	18	18	18	15
	EMPLOYMENT GROWTH (%)					
ETERNIT			5	269	-42	-85
UTEMA TRAVYDRO		169	-50	8	86	-49
TOLIBU			-18	21	-12	
AGGLOBU			251	-1	75	149
EGB		-75	585	167	-36	-87
MAURICE DELENS					-36	150
BURSTA					102	-4
METALBO		103			20	-71
GRAVIMPORT-GRAPHIM					-71	15
IMPARUDI				3	13	56
SASCO				-10	211	-71
FER-AL		6	-15	-17	-30	38
TOYOTA BURUNDI		4	-11	6	-3	6
OLD EAST		4	3	80	-32	-25
BURUNDI WIRES IND.		20			50	-27
BANDAG		14	92	-50	109	-52
FABRIPLASTICS			100	36	-47	-92
SAVONOR		20	56	5	19	44
ROBBIALAC PAINTS		38	-53	54	0	-3
RUDIPAINTS		-39	-6	-4	10	-7
COPAR				17	14	0
EXIM					8	14
PLASTICA					36	-53
FABRICHIM			0	0	-92	-18
BOUCHERIE/CHARCUTERIE			0	-8	15	-8
SIRUCO		-19	0	-6	-5	4
LOVINCO			-1	9	-8	17
AVERAGE		20	55	29	13	-6
OBSERVATIONS		13	17	20	27	26
	1987	1988	1989	1987	1988	1989
	LABOR COSTS/OUTPUT (%)			VALUE ADDED/OUTPUT (%)		
ETERNIT	21	29	26		40	46
UTEMA TRAVYDRO	8	8	8	15	14	52
TOLIBU	1	2		7	7	
AGGLOBU	23	30	36	37	36	40
EGB	23	23	18	31	29	26
MAURICE DELENS	25	32	20		28	33
BURSTA	20	79	19	29	75	30
METALBO	17	36	9			
CARTOBU		9	8		28	30
GRAVIMPORT-GRAPHIM	6	6	7	8	13	11
IMPARUDI	16	11	9		28	22
PRESSES LAVIGERIES	38		39		74	54
SASCO	22		32	47		36
FER-AL	30	21	23		66	7
TOYOTA BURUNDI	4	5	4	27	23	27
OLD EAST	12	9	8	27	20	24
BURUNDI WIRES IND.	3	7	4	20	12	27
BANDAG	15	29	9	20	43	18
FABRIPLASTICS	26	16	12		28	51
SAVONOR	7	8	7	26	20	19
ROBBIALAC PAINTS	16	15	16	27	31	23
RUDIPAINTS	11	12	13	48	44	42
COPAR	6	9	1		28	4
EXIM	2	14	7		37	2
RAFINA		18	16		55	39
FABRICHIM	18	19	8		47	47
PATISSERIE DIKO		14	13		23	21
SIRUCO	8	7	6		14	14
LOVINCO	31	30	27		43	42
AVERAGE	16	18	14	26	34	29
OBSERVATIONS	26	27	28	14	27	27

Source: SNES.

Table S8: INVESTMENT FINANCING 1986-90 (REDISCOUNTED THROUGH BRB)

SECTOR/ACTIVITY	1986			SECTOR/ACTIVITY	1987		
	Fbu mill.		%		Fbu mill.		%
	INV.	FIN.	EQU.		INV.	FIN.	EQU.
INDUSTRY				INDUSTRY			
1. Batteries (new)	186	60	68	1. Melamine Prods (new)	36	3	92
2. Garment (new)	12	10	19	2. Nails and barb wire (new)	13	10	23
3. Cigarettes (old)	360	80	78	3. Brarudi beverage (old)	402	300	25
4. Notebooks (new)	28	8	72	4. Beverage (new)	46	15	67
5. Bricks (new)	9	7	22	5. Metal tubes (new)	160	74	54
6. Maracuja juice (new)	7	5	26	6. Poly bags (new)	96	31	68
7. Oxygen (old)	12	9	22	7. Plastic shoes (new)	19	12	37
TOTAL	614	179	71	8. Printing (old)	61	36	41
				TOTAL	833	481	42
AGRICULTURE				AGRICULTURE			
1. Cattle (new)	7	5	34	1. Cattle (new)	1	0	33
TOTAL	7	5	34	TOTAL	1	0	33
TRANSPORT				TRANSPORT			
1. Trucks (new)	125	81	35	1. Trucks (new)	82	45	46
TOTAL	125	81	35	2. Boats (new)	88	12	86
				TOTAL	170	57	67
SERVICES				SERVICES			
1. Service station (new)	38	28	26	1. Service stations (old)	61	36	41
2. Snack bar (new)	66	12	82	2. Garage (old)	25	12	53
3. Commercial bldgs(new)	25	15	42	3. Commercial bldgs (new)	75	57	24
4. Garage (new)	51	12	76	TOTAL	162	105	35
5. Hotel (new)	15	10	33				
TOTAL	195	77	61				
GRAND TOTAL	941	342	64	GRAND TOTAL	1165	642	45

1/ Project was not completed due to promoter's death.
New - Indicates new project.
Old - Indicates an investment in existing enterprise.

Table S8 (continued)

SECTOR/ACTIVITY	1988			SECTOR/ACTIVITY	1989			SECTOR/ACTIVITY	Jan-Jul 1990		
	Fbu mill.		%		Fbu mill.		%		Fbu mill.		%
	INV.	FIN.	EQU.		INV.	FIN.	EQU.		INV.	FIN.	EQU.
INDUSTRY				INDUSTRY				INDUSTRY			
1. Milk (new)	87	49	43	1. Plastic Shoe (old)	18	15	17	1. Shoes (new)	60	34	43
2. Sweets (new)	40	26	40	2. Tooth paste, etc. (new)	88	24	73	2. Printing (old)	53	29	45
3. Trad.Beverages (new)	17	10	43	3. Paints (old)	68	14	79	3. Food (new)	5	4	19
4. Melamine prods (new)	43	8	81	4. Corrugated iron (new)	39	26	34	TOTAL	118	67	43
5. Paints (new)	20	14	31	5. Printing (old)	51	16	69				
6. Brarudi (old)	741	500	33	6. Soap (old)	15	11	27				
7. Printing (new)	80	33	59	7. Garment (old)	43	30	30				
TOTAL	1029	638	38	TOTAL	322	135	58				
AGRICULTURE				AGRICULTURE				AGRICULTURE			
1. Cattle (new)	33	16	53	1. Cattle (new)	7	5	34	1. Cattle (new)	23	21	7
2. Quinquina (old)	67	14	79	2. Green beans (new)	107	17	84	TOTAL	23	21	7
TOTAL	100	29	71	TOTAL	114	22	81				
TRANSPORT				TRANSPORT				TRANSPORT			
1. Trucks (new)	56	42	22	1. Trucks (new)	282	203	28	1. Trucks, buses	217	146	33
TOTAL	56	42	22	TOTAL	282	203	28	(old)	217	146	33
								TOTAL			
SERVICES				SERVICES				SERVICES			
1. Service station (old)				1. Garage (new)	137	64	53	1. Hotel (new)	30	8	73
2. Commercial bldgs (new)	369	124	66	2. Commercial bldgs (new)	133	98	27	2. Service station	15	12	25
3. Hotel (new)				TOTAL	270	162	40	(new)	45	20	57
TOTAL	62	30	52					TOTAL			
	7	5	23								
	438	159	64								
GRAND TOTAL	1620	868	46	GRAND TOTAL	988	521	47	GRAND TOTAL	403	254	37

1/ Project was not completed due to promoter's death.

New - Indicates new project.

Old - Indicates an investment in existing enterprise.

Table S9: GROSS FIXED CAPITAL FORMATION - 1986-89
(Selected Enterprises, FBu Million)

	1986	1987	1988	1989
AGGLOBU	2	2	3	8
ALLUMETTERIE	3	32	74	53
ALTEBU	-	-	0	5
BANDAG	0	0	4	5
BATA	-	-	0	-
BOUCHERIE CHARCUTERIE	0	3	10	1
BOUCHERIE GOURMET	-	0	1	-
BRAGITA	11	56	95	147
BRARUDI	198	346	453	972
BURSTA	-	13	27	43
BURUNDI BATTERY INDUSTRY	-	116	-	-
BURUNDI PLASTICS INDUSTRIES	128	1	4	0
BURUNDI WIRES INDUSTRIES	-	26	-	-
CAPCO	5	2	-	0
CARTOBU	0	7	1	2
COGETRAFF	23	39	-	-
COMPAGNIE RUZIZI	19	-	8	2
COPAR	0	0	-	-
CORETECO	-	0	5	-
DECOBU	-	-	30	11
EGB	36	17	7	44
ETERNIT	17	27	58	5
EXIM	-	1	6	-
FABRICAH	-	-	58	-
FABRICCHIM	3	4	4	1
FABRIPLASTICS	3	15	0	4
FER-AL	1	1	0	4
FRUITO	-	-	-	0
GRAVIMPORT	-	26	12	22
HOESCHST	-	-	-	12
IMPARUDI	20	31	2	0
IMPRIMEX	-	-	1	-
INDURUNDI	5	4	0	-
LAGOS	5	-	-	-
LOVINCO	0	-	27	74
MAURICE DELENS	41	30	53	149
MECARUDI	1	-	-	-
METALBO	-	-	22	3
METALUSA	9	5	5	2
MOBILIA	-	-	3	-
MOBIRUNDI	-	-	-	0
OLD EAST	9	3	27	512
PATISSERIE DIMO	-	-	-	0
PHORIS KAMBERIS	6	-	-	-
PLASTICA	-	29	15	4
PRESSES LAVIGERIES	-	2	3	8
PRODULAIT	-	-	-	-
RAFINA	10	23	15	8
ROBBIALAC	0	2	7	24
RUDIPAINTS	4	7	4	3
SASCO	1	3	-	-
SAVONOR	13	2	33	25
SIRUCO	5	3	3	7
SOBOX	-	-	-	140
TOLIBU	29	1	1	-
TOYOTA BURUNDI	5	1029	-	1144
UCB	-	-	-	-
UTEMA TRAVYDRO	168	-	12	1
ZAFFARDEN	-	2	0	2
TOTAL PRIVATE	780	191	1096	3444
BTC	62	-	18	24
COGERCO	53	341	329	138
COTEBU	466	484	172	-
FADI	6	3	18	2
INABU	-	4	1	1
LCB	3	8	12	11
ONAPHA	34	4	18	4
OTB	260	116	408	-
SAB	-	46	11	-
SIP	166	157	132	47
SOSUMO	-	-	4508	83
VERRUNDI	24	37	11	17
TOTAL PUBLIC	1074	1199	5636	326

Source: Miniplan

Table S10: INVESTMENT INTENTIONS

ENTERPRISE	1990	1991
ADEL FLOWERS	10	
AGGLOBU	20	20
ALCOVIT (ANIMAL FEED)	22	5
ALLUMETTERIE (MATCH)	50	50
AVICOM	100	
BANDAG (RUBBER)	3	6
BATA (SHOES)		10
BRARUDI (BEER)	1000	1000
BRIQUETERIE (BUILDING PRODUCTS)		10
BTC (TOBACCO)	50	100
BUHIMPORT	40	
BURSTA	15	
BWJ AGRICULTURE		5
CHANIC (METAL)		110
CHAUSSUBU (SHOES)	25	
COGERCO (COTTON)	160	51
COGETRAFF (FOAM)	8	12
CONFIBU (FOOD)	8	
DECOBU (WALL PAPER)	25	20
ECOGI		10
ERCO SELECT	15	15
ETERNIT (CONSTRUCTION MATERIAL)		100
EXIM (FOAM)	25	
FABRICAM (PAPER PRODUCTS)		20
FABRICHIM (FOOD)		5
FANTASIA DETERGENT (DETERGENT)	2	2
FICHES OF BURUNDI	23	20
FIL A COUDRE	20	
HUILERIE DE RUMONGE (PALM OIL)	30	
HYDROBUR (GAS)	100	
INDORUNDI (SOAP)	20	
INTERCONTACT (SERVICE)	5	
INTERFINA	5	10
IPADECO	30	
IVECO (TRADE)	5	5
JBC	25	
LAITERIE CENTRALE (DAIRY)	20	
LOVINCO (BLANKET)		40
MOBIRUNDI (FURNITURE)	5	5
MUSALAC (BABY FOOD)	1	
NAB (GARMENT)	30	
OLD EAST (TRADE)	80	
ONAPHA (PHARMACEUTICAL)	26	
PLASTICA (PLASTIC PRODUCTS)		30
POISSONNERIE (FOOD)		30
PRODUILAIT ELEVAGE (DAIRY)		40
RAFINA (COTTON OIL)	15	
ROBBIALAC (PAINTS)	30	10
RPP	50	20
SHP (HYDES AND SKINS)	30	40
SOBOX (METAL PRODUCTS)		30
SOKINABU (CINCHONA)		15
SOSUMO (SUGAR)	120	180
TOLIBU (METAL)	40	
UCAR	15	
UHURU (SOAP)	26	
UTEHA (CONSTRUCTION)		122
TOTAL	2329	2148

Source: MINIPLAN
Note: Bank survey

Table S11: PROJECTS PRESENTED TO THE INVESTMENT COMMISSION IN 1990

Enterprise/ Promoter	Description of Investment	Investment Fbu Million
PUBLIC ENTERPRISES		
COTEBU	Extension of textile factory	3,145
PRIVATE ENTERPRISES		
NA	Sanitary products	35
UPC	Cotton & sanitary products	226
Safari Lodge	Hotel in Muyinga	32
Bakery	Located in Ngozi	23
Tangayika Shipping	1500 ton ship	456
NA	Detergent production	141
LOVINCO	Extension of blanket factory	49
NA	Frozen and smoked fish	39
Tolerie de Gitega	Corrugated metallic roof cover	50
UTEMA TRAVHYDRO	Metal wire etc	171
IPADECO	Toothpaste	13
Mr. Adams	Nails for metal roofing sheets	28
NA (INDORUNDI?)	Aluminium household articles	35
NA	Soft beverage	45
Mr. Israel	Cold storage for Exports	190
NA	Avocado oil	199
NA	Hotel In Izabe	84
Mr. Sherif	Cosmetics	66
FABRICA	Envelopes	38
COMEBU	Extension of tin mining	93
Total Excluding COTEBU		2,013

Source: MINIPLAN

Table S12: COMPOSITION OF EXPORTS 1980-1989
(millions of current FBu)

	1980	1985	1986	1987	1988	1989	1990
PRIMARY PRODUCTS	5,771	12,547	18,202	9,594	17,986	12,220	9,566.6
Coffee	5,234	11,172	17,057	7,891	16,010	9,502	1,333.7
Tea	136.4	711.7	514.6	556.8	734.7	992.3	
Plants				10.8	22.0	32.6	
Fruits and vegetables					9.8	20.2	
Live animals	0.0	0.0		0.9	4.9	12.6	
Processed Rice					53.5	183.8	
Sugar cane					16.6	35.7	
Meat	21.2	0.6		1.8	0.0	0.0	
Animal Feed					35.2	6.5	
Leaf Tobacco				13.0	203.4	195.2	
Cassiterite					21.5	39.0	
Live fish	0.0	0.0		37.2	36.7	52.0	
Raw Skin	53.5	116.4	150.6	181.8	295.5	509.6	580.5
Cotton	100.5	42.4	20.2	502.3	110.1	31.3	
Other	224.5	504.3	458.9	397.2	418.6	592.3	
MANUFACTURED PRODUCTS	204	1,425	1,842	2,368	1,629	1,118	
Cement Products	66.4	24.6	38.5	48.4	36.0	31.8	
Blankets	0.7				1.6	8.8	
Bottles	0.0	197.7	193.1	456.5	325.0	315.9	297.5
Beer	4.3	11.3	126.6	149.6	121.7	10.8	
Soft Drink	2.0	0.0	0.5	3.5	21.8	17.0	
Oxygen	7.7	0.5		0.0	0.0	0.2	
Metal work	1.4	9.2	21.9	13.9	24.7	8.9	
Cotton tissue	1.0	420.0	428.4	181.9	265.2	144.3	
Cotton products					33.3	21.9	
Palm oil	66.4	24.6	38.5	48.4	36.0	0.2	
Wood products	5.0	11.3	126.6	149.6	2.5	2.8	
Rubber products	0.0	197.7	193.1	456.5	9.0	315.9	
Paper box	2.0	0.0	0.5	3.5	21.8	10.2	
Batteries	7.7	0.5			80.7	54.0	
Sausage	1.4	9.2	21.9		24.7	0.3	
Plastic work	1.0	420.0	428.4	181.9	40.8	7.0	
Shirts					24.7	19.0	
Ceramic Tiles	18.6	44.8	112.1	337.1	225.6	0.2	
Notebooks					9.0	0.3	
Profiles					0.9	14.8	
Bees' wax					80.7	1.5	
Shoe parts					0.6	6.8	
Other	18.6	44.8	112.1	337.1	251.2	134.8	
OTHER PRODUCTS	11.3	16.1					
TOTAL	5,986	13,988	20,044	11,962	19,616	13,338	12,799.7

Source: BRB, based on customs declarations.

Table S13: STRUCTURE OF TARIFFS IN 1987

ISIC	SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
	WHOLE ECONOMY	2,314	0	110	37	30	25	100	46
	AGRICULTURE	83	0	110	61	42	58	2	39
	MINING	35	15	15	15	0	15	1	62
	MANUFACTURING	2,196	0	110	37	30	24	97	46
	Consumption Goods	833	0	110	57	33	31	38	52
	Intermediate Goods	760	0	100	25	20	20	33	40
	Capital Goods	602	0	100	23	16	20	27	41
31	FOOD, BEVERAGES & TOBACCO	220	15	110	81	31	29	11	56
311	FOOD MANUFACTURING	180	15	110	79	32	32	8	48
3111	Slaughtering	37	15	100	94	21	19	1	80
3112	Dairy Products	15	15	100	51	16	52	1	70
3113	Fruit & Veg Canning	17	100	110	101	2	100	0	94
3114	Fish Canning	11	100	100	100	0	100	0	76
3115	Veg & Animal Oils	17	15	100	33	27	25	0	96
3116	Grain Mill Products	18	25	100	53	18	44	2	27
3117	Bakery Products	5	15	100	73	35	63	0	99
3118	Sugar Refining	6	15	100	48	27	27	2	19
3119	Confectionery	13	100	100	100	0	100	0	99
3121	Food Products NEC	39	15	110	90	32	22	2	67
3122	Prepared Animal Feed	2	50	50	50	0	50	0	0
313	BEVERAGES	35	15	100	88	25	23	3	82
3131	Distilling Industries	8	15	100	89	28	77	0	36
3132	Wine Industries	15	50	100	97	13	100	0	79
3133	Malt & Malt Liquors	8	15	100	64	30	16	3	98
3134	Soft Drinks & Water	4	100	100	100	0	100	0	80
314	TOBACCO	5	100	100	100	0	100	0	82
32	TEXTILES & LEATHER	215	15	110	48	28	45	4	83
321	TEXTILES	153	15	100	43	25	43	3	87
3211	Spinning & Weaving	87	15	100	43	26	34	1	72
3212	Textile Goods	18	15	100	44	25	40	0	81
3213	Knitting Mills	17	15	50	48	8	50	0	82
3214	Carpets & Rugs	5	15	100	83	34	100	0	5
3215	Cord & Rope Industries	6	15	50	21	13	15	0	78
3219	Textiles NEC	20	15	50	38	17	48	1	96
322	WEARING APPAREL	33	15	110	67	29	58	0	61
323	LEATHER PRODUCTS	19	15	100	48	34	49	0	42
3231	Tanneries	8	15	50	24	15	37	0	93
3232	Fur Dressing & Dyeing	1	100	100	100	0	100	0	100
3233	Leather Products	10	15	100	63	33	50	0	39
324	FOOTWEAR	10	15	50	47	11	49	1	85
33	WOOD, CORK & PRODUCTS	50	15	100	58	36	69	1	7
331	WOOD, CORK & PRODUCTS	30	15	100	35	21	28	0	37
3311	Sawmills	15	15	50	27	17	25	0	41
3312	Wooden Containers	3	50	100	67	24	100	0	0
3319	Wood & Cork Prods NEC	12	15	50	38	17	18	0	91
332	WOODEN FURN & FIXTURES	20	15	100	92	26	89	1	2
34	PAPER & PRINTING	84	0	100	31	23	28	4	37
341	PAPER PRODUCTS	57	0	50	25	16	25	2	49
3411	Pulp, Paper, Paperboard	18	0	15	14	3	15	1	78
3412	Paper Containers	10	15	50	43	14	50	0	8
3419	Paper Products NEC	29	15	50	26	16	28	1	73
342	PRINTING & PUBLISHING	27	0	100	42	31	34	1	25
35	CHEMICALS, PETR, COAL	411	0	100	22	16	20	19	58
351	INDUSTRIAL CHEMICALS	268	10	100	17	9	15	9	69
3511	Industrial Chemicals	188	10	50	15	4	15	3	58
3512	Fertilizers	33	15	100	18	15	15	3	33
3513	Synthetic Products	47	15	50	22	14	15	3	81
352	OTHER CHEMICAL PRODS	82	0	100	33	22	24	5	75
3521	Paints & Varnishes	11	15	50	44	14	49	1	18

Table S13 (continued)

ISIC	SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
3522	Drugs & Medicines	11	15	15	15	0	15	3	92
3523	Cosmetics	13	15	100	55	21	55	0	94
3529	Chemicals NEC	47	0	100	29	21	24	1	84
353	PETROLEUM REFINERIES	8	15	15	15	0	15	1	69
354	PETROLEUM AND COAL PRODS	8	15	50	19	12	16	0	4
355	RUBBER PRODUCTS	31	15	50	26	14	27	2	62
3551	Tires & Tube Industries	14	15	50	27	11	27	2	67
3559	Rubber Products NEC	17	15	50	26	16	34	0	32
356	PLASTIC PRODUCTS NEC	14	15	100	50	24	35	1	28
36	NONMETALLIC MINERALS	99	15	100	38	27	23	4	28
361	CERAMIC PRODUCTS	24	20	100	53	38	56	1	13
362	GLASS & GLASS PRODUCTS	32	15	100	33	24	20	1	76
369	OTHER NONMET MIN PRODS	43	15	50	34	18	17	3	25
3691	Structural Clay Prods	9	15	50	38	17	44	0	72
3692	Cement, Lime, Plaster	8	15	15	15	0	15	3	16
3699	Nonmetallics NEC	26	15	50	38	17	27	0	37
37	BASIC METAL INDUSTRIES	103	15	100	24	20	20	7	66
371	IRON & STEEL B-MET IND	51	15	40	21	5	20	7	66
372	NON-FERROUS B-MET IND	52	15	100	26	28	15	0	81
38	METAL PRODS, MACHINERY	915	0	100	27	20	23	48	35
381	METAL PRODUCTS NEC	249	0	100	27	16	24	8	28
3811	Cutlery & Hand Tools	68	15	100	24	19	17	2	59
3812	Metal Furn & Fixtrs	2	50	50	50	0	50	0	48
3813	Structural Metal Prods	25	15	50	29	14	28	3	3
3819	Metal Products NEC	154	0	100	28	15	23	3	47
382	NONELECTRIC MACHINERY	307	0	100	25	18	20	12	32
3821	Engines & Turbines	26	20	50	25	11	21	0	43
3822	Agr Machinery	26	15	50	22	8	17	1	14
3823	Metal & Woodwkg Mach	54	15	20	20	1	18	2	10
3824	Industrial Machinery	71	20	50	21	5	21	4	18
3825	Office Machinery	19	20	20	20	0	20	1	33
3829	Machinery NEC	111	0	100	33	18	22	4	55
383	ELECTRICAL MACHINERY	147	0	100	33	25	23	10	23
3831	Elec Industrial Mach	47	20	20	20	0	20	2	37
3832	Radio,TV, & Comm Eqpmt	44	0	100	44	27	34	2	17
3833	Electrical Appliances	26	20	100	52	32	51	0	63
3839	Elec Machinery NEC	30	0	50	22	11	20	6	18
384	TRANSPORT EQUIPMENT	102	0	100	24	21	24	15	52
3841	Ship Building	20	15	50	19	11	48	0	85
3842	Railroad Equipment	21	15	15	15	0	15	0	5
3843	Motor Vehicles	32	0	100	23	18	25	13	52
3844	Motorcycles	6	50	50	50	0	50	0	19
3845	Mfg of Aircraft	12	15	100	43	40	15	0	0
3849	Transport Eqpmt NEC	11	15	50	18	10	15	1	83
385	SCIENTIFIC EQUIPMENT	110	0	100	28	21	19	3	14
3851	Scientific Equipment	57	15	15	15	0	15	3	9
3852	Photo & Optical Eqpmt	40	0	100	40	26	41	0	20
3853	Watches & Clocks	13	50	50	50	0	50	0	95
39	OTHER MANUFACTURING	98	0	100	66	35	29	1	69
3901	Jewelry	16	0	100	76	42	100	0	96
3902	Musical Instruments	14	50	50	50	0	50	0	4
3903	Sporting Goods	2	15	100	57	43	31	0	78
3909	Mfg Industries NEC	66	15	100	66	36	29	1	69

Source: BRB/Customs Statistics
Note: Excludes Statistical/Service tax

Table S14: STRUCTURE OF TARIFFS IN 1988

	SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF COLLECTION TOTAL IMPORTS	RATE
	WHOLE ECONOMY	2,315	0	150	36	31	24	100	53
	AGRICULTURE	83	0	110	63	41	22	1	81
	MINING	35	15	20	20	1	20	0	88
	MANUFACTURING	2,197	0	150	35	30	24	98	52
	Consumption Goods	834	0	150	55	35	31	42	54
	Intermediate Goods	760	0	100	26	18	20	28	58
	Capital Goods	602	0	100	20	16	17	28	38
31	FOOD, BEVERAGES & TOBACCO	221	15	150	81	33	34	13	51
311	FOOD MANUFACTURING	181	15	110	78	33	35	9	41
3111	Slaughtering	37	20	100	94	20	44	1	34
3112	Dairy Products	15	20	100	47	16	48	1	52
3113	Fruit & Veg Canning	17	100	110	101	0	100	0	90
3114	Fish Canning	11	100	100	100	0	100	0	6
3115	Veg & Animal Oils	17	20	100	34	25	66	0	20
3116	Grain Mill Products	18	20	100	49	20	45	1	62
3117	Bakery Products	6	15	100	68	34	62	0	89
3118	Sugar Refining	6	15	100	44	28	15	4	26
3119	Confectionery	13	100	100	100	0	100	0	96
3121	Food Products NEC	39	15	110	90	31	35	2	47
3122	Prepared Animal Feed	2	45	45	45	0	45	0	0
313	BEVERAGES	35	15	100	87	26	31	4	77
3131	Distilling Industries	8	15	100	89	28	88	0	64
3132	Wine Industries	15	45	100	96	14	100	0	90
3133	Malt & Malt Liquors	8	20	100	63	30	21	3	74
3134	Soft Drinks & Water	4	100	100	100	0	100	0	91
314	TOBACCO	5	150	150	150	0	150	0	56
32	TEXTILES & LEATHER	216	15	110	46	27	43	6	77
321	TEXTILES	154	15	100	42	24	40	4	84
3211	Spinning & Weaving	87	15	100	42	24	38	1	77
3212	Textile Goods	73	15	100	43	24	31	1	67
3213	Knitting Mills	17	15	45	43	7	45	0	91
3214	Carpets & Rugs	5	20	100	84	32	100	0	19
3215	Cord & Rope Industries	5	15	45	21	11	16	0	96
3219	Textiles NEC	21	15	100	38	20	44	2	94
322	WEARING APPAREL	33	15	110	68	31	69	1	47
323	LEATHER PRODUCTS	19	15	100	46	34	44	0	70
3231	Tanneries	8	20	20	20	0	20	0	21
3232	Fur Dressing & Dyeing	1	100	100	100	0	100	0	0
3233	Leather Products	10	15	100	61	34	45	0	71
324	FOOTWEAR	10	20	45	43	8	44	1	71
33	WOOD, CORK & PRODUCTS	50	15	100	57	35	60	1	22
331	WOOD, CORK & PRODUCTS	30	15	100	34	18	22	0	81
3311	Sawmills	15	15	45	27	13	22	0	70
3312	Wooden Containers	3	45	100	63	26	63	0	100
3319	Wood & Cork Prods NEC	12	15	45	35	14	23	0	94
332	WOODEN FURN & FIXTURES	20	15	100	92	26	100	0	8
34	PAPER & PRINTING	84	0	100	30	22	28	3	39
341	PAPER PRODUCTS	57	0	45	25	13	22	2	78
3411	Pulp, Paper, Paperboard	18	0	20	16	5	14	1	73
3412	Paper Containers	10	15	45	39	12	45	0	95
3419	Paper Products NEC	29	15	45	25	13	30	1	79
342	PRINTING & PUBLISHING	27	0	100	40	30	33	2	18
35	CHEMICALS, PETR, COAL	411	0	100	24	14	20	18	59
351	INDUSTRIAL CHEMICALS	268	15	100	21	7	19	8	47
3511	Industrial Chemicals	188	15	45	20	3	20	3	49
3512	Fertilizers	33	15	100	18	15	16	3	18
3513	Synthetic Products	47	20	45	25	10	20	2	72
352	OTHER CHEMICAL PRODS	82	0	100	33	19	21	6	68
3521	Paints & Varnishes	11	20	45	43	7	42	0	68

Table 814 (continued)

SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
3522 Drugs & Medicines	11	15	20	16	2	15	4	57
3523 Cosmetics	13	20	100	52	22	59	0	80
3529 Chemicals NEC	47	0	100	30	18	23	1	78
353 PETROLEUM REFINERIES	8	15	15	15	0	15	1	75
354 PETROLEUM AND COAL PRODS	8	15	45	21	9	16	0	15
355 RUBBER PRODUCTS	31	15	45	23	12	20	2	68
3551 Tires & Tube Industries	14	15	45	20	11	19	2	66
3559 Rubber Products NEC	17	15	45	26	13	25	0	80
356 PLASTIC PRODUCTS NEC	14	15	100	48	24	44	1	59
36 NONMETALLIC MINERALS	99	15	100	36	26	18	5	32
361 CERAMIC PRODUCTS	24	15	100	50	39	26	0	49
362 GLASS & GLASS PRODUCTS	32	15	100	32	22	20	1	82
369 OTHER NONMET MIN PRODS	43	15	45	31	15	16	4	17
3691 Structural Clay Prods	9	15	45	35	14	39	0	79
3692 Cement, Lime, Plaster	8	15	20	16	2	15	4	8
3699 Nonmetallics NEC	26	15	45	35	14	23	0	50
37 BASIC METAL INDUSTRIES	103	15	100	25	20	19	7	81
371 IRON & STEEL B-MET IND	51	15	45	20	7	19	7	82
372 NON-FERROUS B-MET IND	52	15	100	30	26	20	0	62
38 METAL PRODS, MACHINERY	914	0	100	24	20	20	45	44
381 METAL PRODUCTS NEC	248	0	100	25	15	21	6	57
3811 Cutlery & Hand Tools	68	15	100	23	18	18	2	69
3812 Metal Furn & Fixtrs	2	45	45	45	0	45	0	5
3813 Structural Metal Prods	25	15	45	25	14	20	2	36
3819 Metal Products NEC	153	0	100	26	14	24	2	62
382 NONELECTRIC MACHINERY	307	0	100	21	19	17	11	40
3821 Engines & Turbines	26	15	45	20	11	19	0	61
3822 Agr Machinery	26	15	45	17	8	15	1	9
3823 Metal & Woodwkg Mach	54	15	15	15	0	15	1	43
3824 Industrial Machinery	71	15	45	16	5	15	4	24
3825 Office Machinery	19	15	15	15	0	15	2	30
3829 Machinery NEC	111	0	100	29	29	19	4	57
383 ELECTRICAL MACHINERY	147	0	100	29	25	18	7	32
3831 Elec Industrial Mach	47	15	15	15	0	15	2	22
3832 Radio,TV, & Comm Eqpmt	44	0	100	40	28	22	2	21
3833 Electrical Appliances	26	15	100	48	34	43	0	61
3839 Elec Machinery NEC	30	0	45	20	11	17	3	48
384 TRANSPORT EQUIPMENT	102	0	100	23	20	24	16	50
3841 Ship Building	20	15	45	18	9	15	0	8
3842 Railroad Equipment	21	15	15	15	0	15	0	79
3843 Motor Vehicles	32	0	100	21	18	25	14	52
3844 Motorcycles	6	45	45	45	0	45	0	17
3845 Mfg of Aircraft	12	15	100	43	40	19	0	25
3849 Transport Eqpmt NEC	11	15	45	18	9	15	2	44
385 SCIENTIFIC EQUIPMENT	110	0	100	27	20	19	4	17
3851 Scientific Equipment	57	15	15	15	0	15	3	9
3852 Photo & Optical Eqpmt	40	0	100	38	25	39	1	28
3853 Watches & Clocks	13	45	45	45	0	45	0	62
39 OTHER MANUFACTURING	98	0	100	64	36	32	1	77
3901 Jewelry	16	0	100	76	42	100	0	45
3902 Musical Instruments	14	45	45	45	0	45	0	57
3903 Sporting Goods	2	15	100	57	43	18	0	52
3909 Mfg Industries NEC	66	15	100	65	36	33	1	78

Source: BRB/Customs Statistics
Note: Excludes Statistical/Service tax

Table 15: STRUCTURE OF TARIFFS IN 1989 (end July)

	SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF COLLECTION TOTAL IMPORTS	RATE
	WHOLE ECONOMY	2,315	0	150	36	31	24	100	56
	AGRICULTURE	83	0	110	63	41	19	1	98
	MINING	35	15	20	20	1	20	0	72
	MANUFACTURING	2,197	0	150	35	30	24	98	55
	Consumption Goods	834	0	150	55	35	31	39	58
	Intermediate Goods	760	0	100	26	18	20	30	55
	Capital Goods	602	0	100	20	16	17	29	50
31	FOOD, BEVERAGES & TOBACCO	221	15	150	81	33	39	8	56
311	FOOD MANUFACTURING	181	15	110	78	33	41	5	44
3111	Slaughtering	37	20	100	94	20	26	0	90
3112	Dairy Products	15	20	100	47	16	48	1	55
3113	Fruit & Veg Canning	17	100	100	101	2	101	0	84
3114	Fish Canning	11	100	100	100	0	100	0	32
3115	Veg & Animal Oils	17	20	100	34	25	70	0	14
3116	Grain Mill Products	18	20	100	49	20	46	0	33
3117	Bakery Products	6	15	100	68	34	73	0	97
3118	Sugar Refining	6	15	100	44	28	16	1	32
3119	Confectionery	13	100	100	100	0	100	0	94
3121	Food Products NEC	39	15	110	90	31	31	2	37
3122	Prepared Animal Feed	2	45	45	45	0	45	0	70
313	BEVERAGES	35	15	100	87	26	35	3	73
3131	Distilling Industries	8	15	100	89	28	93	0	86
3132	Wine Industries	15	45	100	96	14	100	0	73
3133	Malt & Malt Liquors	8	20	100	63	30	22	3	67
3134	Soft Drinks & Water	4	100	100	100	0	100	0	28
314	TOBACCO	5	150	150	150	0	150	0	78
32	TEXTILES & LEATHER	216	15	110	46	27	42	6	75
321	TEXTILES	154	15	100	42	26	40	4	86
3211	Spinning & Weaving	87	15	100	42	24	34	1	91
3212	Textile Goods	18	15	100	43	24	39	1	73
3213	Knitting Mills	17	15	45	43	7	45	0	71
3214	Carpets & Rugs	5	20	100	84	32	100	0	64
3215	Cord & Rope Industries	6	15	45	21	11	15	0	99
3219	Textiles NEC	21	15	100	38	20	42	2	93
322	WEARING APPAREL	33	15	110	68	31	50	1	48
323	LEATHER PRODUCTS	19	15	100	46	34	43	0	47
3231	Tanneries	8	20	20	20	0	20	0	95
3232	Fur Dressing & Dyeing	1	100	100	100	0	100	0	100
3233	Leather Products	10	15	100	[illegible]	34	45	0	46
324	FOOTWEAR	10	20	45	43	8	43	1	57
33	WOOD, CORK & PRODUCTS	50	15	100	[illegible]	35	48	1	[illegible]
331	WOOD, CORK & PRODUCTS	30	15	100	34	18	29	1	43
3311	Sawmills	15	15	45	27	13	29	0	41
3312	Wooden Containers	3	45	100	63	26	45	0	0
3319	Wood & Cork Prods NEC	12	15	45	35	14	30	0	49
332	WOODEN FURN & FIXTURES	20	15	100	92	26	99	0	11
34	PAPER & PRINTING	84	0	100	30	22	20	4	53
341	PAPER PRODUCTS	57	0	45	25	13	20	3	66
3411	Pulp, Paper, Paperboard	18	0	20	16	5	15	2	52
3412	Paper Containers	10	15	45	39	12	45	0	100
3419	Paper Products NEC	29	15	45	25	13	30	1	77
342	PRINTING & PUBLISHING	27	0	100	40	30	20	2	34
35	CHEMICALS, PETR, COAL	411	0	100	24	14	20	23	73
351	INDUSTRIAL CHEMICALS	268	15	100	21	7	18	9	76
3511	Industrial Chemicals	188	15	45	20	3	20	4	90
3512	Fertilizers	33	15	100	18	15	15	3	51
3513	Synthetic Products	47	20	45	25	10	20	2	79
352	OTHER CHEMICAL PRODS	82	0	100	33	19	22	8	69
3521	Paints & Varnishes	11	20	45	43	7	43	0	65

Table S15 (continued)

SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
3522 Drugs & Medicines	11	15	20	16	2	15	5	59
3523 Cosmetics	13	20	100	52	22	62	1	77
3529 Chemicals NEC	47	0	100	30	18	24	2	82
353 PETROLEUM REFINERIES	8	15	15	15	0	15	1	85
354 PETROLEUM AND COAL PRODS	8	15	45	21	9	15	1	5
355 RUBBER PRODUCTS	31	15	45	23	12	21	3	83
3551 Tires & Tube Industries	14	15	45	20	11	20	2	90
3559 Rubber Products NEC	17	15	45	26	13	26	0	50
356 PLASTIC PRODUCTS NEC	14	15	100	48	24	42	1	70
36 NONMETALLIC MINERALS	99	15	100	36	26	16	6	30
361 CERAMIC PRODUCTS	24	15	100	50	39	23	0	86
362 GLASS & GLASS PRODUCTS	32	15	100	32	22	19	1	90
369 OTHER NONMET MIN PRODS	43	15	45	31	15	16	5	14
3691 Structural Clay Prods	9	15	45	35	14	38	0	71
3692 Cement, Lime, Plaster	8	15	20	16	2	15	5	7
3699 Nonmetallics NEC	26	15	45	35	14	21	0	68
37 BASIC METAL INDUSTRIES	103	15	100	25	20	19	5	72
371 IRON & STEEL B-MET IND	51	15	45	20	7	18	4	71
372 NON-FERROUS B-MET IND	52	15	100	30	26	20	0	77
38 METAL PRODS, MACHINERY	914	0	100	24	20	21	44	44
381 METAL PRODUCTS NEC	248	0	100	25	15	21	7	44
3811 Cutlery & Hand Tools	68	15	100	23	18	18	2	72
3812 Metal Furn & Fixtrs	2	45	45	45	0	45	0	4
3813 Structural Metal Prods	25	15	45	25	14	21	3	10
3819 Metal Products NEC	153	0	100	26	14	23	2	63
382 NONELECTRIC MACHINERY	307	0	100	21	19	16	13	39
3821 Engines & Turbines	26	15	45	20	11	18	1	81
3822 Agr Machinery	26	15	45	17	8	15	1	3
3823 Metal & Woodwkg Mach	54	15	15	15	0	15	1	37
3824 Industrial Machinery	71	15	45	16	5	15	3	23
3825 Office Machinery	19	15	15	15	0	15	2	39
3829 Machinery NEC	111	0	100	29	29	18	6	47
383 ELECTRICAL MACHINERY	147	0	100	29	25	21	5	60
3831 Elec Industrial Mach	47	15	15	15	0	15	2	52
3832 Radio,TV, & Comm Eqpmt	44	0	100	40	28	23	2	68
3833 Electrical Appliances	26	15	100	48	34	54	0	66
3839 Elec Machinery NEC	30	0	45	20	11	22	2	76
384 TRANSPORT EQUIPMENT	102	0	100	23	20	25	16	45
3841 Ship Building	20	15	45	18	9	26	0	39
3842 Railroad Equipment	21	15	15	15	0	15	0	11
3843 Motor Vehicles	32	0	100	21	18	26	14	47
3844 Motorcycles	6	45	45	45	0	45	0	10
3845 Mfg of Aircraft	12	15	100	43	40	15	0	1
3849 Transport Eqpmt NEC	11	15	45	18	9	15	1	48
385 SCIENTIFIC EQUIPMENT	110	0	100	27	20	20	3	26
3851 Scientific Equipment	57	15	15	15	0	15	2	18
3852 Photo & Optical Eqpmt	40	0	100	38	25	36	1	32
3853 Watches & Clocks	13	45	45	45	0	45	0	97
39 OTHER MANUFACTURING	98	0	100	64	36	34	1	82
3901 Jewelry	16	0	100	76	42	100	0	62
3902 Musical Instruments	14	45	45	45	0	45	0	28
3903 Sporting Goods	2	15	100	57	43	15	0	56
3909 Mfg Industries NEC	66	15	100	65	36	35	1	85

Source: BRB/Customs Statistics
Note: Excludes Statistical/Service tax

Table S16: STRUCTURE OF TARIFFS IN 1989 (Begin August)

	SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF COLLECTION TOTAL IMPORTS	RATE
	WHOLE ECONOMY	2,316	0	100	30	30	19	100	50
	AGRICULTURE	83	0	100	59	44	17	0	63
	MINING	35	10	40	11	5	12	0	53
	MANUFACTURING	2,198	0	100	29	28	19	99	50
	Consumption Goods	836	0	100	49	32	29	42	52
	Intermediate Goods	759	0	100	17	18	11	31	51
	Capital Goods	602	0	100	18	17	13	27	45
31	FOOD, BEVERAGES & TOBACCO	221	10	100	66	34	30	12	48
311	FOOD MANUFACTURING	181	10	100	61	34	34	8	37
3111	Slaughtering	36	10	100	92	24	35	1	24
3112	Dairy Products	15	10	40	36	10	40	1	56
3113	Fruit & Veg Canning	17	40	40	40	0	40	0	98
3114	Fish Canning	11	100	100	100	0	100	0	29
3115	Veg & Animal Oils	17	10	40	22	14	26	0	56
3116	Grain Mill Products	19	10	100	43	22	40	1	78
3117	Bakery Products	6	40	100	70	30	92	0	95
3118	Sugar Refining	6	10	40	35	11	40	3	11
3119	Confectionery	13	40	100	77	29	54	0	98
3121	Food Products NEC	39	10	100	63	35	16	2	52
3122	Prepared Animal Feed	2	40	40	40	0	40	0	12
313	BEVERAGES	35	10	100	86	28	22	4	84
3131	Distilling Industries	8	10	100	89	30	98	0	67
3132	Wine Industries	15	40	100	96	15	100	0	88
3133	Malt & Malt Liquors	8	10	100	59	33	11	3	91
3134	Soft Drinks & Water	4	100	100	100	0	100	0	26
314	TOBACCO	5	100	100	100	0	100	0	53
32	TEXTILES & LEATHER	216	10	100	40	27	37	5	83
321	TEXTILES	154	10	100	36	23	36	4	83
3211	Spinning & Weaving	87	10	100	35	24	28	1	86
3212	Textile Goods	18	10	100	38	25	30	1	80
3213	Knitting Mills	17	15	40	39	6	40	0	93
3214	Carpets & Rugs	5	10	100	70	38	100	0	17
3215	Cord & Rope Industries	6	10	40	27	13	33	0	92
3219	Textiles NEC	21	15	40	34	11	40	2	86
322	WEARING APPAREL	33	10	100	59	32	43	0	81
323	LEATHER PRODUCTS	19	10	100	40	38	39	0	92
3231	Tanneries	8	10	10	10	0	10	0	6
3232	Fur Dressing & Dyeing	1	100	100	100	0	100	0	100
3233	Leather Products	10	10	100	58	36	41	0	93
324	FOOTWEAR	10	10	40	37	9	39	1	79
33	WOOD, CORK & PRODUCTS	50	10	100	36	25	30	0	40
331	WOOD, CORK & PRODUCTS	30	10	40	25	15	14	0	84
3311	Sawmills	15	10	40	18	13	11	0	85
3312	Wooden Containers	3	40	40	40	0	40	0	0
3319	Wood & Cork Prods NEC	12	10	40	30	14	36	0	85
332	WOODEN FURN & FIXTURES	20	15	100	53	28	43	0	29
34	PAPER & PRINTING	84	0	40	21	15	22	4	60
341	PAPER PRODUCTS	57	0	40	15	12	16	2	91
3411	Pulp, Paper, Paperboard	18	0	10	9	2	10	1	92
3412	Paper Containers	10	10	10	10	0	10	0	56
3419	Paper Products NEC	29	10	40	21	14	26	1	92
342	PRINTING & PUBLISHING	27	0	40	32	15	30	2	38
35	CHEMICALS, PETR, COAL	412	0	100	15	14	14	22	56
351	INDUSTRIAL CHEMICALS	268	10	40	10	3	10	10	46
3511	Industrial Chemicals	188	10	10	10	0	10	2	93
3512	Fertilizers	33	10	40	11	5	11	4	4
3513	Synthetic Products	47	10	40	11	6	10	3	67
352	OTHER CHEMICAL PRODS	83	0	100	26	25	19	6	70
3521	Paints & Varnishes	11	10	10	10	0	10	0	71

Table S16 (continued)

SECTOR	No OF HDGS	ACTUAL TARIFF RATE (%) MIN	MAX	MEAN	STAND DEV	WGHTD MEAN	% OF TOTAL IMPORTS	COLLECTION RATE
3522 Drugs & Medicines	11	10	15	13	3	15	4	55
3523 Cosmetics	13	10	100	47	24	51	1	85
3529 Chemicals NEC	48	0	100	27	26	20	1	86
353 PETROLEUM REFINERIES	8	10	10	10	0	10	1	65
354 PETROLEUM AND COAL PRODS	8	10	40	14	10	15	1	2
355 RUBBER PRODUCTS	31	10	40	15	11	11	4	64
3551 Tires & Tube Industries	14	10	10	10	0	10	3	86
3559 Rubber Products NEC	17	10	40	19	13	12	1	31
356 PLASTIC PRODUCTS NEC	14	10	40	34	12	35	1	42
36 NONMETALLIC MINERALS	99	10	100	32	28	14	5	34
361 CERAMIC PRODUCTS	24	10	100	47	42	18	0	65
362 GLASS & GLASS PRODUCTS	32	10	100	28	23	17	1	73
369 OTHER NONMET MIN PRODS	43	10	40	27	14	13	4	20
3691 Structural Clay Prods	9	10	40	30	14	38	0	98
3692 Cement, Lime, Plaster	8	10	12	12	1	12	3	10
3699 Nonmetallics NEC	26	10	40	30	14	11	0	96
37 BASIC METAL INDUSTRIES	103	10	100	17	22	10	8	57
371 IRON & STEEL B-MET IND	51	10	40	12	7	10	7	56
372 NON-FERROUS B-MET IND	52	10	100	21	29	11	1	76
38 METAL PRODS, MACHINERY	914	0	100	22	20	19	43	40
381 METAL PRODUCTS NEC	248	0	100	22	16	17	4	57
3811 Cutlery & Hand Tools	68	10	100	21	18	14	2	87
3812 Metal Furn & Fixtrs	2	40	40	40	0	40	0	5
3813 Structural Metal Prods	25	10	40	22	14	17	0	11
3819 Metal Products NEC	153	0	100	22	16	20	2	48
382 NONELECTRIC MACHINERY	307	0	100	20	20	17	10	48
3821 Engines & Turbines	26	12	40	28	14	35	0	72
3822 Agr Machinery	26	12	40	14	8	12	0	33
3823 Metal & Woodwkg Mach	54	12	15	15	1	13	1	55
3824 Industrial Machinery	71	12	40	13	5	13	5	37
3825 Office Machinery	19	12	15	14	1	15	1	39
3829 Machinery NEC	111	0	100	28	30	21	3	54
383 ELECTRICAL MACHINERY	147	0	100	27	25	19	9	29
3831 Elec Industrial Mach	47	10	12	12	1	11	2	32
3832 Radio,TV, & Comm Eqpmt	44	0	100	34	25	21	5	15
3833 Electrical Appliances	26	12	100	57	29	43	0	87
3839 Elec Machinery NEC	30	0	40	14	11	16	2	69
384 TRANSPORT EQUIPMENT	102	0	100	20	21	20	17	40
3841 Ship Building	20	12	40	16	10	40	0	1
3842 Railroad Equipment	21	12	12	12	0	12	0	100
3843 Motor Vehicles	32	0	100	18	18	20	16	40
3844 Motorcycles	6	40	40	40	0	40	0	28
3845 Mfg of Aircraft	12	12	100	41	42	12	0	0
3849 Transport Eqpmt NEC	11	10	40	13	9	10	1	92
385 SCIENTIFIC EQUIPMENT	110	0	100	25	19	18	2	33
3851 Scientific Equipment	57	12	15	14	2	14	2	23
3852 Photo & Optical Eqpmt	40	0	100	36	25	35	0	39
3853 Watches & Clocks	13	40	40	40	0	40	0	99
39 OTHER MANUFACTURING	98	0	100	66	36	31	1	76
3901 Jewelry	16	0	100	82	38	49	0	49
3902 Musical Instruments	14	40	40	40	0	40	0	6
3903 Sporting Goods	2	15	100	57	43	15	0	27
3909 Mfg Industries NEC	66	10	100	69	37	32	1	83

Source: BRB/Customs Statistics
Note: Excludes Statistical/Service tax

Table S17: PROPOSED LIST OF DUTY-FREE CAPITAL GOODS
(Six-Digit BTN Codes)

STEAM & OTHER VAPOR-GENERATING BOILERS
84.01.20 84.01.30 84.01.80 84.01.90
AUXIL PLANT FOR STEAM-GENERATING BOILERS
84.02.20 84.02.30 84.02.40 84.02.80 84.02.90
PRODUCER GAS &WATER GAS GENERATORS, ETC
84.03.20 84.03.90
STEAM TURBINES & OTHER VAPOR POWER UNITS
84.05.20 84.05.30 84.05.90
INTERNAL COMBUSTION PISTON ENGINES
84.06.21 84.06.22 84.06.23 84.06.24 84.06.25
84.06.26 84.06.29 84.06.31 84.06.32 84.06.33
84.06.39 84.06.91 84.06.92 84.06.93 84.06.99
WATER WHEELS, WATER TURBINES, ETC
84.07.20 84.07.30 84.07.80 84.07.90
OTHER ENGINES &MOTORS
84.08.20 84.08.30 84.08.40 84.08.90
MECHANICALLY PROPELLED ROAD ROLLERS
84.09.20 84.09.90
PUMPS FOR LIQUIDS; LIQUID ELEVATORS
84.10.20 84.10.31 84.10.32 84.10.33 84.10.39
84.10.40 84.10.50 84.10.60 84.10.70 84.10.80
84.10.90
AIR OR VACUUM PUMPS, FANS, COMPRESSORS
84.11.20 84.11.30 84.11.40 84.11.50 84.11.60
84.11.70 84.11.80 84.11.90
FURNACE BURNERS, MECHANICAL STOKERS,ETC
84.13.20 84.13.30 84.13.90
FURNACES, NONELECTRIC
84.14.21 84.14.29 84.14.30 84.14.90
CENTRIFUGES, ETC FOR LIQUIDS OR GASES
84.18.21 84.18.29 84.18.30 84.18.40 84.18.51
84.18.59 84.18.90
MACHINERY FOR EXCAVATING, ETC
84.23.20 84.23.30 84.23.40 84.23.51 84.23.52
84.23.60 84.23.80 84.23.90
AGRICULTURAL & HORTICULTURAL MACHINERY
84.24.20 84.24.30 84.24.40 84.24.50 84.24.60
84.24.70 84.24.80 84.24.90
DAIRY MACHINERY
84.26.20 84.26.30 84.26.80 84.26.90
OTHER AGRIC,HORTIC, ETC, MACHINERY
84.28.20 84.28.90
MACHINERY USED IN GRAINMILLING
84.29.21 84.29.22 84.29.30 84.29.80 84.29.90
OTHER MACHINERY USED IN FOOD PROCESSING
84.30.21 84.30.22 84.30.23 84.30.24 84.30.25
84.30.31 84.30.32 84.30.33 84.30.34 84.30.90
MACHINERY FOR MAKING PULP & PAPER
84.31.20 84.31.30 84.31.90

MACHINES FOR PROCESSING TEXTILE FIBERS
84.36.20 84.36.30 84.36.40 84.36.50
WEAVING & KNITTING MACHINES, ETC
84.37.20 84.37.31 84.37.32 84.37.40 84.37.50
AUXIL MACHINERY FOR HDGS 8436-8437
84.38.10

Table S17 (continued)

MACH & BLOCKS FOR MFG OR FINISHING HATS				
84.39.10				
MACHINERY FOR PROCESSING OF YARN, ETC				
84.40.20	84.40.30	84.40.40	84.40.50	84.40.80
84.40.90				
MACH FOR PREPARATION OF HIDES & LEATHER				
84.42.20	84.42.90			
CONVERTERS, LADLES, INGOT MOULDS, ETC				
84.43.20	84.43.90			
METAL-ROLLINGMILLS & ROLLS				
84.44.20	84.44.91	84.44.99		
MACHINE TOOLS FOR WORKING METALS				
84.45.21	84.45.22	84.45.23	84.45.24	84.45.25
84.45.26	84.45.27	84.45.28	84.45.29	84.45.31
84.45.32	84.45.41	84.45.42	84.45.43	84.45.44
84.45.45	84.45.46	84.45.47	84.45.48	84.45.49
84.45.51	84.45.52	84.45.90		
MACHINE TOOLS FOR WORKING STONE, ETC				
84.46.20	84.46.90			
MACHINE TOOLS FOR WORKING WOOD, ETC				
84.47.21	84.47.22	84.47.23	84.47.24	84.47.90
ACCESSORIES & PARTS FOR HDGS 8445-8447				
84.48.21	84.48.22	84.48.23	84.48.30	
MACHINERY FOR SORTING, ETC, OF MINERALS				
84.56.20	84.56.30	84.56.40	84.56.80	84.56.90
GLASS WORKINGMACHINES				
84.57.20	84.57.30	84.57.40	84.57.90	
ELECTRICAL GENERATORS, MOTORS, ETC				
85.01.21	85.01.22	85.01.23	85.01.24	85.01.25
85.01.31	85.01.32	85.01.33	85.01.34	85.01.35
85.01.90				
ELECTROMAGNETS, CHUCKS, COUPLINGS, ETC				
85.02.20	85.02.30	85.02.40	85.02.80	85.02.90
INDUSTRIAL OR LAB ELEC FURNACES & OVENS				
85.11.20	85.11.30	85.11.40	85.11.90	

Table S18: LIST OF LUXURY GOODS SUBJECT TO EXCISE TAX
(Six-Digit BTN Codes)

IVORY, TORTOISE SHELL, HORNS, CORALS, SPONGES, MUSK ETC
05.09.30 05.09.90 05.12.10 05.13.10 05.14.10
PREPARED OR PRESERVED FISH & CAVIAR
16.04.20
WATERS, ICE, & SNOW
22.01.20 22.01.30 22.01.90
WINE OF FRESH GRAPES
22.05.21 22.05.29 22.05.31 22.05.39 22.05.40
22.05.50 22.05.90
VERMOUTH & OTHER FLAVORED WINE
22.06.21 22.06.29 22.06.31 22.06.39
OTHER FERMENTED BEVERAGES
22.07.20 22.07.90
ETHYL ALCOHOL OR NEUTRAL SPIRITS
22.08.20
OTHER SPIRITS, LIQUEURS, ETC
22.09.20 22.09.30 22.09.40 22.09.50 22.09.60
22.09.90
UNMANUFACTURED TOBACCO; TOBACCO REFUSE
24.01.20 24.01.90
MANUFACTURED TOBACCO; TOBACCO EXTRACTS
24.02.20 24.02.30 24.02.40 24.02.50 24.02.90
PERFUMERY, COSMETICS, ETC
33.06.80
33.06.90
PROPELLANT POWDERS FIRE WORKS ETC
36.01.10 36.05.10
SADDLERY & HARNESS
42.01.90
TRAVEL GOODS, HANDBAGS, WALLETS, ETC, OTHER LEATHER ARTICLES
42.02.20 42.05.10
ARTICLES OF GUT, BLADDERS, OR TENDONS
42.06.10
APPAREL & OTHER ARTICLES OF FURSKIN
43.03.20 43.03.90
ARTIFICIAL FUR & ARTICLES THEREOF
43.04.10
HANDMADE TAPESTRIES
58.03.10
WIGS, FALSE BEARDS, HAIR PADS, ETC
67.04.10
STATUETTES & OTHER ORNAMENTS
69.13.20 69.13.30 69.13.40 69.13.50

Table S18 (continued)

NATURAL OR CULTURED PEARLS, UNSTRUNG				
71.01.10				
PRECIOUS & SEMIPRECIOUS STONES, UNSET				
71.02.10				
SYNTHETIC OR RECONSTR STONES, NOT STRUNG				
71.03.10				
DUST & POWDER OF NATURAL OR SYNTH STONES				
71.04.10				
SILVER AND GOLD UNWROUGHT OR SEMIMANUFACTURED				
71.05.90	71.06.10	71.07.90	71.08.10	
PLATINUM, UNWROUGHT OR SEMIMANUFACTURED, SCRAP OF PRECIOUS METAL				
71.09.90	71.10.10	71.11.10		
JEWELRY & PARTS OF PRECIOUS METAL				
71.12.20	71.12.30	71.12.90		
GOLD- OR SILVERSMITHS' WARES & PARTS				
71.13.10	71.13.20	71.13.90		
ARTICLES OF PRECIOUS METALS, PEARL & STONES, IMITATION JEWELR				
71.14.90	71.15.10	71.16.90		
MOTOR VEHICLES FOR TRANSPORT OF PERSONS				
87.02.37				
FLYING MACHINES, GLIDERS, KITES, ETC				
88.02.24	88.02.30			
SIDEARMS, REVOLVERS AND PISTOLS				
93.01.10	93.02.31	93.02.39		
OTHER FIREARMS				
93.04.21	93.04.22	93.04.30	93.04.40	93.04.90
OTHER ARMS & PARTS				
93.05.10	93.06.90			
BOMBS, GRENADES, ETC; CARTRIDGES, ETC				
93.07.31	93.07.32	93.07.33	93.07.34	93.07.39
WORKED IVORY & OTHER ANIMAL CARVING MTL				
95.05.20	95.05.30	95.05.40	95.05.90	
PIPES; CIGAR & CIGARETTE HOLDERS				
98.11.10				
SCENT & OTHER TOILET SPRAYS				
98.14.10				
PAINTINGS, DRAWING, ENGRAVING, SCULPTURES ETC,				
99.01.10	99.02.10	99.03.10		
COLLECTION POSTAGE STAMPS, ANTIQUES ETC				
99.04.10	99.05.10	99.06.10		

Table S19: SIMULATED STRUCTURE OF TARIFFS BASED ON 1988-89 IMPORTS

ISIC	SECTOR	No OF HDGS	MIN	MAX	MEAN	STAND DEV	WGHTD MEAN
	WHOLE ECONOMY	2,316	0	25	13	10	11
	AGRICULTURE	83	5	25	18	18	6
	MINING	35	5	25	6	4	6
	MANUFACTURING	2,198	0	25	13	10	11
	Consumption Goods	836	5	25	21	7	18
	Intermediate Goods	759	5	25	9	8	6
	Capital Goods	602	0	25	5	7	5
31	FOOD, BEVERAGES & TOBACCO	221	5	25	23	6	17
311	FOOD MANUFACTURING	181	5	25	23	6	21
313	BEVERAGES	35	5	25	24	5	8
314	TOBACCO	5	25	25	25	0	25
32	TEXTILES & LEATHER	216	5	25	20	8	22
321	TEXTILES	154	5	25	20	8	22
322	WEARING APPAREL	33	5	25	24	5	21
323	LEATHER PRODUCTS	19	5	25	15	10	24
324	FOOTWEAR	10	5	25	23	6	24
33	WOOD, CORK & PRODUCTS	50	5	25	19	9	16
331	WOOD, CORK & PRODUCTS	30	5	25	15	15	9
332	WOODEN FURN & FIXTURES	20	15	25	24	3	25
34	PAPER & PRINTING	84	5	25	13	10	13
341	PAPER PRODUCTS	57	5	25	9	8	9
342	PRINTING & PUBLISHING	27	5	25	21	8	18
35	CHEMICALS, PETR, COAL	412	5	25	8	8	9
351	INDUSTRIAL CHEMICALS	268	5	25	5	2	5
352	OTHER CHEMICAL PRODS	83	5	25	13	10	14
353	PETROLEUM REFINERIES	8	5	5	5	0	5
354	PETROLEUM AND COAL PRODS	8	5	25	9	7	14
355	RUBBER PRODUCTS	31	5	25	9	7	6
356	PLASTIC PRODUCTS NEC	14	5	25	21	8	22
36	NONMETALLIC MINERALS	99	5	25	16	10	8
361	CERAMIC PRODUCTS	24	5	25	15	10	12
362	GLASS & GLASS PRODUCTS	32	5	25	15	10	14
369	OTHER NONMET MIN PRODS	43	5	25	16	10	6
37	BASIC METAL INDUSTRIES	103	5	25	7	6	5
371	IRON & STEEL B-MET IND	51	5	25	6	5	5
372	NON-FERROUS B-MET IND	52	5	25	8	7	5
38	METAL PRODS, MACHINERY	914	0	25	10	10	10
381	METAL PRODUCTS NEC	248	0	25	12	10	10
382	NONELECTRIC MACHINERY	307	0	25	5	8	6
383	ELECTRICAL MACHINERY	147	0	25	12	10	7
384	TRANSPORT EQUIPMENT	102	5	25	9	8	14
385	SCIENTIFIC EQUIPMENT	110	5	25	15	8	12
39	OTHER MANUFACTURING	98	5	25	22	36	16