

WORLD BANK GROUP NOTE ON ALCOHOL BEVERAGES

March 7, 2000

Executive Summary

1. This paper summarizes the World Bank Group's involvement in projects related to alcohol beverages. It is being issued at the request of the Executive Directors' Steering Committee, following concerns raised about proposed IFC and MIGA investments in specific alcohol-related projects.

2. A task force comprising Bank, IFC and MIGA staff prepared the Note. During the course of this work, the team consulted staff of the World Health Organization (WHO) at headquarters and at the European Regional Office, external consultants recommended by them, and other individuals and institutions with special interest and expertise in this area. WHO provided data and background information and reviewed early drafts of the Note. The Note was reviewed and endorsed by the Health, Nutrition and Population Sector Board of the Bank and circulated widely for review and comments within IFC, MIGA and the Bank. This Note reflects the consensus reached by the task force and is fully endorsed by staff and Management of the World Bank Group.

3. The Note begins with an overview of trends in world alcohol consumption and the status of World Bank Group involvement in alcohol-related projects. It then reviews the economic benefits of such projects, discusses the health and social concerns associated with alcohol abuse, and notes public policy options to prevent or reduce alcohol-related problems. The Note discusses future World Bank Group involvement in this area, and clarifies the current IFC and MIGA conditions and criteria for supporting alcohol-related projects. Several annexes provide additional data and background information.

4. Worldwide consumption of alcohol beverages averages about five liters of pure alcohol per person per year, and has been relatively constant over the last 20 years, although consumption levels are rising in many developing countries. Importantly, the data on developing countries most likely underestimate actual alcohol consumption, since they generally ignore artisanal production and smuggled beverages.

5. In some cultures, alcohol is used and valued as a means to improve sociability and mood, as a beverage and as an intoxicant. Cultures and social groups within a culture vary widely in the emphasis on particular uses, resulting in different patterns of drinking. Recently there has been interest in its potential value in reducing risk of cardiovascular disease in older males. However, in terms of total years of life lost from premature mortality, alcohol's net effect on health is negative in all regions. Alcohol abuse is an important contributor to the

global burden of disease and injury and ranks fourth among the top ten risk factors for disease and disability globally. The various adverse health and social consequences of alcohol include injury, violence, liver cirrhosis, cancer, alcoholism and dependency, and fetal alcohol syndrome.

6. Bank Group reviews of alcohol-related projects have shown that such projects can, in some instances and subject to meeting a combination of the criteria mentioned below in para. 10, have important development benefits, including private sector development, employment, improved food safety and enhanced government revenue. Industrial production is likely to replace generally less safe artisanal production and can enable and facilitate government interventions to reduce alcohol abuse.

7. Few Bank loans relate to alcohol production or consumption, with the exception of agricultural projects in Hungary, Moldova and Portugal that support wine production, and health projects in a few former Soviet republics that aim to reduce risk factors (including diet, tobacco, and alcohol consumption). There are twelve alcohol-related IFC projects, accounting for 1.2 percent of IFC's portfolio, and three MIGA contracts for brewery investments, out of a total of 370 contracts issued.

8. Given a mandate that is both economic and social, the World Bank Group's responsibilities with respect to alcohol beverage production and consumption are dual. On the one hand, making alcohol beverage production and distribution more efficient is a potential contribution to economic development. On the other hand, alcohol is a special commodity in terms of its adverse social and health consequences when abused, its dependency-producing properties, and the severity of associated problems, which can interfere with development and adversely affect the quality of life.

9. The Bank will increase its efforts to prevent alcohol-related problems in client countries. This would include support to effective government policies to reduce the impact of alcohol abuse on human capital, and stepped up efforts to increase knowledge, both in and outside the Bank, of the magnitude of alcohol-related health and social problems in developing countries and their impact on poverty.

10. With regard to alcohol-related projects, the Bank Group acknowledges the important cultural differences among countries in their views towards alcohol. It therefore believes that its alcohol-related activities in each country should be fundamentally based on that country's policy towards the use and control of such products, as reflected in the World Bank Group dialogue with the country. IFC and MIGA are now highly selective in supporting such projects. Considering the adverse health and social impact of alcohol abuse, the Bank Group evaluates these alcohol-related projects carefully in terms of their development impact, supporting them only when they meet clearly circumscribed criteria as reflected here and in para. 9.6 of the main text:

- (i) the Bank Group has a well defined role in facilitating investment, in the context of the overall Country Assistance Strategy; and,

- (ii) the project can demonstrate strong development impacts which are consistent with public health issues and social policy concerns. Although projects vary significantly in terms of the nature of their contribution to development, one expects each of them to: (a) be consistent with public health considerations and the World Bank's activities in the health and social sectors, and (b) contribute to some or all of the following criteria:
- (a) *Growth of productive private enterprise.*
 - production increases, product improvement, and cost reductions,
 - transfer of efficiency-enhancing technology and business management techniques,
 - backward and forward linkages (e.g., benefits to farmers, distribution systems).
 - (b) *Private sector development.*
 - privatization,
 - early-stage transaction in frontier countries,
 - demonstration effects (e.g., testing of project financing process),
 - assistance to establishment of an ethical business framework and accountable business entities.
 - (c) *Employment and living standards.*
 - direct jobs created or safeguarded,
 - quality of jobs and provision of social benefits for employees,
 - indirect employment impact (distribution).
 - (d) *Product safety.*
 - improvements of product safety (e.g. quality of raw materials, cleaning systems, pasteurization).
 - (e) *Government revenues.*
 - substitution of untaxed artisanal production and/or uncontrolled imports,
 - incremental taxes (excise, VAT, income).

1. Introduction

1.1 In FY98, the IFC and MIGA Boards discussed concerns regarding proposed IFC investments and MIGA guarantees for specific brewery and alcohol-related projects. As a result of these discussions, the Executive Directors' Steering Committee issued a request in July 1998 for a background paper and discussion of the Bank Group's involvement in alcohol-related operations. The Committee proposed that the paper include the pros and cons of such investment, as well as a discussion of the health and social problems associated with such investment.

1.2 In response to this request, a task force comprising Bank, IFC and MIGA staff prepared this Note on Alcohol Beverages for consideration by the Executive Directors. During the course of this work, the team consulted the World Health Organization at headquarters and at the European Regional Office and external consultants recommended by WHO, and a number of individuals and institutions with special interest and expertise in this area. WHO and consultants provided data and background information to the Note. Given the multi-dimensional nature of the task, including human development, public health, public policy, private sector development and economic development considerations, each institution of the World Bank Group agreed to take the lead to review and summarize the evidence and to prepare individual sections of the Note and the Annexes. The entire document has been the subject of extensive reviews and revisions by the task force and by other staff of all the involved institutions of the World Bank Group, and earlier drafts were reviewed and commented on by WHO. The Note reflects the consensus reached by the task force and is fully endorsed by staff and Management of the World Bank Group.

1.3 This Note provides an overview of global alcohol consumption, the status of World Bank Group involvement in alcohol-related projects, a summary of the development benefits of such involvement, a summary of the health and social consequences of alcohol consumption and abuse, and principles for guiding the World Bank Group's future involvement in this area.

1.4 Several annexes provide additional background information. It should be noted that, although the volume of scientific literature on the health effects of alcohol consumption is enormous, there are gaps in the data relating to the public health and social consequences of alcohol consumption and abuse, especially in developing countries. Caution is therefore warranted in interpreting and extrapolating available information to the diverse social, cultural, and economic contexts of developing countries.

1.5 Based on this extensive review, the Note indicates the following for IBRD/IDA, IFC and MIGA:

IBRD/IDA. Considering alcohol's contribution to the burden of disease, the important role that the government must play in reducing market failures related to alcohol consumption, and the availability of potentially affordable, cost-effective, and feasible interventions, the IBRD/IDA will increase its efforts to prevent alcohol abuse in client countries with a high

burden of alcohol-related problems, such as in Eastern Europe and Latin America. The Bank will also seek avenues to increase knowledge about the magnitude of alcohol-related health and social problems in developing countries and their impact on poverty. Finally, the Bank will identify and support effective policies to reduce the impact of alcohol abuse on human capital, especially in countries with high per capita alcohol consumption. The effectiveness of these policies will be assessed in light of both the formal and the informal sectors.

IFC and MIGA. The Note recognizes the development contribution of alcohol-related projects (Section 4), as well as their sensitive nature from a health and social perspective. It therefore validates the selective approach that IFC and MIGA have applied and the higher standard required from these projects. IFC and MIGA are now highly selective, and consider these projects only when:

- (i) the Bank Group has a well defined role (Section 9.5) in facilitating investment in the context of the overall Country Assistance Strategy; and,
- (ii) the project can demonstrate strong development impacts which are consistent with public health considerations and the World Bank activities in the health and social sectors. This Note provides also a framework for evaluating the development contribution of these projects in Section 9.6.

Each new investment by IFC or guarantee by MIGA will therefore have to demonstrate and measure its contribution to the overall development agenda of the World Bank Group against this standard, and the Board will have the opportunity to consider Management's conclusions regarding the appropriateness of Bank Group involvement in the specific project.

2. An Overview of Alcohol Consumption

2.1 Consumption of alcohol beverages is a long-standing and widespread human custom. In some cultures, alcohol is used and valued as a means to improve sociability and mood, as a beverage, and as an intoxicant. Recently, there has also been increased interest in alcohol's potential use to prevent cardiovascular disease (CVD).

2.2 These different uses result in very different patterns of drinking including light to moderate drinking, steady heavy drinking, and binge drinking. Cultures, and social groups within a culture, vary widely in the emphasis placed on particular uses or values, and accordingly differ widely in patterns of drinking. Some religions prohibit consumption of alcohol while others use alcoholic beverages ceremonially.

2.3 Economists measure the benefit consumers derive from drinking alcohol by the price drinkers are willing to pay for alcohol. If drinkers are making well informed consumption decisions, which might not be the case in alcohol-dependency, this outlay represents a minimum estimate of their valuation of the benefits they derive from drinking. Patterns and levels of alcohol consumption, alcohol dependency, and alcohol abuse are determined by many factors including: availability, income per capita, retail price, individual factors (genetic

and environmental) such as age of first use, family history, education, peer group pressure, psychosocial factors, the cultural and historical context, and government policies, such as taxation and restrictions on advertisement and promotion.

2.4 According to WHO data for 153 countries, average consumption is about five liters of pure alcohol per capita per year, ranging from 0.1 to 18.4 liters. About 38 percent of this total derives from beer consumption, another 38 percent from spirits, and the remaining 24 percent from wine (draft WHO First Global Alcohol Report).

2.5 There are significant differences in consumption patterns around the world. In China, Korea, Laos, and Thailand, more than 80 percent of consumption derives from spirits; in Sub-Saharan Africa, beer generally accounts for more than half of consumption. On average, worldwide alcohol consumption per capita has been relatively constant over the last twenty years, but consumption levels are actually rising in many developing countries. The reported average consumption levels in developing countries are less than half of those in developed countries. Beer and wine consumption in developing countries is less than a third of the level in developed countries, although consumption of spirits is at a similar level in the developed and developing countries.

2.6 However, it is important to note that the data from developing countries most likely underestimate actual alcohol consumption. The data generally do not include artisanal production and smuggled beverages, which can account for more than half the overall consumption in some instances. Artisanal production takes place at the family level and the product is usually dispensed into the customer's container (e.g., sorghum beer in Africa). Artisanal production is often characterized by lack of professional or regulatory oversight, variable quality and alcohol level, short shelf life (for beer and low alcohol content beverages), no taxes, and substantially lower prices than industrial products. Smuggling is typically an issue in countries with high duty and excise tax rates, or in countries with a weak administrative infrastructure. The presence and nature of artisanal production and smuggled imports have major implications for intervention policy.

3. Alcohol: the World Bank Group's Involvement to Date

3.1 *IBRD/IDA involvement.* The Bank has done relatively little analysis of alcohol-related problems. Bank studies include *Alcohol-Related Problems as an Obstacle to the Development of Human Capital: Issues and Policy Options* (1993); *Disease Control Priorities in Developing Countries* (1993); *Alcohol Policy in Hungary* (1996); and *Alcohol Over-Consumption and Health in Latin America: A Review of the Literature* (draft, 1998). According to *Alcohol-Related Problems as an Obstacle to the Development of Human Capital* (1993), there is a correlation between per capita consumption levels and alcohol-related problems, although the causality is not well established. The study noted the lack of regulations and consumer information in developing countries, and recommended that governments intervene to mitigate the problems attributable to alcohol consumption.

3.2 Very few of the IBRD health, nutrition, and population (HNP) projects, including those with health promotion and disease components, address alcohol problems, with the exception of current health projects in Estonia, Kazakhstan, Latvia, Lithuania, and Uzbekistan. These projects aim to reduce risk factors such as diet, smoking, and alcohol consumption. The Lithuania and Latvia health projects, for example, have identified alcohol-related injuries, poisoning, and suicides as major factors contributing to the declining health status of adult populations. IBRD supports wine production in three of its agriculture projects – in Hungary, Moldova and Portugal. Annex 1 summarizes these various alcohol-related projects.

3.3 *IFC and MIGA involvement.* All IFC and MIGA alcohol-related projects have been implemented in countries with an established culture of alcohol consumption. In many instances, these projects substitute for smuggled and legal imports, poorly made local beers, and uncontrolled artisanal production. There are twelve alcohol-related projects in the IFC portfolio, accounting for 1.2 percent of IFC's held portfolio (see list in Annex 2). This percentage is an upper bound to the actual financing of malt or beer production because (i) the list includes projects with significant components for the production of soft drinks, and (ii) it also includes a large project for the financial restructuring of a major beverage company in Mexico that did not involve any production expansion. In practice, the IFC has mainly financed projects for the production of malt or beer, although two smaller projects in the wine sector were financed indirectly through credit lines, and the IFC is also providing technical assistance for the structuring of a wine project in Moldova. Neither IFC nor MIGA has financed or guaranteed projects that produce distilled spirits for human consumption, and this exclusion will continue.

3.4 Alcohol-related guarantees are also a very minor part of the MIGA portfolio. As of the end of FY99, there were three contracts for brewery investments, out of 420 MIGA contracts issued (Annex 2). All current IFC and MIGA brewery projects are investments from Part II country investors.

4. The Development Benefits of IFC and MIGA Alcohol-Related Projects

4.1 IFC and MIGA alcohol-related projects generate development benefits for the countries involved, as indicated in project documents and summarized below. A fuller account is provided in Annex 3.

4.2 *Growth of productive private enterprise.* The development impact starts with the promotion of productive private enterprises, and includes production increases, product improvement, and cost reductions, which have been especially significant in projects involving the privatization of state-owned companies. Commercial production of alcohol and non-alcohol beverages generally implies the transfer of efficiency-enhancing technology and business management techniques, particularly in relation to marketing and quality control, research and development, and transport and distribution systems. Given the fragmentation of the retailing sector in most developing countries, the beverage industry's distribution systems generally incorporate sub-contracts with small private entrepreneurs, which furthers the small business development component of these projects.

4.3 *Private sector development.* Because breweries are generally among the leading companies in the food processing sector, their privatization or strengthening is a strong signal of the World Bank Group's support for the privatization process and private sector development in the countries of investment destination. IFC and MIGA support for modern breweries and wineries encourages an ethical business framework because these projects pay taxes, abide by regulations, and are accountable business entities, which is generally not the case with artisanal producers and illegal importers.

4.4 *Employment and living standards.* Although modern malting and brewing technologies are typically labor saving, IFC and MIGA brewery projects preserve or create jobs in poorer countries. The net impact on employment will depend upon the circumstances. Where production replaces imports, there will be a net increase in employment. Insofar as new production replaces domestic production (including artisanal), then the employment effect is likely to be negative. More important is the quality of the jobs thus preserved or created, including stability and the provision of proper social benefits for employees.

4.5 *Product safety.* The IFC's appraisal missions have identified many cases, particularly in Africa and eastern Europe, of health hazards associated with the consumption of beers found on the local market: unpasteurized products, malt infected with aflatoxin, yeast contamination, contaminated water (e.g. coliforms), and high infection levels due to poor pipe-work conditions and lack of cleaning systems. Investments by reputable operators mitigate these health hazards and reduce the risks to consumers from exposure to such toxins and contaminants.

4.6 *Government revenues.* Alcohol companies are a prime source of government revenues, through VAT and corporate income taxes, as well as through specific excise taxes levied on the consumption of commercial alcohol products. In projects financed by the IFC, excise taxes ranged from 30 to 110 percent. The incremental impact of alcohol projects on government revenues varies widely according to local economic conditions. In cases where local production will substitute for controlled imports, the incremental tax benefit of a project may be marginal. In cases where production will substitute for uncontrolled local production or smuggled imports, incremental tax revenues will be significant. The tax benefit of alcohol projects will therefore be greatest in developing countries with a narrow fiscal base, a high number of backyard producers, and a weak administrative capability to enforce customs regulations. In 1997, an IFC-financed brewery project in Tanzania provided about 8 percent of government revenues (see Case Studies, Annex 3).

5. Alcohol Consumption: Health and Social Consequences

5.1 A wide variety of adverse health and social consequences arise from alcohol consumption and abuse, including higher morbidity and mortality from injury, violence, suicide, poisoning, liver cirrhosis, some cancers, hemorrhagic stroke, malnutrition, neurological disorders, alcoholism, alcoholic psychosis, and fetal alcohol syndrome. The latter, due to alcohol consumption during pregnancy, is the main cause of mental retardation

in some population groups in developed countries. Epidemiological data on the contribution of alcohol use to disease burden are found mainly in developed countries, with limited data available for developing countries. Therefore, estimates for developing countries should be interpreted with caution, as discussed in Annex 4.

5.2 The best available estimates are found in *The Global Burden of Disease and Injury* (World Bank, WHO, and Harvard University, 1996), which estimates that alcohol contributed to 3.5 percent of the global burden of disease and disability in 1990 (1.5 percent of total deaths). Alcohol is ranked fourth among the top ten risk factors for disease and disability, following malnutrition, poor water supply and sanitation, and unsafe sex. The contribution of alcohol use to overall disease and disability varies greatly by region: it is highest in the established market economies (10.3 percent), Latin America (9.7 percent), and the former Soviet Union (8.3 percent). It is lowest in the Middle East (0.4 percent) and India (1.6 percent). Globally, alcohol is estimated to have caused about three-quarters of a million more deaths than it averted, with more than 80 percent of this excess mortality occurring in developing countries. According to the World Health Organization, “alcohol is a special substance because of its dependency-producing properties and the severity of problems associated with its use.”

5.3 To the consumer, the most important benefit of alcohol consumption is the culturally mediated association of drinking with sociability and mood, although the potential protective effect for cardiovascular disease (CVD) from moderate alcohol consumption has recently been emphasized (Annex 5). The CVD protective effect has been documented in men over forty who drink low amounts. This effect probably requires regular light drinking; intoxication increases the risk of heart disease and other problems. The data on the CVD protective effect of moderate drinking in women remains contradictory. In younger age groups, alcohol consumption at all levels increases mortality, mainly from injury and suicides. In terms of total years of life lost from premature mortality, alcohol’s net effect is negative in all regions (Annex 4).

5.4 The burden of social problems from drinking is mostly unmeasured, but qualitative evidence suggests it is large in the developing as well as the developed world. In developing societies, problems associated with intoxication episodes typically predominate. These problems include accidents and violence, causing injury to the drinker and to others, as well as other adverse impacts on family and community life. Many of the problems related to drinking are negative externalities, although non-health externalities are typically not well measured. The evidence supports a correlation between the levels of alcohol-related problems and the level of per capita consumption in the society. The multiplicity of factors influencing the rate of alcohol-related problems clearly indicates that policy options need to consider per capita consumption, patterns of drinking, as well as other qualitative aspects of the drinking culture.

5.5 With respect to both adverse and potentially beneficial health consequences of drinking, alcohol is the main active ingredient in alcohol beverages. The consequences are less affected by the type of alcohol beverage consumed (beer, wine, or distilled spirits) than by the pattern of drinking. Distilled spirits are clearly more dangerous than more diluted beverages in terms

of the risk for alcohol overdose (alcohol poisoning), which is a problem in some cultures and among inexperienced adolescents. In most societies, however, death or disability from alcohol overdose is a small part of the burden of alcohol-related adverse effects on health.

5.6 Alcohol and tobacco consumption have some important differences that are relevant to health policy and to Bank Group activities. First, the pattern of alcohol consumption plays an important role in determining health consequences, which is not the case for the pattern of tobacco consumption. For example, binge drinking often has more damaging consequences than moderate drinking, although the same amounts may be consumed over time. Second, moderate alcohol consumption among men above forty is known to generate cardiovascular benefits. In contrast, tobacco consumption at all levels is considered harmful to health. Finally, informal artisanal production is much more important for alcohol than for tobacco. Substitution of commercial for artisanal production provides a better counterpart for Government to address alcohol production and consumption in terms of public health matters, regulation and fiscal aspects.

6. Alcohol Consumption and Poverty

6.1 There has been little analysis of the link between alcohol consumption, alcohol-related problems, and poverty. Empirical evidence from developed countries shows that poor people are more likely to abstain, less likely to be moderate or light drinkers, and that they report approximately the same levels of heavy drinking as other income groups, based on self-reported drinking patterns. However, the poor also report higher rates of various alcohol-related problems. Several data sources suggest a link between alcohol-related problems and poverty in developed countries, such as the disproportionate levels of alcohol-related chronic diseases, clinically diagnosed alcoholism, and Alcohol-Related Birth Defects (ARBD) among groups of low socio-economic status. Problem drinking has been shown to reduce employment and earnings, with lost productivity being a significant proportion of the total estimated cost of alcohol to society. The findings regarding socioeconomic status and alcohol-related problems need to be viewed with some caution since other demographic variables – age, race, sex, education, geographic residence, and occupation – interact with income and drinking practices.

7. Alcohol: Cost of Illness Studies, Market Failures, and External Costs

7.1 Several studies have attempted to measure the costs to society of alcohol-related problems. Cost-of-illness studies typically show that the costs related to alcohol abuse are very high and that the majority of these costs come from lost productivity and premature mortality, together accounting for 65 to 85 percent of the total costs. The computational techniques and methodological choices used by cost-of-illness studies are debatable and thus the relevance of these studies for policy making and for adjudicating alcohol-related investments in developing countries are also debatable (Annex 6).

7.2 From the welfare economics perspective, the relevant features of the alcohol market for policy making are the presence of market failures (e.g., information) and of external costs –

i.e. those costs that are imposed upon society by the drinker and that are not fully paid for. Policy makers start by determining whether the existing policy instruments (including alcohol taxation) correct the market failures and cover the costs that harmful drinkers impose on society. These determinations typically run into the problem of identifying market failures and external costs. Although some alcohol-related problems are easily identified as external, such as violence, child abuse, driving accidents inflicted by the drinker on others, and fetal alcohol syndrome in newborns caused by the alcohol consumption of pregnant women, other costs are less readily identified as either external or internal. Alcohol-dependency, for example, is sometimes considered a market failure and therefore a justification for policy action, and sometimes not. Likewise, some costs are defined as external or internal depending on the context. For example, if the insurance system does not charge a higher premium to drivers with a past history of drunk driving, then the material damage due to drunk driving is likely to be external; otherwise it is internal. The empirical literature on this topic is sparse for the developed world and non-existent for the developing world. Several studies have argued that external costs of alcohol consumption account for only 10-15 percent of the cost-of-illness in the United States. There are contradictory conclusions, however, regarding the magnitude of these costs relative to the receipts from alcohol taxation (Annexes 6 and 8).

8. Public Policy Options to Prevent or Reduce Alcohol-Related Problems

8.1 Most developed societies regulate the alcohol market to reduce the health and social problems that arise from alcohol abuse. Alcohol policies include product safety standards, licensing of production, taxation, health promotion, advertising controls, drunk driving laws, minimum-age limits, and restrictions on the times and conditions of alcohol beverage sales (Annex 8). Limits on advertising and promotion have been common regulatory measures, and may be symbolically important, although their long-term effectiveness is more in question. Consumer information, such as information on drinking during pregnancy, is another important public health tool. Since the informal sector supplies a significant proportion of alcohol beverages in many developing countries, the effectiveness of intervention strategies on this sector must be carefully evaluated. The design of beverage taxes needs to take into account the effective deterrent factor, given production in the informal sector and the potential for illegal imports, as well as the impact on government revenues and the development of an ethical business environment. As WHO indicated in its 1995 report, “Approaches to Alcohol Control Policy”:

“Experience from history, from many developing countries and some countries of central and eastern Europe shows that, without effective regulation of “moonshine,” surrogate alcohol and other alcoholic products produced without quality and safety controls, the possibility of pursuing a public health alcohol policy is very limited. Tight control of the legal alcohol market without effective regulation of the illegal market can result in many health and social problems related to the increased use of impure or extremely strong alcohol.”

8.2 Many developing societies have little in the way of state regulatory structures. The earlier debate about which costs are relevant for policy making from different economic

perspectives naturally carries over into the discussion about optimal public policies (Annex 8). The choice of alcohol policies has to be made on the basis of implementation and enforcement costs, effectiveness, welfare implications, and cultural appropriateness. From the welfare economics perspective, an ideal policy might be stringent drinking-driving laws to prevent drunken driving. In many countries, such laws can be effectively implemented and enforced at affordable cost, and inflict no welfare loss upon other drinkers.

8.3 From a public health perspective, an ideal alcohol policy addresses the multiple determinants of alcohol abuse through affordable, cost-effective, culturally appropriate, and sustainable interventions, preventing alcohol abuse and dependency – reducing the risk for the individual, whether drinker or non-drinker, as well as for the society. The public health approach focuses on the risk behaviors and the enabling and reinforcing factors influencing those behaviors; as well as on the individuals or population groups at risk. The public health approach views alcohol consumption, use, and abuse as a continuum. The economic and public health perspectives are not mutually exclusive; an optimal policy decision should identify the areas of convergence and the optimal strategies and interventions within a specific context, as reflected in the policy and action plan described in Annex 7.

9. Alcohol-Related Projects and the World Bank Group

9.1 Given a mandate that is both economic and social, the World Bank Group's responsibilities with respect to alcohol beverage production and development are dual. On the one hand, making alcohol beverage production more efficient and complying with product safety, legal and fiscal regulations is a potential contribution to development. On the other hand, alcohol is a special commodity in terms of its adverse social and health consequences when abused, its dependency-producing properties, and the severity of associated problems, which can interfere with development and adversely affect the quality of life.

9.2 The Bank Group recognizes that many products, including food and beverages can be harmful to human health if not used appropriately. The Bank Group believes alcohol-related projects should be considered carefully on a case-by case basis with due regard for the development benefits and public health issues and social policy concerns. Given the important cultural differences among countries in their views towards alcohol, the Bank Group believes that its alcohol-related activities should be fundamentally based on each country's policy towards the use and control of such products and consistent with the Bank Group's Country Assistance Strategy.

9.3 *Human development.* Considering alcohol's contribution to the burden of disease, the important role that the government must play in reducing market failures related to alcohol consumption, and the availability of potentially affordable, cost-effective, and feasible interventions, the IBRD/IDA will increase their efforts to prevent alcohol abuse in client countries with a high burden of alcohol-related problems, focusing initially on Eastern Europe. These efforts would include, among other measures, taxation policy. They will also seek avenues to increase knowledge, both in and outside the Bank, about the magnitude of alcohol-related health and social problems in developing countries and their impact on

poverty. Finally, the Bank will identify and support effective policies to reduce the impact of alcohol abuse on human capital, especially in countries with high per capita alcohol consumption. The effectiveness of these policies will need to be assessed in light of both the formal and the informal sectors.

9.4 *IFC*. *IFC*'s support of alcohol-related projects has been limited and will likely continue to be so in the future. Cultural and religious factors, as well as policy issues, determine the pertinence of alcohol-related projects in each country. In selected circumstances, alcohol beverage projects can be useful vehicles for promoting the private sector and supporting economic reforms in developing countries, and can have a direct development impact on the countries involved through their demonstration effect and the fiscal and foreign exchange impacts. Investments in the malt industry can carry important economic benefits as well, although these benefits are different in nature, and more related to the development of the rural sector. A general framework for the evaluation of these development impacts is provided in Annex 3 (Section A).

9.5 *IFC*'s role will continue to be evaluated for each project according to the three basic principles (*IFC's Contribution to Development, IFC R/92-16*) that guide its operations:

- (i) the catalytic principle. *IFC* will seek above all to be a catalyst in helping private investors and markets to make good investments;
- (ii) the business principle. *IFC* will function like a business in partnership with the private sector and take the same commercial risks, so that its funds, even though they are backed by public sources, are transferred under market disciplines, and
- (iii) the special contribution principle. *IFC* will participate in an investment only when it makes a special contribution that supplements or complements the role of market operators. *IFC* will strive to provide financing which is truly additional and could not be raised elsewhere on reasonable terms.

9.6 Given the sensitivity of alcohol-related projects, *IFC* is now highly selective, and finances projects with strong developmental impacts which are consistent with public health issues and social policy concerns. In the case of alcohol-related projects, one expects each of them to: (a) be consistent with public health considerations and the World Bank's activities in the health and social sectors; and (b) contribute to some or all of the following criteria:

- (i) *Growth of productive private enterprise.*
 - production increases, product improvement, and cost reductions,
 - transfer of efficiency-enhancing technology and business management techniques,
 - backward and forward linkages (e.g., benefits to farmers, distribution systems).
- (ii) *Private sector development.*
 - privatization,

- early-stage transaction in frontier countries,
- demonstration effects (e.g., testing of project financing process),
- assistance to establishment of an ethical business framework and accountable business entities.

(iii) *Employment and living standards.*

- direct jobs created or safeguarded,
- quality of jobs and provision of social benefits for employees,
- indirect employment impact (distribution).

(iv) *Product safety.*

- improvements of product safety (e.g. quality of raw materials, cleaning systems, pasteurization).

(v) *Government revenues.*

- substitution of untaxed artisanal production and/or uncontrolled imports,
- incremental taxes (excise, VAT, income).

Although projects vary significantly in terms of the nature of their contribution to development, one will expect each of them to contribute to some or all of the above criteria. Each new IFC investment will therefore have to demonstrate and measure its contribution to the overall development agenda of the World Bank Group, including the Country Assistance Strategy. The IFC's Board will have the opportunity to consider Management's conclusions regarding the appropriateness of Bank Group involvement in the specific project.

9.7 In addition to the above internal decision criteria, each IFC project is validated by the consultation of the host country as well as notification of local communities (pursuant to IFC's disclosure policy). In accordance with Article III, section 3 (ii) of IFC's Articles of Agreement, the host country's non-objection to a proposed investment is, for IFC, an indicator of its acceptability within the country's economic and social context. In addition, each project is subject to IFC's disclosure policy, which now includes local disclosure in a culturally appropriate manner for Category A and B projects; thus, local communities most directly affected have an opportunity to comment on the specific merits of the project.

9.8 *MIGA.* MIGA's support of alcohol-related projects also has been limited and will continue to be so in the near future. MIGA Management has always given high priority to the evaluation of project-specific developmental impact as part of the decision-making process as to whether to offer a guarantee (see MIGA/Sec M98-24, and the forthcoming "Development Effectiveness FY99: A Progress Report"). MIGA's framework for evaluating development effectiveness is based on both *ex ante* and *ex post* analyses, and takes into consideration many of the criteria considered by the IFC during its appraisal (see Annex 3). From the very beginning MIGA's Management prepares for this evaluation by systematically gathering information on the anticipated development impacts of the proposed investment, and communicates this information to the Board in every President's Report submitted for approval.

9.9 All three of MIGA's guarantees for alcohol-related projects have involved Part II to Part II country investments, which Management has viewed very favorably as a development benefit for both the host country and the investor country of origin. In accordance with MIGA's Convention, the host country's approval of a prospective guarantee is a critical indicator in determining whether an investor's project provides acceptable development benefits. As in the case of IFC's proposed investments, the Board has an opportunity to consider Management's conclusions regarding the appropriateness of Bank Group involvement in the specific project.

List of Annexes:

Annex 1

Current and Upcoming Alcohol-Related Projects in the World Bank's HNP and Agriculture Portfolios

Annex 2

IFC and MIGA Alcohol-Related Projects (ARP)

Annex 3

The Development Impact of IFC Alcohol-Related Projects

Annex 4

The Global Burden of Disease and Injury Estimates on Alcohol

Annex 5

The Current Evidence of the Protective Effect of Alcohol on Cardiovascular Disease

Annex 6

Evaluating the Social Costs of Alcohol Abuse

Annex 7

Summary of WHO Global and European Regional Alcohol Policies

Annex 8

Strategies for Minimizing Alcohol-Related Harm: Matching Policy Instruments to Market Failures

World Bank Group Task Force Membership

Bibliography

Annex 1: Current and Upcoming Alcohol-Related Projects in the World Bank’s HNP and Agriculture Portfolios

A. The HNP Portfolio

Country	Project Name	Approval Date	Effective Date	Loan (\$m)
Kazakhstan	Health Restructuring	99/4/1	N/A	40
Latvia	Health	98/11/12	N/A	12
Uzbekistan	Health I	98/9/22	N/A	30
Lithuania	Social Policy and Community Social Services Development	97/02/18	98/01/13	3.7
Estonia	Health	95/01/19	95/07/10	18

1.1 Kazakhstan – Health Restructuring Project. Non-communicable diseases such as cardiovascular disease (CVD), cancer, and accidents are the leading causes of death in Kazakhstan. These diseases often correlate with lifestyle, diet, nutrition, smoking, and alcohol consumption. This project attempts to improve the population’s understanding of these health risk factors, develop information, and develop and implement policy interventions to address these risks.

1.2 Latvia – Health Project. Several factors contribute to the dynamics of declining health status in Latvia – worsening socioeconomic conditions during the transition, deteriorating behavioral health determinants (alcohol-related injuries, poisonings, and suicides), increased mortality from preventable diseases (perinatal mortality, CVD mortality of working age males, TB), and the high prevalence of smoking and an unhealthy diet. The objectives of the proposed project include the development of effective prevention and treatment for specific priority diseases.

1.3 Uzbekistan – Health I Project. The health status of Uzbekistan’s population is affected by a wide range of risk factors including smoking, alcohol abuse, and poor diet. As much of the mortality is associated with lifestyles, public education programs will contribute to improvement in the nation’s health profile, including a health education initiative delivered through new outpatient centers.

1.4 Lithuania – Social Policy and Community Social Services Development. This project attempts to improve the capacity to analyze social policy at all stages, and community social care services. A sub-component of the project will assist in reducing institutionalization of groups at risk, including alcoholics, through the development, testing, and replication of new community-based social services models. A rehabilitation center will be established for recovering alcoholics and drug abusers to meet and to receive counseling and social services.

1.5 Estonia – Health Project. In Estonia, alcohol intoxication deaths have dramatically increased since 1988. Epidemiological research indicates that 2 percent of the population have alcohol-related mental health problems. This project aims to improve the health of Estonians by: (a) emphasizing health promotion and disease prevention programs to increase awareness of healthy life styles; (b) developing human resources for health by strengthening

modern public health training, integrated pre-clinical medical training, and continuing education for public health doctors, health insurance and hospital administrators, nurses, and other health personnel; and (c) supporting the ongoing health financing reform to ensure its sustainability, cost-effectiveness, and equity. In the medium term, preventive measures and promotion of healthy life styles would lower adult mortality and morbidity due to alcohol consumption.

B. The Agriculture Portfolio

Country	Project Name	Approval Date	Effective Date	Loan (\$m)
Moldova	First Agriculture	96/05/07	97/02/27	10
Portugal	Tras-Os-Montes Regional Development	89/04/11	90/02/20	90
Hungary	Agroprocessing Modernization	88/05/05	88/08/10	70

1.7 Moldova – First Agriculture Project. This project aims to improve the effectiveness of key agricultural research programs on priority export crops and products. The broad objective of the wine production component of this project is to improve the quality of Moldovan wine in order to generate additional foreign exchange revenues from exports and to increase the profitability of the wine sector. The development of new export markets has become a major precondition to restoring economic growth and stability. The viticulture component would (a) support research and development of suitable grape varieties and vine clones adapted to the regional soil and climate and to consumer preferences in export markets; (b) improve the production of quality planting materials in modernized nurseries; and (c) provide facilities to test new production methods and systems.

1.8 Portugal – Tras-Os-Montes Regional Development Project. This project aims (a) to transform the agriculture sector of the Tras-Os-Montes region into a more efficient sector; (b) to increase value added in agriculture through improvement and expansion of processing and marketing facilities; (c) to promote steady economic growth of this region; and (d) to increase rural family incomes, especially of women, who make up a large part of the agricultural labor force in the area. The project provides long-term credit for modernization of agroindustries and the replanting of 5,000 ha of existing vineyards for port wine. Estimated incremental production of grapes for port wine production under the project would be about 21,500 tons, yielding an additional 15.5 million liters of port wine (an increase of about 20 percent over the previous level of production).

1.9 Hungary – Agroprocessing Modernization Project. This project provides funds to about 70 agroprocessing enterprises in selected agricultural subsectors, including wine, to modernize their facilities and to incorporate improved management, marketing, and technology into their operations. Modern, up-to-date equipment for packaging, canning, bottling, chilling, freezing, and cold storage of food and food products is the major areas for plant improvement. It supports the upgrading of support services in terms of (a) export trade promotion and marketing; (b) training in management and marketing; (c) grading and quality control of raw materials and final products; and (d) research and development. Feasibility studies show that gross incremental production of wine and fruit juice due to the project would be 9 percent, and export, 14 percent.

Annex 2. IFC and MIGA Alcohol-Related Projects and Guarantees

Alcohol-Related Projects Approved by IFC's Board												Portfolio Held As of January 1999	
US \$ millions		Board Paper									IFC	Participants	
Country	Company	Activity	Approval Date	Loan and Guarantee	Equity Quasi-equity	Syndication	IFC Gross	Project Cost	FRR	ERR			
Argentina	ROB-Malteria*	Malt	FY89	1.0	-	1.0	2.0	27.0			c	C	
Argentina	Malteria Pampa	Malt	FY92, 93,96	15.0	-	12.0	27.0	58.6	27%	31%	11.6	7.8	
Argentina	Quilmes	Malt	FY94	19.0	-	15.0	34.0	45.0	19%	20%	9.5	6.3	
Bolivia	CBN Malt	Malt	FY81	5.7	-	-	5.7	22.9			c	C	
Hungary	Albadomu	Malt	FY95	4.8	1.9	-	6.7	19.9	15%	14%	5.1	-	
Poland	Baltic Malt	Malt	FY96	7.2	2.0	-	9.2	27.5	19%	31%	8.0	-	
Argentina	ROB-Cuyo *	Beer	FY86	0.5	-	0.5	1.0	1.9			c	C	
Argentina	Brahma	Beer	FY96	10.0	8.5	33.0	51.5	116.1	15%	13%	17.1	26.4	
Benin	SobeBra**	Beer	FY92	5.3	-		5.3	31.2	29%	>100%	C	C	
Bosnia and Herzegovina	Sarajevska Pivara, d.d. **	Beer	FY97	5.1	-	3.0	8.1	12.1	19%	21%	4.2	-	
Brazil	Brahma	Beer	FY95	30.0	5.0	123.0	158.0	575.8		19%	27.5	61.5	
Czech Republic-	Plzensky Prazdroj	Beer	FY95	43.2	-	21.6	64.8	171.5	22%	22%	32.6	15.3	
Ghana	Achimota Brewery Company	Beer	FY92	3.5	1.0	-	4.5	24.5	28%	83%	C	C	
Mexico	Grupo Femsa**	Beer	FY89	80.0	-	-	80.0	226.0***	N/A	N/A	9.4	-	
Romania	Efes Brewery SA	Beer	FY97	12.0	5.0	8.0	25.0	70.0	18%	22%	17.9	8.0	
Tanzania	Tanzania Breweries Ltd.	Beer	FY94, 95	11.0	6.0	7.4	24.4	87.2	35%	65%	6.0	-	
Argentina	BGN-Flichman *	Wine	FY87	0.3	-	0.3	0.5	20.0			c	C	
Yugoslavia	BOAL Podrumarstvo*	Wine	FY87	1.1	-	-	1.1	1.8			*	*	
Total ARPs				254.7	29.4	224.8	508.8	1539.0			149	125	
Total IFC											12,135	7,752	
ARPs as a % of IFC											1.2%	1.6%	

Alcohol-Related Projects Guaranteed by MIGA

Country	Company	Activity	Date	Guarantee	Investor's Contribution	Project Cost	FRR
Brazil	Sao Paulo Interior e Parana Industries De Bebidas**	Beer	FY96	3.9	9.2	71.9	39%
Romania	Efes Brewery SA	Beer	FY98	30.0	45.0	70.0	18%
Russian Federation	Knyaz Rurik – Efes Brewery	Beer	FY98	29.7	33.0	106.9	19%
<p>^c Closed project. C Cancelled project * Projects financed under agency/credit lines. ** Significant non-brewery component. *** Debt restructuring operation – Project cost calculated as IFC financing plus additional mobilizations. ERR Economic rate of return FRR Financial rate of return</p>							

Annex 3. Development Impact of IFC Alcohol-Related Projects

3.1 The development impact of IFC's investments (and MIGA's guarantees) is summarized in the report to their respective Boards for each proposed investment. This information is obtained during project appraisal and is specific to the investment and country under consideration. It consists of data from quality analyses, market studies, and economic analyses carried out by the investor, consultants, or contractors. These data are then reviewed and corroborated by the IFC appraisal team. The information summarized below is a compilation of data, analyses, and other information based on IFC staff experience during project appraisal. For convenience, it is presented in the format used by IFC's Operations Evaluation Group for its *ex post* rating of projects in its annual review of IFC's operations. This framework is described in the next section.

A. Evaluating Development Impacts: the OEG Framework

3.2 IFC's operations evaluation system¹ rates each operation on four essential dimensions of performance: (1) business success, (2) development impacts, (3) IFC investment's profitability, and, (4) IFC's effectiveness. The second dimension applies to the *ex ante* evaluation of the development impact of all IFC projects as well. The following describe the criteria and rating guidelines applied by IFC's Operations Evaluation Group.

Project's Development Impacts

(All ratings derive from "with/without project" comparisons)

1. ***Growth of productive private enterprise:*** Consider: project FRR; pioneering attributes; technology/know how transfer; effect on competition in the industry; demonstration effects in local economy (including business ethics, community relations and attractiveness as an employer); induced changes in local enabling environment; impact on enabling environment, government policy and regulatory framework; upstream/downstream linkages; catalytic effects on other companies; financial markets and/or infrastructure development.
2. ***Growth of the economy:*** excellent: Project ERR (at real prices) $\geq 20\%$; satisfactory: $10\% \leq \text{ERR} < 20\%$; partly unsatisfactory: $5\% \leq \text{ERR} < 10\%$; unsatisfactory: $\text{ERR} < 5\%$. Where outcomes are near the margins, net unmeasured economic benefits (e.g. consumer surplus) or costs (e.g. environmental damage/mitigation) should be considered.
3. ***Living standards:*** Consider: project's impact on living standards of company's local employees and shareholders, as well as those of its customers, competitors and suppliers; also, project-generated taxes and indirect taxes through commercial linkages; and gender, child labor and regional development impacts (as material). (Note: Project's other sociological and community impacts may be addressed under next item.) The project's contribution should be rated: *excellent* if the project's improvements in living standards substantially exceed any negative effects; *satisfactory* if the project's improvements exceed any negative effects; partly *unsatisfactory* if the project's negative effects exceed

¹ See for example: Annual Review of IFC's Evaluation Findings: FY98, IFC/R98-265.

its improvements; *unsatisfactory* if the project's negative effects substantially exceed its improvements.

4. **Environmental effects:** *excellent*: project meets or exceeds IFC's *current requirements* and has materially improved company's overall environmental performance, or that of other local companies (e.g., by raising industry standards); *satisfactory*: project in material compliance with IFC *at-approval requirements*, including World Bank environmental, health and safety policies and guidelines; *partly unsatisfactory*: project not in material compliance with IFC at-approval requirements but deficiencies are being corrected; *unsatisfactory*: project not in material compliance with IFC *at-approval requirements*, and mitigation prospects are uncertain or unlikely. In expansion projects, the environmental performance of the company's non-project operations is considered in the rating, in accordance with at-approval (for *satisfactory*) and current (for *excellent*) standards.

B. General Overview: IFC Financing of Alcohol-Related Projects

3.3 IFC's financing of alcohol-related projects (ARPs) has been limited. As of January 1999, ARPs accounted for only 1.2 percent of IFC's held portfolio. There are currently 12 such projects in IFC's portfolio. In addition, IFC is providing technical assistance to a winery project in Moldova (see case studies in the next section of this annex). These projects can be divided into two groups according to the type of product:

- raw materials intended for use by the beverage industries – malting barley, malt, hops, wine grapes;
- alcohol beverages – beer, wine and others.

3.4 In practice, IFC has mainly financed projects for the production of malt or beer. Although malting facilities are increasingly dedicated to the sole production of malt, brewing companies commonly also engage in the production of soft drinks and bottled water because of the synergies involved, particularly on the distribution side. Some of the brewing companies' projects (Sarajevska Pivara, Bosnia-Herzegovina) have actually been almost exclusively for the development of soft drink production. The discussion of the development impact will therefore center on malting and brewing projects, although the conclusions readily extend to the production of other raw materials or alcohol beverages.

Raw material production: malting projects

3.5 The two ingredients produced mainly as raw material for beer are barley/malt and hops. Malt is mainly produced from specific qualities of barley, although other cereals are sometimes used, such as sorghum in some African countries. It can be stored for short periods and is an internationally traded commodity, albeit on a relatively thin market. Malt processing is usually done in barley growing areas, although sometimes it takes place close to the end-users, i.e. the breweries. When the transportation infrastructure is well developed, the economics of transportation generally favors processing in areas of cereal production. As a consequence, there is little correlation between local production of malt and beer consumption. The major malt exporting countries are also those that have significant cereal production, i.e. Europe, Canada, Australia, and Argentina. Local availability of barley and

malt is not a prerequisite for the development of the brewing sector. In fact, brewers in many countries rely largely on malt imports for their production.

3.6 Historically, many breweries possessed their own malt facilities. They have increasingly transferred their malt production to independent, reliable malt producers, to concentrate on the production, marketing and distribution of their beer products. Malt production has thus become a low margin, high volume, specialized activity that requires commodity trading skills and large-scale production facilities.

3.7 *Growth of productive private enterprise.* Direct economic benefits from malt barley processing derive from the value added to cereals, whether locally produced or imported. The world market for malt remains dominated by exports from industrialized countries; the IFC has supported the development of local malting facilities in emerging countries only when they can be internationally competitive. In some cases, such as Argentina, these projects have had important demonstration effects and have been followed by further investments in the sector. Ex-ante financial rates of return for these projects ranged from 15 percent to 27 percent. In several cases (Argentina, Hungary, Poland), investments have also involved some degree of asset privatization, although this was not a central feature of the projects.

3.8 *Contribution to growth of the economy.* One of the indicators of a project's contribution to the economy is the economic rate of return (ERR). Ex-ante ERRs for the alcohol-related projects financed by IFC ranged from 14 to 31 percent. This indicates satisfactory returns even considering the distortions and transfers typical of the agricultural markets. Differences between FRRs and ERRs in that case generally stemmed from incremental taxes generated by these companies and border pricing of barley and malt.

3.9 Local farmers receive a significant secondary benefit from these projects because of the specific nature of malting barley. Because large-scale modern plants cannot rely on the spot market to secure a regular supply of quality malting barley, they will vertically coordinate their operations with barley growers through contractual agreements. This cooperation between the maltster and the farmer is strengthened by stringent biochemical requirements imposed by the industry. Since most cereal crops are substitutes for barley on the production side, maltsters will generally offer attractive prices, and sometimes forward prices, in order to guarantee sufficient volumes of raw material, thus increasing farmers' net margins per hectare. Finally, the barley-growing season tends to be shorter than wheat, which may allow cultivation of a second crop in some countries such as Argentina. Local farmers therefore derive significant benefits from malting plant investments. These investments provide a secure and profitable alternative outlet to the traditional cereal marketing channels, and thus provide a form of crop diversification and an instrument of risk management.

3.10 These indirect benefits are difficult to quantify at the time of project appraisal. In the context of a recent IFC Investment Assessment Report, they were evaluated at \$1m to \$2.5m annually for an IFC project in Argentina (Malteria Pampa – see case studies in this annex).

Brewing projects

3.11 *Growth of productive private enterprise.* Tangible direct benefits come from production expansion, product improvement, and cost reductions. While these benefits have been features of all projects, they have been particularly remarkable in the case of privatization projects since, in all cases, enterprise operations suffered badly under public management. These operations commonly featured low productivity, low capacity utilization, high costs, and low product quality.

3.12 Private sector development. In developing countries with local production of beer, brewing companies are often leading players in the food and beverages sector and therefore stand out as conspicuous indicators of private sector vitality. Many developing countries over the years have suffered from excessive government intervention, sometimes culminating in total government ownership of the major processing and marketing companies. While history proved that strategy ineffective, re-privatization has also proved arduous, since the long-term commitment of many governments to free markets and the private sector remained in question. In this context, IFC's priority has been to provide political comfort to foreign and domestic investors and lower the psychological barrier to private investment through visible catalytic operations.

3.13 Because of their visibility and financial attractiveness, breweries have been an effective vehicle for that strategy, particularly in Sub-Saharan Africa and Eastern Europe. All three IFC brewing investments in sub-Saharan Africa were for the privatization, rehabilitation, and expansion of existing brewing operations. All three privatization projects were among the first and largest IFC transactions in their respective countries. For similar reasons, beverage companies have been useful demonstration vehicles to convey the IFC's confidence in the private sector of countries facing difficult economic conditions. In that spirit, IFC undertook a highly successful corporate restructuring of the Femsa Group in Mexico in 1988 (see case studies). This project was limited to a large operational and financial restructuring, and did not involve any expansion of the beer production capacity.

3.14 Capital market development. IFC's financing of breweries has also effectively helped to support the development of capital markets, through a high level of direct mobilization. This has been particularly true of projects in Latin America and Europe, although some African projects benefited from syndications as well. In addition, several IFC investments in the sector eventually led to public listing of the companies, thus contributing to the development of an active stock market.

3.15 *Contribution to growth of the economy.* The estimated rates of return for IFC brewing projects range from 13 to more than 100 percent. These rates reflect value added and operational improvements in the case of rehabilitation. When there is clear incrementality in excise and sales taxes generated by the projects, these were added as project benefits. This is generally the case when production in the country substitutes for smuggled imports or beer produced locally and sold outside the controlled marketing channels as in Africa. In other projects (Argentina, Brazil), beer has been regarded as a traded product, i.e. its local production would replace imported beer, which would in any case pay the excise taxes. The

implication is that the project generated no additional taxes; in this case, however, one should logically regard the additional consumer surplus derived from the lower cost of locally produced beer as another benefit.

3.16 Employment. Brewing is an industry with a significant employment impact, particularly in poorer countries where there is no economic logic to the automation of many tasks. Green field investments such as those financed by the IFC in Argentina and Romania created more than 300 jobs each in countries with significant unemployment or underemployment. In the case of post-privatization rehabilitation and restructuring, the net employment impact may be negative, as the companies under state ownership were clearly overstaffed. In all cases, however, brewery projects have created or preserved large amounts of stable, quality jobs (2,000 in Tanzania), with proper training and benefits for the employees.

3.17 Food safety. All IFC brewery projects have been implemented in countries with an established culture of beer consumption. The output of these projects therefore substituted or added to the production of backyard operations, production by state-owned companies, and/or uncontrolled imports. IFC's appraisal missions often identified significant health hazards associated with the consumption of beers sold on the local market: unpasteurized products, malt infected with aflatoxin, yeast contamination, contaminated water, and high infection levels due to the poor condition of pipe work and lack of cleaning systems. In all cases, new investments by reputable operators have resulted in the mitigation of these health hazards and have eliminated risks to the general population of being exposed to toxins and contaminants.

3.18 Fiscal benefits. An important benefit of brewing operations comes from the high level of taxes typically applied to the industry. Breweries are a primary source of government revenues, through VAT and corporate income tax, but also through the various excise taxes levied on alcohol products. In the projects financed by the IFC, excise taxes ranged from 30 percent to 110 percent. There is a double objective to these taxes: they are a source of fiscal revenues for the state, and they are an effective instrument to control the price of beverages at retail outlets.

3.19 These revenues are particularly consequential in countries with narrow fiscal bases and weak customs enforcement. Local production of beer will, in these cases, lead to an improved recovery of taxes and better control over the retail price of beverages. Expected fiscal revenues from Tanzania Breweries Ltd., for example, were forecast at about US\$16.5 million annually, i.e. about 3.5 percent of total government revenues in 1994, when the brewery was acquired by a foreign investor. In 1997, the same brewery paid about US\$75 million in taxes (excise, sales, and income taxes), accounting for about 8 percent of government revenue (see case studies). Incremental fiscal benefits from the privatization/rehabilitation of brewing companies are even greater when they help eliminate the operating losses that were sometimes incurred by the former state-owned companies.

Other benefits of brewing projects

3.20 Upstream linkages. Indirect development effects from brewing operations are also important. Because the industry relies on inputs from numerous sources – glass/bottle manufacturers, packaging materials, raw materials (malt, hops, rice, sorghum, corn grits, syrups, etc.) – brewing operations have a significant multiplier impact on upstream activities when materials can be procured locally.

3.21 Demonstration effect. Brewing companies must develop an effective distribution system that is often one of the most sophisticated in a country. There is a natural synergy with the distribution of other beverages, which has often led these companies to produce and distribute soft drinks and mineral waters in addition to beer. This dimension is particularly important in transition countries, where the former economic system did not favor a distribution system conceived of as providing the best service to retailers/consumers at the lowest cost. Brewery distribution systems demonstrate the contribution of route planning, call frequency, and drop size in lowering costs and extending the economic reach of distribution systems.

3.22 Given the fragmentation of the retailing sector in most emerging countries, the breweries' distribution systems generally involve subcontracts with small private entrepreneurs, which further reinforce the job-creation and small business-creation benefits of brewing projects.

3.23 Occupational safety, health, and environment. IFC's participation in the financing of breweries has been instrumental in bringing forward issues of occupational safety, health, and the environment, and ensuring that the final project design complies fully with the World Bank Group guidelines in these areas. This has been particularly crucial for investments in which the health, safety, and environmental situation of existing companies was fully reviewed by IFC environment specialists, resulting in amendments to the project design and/or agreement from the sponsor to implement a corrective action plan.

C. IFC's Alcohol-Related Projects: Case Studies

Moldova: Creating an Integrated Wine Corporation

3.24 Moldova, like many of its regional neighbors, has a long tradition of producing quality wines, although few of its wines reached Western markets during the Soviet era. The wine industry accounts for 20 percent of net material product, employs about 17 percent of the total workforce, and is one of the most important agricultural subsectors in the country. Most of the wine is still exported to Russia, but the potential for higher margin exports to the West is slowly emerging.

3.25 Since 1996, IFC has provided technical assistance for creation of an integrated wine corporation, NUCO. NUCO's main strategy is to link the primary grape grower to the export market in order to control end-product quality. Following the acceleration of land reform, NUCO started operations in 1998, albeit on a modest scale. IFC is considering an investment

of up to US\$3 million in the first phase of the project and is also helping to seek additional funding from strategic investors.

3.26 The wine industry is one of the few sectors in Moldova in which the IFC can play an important catalytic role at this stage. The current project will complement the first direct foreign investment in Moldova – a wine-bottle manufacturing plant financed by the EBRD under a government guarantee. It will also complement the World Bank’s “First Agriculture Project” in Moldova (see Annex 1), which aims to upgrade and improve the effect of key agricultural research programs on priority export crops and products. The National Institute for Viticulture and Oenology will be one of the major recipients of financing and technical assistance under this project. The IFC project with NUCO, however, would be the first fully private project in the sector financed by international banks.

Financing Malting Companies: The Case of Argentina’s Malteria Pampa

3.27 IFC’s relationship with Malteria Pampa started in 1987 through credit lines to Banco Roberts and Banco Frances for the construction of a new production line of 80,000 tons per year (tpy). The project was then a 50-50 joint venture between Brahma of Brazil (fifth largest brewer in the world) and Londrina of Argentina (trader of barley and other food items). In 1992, IFC financed the second malt production line with a direct investment of US\$24 million, including \$12 million of B loans. In 1995, IFC supported the construction of a third production line with a loan of US\$7 million. At present, the company’s rated capacity has grown to 180,000 tons, which represents one of the largest malt plants in a single site. With the growth of the company, the shareholders’ structure also changed: in 1994, the original two shareholders agreed to open the capital to a strategic partner, Canada Malting Co. Ltd., the largest maltster in the world. Recently, Londrina sold its participation to Brahma.

3.28 Malteria Pampa’s success can be attributed to: (i) Argentina’s comparative advantage in cereal production; and, (ii) trade liberalization within Mercosur. The development impact of the 1992 project was evaluated recently by the IFC in the context of an Investment Assessment Report. The project was found to have had a significant local impact on the development of agriculture in the Argentine Pampa region. This was demonstrated by a revised economic rate of return of 35 percent. It was further estimated that local cereal producers had realized net gains of about \$1m in 1996 and \$2.5m in 1997 by cultivating malting barley rather than their traditional wheat crop. The project also generated a wide range of less quantifiable benefits in terms of private sector development, agricultural and industrial technology transfer, as well as improved living standards for the local community.

Mexico: The IFC’s Restructuring of FEMSA

3.29 The Grupo Femsa investment provides a good illustration of IFC’s support to the private sector in difficult times. Grupo Femsa, with more than 40,000 workers, was one of the largest consumer product groups in Mexico. Its main activities involved the beer and beverage, packaging, and distribution industries as well as food processing. In 1987, IFC provided a comprehensive advisory service for the restructuring of the company. In a second phase, IFC assisted the company in structuring a US\$1.6 billion debt-reduction program for debts owed to 67 financial institutions and government agencies. The IFC’s willingness to

extend a US\$80 million loan facilitated the overall debt-reduction settlement with the creditors, and IFC's impartiality and close association with the restructuring effort allowed for a quick solution to the benefit of all parties.

IFC Financing of Breweries: Tanzania Breweries Ltd.

3.30 In 1986, the government of Tanzania embarked on an adjustment program to dismantle the system of pervasive economic controls and encourage the private sector to participate more actively in the provision of goods and services. This project was one of the first major privatizations undertaken by the Tanzanian Parastatal Sector Reform Commission, created to oversee the transition of some 250 state-owned enterprises to private ownership. The IFC had a significant role in structuring the financing necessary to carry out the rehabilitation, and expansion program. IFC's contribution consisted of an A loan of up to US\$13 million, an equity participation of US\$6 million, and syndication of up to US\$4.4 million, later increased to US\$7.4 million. IFC's equity investment in the TBL effectively reduced the government's ownership share to below the 50 percent level, while providing the comfort of a neutral partner to the government and the foreign sponsor, South African Breweries. The government has indicated its desire to reduce its ownership even further through a public offering of shares to local investors, which the IFC will help the company to prepare.

3.31 The project has had important economic benefits for the country. It helped TBL improve operating efficiency, which had been continuously declining in the state-owned company, and increased income and excise tax revenues for the government due to sale increases and substitution for illegal imports. The project's rate of return was estimated at 65 percent in the Board paper, due to the incremental tax revenues that would accrue to the government, i.e. US\$16.5 million per year, or 3.5 percent of 1994 government revenues. In 1997, total taxes (excise, sales, and income) actually amounted to US\$75 million, equivalent to about 8 percent of government revenue.

Annex 4. The Global Burden of Disease and Injury Estimates on Alcohol

4.1 Murray and Lopez quantified alcohol-caused morbidity and mortality in terms of their contribution to the global burden of disease and injury in 1996 (in *The Global Burden of Disease*, WHO, Harvard School of Public Health, and the World Bank, 1996). They used a measure of disability adjusted life years (DALYs) as a unit for measuring the global burden of diseases and the effectiveness of interventions. DALYs measure the present value of future years of disability free life that are lost as the result of premature deaths or by disability. They estimated that alcohol was responsible for 3.5 per cent of DALYs globally in 1990 (Tables 1 and 2; Figures 1 and 2 below); it was responsible for 2.7 percent of DALYs in developing countries and 9.6 percent in developed countries. These rates measure the attributable burden for a disease (e.g., 3.5 percent for alcohol globally), which is greater than the burden assigned solely through the International Classification of Diseases-9 Convention used in the primary global burden of diseases tabulations (e.g., 1.2 percent for alcohol globally).

4.2 On a global basis, alcohol is estimated to have caused about three-quarters of a million more deaths than it averted, with more than 80 percent excess mortality occurring in developing countries.

4.3 Care should be taken when using the Global Burden of Disease figures for the following reasons:

- The data on which the attributable fractions are based come mainly from developed countries.
- The Global Burden of Disease estimates take into account the effects of alcohol on injury for the exposed individual, and the beneficial and deleterious effects of alcohol on disease. They do not take into account externalities such as violence and indirect injury to others. Such externalities are major contributors to morbidity and mortality, particularly in the developing world, where the more susceptible younger population is predominant.
- In their estimates for Established Market Economies, Murray and Lopez include the cardiovascular beneficial effects of alcohol in both men and women. Although the cardiovascular health benefits of moderate alcohol consumption for middle aged men are well established, the data are less clear for women.
- The Global Burden of Disease estimates do not take into account reduced levels of access to health care in low-income countries. Hence, in these countries, the effects of alcohol use are more likely to go untreated and to result in a higher toll from alcohol-related disease and casualties.

Table 1**Global Burden of Disease and Injury Attributable to Selected Risk Factors, 1990**

Risk Factor	Deaths (thousands)	As % of total deaths	YLLs* (thousands)	As % of total YLLs*	YLDs* (thousands)	As % of total YLDs	DALYs (thousands)	As % of total DALYs
Malnutrition	5 881	11.7	199 486	22.0	20 089	4.2	219 575	15.9
Poor water supply, sanitation, and personal and domestic hygiene	2 668	5.3	85 520	9.4	7 872	1.7	93 392	6.8
Unsafe sex	1 095	2.2	27 602	3.0	21 100	4.5	48 702	3.5
Tobacco	3 038	6.0	26 217	2.9	9 965	2.1	36 182	2.6
Alcohol	774	1.5	19 287	2.1	28 400	6.0	47 687	3.5
Occupation	1 129	2.2	22 493	2.5	15 394	3.3	37 887	2.7
Hypertension	2 918	5.8	17 665	1.9	1 411	0.3	19 076	1.4
Physical inactivity	1 991	3.9	11 353	1.3	2 300	0.5	13 653	1.0
Illicit drugs	100	0.2	2 634	0.3	5 834	1.2	8 467	0.6
Air pollution	568	1.1	5 625	0.6	1 630	0.3	7 254	0.5

Source: “The Global Burden of disease: A Comprehensive Assessment of Mortality and Disability from Disease, Injuries, and Risk Factors in 1990 and Projected to 2020”, and “Global Health Statistics: A Compendium of Incidence, Prevalence and Mortality Estimates for over 200 Conditions”, by J.L. Murray and A.D. Lopez 1996

*YLL = Years of Life Lost

*YLD = Years lived with a disability

Table 2

Burden of Disease and Injury Attributable to Alcohol Use, 1990

Region*	Deaths (thousands)	As % of total deaths	YLLs* (thousands)	As % of total YLLs*	YLDs* (thousands)	As % of total YLDs	DALYs (thousands)	As % of total DALYs
Established Market Economies	83.8	1.2	2 537	5.1	7 667	15.6	10 204	10.3
Formerly Socialist Economies of Europe	53.0	1.4	2 063	5.7	3 130	11.9	5 193	8.3
India	112.9	1.2	2 723	1.4	1 974	2.3	4 697	1.6
China	114.1	1.3	2 118	1.8	2 737	3.0	4 856	2.3
Other Asia and Islands	97.4	1.8	1 862	1.6	3 191	5.1	5 053	2.8
Sub-Saharan Africa	170.7	2.1	4 435	2.0	3 169	4.6	7 603	2.6
Latin America and the Caribbean	136.1	4.5	3 319	5.9	6 201	14.7	9 520	9.7
Middle Eastern Crescent	5.6	0.1	229	0.2	437	1.0	666	0.4
World	773.6	1.5	19 287	2.1	28 400	6.0	47 687	3.5
Developed regions	<i>136.8</i>	<i>1.3</i>	<i>4 601</i>	<i>5.4</i>	<i>10 797</i>	<i>14.3</i>	<i>15 398</i>	<i>9.6</i>
Developing regions	<i>636.8</i>	<i>1.6</i>	<i>14 686</i>	<i>1.8</i>	<i>17 603</i>	<i>4.4</i>	<i>32 289</i>	<i>2.7</i>

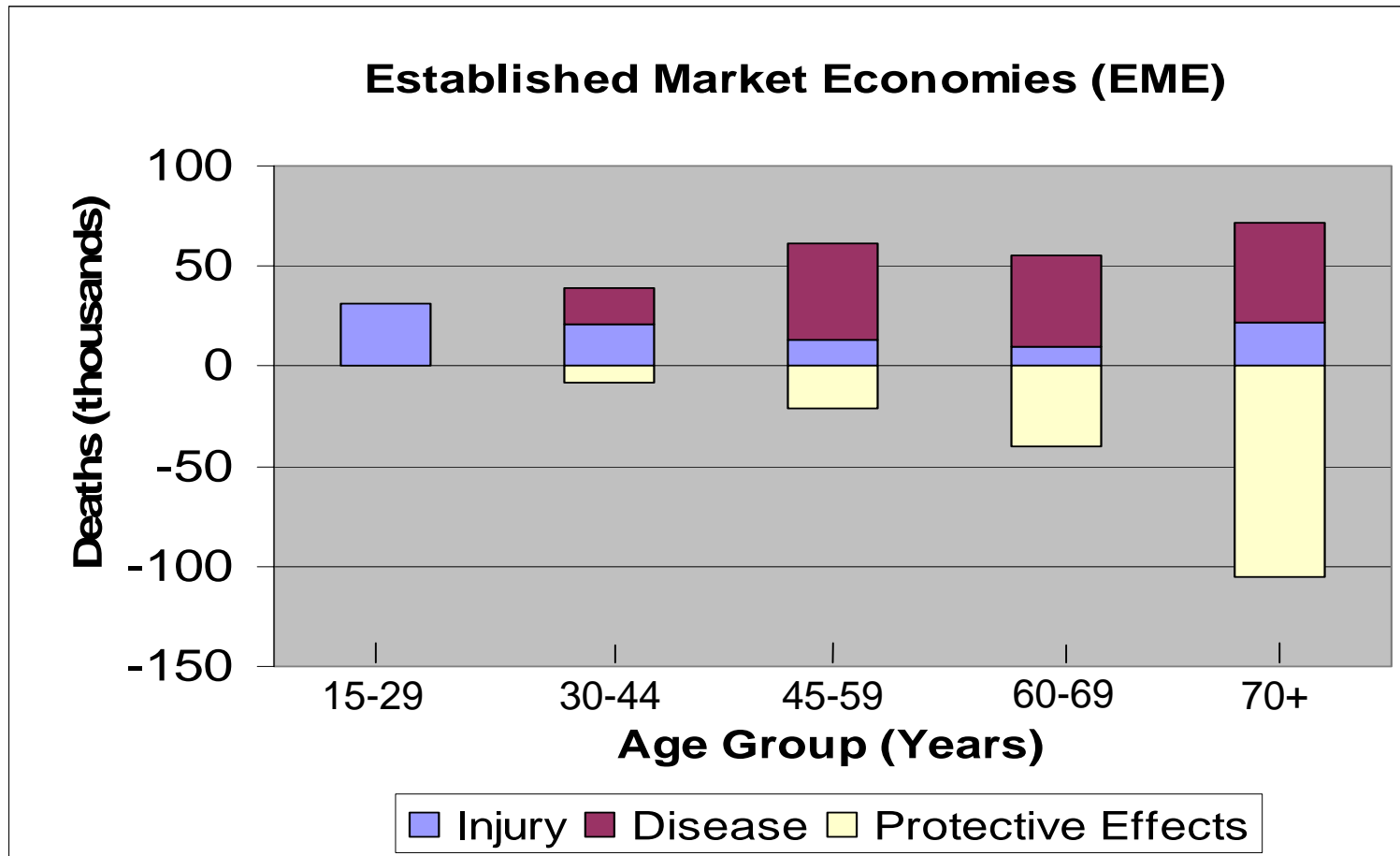
Source: “The Global Burden of disease: A Comprehensive Assessment of Mortality and Disability from Disease, Injuries, and Risk Factors in 1990 and Projected to 2020”, and “Global Health Statistics: A Compendium of Incidence, Prevalence and Mortality Estimates for over 200 Conditions”, by J.L. Murray and A.D. Lopez 1996.

*YLL = Years of Life Lost

*YLD = Years lived with a disability

Figure 1.

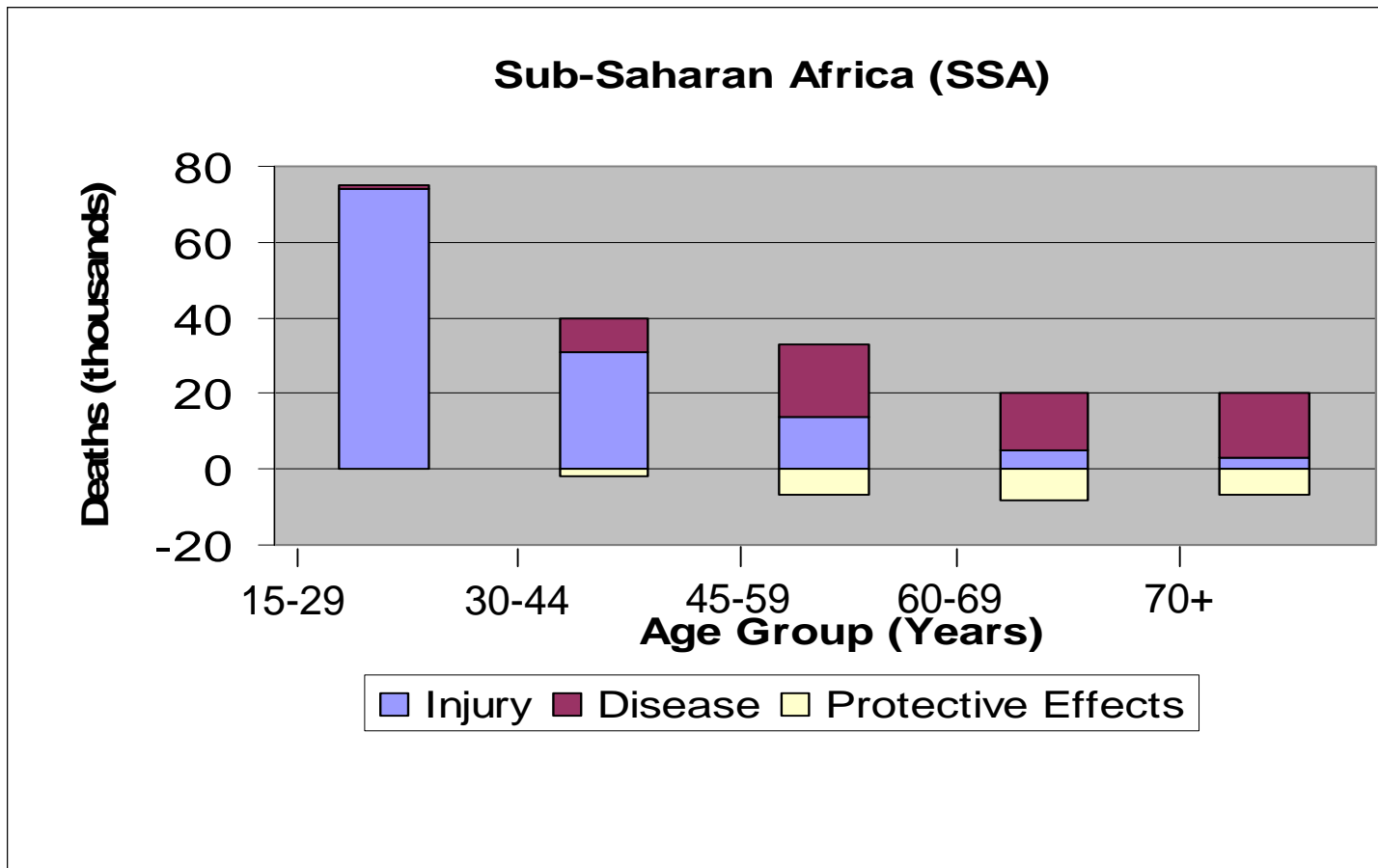
Deaths attributable to, and averted by, alcohol use, male, Established Market Economies, 1990



Source: "The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Disease, Injuries, and Risk Factors in 1990 and Projected to 2020," and "Global Health Statistics: A Compendium of Incidence, Prevalence and Mortality Estimates for over 200 Conditions," by J.L. Murray and A.D. Lopez 1996.

Figure 2

Deaths attributable to, and averted by, alcohol use, male,
Sub-Saharan Africa, 1990



Source: "The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Disease, Injuries, and Risk Factors in 1990 and Projected to 2020," and "Global Health Statistics: A Compendium of Incidence, Prevalence and Mortality Estimates for over 200 Conditions," by J.L. Murray and A.D. Lopez 1996.

Annex 5. The Current Evidence of the Protective Effect of Alcohol on Cardiovascular Disease

5.1 This annex summarizes the state of the art evidence on the protective effect of alcohol on cardiovascular disease (CVD). It is based on an in-depth review of over 200 peer-reviewed scientific papers, in addition to other papers, abstracts, and reports in the scientific literature through mid-February 1999.

5.2 Alcohol consumption at all levels is associated with higher death rates from injuries, violence, suicide, poisoning, cirrhosis, certain cancers, and hemorrhagic stroke. However, light-to-moderate drinkers of alcoholic beverages have been found to have lower total mortality rates than either nondrinkers or heavier drinkers. This results chiefly from a reduction in CVD. This beneficial effect was mostly confined to middle-aged and elderly men, groups who have a relatively high risk of heart disease. Studies performed on younger age groups have found a linear increase in rates of death from all causes (mostly from accidents, violence, and suicide) with the amount of alcohol drunk at all levels of consumption. Alcohol thus appears unlikely to produce any reduction in total mortality for those under about 45 years of age.

5.3 There are substantial methodological concerns with the studies on the protective effect of alcohol on CVD, as summarized below:

- *Reference groups.* Non-drinkers constitute a problematic reference group in alcohol-related studies. In most studies published before the 1990s, the non-drinker group includes former drinkers. These former drinkers may have become abstainers because of ill health. In fact, former heavy drinkers have increased mortality. Thus, including these former drinkers would increase the relative risk for nondrinkers. In addition, abstainers often differ from drinkers in terms of their risk factors for CVD, and may also have different lifestyle characteristics.
- *Self-reported drinking.* The studies are based on self-reported drinking patterns. Such quantitative assessment of drinking is problematic as it may lead to misclassification and rarely reflects changes in drinking habits over time.
- *Confounding factors.* The majority of studies of alcohol's effect on CVD or mortality only control for some factors (such as smoking), but not for all the confounding factors that can strongly influence the development of CVD in an individual (such as exercise, social class, body mass, diet, and folate intake). These studies might therefore miss alternative explanations for the risk reduction in drinkers.

5.4 In addition to the above methodological concerns, caution must be used when extrapolating from these study populations to other populations. Almost all studies have been performed in developed societies, and the applicability of these data to less developed societies is unclear. It should also be noted that these studies include the effect of alcohol on mortality, but do not take into account morbidity and externalities, and therefore risk misleading readers as to the overall negative health effects of alcohol.

Annex 6. Evaluating the Social Costs of Alcohol Abuse

6.1 Two distinct concepts of costs apply to alcohol-related problems. The first is the cost-of-illness, a concept that captures all the possible costs directly and indirectly associated with alcohol consumption and abuse, from health costs for alcohol abusers, to crime, motor vehicle crashes, fire destruction, lost productivity, and premature mortality. Lost productivity accounts for a significant proportion of the cost in all studies, ranging from 40-87 percent. Some of these studies include court and prison costs as well as alcohol research cost. These studies are based upon a notion of opportunity cost – i.e. the resources spent on alcohol-related problems that could have been used in an alternative, and presumably more useful, way. To date, all of these studies have been carried out in the developed world (Australia, Finland, Japan, New Zealand, UK, and the United States) and all have shown the costs to be significant (several studies indicate that the costs for the US are more than US\$100 billion per year). Cost-of-illness studies are primarily intended to signal to policy makers the magnitude of the alcohol problem; they essentially compare the current situation to that of a society without alcohol consumption.

6.2 The second concept, of external costs, emerges from the welfare economics literature. The literature builds on departures from the fundamental theorems of welfare economics, which state that, under certain conditions, a Pareto optimum is sustained by a private market equilibrium and that a market equilibrium is a Pareto optimum. That is, under certain conditions, private market equilibrium yields an outcome at which it is not possible to improve one person's welfare without having a negative impact on someone else's. Externalities are one such departure from the necessary conditions and, as such, cause the market equilibrium to be sub-optimal. In some cases, it is possible for the market to adjust and internalize the costs (e.g. increasing health insurance and life insurance premiums for alcohol abusers). In other cases, some form of public intervention is required to 'internalize' the external costs (e.g. taxing alcohol to pay for the costs that drinkers impose upon others). From that literature, therefore, the only policy-relevant costs are the external ones. Public policy is then essentially concerned with the correction of market failure through means that are cost-effective, and distorts the price system as little as possible to avoid welfare losses for non-harmful drinkers.

6.3 The identification of external costs is problematic and largely unresolved. Depending on how external costs are defined, they might constitute only a fraction of the costs-of-illness. For example, Heien and Pittman (1993) suggest that only 15 percent of the alcohol-related costs calculated by Rice et al. (1991) are actually external. Costs such as fire damage, traffic accidents, and crime are easily recognizable as 'external.' Alcohol-related health care costs may or may not be external, depending upon the way health care is financed. In a social insurance or tax-based system, it is likely that the drinker does not pay the full cost of his/her supernormal health care costs. If health care payments are essentially out-of-pocket, then they are internalized. Costs ascribed to lost productivity may be external or internal depending on the institutional context: when there is no compensation for loss of earnings in the event of absence due to sickness, drinkers internalize the costs in the form of lower remuneration. Costs such as premature mortality are even less readily identifiable as external or internal.

6.4 It is also unclear whether alcohol dependency should be regarded as a form of market failure, and therefore warrants a policy response. One side of the argument is that the state should inform consumers about the consequences of alcohol, make them pay for the external costs they inflict, and then let consumers decide for themselves whether they want to consume alcohol or not. The counter-argument is that alcohol-dependent individuals are not able to make an informed decision because their judgment is impaired. Whether or not dependency is a form of 'rationality failure' that warrants public policy action remains a debatable issue.

6.5 A few studies have attempted to determine whether alcohol is sufficiently taxed in the United States – in the sense that the proceeds from alcohol taxation cover the external costs imposed upon society by drinkers. Because of the contentious nature of the estimates of external costs, there is no clear consensus on this issue. Many studies – such as Grossman et al. (1993), quoting Harwood et al. (1984); Pogue & Sgontz (1989); Saffer and Chaloupka (1992); Blumberg (1991) and Manning (1989, 1991) – conclude that the bulk of the evidence supports higher taxes on alcohol. In contrast, Heien and Pittman (1993) argue that the external costs in the United States are falling and, as of 1993, were slightly less than the receipts from alcohol beverage taxes.

6.6 In theory, policies that focus directly on the area where market failures occur are likely to be more efficient. This is confirmed by several studies (Kenkel 1993a, 1993b) that conclude that policies that target drunk driving are more efficient than blanket controls on alcohol availability. They also indicate that the external costs imposed by drunk drivers far outweigh the current expected penalties paid by convicted drunk drivers. Although convicted drivers typically pay large penalties, the expected penalty is low because the estimated probability of arrest is very low (at .003), suggesting the need to strengthen deterrence policies in the United States.

Annex 7. Summary of WHO Global and European Regional Alcohol Policies

7.1 WHO's commitment to dealing with alcohol-related problems is reflected in several policy statements and resolutions, the latest from the 1983 World Health Assembly resolution (WHA 36.12). The WHA resolution recommends that member states formulate comprehensive national alcohol policies, consisting of a wide variety of measures for prevention, appropriate services, and supporting research and evaluation, with attention to populations at special risk. Alcohol is included in the list of dependency-producing substances that cause serious public health problems resulting from self-administration.

7.2 The WHO Regional Office for Europe developed an alcohol action plan in 1993. Europe has the highest alcohol consumption in the world, with a per capita consumption in 1990 exceeding eight liters of pure alcohol in 15 of the 26 European countries for which data are available. In the latter part of the 1980s alcohol consumption was increasing in 10 of the 26 countries, with a rapid increase since 1989 in some central and eastern European countries. The countries with the highest alcohol consumption have the highest levels of alcohol-related problems. The social cost to society from alcohol use is estimated at 2-3 percent of gross national product. According to WHO: *“The key features of alcohol-related problems are the impact beyond the individual drinkers on others, the family and the community, and the classification of alcohol as a special substance because of its dependence producing properties and severity of associated problems.”*

7.3 Alcohol is also of importance to the European region because of high production, consumption, and export trade, although even in the few countries that are major producers and exporters, the value of alcohol production is less than 2 percent of gross domestic product. The revenues can be significant, but the relative importance of alcohol taxes has been falling even in high taxation countries. In the European region, alcohol is a common source of well being, but the suggested benefits for cardiovascular disease (CVD) have largely been described for middle-aged men. The doses that may be protective in middle-aged men are likely to put women at risk of breast cancer, as well as to put young people at risk. Indeed, among young people, the evidence does not support a protective effect. The focus for youthful drinking is on the acute harms of intoxication, accidents, crime, and unsafe sex.

7.4 The goals of the WHO European Alcohol Action plan are a reduction in overall alcohol consumption and increased measures to combat high-risk behavior. Member states have agreed on five areas of action: public policies that relate to alcohol; consensus on joint action; settings that promote health; primary health care, and systems support: *“Public health policies include consideration or reconsideration of legislation with regard to alcohol. Effective legislation includes price and tax measures, control on availability and controls on advertising. [It is proposed that] money obtained from taxes could be used for funding health care and preventive services.”*

7.5 All countries set a target of reducing alcohol consumption by 25 percent between 1980 and the year 2000. By 1995, only three countries – France, Italy and Spain – had achieved the target of a 25 percent reduction in alcohol consumption over 1980 levels. While trends are declining or stable in most western European countries, evidence indicates that young people

are drinking more. Areas that need to be targeted to reduce harm include rates of injuries, accidents, drunk driving, and the prevalence of selected diseases such as cirrhosis of the liver.

Source: European Alcohol Action Plan, EUR/ICP/ADA 035, WHO Copenhagen 1993

Annex 8. Strategies for Minimizing Alcohol-Related Harm: Matching Policy Instruments to Market Failures

8.1 From the welfare economics perspective, state intervention is only justified when there is a market failure. Since the principal failure in the alcohol sector is the presence of externalities, the question then becomes how best to internalize these external costs. An alternative formulation of the question is: what steps may be taken by the government to bring consumption down to a socially efficient level (i.e. where marginal social benefits equate with marginal social costs). The existence of sometimes substantial transaction costs (law enforcement, tax collection, etc.) may, at least theoretically, mean that government intervention is not desirable. That would be the case if the costs outweighed the benefits to society of a reduction in consumption.

8.2 From this perspective, the role of the various potential strategies in overall policy should be based upon their effectiveness and their cost of implementation. Formal evaluations of effectiveness are primarily available from a narrow range of developed societies. Alcohol policies need to be a balancing act between targeting a particular market failure precisely, which can be prohibitively costly, and using blunt instruments, which can result in welfare losses for some consumers. The table below attempts to summarize some of the dimensions that have to be taken into account when designing a harm reduction strategy for alcohol.

Policy measures and tradeoffs

Policy	Product safety standards	Taxation	Health education	Advertising controls	Drunk driving laws	Age limit	Liquor restrictions
Market failure targeted	Asymmetric information/information failure	Externalities	Information failure	Information failure	Externalities	Information/Rationality failure	Externalities
How directly addresses market failure	Directly: Producer licensing to control moonshining, falsified alcohol beverages. Indirectly: Prerequisite for an effective taxation policy.	Indirectly: Taxes are a complementary good to harmful drinking.	Directly	Indirectly	Directly	Indirectly: Taxes drinkers with a high discount rate.	Indirectly: Targets availability or risky drinking situations, complementary goods to harmful drinking.
Effectiveness in reducing harmful drinking	Effective on production of dangerous beverages;	Depends on price elasticity of demand; depends on consumption spillover to informal markets.	Effective on information; not effective on consumption pattern	Disputed effect on total demand for alcohol; affects only formal markets.	Effective	Effective	Effective
Welfare tradeoffs	May be unfair to harmless unlicensed producers	Heaviest burden borne by heaviest (most harmful) drinkers; unfair for harmless drinker	None	None	None	Unfair for harmless drinking below age 21	May be unfair to harmless drinkers
Political feasibility	Politically feasible Possible resistance from unlicensed producers	Increasing taxes often politically feasible Resistance from alcohol industry	Politically not costly if ineffective in reducing consumption. Costly if it shows effect (e.g. counter-advertising).	Politically feasible if not stringent Opposition from the alcohol and media industries	Politically feasible Opposition from the alcohol industry?	Politically feasible Opposition from retailers if penalties fall on them	Often politically feasible Private interests become attached to licenses, so difficult to strengthen restrictions.
Implementation cost	Enforcement costs high in developing countries.	Low or high costs, depending on form of taxation and organization of alcohol production.	Low or high costs, depending on level of effort. If attempts to match spending of alcohol industry, cost quite high.	Low	High – some costs can be transferred to violators.	Low	Low - costs shifted to the private licensees.