International Finance Strategies for Developing Countries

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International Finance Strategies for Developing Countries

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Foreword

During the 1980s, the World Bank has increased its assistance for the development of the financial sector in developing countries through the provision of financial sector loans and financial advisory services.

The "international finance strategies for developing countries" discussed in this report are one of the principal areas for which financial advisory services are provided by the World Bank. This advisory function was established in 1987. Since then, the World Bank has provided financial advisory services in this field to an increasing number of countries, including Algeria, Argentina, the Congo, Côte d'Ivoire, Ecuador, Egypt, Honduras, Hungary, Indonesia, Jordan, Mexico, Morocco, Nigeria, the Philippines, Poland, Thailand, Turkey, Uruguay, and Venezuela.

During the 1980s, financial engineering, derivatives, and the use of financial risk reduction programs have been developed for strengthening the management of external financial resources. When these new techniques are applied at the level of the national economy, the development of a systematic financial strategy becomes essential. This report discusses alternative strategy approaches, their practicality, advantages and disadvantages. These strategies are particularly interesting to financial policymakers responsible for external financial matters in ministries of finance and central banks, as well as other government agencies concerned with external financial resources.

This document is one of a series reporting on policy seminars organized by the Economic Development Institute of the World Bank. Policy seminars provide a forum for an informal exchange of ideas and experiences among policymakers from different countries, leading experts in development, and World Bank staff, with respect to major issues of development policy.

Policy Seminar Reports focus on issues raised during seminars that may be of interest to a wider audience. They are not intended to be comprehensive proceedings. However, they seek to convey the essence of the discussions that took place and to bring out any principal areas of agreement or disagreement that emerged among those participating.

Amnon Golan
Director
Economic Development Institute
The seminar on International Finance Strategies for Developing Countries was the first senior policy seminar on the subject of economywide financial resource management strategies for developing countries. It focused in particular on the approaches that countries can adopt to assess the financial risks they face as well as the techniques they can employ to reduce these risks.

The seminar was organized by the Cofinancing and Financial Advisory Services Department and the Economic Development Institute of the World Bank and held at the Wolfsberg Management Center of the Union Bank of Switzerland, with the financial support of the government of Japan. Developing country participants came from thirteen countries: Algeria, Colombia, Chile, Czechoslovakia, Hungary, India, Indonesia, Mexico, Nigeria, Pakistan, Thailand, Turkey, and Venezuela. Industrial country participants were from Germany, Japan, Switzerland, the United Kingdom, and the United States. In addition, the seminar benefited from the participation of senior officials from the World Bank. The seminar was designed, prepared, and conducted by Marcus Fedder and Nicholas Bruck of the World Bank’s Financial Advisory Services Group and the Economic Development Institute under the guidance of Jed Shilling and Xavier Simon.

The objectives of the seminar were to review with developing country financial policymakers and industrial country bankers the issues involved in structuring an international finance strategy for the management of their external financial resources and to exchange experiences among the participating countries on their external asset and liability management practices. More generally, the objective was to assist in strengthening the capacity of financial agencies and institutions in developing countries in the fields of international finance, external debt, external investments and financial adjustment.

Opening

In his remarks at the opening of the seminar, Koji Kashiwaya, Vice President for Cofinancing and Financial Advisory Services of the World Bank, drew attention to important factors that had characterized the problems of developing country finance in the 1980s and 1990s. The commercial bank sources of funds for these countries continued to be constrained by the poor performance of those banks in areas of domestic lending, such as real estate and agriculture; by the tighter requirements on capital adequacy coming from the Basle Committee of Central Banks meeting under the auspices of the Bank for International Settlements (BIS); and from continuing difficulties with developing country debt. At the same time, the Persian Gulf crisis of August 1990 and other international developments had compounded the difficulties of some developing countries. In a few cases their access to international capital markets had been compromised by these developments.

Kashiwaya noted that a few countries, such as South Korea, have established a good credit rating in international capital markets. They are in good standing with creditors and have few financing difficulties other than those of choosing optimum packages of finance and efficiently managing risks. However, the majority of developing countries have far greater difficulties in accessing financial markets. For these, the External Financial Technical
Advisory service of the World Bank (EFTA) can now provide assistance through its new guarantee scheme, Expanded Cofinancing (ECO), and in other ways. In the case of the most highly indebted countries, the World Bank is also contributing to debt and debt service reduction through its involvement with both the Brady Plan and the IDA debt facility schemes. In providing its advice to client countries, the World Bank recognizes the important role of private financial organizations that can organize professional financial advice on various aspects of external financial resource and risk management. Although the World Bank itself is only just beginning to provide support, it does encourage member countries to see these matters as part of a total picture involving central governments, central banks, local authorities, and public enterprises, and to recognize explicitly the crucial relationships between external borrowing and domestic fiscal and borrowing arrangements. EFTA, which is evolving in response to the needs of client governments, will adopt a broad-based approach to the task of financial management.

The World Bank's support to client countries now covers a wide range of areas including:

- Consulting services on debt reduction programs;
- Strategy formulation for managing existing debt;
- Advice on the tapping of capital markets, including the expanded cofinancing initiative;
- Advice on external financial resource management, including the institutional structures required for this in each country;
- Advice on appropriate computer software for both debt and foreign reserve management.

Different categories of developing countries require different types of support. For example, those already enjoying access to international capital markets may require assistance with external financial resource management and with market diversification. Those with only limited capital market access may benefit, for example, from guarantee schemes such as the Expanded Cofinancing initiative. Those undergoing debt rescheduling and restructuring need assistance with their overall debt management strategies.

Kashiwaya stressed the importance of the seminar in assembling top financial decisionmakers from thirteen important developing countries together with experienced market practitioners from industrial countries and senior staff from the World Bank, who will be influential in determining the future development and role of the financial advisory services provided. This, he noted, provided a unique opportunity to learn about the needs and experiences of different countries regarding international financial strategies, and to assess jointly the applicability of both the techniques and the new institutional arrangements that are now available to support such strategies.

**Major Topics**

Following the opening of the seminar, discussions were organized around major interrelated topics with lead presentations being followed by workgroup discussions. This report follows the Seminar Program (Annex I).

In Chapter 2 the problem of formulating an international financial strategy is set out and explained using the national balance sheet and risk exposure analysis presented by Donald Lessard. In Chapter 3, attention is focused on one technical aspect of the asset/liability management problem, namely the nature and functions of the financial instruments now available to help an enterprise or a country to manage risks. Chapter 3 combines the presentations by Ramasastry Ambarish and Marcus Fedder, from the World Bank, and by
Peter Manz of the Union Bank of Switzerland. In Chapter 4, discussion moves on to consider the factors underlying a country's ability to access international capital markets, as well as the strategies which should be adopted in order to achieve that access on the best possible terms. This section draws on the presentations by Pierre Vieillescazes of the World Bank and Gerhard Bruckermann of Deutsche Bank, as well as the discussions.

Chapters 5 and 6 discuss two special topics which have become an important part of financial strategies for many developing countries in recent years. The first in Chapter 5 is external debt restructuring and debt/equity swaps. The discussion draws mainly on the presentations of Jed Shilling, World Bank; Andres Velasco, Ministry of Finance, Chile; and Aaron Tornell, Ministry of Finance, Mexico. In Chapter 6 the discussion moves to the possible role of privatization as an element in a country's financial reform strategy. This draws on presentations by Euan Macdonald, from S. G. Warburg, London; Tornell; and Robert Kopech from Morgan Guaranty, London. Chapter 7 brings together the opinions on the interface between macroeconomic and financial strategies. Chapter 8 presents the views of the participants which emerged from the closing roundtable as well as the specific insights on the topic coming from the case study on Thailand as presented by Chaiyawat Wibulswasdi from the Central Bank.
In introducing the topic of the national balance sheet and risk assessment, Donald Lessard suggested that the task of establishing a financial strategy for a country could be visualized as having the objective of optimizing the growth of the economy. It would also involve certain intermediate objectives and draw upon a number of control variables. The intermediate objectives of the policy would include:

- Minimizing the costs of external finance;
- Managing the risks of the financing chosen so as to generally minimize them;
- Obtaining and maintaining access to the widest possible range of external capital markets;
- Arranging financing that could enhance the micro-efficiency of, for example, the industrial sector (for example, through linking financing methods and management involvement).

The control variables available to help achieve these objectives would normally include the amount and the nature of external borrowing and the manner in which this could be linked to specific economic outcomes so as to restrict the downside risk of particularly unfavorable outcomes (for example, a collapse in oil prices in the case of Mexico and other oil-exporting economies).

**Categories of External Funding**

By way of illustration, Lessard considered six main categories of external funding and the performance of each of these in terms of three main characteristics, namely, cost, degree of risk-sharing with the provider of the funds, and the degree of management involvement of the financiers. The illustration of the problem used by Lessard is shown in Figure 2.1.

The dominant form of developing country borrowing shown in this figure is that of general obligation debt, whereby the borrower agrees to repay the loan irrespective of how the money is used and irrespective of the success of the projects that are financed. The Euro-currency lending that dominated developing country finance in the 1970s is the classic example of such an instrument. Of course, it does have certain merits in that the costs are quite low (LIBOR plus a spread), and it also gives the governments of the borrowing countries the maximum discretion regarding the use of the funds. However, it fails to provide on behalf of the creditors any management involvement to enhance the efficiency of the use of the funds, and neither does it pass even a small part of the risk back to the lender.

The commodity bond provides one possible answer (another is the set of hedging devices considered in chapter 3). Such a bond can link the amount paid by the borrower directly to the world price of the commodity in question. Again, this can be a costly instrument for a borrowing country, but only in circumstances where the commodity in question is commanding a high international price.

The device of project lending (quasi-equity) provides elements of both general obligation borrowing and foreign direct investment. Lessard referred to the example of the Peruvian oil pipeline across the Andes financed by general obligation borrowing. This failed in financial
terms because there had been insufficient oil to achieve full capacity usage. However, he noted that if the engineering companies involved had been financially implicated in the success of the project by way of a project loan, they would certainly have been keener to check out the availability of the key oil resource before allowing the project to proceed.

Figure 2.1. Modes of Finance

A. General obligation debt
B. Commodity bonds
C. Quasi-equity (project lending)
D. Portfolio investment (country funds)
E. Direct investment
F. Portfolio investment (individual shares)

By contrast, the foreign direct investment approach leaves a major part of the risk with the foreign provider of funds who earns profits and dividends only if the project succeeds. Consequently, the investor needs to provide a considerable amount of management input as well as finance. The costs of this type of finance to the investor may be substantial. However, a recipient country would not necessarily need all the components of the package provided by foreign direct investment if, for example, it has a high degree of local management competence in the areas of the project. Chile, for example, probably does not need for its copper industries finance of a type that brings with it a high degree of foreign management input. However, it may well need help in reducing part of the risks associated with a possible fall in the price of copper.

Finally, there is the device of portfolio investment as embodied, in particular, in a number of country funds that are now marketed internationally by some developing countries. These provide a high degree of risk sharing between international financiers and developing country investors, but provide little, if any, management support to projects.

Financial Strategy Options

It was a central proposition of Lessard's analysis that most developing countries could benefit if they were to diversify more between these different instruments, although this needed to be done within the constraints of a country's access to capital markets (chapter 4). The World Bank may need to look to its own arrangements in this regard. The World Bank provides all its lending on a general obligation basis and so offers the borrowing countries few choices in structuring their borrowing.
A careful consideration of the structure of future external borrowing is only one part of the calculus of financial strategy. In addition, most countries could benefit from a careful assessment of their national balance sheets and the associated income statement, which is derived from the country cash flows.

The concept of a national balance sheet is relatively straightforward. However, far less familiar is the practice of using the balance sheet for analytical purposes and, in particular, of using it to provide the focal point for a country’s overall asset/liability and risk management. Lessard suggested that there are a number of distinct stages in such an analysis, namely:

- The identification and quantification of the key assets and liabilities of an economy, including all real assets, unexploited natural resources, financial assets and liabilities, human resources, and even certain intangibles, such as the goodwill of neighboring countries;
- An understanding of these factors in the global environment and domestically that exposes the underlying assets/liabilities (or the incomes and payments associated with these) to risk or variability;
- An assessment of the degree of exposure to which the economy is subject as a consequence of these risks; and
- An identification of those areas where a program to mitigate the risks could be realistically devised and the priorities for this, bearing in mind that only a limited number of risk dimensions will be manageable at any one time, and
- The implementation of a specific program to manage the national assets and liabilities based upon this analysis.

An extremely important part of this first element of the analysis is to understand the degree of positive and negative correlation between the different assets/liabilities and incomes/payments of an economy. In general, if items on the opposite side of the balance sheet are exposed to the same risks as, for example, a dollar currency movement, then the country benefits from some natural insulation from those risks. Foreign currency revenues from oil sales, for example, could fall at the same time as the local currency cost of servicing a dollar debt was falling. By contrast, if items on the same side of the balance sheet are exposed to the same risk, then the consequences of that exposure for the economy as a whole are potentially serious and the risk managers should take action to diversify or to hedge. To take a specific example, a financial investment in an oil bond would be a bad investment for Kuwait since the performance of that bond would be highly correlated with that of Kuwait’s main non-financial asset, namely, oil reserves. However, an oil bond would be a good way for Kuwait to borrow. Similarly, a yen bond could be a very good investment for Kuwait since the Japanese economy tends to strengthen whenever the world oil price falls.

**Asset-Based Risk Analysis**

The risk analysis based on the national balance sheet as an organizing framework needs to incorporate the assets/liabilities embodied in a country’s existing structure of industrial and agricultural production. However, this immediately introduces an important time dimension as well as potentially large transaction costs to the task of asset/liability and risk management when applied to an economy. If, for example, as in Eastern Europe, a large part of existing industrial capacity is exposed to risk in the sense that its products and technologies are not viable or competitive in international markets, then the task of asset/liability management would include the physical and financial restructuring of capacity in the industrial sector.
This is a process that will be socially and economically expensive and that will also involve considerable time for implementation.

In general, asset/liability management based on financial technical functions is relatively inexpensive and easy to apply, but it can only solve a limited subset of the problems to which an economy is exposed. Real economy restructuring, by contrast, is expensive and slow, although it normally has great potential scope to produce sound asset/liability and risk structures in the longer term. In some instances, there is a degree of choice as to whether to proceed by invoking financial or real economy technologies. Monoculture economies such as Cuba, for example, will often seek to diversify their risk by diversifying their productive structure, whereas financial contracts linking their borrowing more directly to the performance of their main commodity could achieve many of the same benefits and at lower cost.

The asset/liability/risk management problem for most economies is a dynamic, ever-changing one. In the case of Mexico, for example, the importance of exposure to oil prices has declined in recent years as new manufacturing exports have expanded. At the same time, risk factors, such as interest rate variation, have become relatively more important. Thus, very long-term contracts to try to hedge particular risks are problematic because of the likelihood of changes over time in the relative importance of different types of risk.

Scope for Application

In the discussions that followed, a number of specific examples of particular country risks and exposure were identified. First, while several of the senior practitioners recognized the importance of the comprehensive assessment of risk as embodied in the national balance sheet approach, the sphere of direct influence of the government in these matters may be confined to assets of the central bank and the government itself, and to the external liabilities of most of the economic system. In relation to the structure of real sector assets, it was felt that the essential dynamic nature of what was required argued for greater flexibility in economic policy than in the past and, above all, called for a reduced dependence on distorting interventions that worked against productive sector efficiency and a rapid reallocation of productive resources in response to changed circumstances.

Second, there was some disagreement as to whether the areas to be covered by a risk management strategy should be confined to areas where market instruments already existed to help cover risks, such as exchange rates, interest rates, and commodities. In general, it was felt that most countries would benefit from taking a broader accounting view of the problem, although the sphere of their involvement might well be limited to these main areas. It was agreed that asset/liability and risk management should not be confined only to the financial engineering aspects of the problem.

Finally, there was a discussion of the political and institutional culture into which the new function of risk management needs to be introduced. One group argued that the concept could most easily be introduced to politicians by focusing first on the management of risks and debt service obligations. It was also noted that hedging approaches can cause serious problems for individuals if any of the decisions made prove incorrect. This being the case, the institutional disincentives to get involved with sophisticated hedging techniques may be strong. Thus, it is important to keep stressing that devices such as hedging are merely one element of the problem of risk management confronting the economy. This factor requires a high degree of coordination between different parts of a country's institutional and governmental structures, as well as a broad consensus on the importance of the risk management concept.
Financial Instruments for Risk Reduction

The links between the topic of financial instruments for risk reduction and the discussion of the national balance sheet approach in chapter 2 are embodied in Figure 3.1. The financial engineering aspects of the risk management problem are contained on the left-hand part of the balance shown in the diagram. The market instruments now available make it possible to be far more precise than previously as regards this part of the task of overall asset/liability management. Thus, even though the right-hand side of the balance may be more important for some economies, there is likely to be a significant pay-off for most countries in taking advantage of the possibilities of acting on risk reduction in relation to the financial aspects narrowly defined.

Figure 3.1 Real and Financial Balance Sheets

The object is to balance the two balance sheets. The obvious approach is to apply a more refined model to the external monetary balance sheet and to manage it more closely.

In introducing these possibilities and the way in which they work, Ramasastry Ambarish stressed that there are three main classes of financial risk that can now be covered using the available market instruments, namely:

- Interest rate risk,
- Exchange rate risk,
- Commodity price risk.

In taking advantage of the instruments to hedge risks in these areas, countries could begin by trying to establish the target values and range of particular financial and economic indicators such as:

- The ratio of floating to fixed interest rate borrowing,
- The range of acceptable debt service to exports,
- The currency composition of the country's asset/liability portfolio,
- The acceptable range (cap or floor) for any key commodity price in dollars.

Although it is not an easy matter to set these targets, they are useful in their own right and are a prerequisite for the effective use of risk management principles.
Risk Management Principles

Ambarish stressed that all risk management starts from the proposition that risks can be measured by using some measure of variability, and that they can also, to a degree, be controlled or eliminated. However, risk management does not always presuppose the full elimination of risk (that is, a “pure” hedge). Furthermore, the particular type of risk confronting a particular country is the product of variability (for example, of a commodity price), and the country’s exposure to that commodity. Thus a high degree of variability of a particular price does not imply a high risk to any country if that country has only a small exposure. Finally, it is important to distinguish between three different aspects of a price that have different implications for the risk manager. Using the example of interest rates, these are:

- The level of interest rates, traditionally the main concern of economic management;
- The “normal” volatility of interest rates;
- Large “jumps” of interest rates that are sudden, large movements superimposed on normal volatility.

The Basic Tools

The three basic tools of the financial engineer are forward market contracts, options (including caps), and swaps. Ambarish explained the first two, and subsequently the main features of swaps and interest rate caps were elaborated on by Marcus Fedder and Peter Manz. It was stressed that contracts for these products can be made either on relatively standard terms on established exchanges, or on a tailor-made basis on the over-the-counter markets. The standard contracts have the advantage of well-defined maturities, easy access, generally high levels of liquidity (that is, a large number of buyers and sellers), and well-defined hedge ratios. On the other hand, it is quite difficult to handle the large transactions that developing countries may require on the exchange markets, and for these transactions they may need to look for a tailor-made product on the over-the-counter market. However, if they proceed in this way, their own creditworthiness will be an issue, since they will find it difficult to find a transactor willing to make the deal. This, then, is one area where World Bank guarantees can assist certain countries in taking fuller advantage of the available instruments. A simple schematic overview of the main risk management instruments and their characteristics is provided in table 3.1.

It was noted that in recent years the interest rate futures markets have evolved to the point where there is now sufficient liquidity to hedge billions of dollars on the exchanges. By contrast, it is still very difficult to deal with extremely large commodity futures transactions on this basis. It is difficult to hedge quantities equivalent to all, or even a large part of, the annual copper production of Chile. It was noted that Chile would never do this in practice because, even if greater liquidity were available, it is a fundamental principle of the markets that one cannot hedge in a market where one can oneself exert a fundamental influence on the price of the item being hedged. Thus Saudi Arabia, to take another example, would not be able to write a forward contract on the world price of oil, because its own production is a dominant influence on that price.
Table 3.1 Basic Types of Risk Management Products

<table>
<thead>
<tr>
<th></th>
<th>Over-the-counter (OTC)</th>
<th>Exchange traded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fix: rate/price</strong></td>
<td>Interest rate swaps</td>
<td>Interest rate futures</td>
</tr>
<tr>
<td></td>
<td>Forward rate arrangements (FRA)</td>
<td>Currency futures</td>
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<tr>
<td></td>
<td>Currency swaps</td>
<td>Commodity futures</td>
</tr>
<tr>
<td></td>
<td>Currency forwards</td>
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<td></td>
<td>Commodity swaps</td>
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<tr>
<td></td>
<td>Commodity forwards</td>
<td></td>
</tr>
<tr>
<td><strong>Insurance:</strong></td>
<td>Caps-Floors-Collars</td>
<td>Interest rate options</td>
</tr>
<tr>
<td>(option on)</td>
<td>Interest rate “swaptions”</td>
<td>Currency options</td>
</tr>
<tr>
<td>rate/price</td>
<td></td>
<td>Options on currency futures</td>
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<tr>
<td></td>
<td></td>
<td>Commodity options</td>
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<td></td>
<td></td>
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<tr>
<td><strong>Features:</strong></td>
<td>Tailor made</td>
<td>Standardized</td>
</tr>
<tr>
<td></td>
<td>No market risks</td>
<td>Market risks</td>
</tr>
<tr>
<td></td>
<td>Less liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td></td>
<td>Credit risks</td>
<td>No credit risk</td>
</tr>
<tr>
<td></td>
<td>Price includes costs/fees</td>
<td>Brokerage + fees + margin requirements</td>
</tr>
<tr>
<td></td>
<td>Available from financial institutions</td>
<td>Traded on exchanges like Chicago’s</td>
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<tr>
<td></td>
<td></td>
<td>Merc, London’s LIFFE, Paris’ Matif,</td>
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<tr>
<td></td>
<td></td>
<td>Singapore’s Simex, Philadelphia, etc.</td>
</tr>
</tbody>
</table>

Source: Marcus Fedder.

A Simple Example

The example put forward by Ambarish to illustrate the basic principles of forward contracts concerned a country that needed a delivery of 100 million barrels of oil in six months. The current spot price is $18 per barrel, but the known annual variability of price (as measured by the standard deviation) is 30 percent. Thus, assuming that the price of oil is log-normally distributed (a realistic assumption, given that the price cannot be negative), there is a 67 percent chance that the spot price in six months will be between $14.80 and $21.80 per barrel. One possibility for the country in this situation is to eliminate all the risks by buying a forward contract on oil for delivery in six months. Such a contract has two fundamental features:

- The price is fixed in advance.
- Whatever happens to the oil price, you cannot get out of the contract.

Thus, assuming that the forward price for six months delivery is $17, the country will benefit from the contract if the spot price in six months exceeds $17. However, there will be a significant cost to be borne for the security of a guaranteed price in the event that the spot price falls below $17. The possible outcomes for this transaction are as shown in Figure 3.2.
One lesson from this diagram is that a country should write forward contracts only to eliminate the risk from a price fluctuation. It may achieve this objective and make an apparent gain or loss relative to the spot price, depending on the way in which the price actually moves. However, making a profit is not the basic reason for writing this sort of contract. Profit is an incidental benefit when the outcome results in a gain.

The diagram also shows that the forward contract is not a particularly efficient instrument when the country is only interested in hedging the risk of an increase in the price of oil. A more efficient alternative is the call option, which enables the country to eliminate the risk that the price will rise above $18 during the next six months. Unlike the forward contract, which locks in a predetermined future price for the buyer, the call option involves two alternative outcomes for the buyer, namely:

- If the price in six months is less than the “strike price” of $18, the country can buy at the then prevailing spot price and so benefit from the lower price.
- If the price in six months exceeds $18, the country can exercise the option and buy at the price of $18, thus avoiding the burden of a higher price.

The pay-offs in this situation, assuming a realistic premium payment for the option itself of $2 per barrel, is depicted in figure 3.3.
What effectively happens in this second situation is that the price of oil to the buyer is capped at US $20, which is the US $18 price plus the US $2 option premium. Thus, the country will benefit from the call option relative to the situation where all the oil is bought on the spot market in all cases where the price after six months exceeds US $20. At all prices below US $18, the buyer is able to buy at the lower spot price, but the benefits from this are reduced by the amount of the US $2 option premium, which has to be paid whatever the outcome. However, the call option has considerable flexibility, and if the premium of US $2 is regarded as excessive, the buying country can reduce this by shouldering a rather large share of the price risk itself. If, for example, the strike price were to be set at US $20 per barrel rather than US $18, the option premium would fall to about US $1.1. This would result in an effective cap on the oil price as far as the buyer was concerned of US $21.1 per barrel, which is the strike price of US $20 plus the US $1.1 option premium.

Liquidity and Risk Exposure

Before turning to the related question of interest rate swaps and caps, two further points that came up in the discussion are worth mentioning. First, the prices used in the example assumed a lot of liquidity in the oil market and a volume for the transaction that was not abnormally large. Larger volumes and lower degrees of liquidity would have resulted in higher premiums than those quoted above. Further, it was pointed out that as the forward markets had matured, the liquidity available had grown rapidly. Especially in the market for interest rate options, the growth of available liquidity had been dramatic in the late 1980s. Second, it was emphasized that the premium that is worth paying depends on the seriousness with which a country regards a particular risk. Thus Chile, in the past, had paid a premium of US $3 per barrel on an oil option because at that stage the country was very concerned about the possibility of an extreme event, namely, a very high price for oil. This illustrates not only that there is considerable flexibility in the use of options, but also that the practice of hedging remains an interesting blend of art, science, and good judgment.

Then the issue of the time horizon for hedging contracts was raised. It was noted that an investment project that takes six years to complete would obtain little benefit from hedging the cost price of, for example, the steel inputs for the six to nine months that were easily available in the markets. This emphasized the point that the financial instruments discussed were most relevant over a relatively short time horizon of months rather than years. For risk management over longer horizons, different instruments, such as swaps, as well as approaches not involving the financial markets, needed to be brought into play.

Interest Rate Caps and Swaps

Marcus Fedder introduced interest rate caps and swaps and noted that many developing countries had been troubled by the major fluctuations in LIBOR during the 1970s and 1980s. Euro-currency borrowing in that period involved very rigid terms. Thus US $1 billion of debt implied an unavoidable US $10 million of interest payments per annum for every one percentage point of interest rates.

However, it is now possible, using the principles discussed above, to establish a cap on interest payments to provide some insulation from extreme movements of interest rates. If, for example, the current interest rate charged is six percent, then on a transaction of US $100 million, it would be possible for a borrower to cap the rate to be paid at, say, 8 percent for an up-front cost that would be approximately 4 percent of the sum in question. In this type of transaction, the bank that sells the cap takes on the responsibility for part of the borrower's interest payments and becomes a potential debtor of the original borrower. Thus, it is
important when establishing a cap that the original borrower deals with a bank that is financially very sound. In this transaction too, the credit risk of the original borrower is not important to the establishment of a deal. An attraction of these arrangements is that the liquidity in the market is such that the deals can span periods of over five years: that is, they avoid some of the limitations of futures and options.

**Figure 3.4 Illustration of Interest Rate Swap of US$100 Million**

![Diagram of Interest Rate Swap]

**Source:** Marcus Fedder.

By contrast to a cap, an interest rate swap changes the basic nature of the obligation that the borrower holds. If, for example, a borrower is unhappy with the risks of a US $100 million floating rate loan with a current LIBOR-related rate of, say, 6.5 percent, then the borrower could pass the interest payment obligations associated with this to an intermediary bank, and accept in return a fixed interest obligation. If the fixed interest rate on the swap is 8.6 percent, then the transaction between the borrower and the bank can be shown as in figure 3.4.

In this transaction, the borrower gains as long as the actual LIBOR interest rate rises above 8.6 percent. The borrower would be more likely to indulge in such a transaction if such an eventuality was likely to cause serious difficulties. It was also noted that this is a very large and liquid market, and so the rates quoted are extremely competitive, at least for creditworthy borrowers. In contrast with the capping transaction discussed earlier, the interest rate swap does involve the creditworthiness of the borrower. The intermediary bank bears the risk of the transaction and clearly would not be prepared to do this if there was doubt about the borrower's ability to service the new fixed interest rate obligation. In addition, there may often be a discrepancy between the long-term maturity that the borrower wants and the maximum maturity that the bank is prepared to offer. Here again is a role for the World Bank in underwriting the creditworthiness of some borrowers by providing guarantees for the longer maturities required in some swap arrangements.

**Currency Swaps**

Fedder emphasized that the principles of interest rate swaps apply in a similar way to currency swaps. Thus, for a country that is able to borrow in, for example, Italian lira, but that
has no stream of lira income, the foreign exchange risk of the borrowing is considerable. This risk can be hedged by swapping the lira debt obligations into, for example, a dollar debt obligation, or into an obligation in any other major currency in which the country generates a revenue stream. As in the case of the interest rate swap, this transaction exposes the intermediary bank to a credit risk. It will only be entertained if the bank perceives that risk to be reasonable.

In the work group discussion, attention was focused on the manner in which organizational arrangements might be established in individual countries to make good use of the risk management technologies explained by Ambarish, Fedder, and Manz. A central issue was the appropriate degree of decentralization of the risk management function. It was noted that as economic systems become more liberalized, more and more of the responsibility for risk management moves away from the government to private sector operators. However, since it is important to ensure that major risks are covered irrespective of where they initially fall, it was concluded that there is an important role for governments in establishing a degree of coordination and information sharing between the various risk-managing organizations of the economy, including those in the private sector. This is important since it may not always be appropriate for the organization that directly bears a particular risk also to handle the hedging of that risk. There are, for example, economies of scale in risk-hedging transactions that cannot be exploited in a fully decentralized system.

Concern was expressed that in countries that were still reforming and moving away from economic systems involving strong central direction of resources, the private sector agents simply would not have the knowledge or the experience to deal independently with the foreign exchange and other risks that their organizations might face. Thus, the role of technical assistance and training was crucial if these countries were to develop effective arrangements for managing their external financial resource risks. Related to this was the point that in many developing countries that maintain strongly interventionist government policies, the major risks facing private sector operators are those associated with the government itself, and especially with abrupt and arbitrary changes of government policy. Clearly, in these cases, the development of more market-based policies is an important part of developing a strategy to reduce risk.

Further discussion concerned more detailed issues about risks and particular hedging instruments. One issue raised was that of the currency pool that the World Bank itself uses to denominate the currency composition of its lending to client countries. It was noted that no hedging instrument yet exists to help borrowing countries manage the foreign exchange risk associated with such borrowing, and that such an instrument ought to be technically straightforward to introduce. However, the currency pool is already a well-diversified portfolio of currencies and does not expose any country to undue risk from any single currency. Additionally, it is always possible for any country to decompose the currency pool into its component currencies and hedge against any one or more of these.

A related suggestion was that different member countries of the World Bank face hedging problems that are diametrically opposed. For example, some are net sellers of dollar-denominated oil and others are net buyers. Thus, there could be a role for different countries collaborating to swap or hedge particular risks, and possibly a brokerage role for the World Bank in making marriages for this purpose. In response to this point about the World Bank’s role, Kashiwaya stressed that the World Bank is strongly committed to taking a greater role than in the past in helping countries to participate actively and effectively in the new markets. This would include technical assistance and training support. However, the World Bank’s ability to extend its guarantee was constrained by its own need to preserve its AAA credit rating in the international capital markets.
A very important point concerned the performance benchmarks that needed to be set for the institutions responsible for making hedging decisions. It was agreed, given the nature of hedging, that a clear judgment of the value to be added by these operations needed to be established in advance. With the benefit of hindsight, it would often be possible to find fault with the hedging decisions even where decisions had been objectively sound. Thus, an ex ante benchmark would need to be defined and agreed upon by the decisionmakers.
Improving Access to the World Capital Markets

Pierre Viellescazes of the World Bank introduced the subject of access to world capital markets. He noted the reduced role that the commercial banks had played in 1991 in lending to the developing countries compared to the 1970s. The explanations for this included the downturn in overall commercial bank lending; the pressures arising from increased capital adequacy now imposed on the international banks; and, above all, the overexposure in developing countries built up in the 1970s and early 1980s. Furthermore, because of the overexposed positions of the banks, their own costs of funds had risen, meaning that some of their corporate borrowers were now able to raise funds at lower cost by accessing the markets directly rather than through the banks. These factors together meant that by 1989, private loans accounted for only about 3 percent of total capital transfers to developing countries, compared to over 30 percent in 1983.

The bulk of the new funds for developing countries in recent years had come from the "concerted new money" initiatives such as the Baker and Brady plans. However, the overall volume of lending achieved by these initiatives had been disappointing, in part because the pressures on the banks to provide new money for defensive purposes had gradually diminished as the extent of their own exposure had been reduced.

Against this background, the financing strategies of most developing countries were constrained. However, the significance of this constraint, as well as the alternative financing options available, did vary considerably from one category of country to another, depending on the overall health of their finances and the condition of their macroeconomic balances. Viellescazes identified three separate categories of developing country borrowers facing significantly different quality of access to both international bank loans and to capital market instruments. These three categories are shown in table 4.1.

Table 4.1 A Categorization of Countries in Terms of their Financing Possibilities

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of issuer</td>
<td>Country with liquidity problem: debt under restructuring</td>
<td>Country with credit problem</td>
</tr>
<tr>
<td>Primary target:</td>
<td>Trading lines</td>
<td>Cost of financing</td>
</tr>
<tr>
<td>Access to capital markets:</td>
<td>Export-import credit lines</td>
<td>Bank loans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project finance</td>
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<td></td>
<td></td>
<td>Object finance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Credit enhancement through receivables, extraterritorial guarantees, etc.</td>
</tr>
<tr>
<td>Provider:</td>
<td>Banks</td>
<td>Banks/securities investors</td>
</tr>
</tbody>
</table>

Source: Pierre Viellescazes.
Category 1: countries with substantial liquidity problems and with a significant dependence on debt rescheduling and restructuring;

Category 2: countries with no major liquidity or debt restructuring problems, but with macroeconomic circumstances which limit their access to the international capital market;

Category 3: countries with "investment grade" external resource balance in the international markets and with the ability to adopt financing strategies involving the broadest range of instruments.

For the first category of country, the main objective of the country's financing strategy was to keep alive the necessary credit lines from banks for routine commercial trading while gradually enacting reform policies to reduce the debt overhang and improve macroeconomic performance.

The second category of country, although largely confined to commercial bank and multilateral agency sources of funds, nonetheless had considerably more scope to make choices between the alternative forms of financing to reduce the overall costs of finance and, at the same time, diversify risks. An important part of this was the search for longer maturity and other enhancements of available credit, for example, by taking advantage of World Bank guarantees and other components of the enhanced cofinancing schemes that were available. It was noted that the aim of these new schemes is not to make countries more dependent on World Bank financing, but rather to provide the equivalent of a "booster rocket" to enable some countries to move more rapidly into a position where they can access a broader range of better quality borrowing instruments. One specific example in floating an international bond issue was the World Bank's assistance to Hungary in 1991.

Much of the subsequent discussion dealt with the strategies and tactics to be adopted by the category 3 and some of the category 2 countries to achieve the optimum access and benefits from the international bond markets. A fundamental point, in Bruckermann's view, was the need for prospective new entrants to the bond markets to recognize a 100 percent commitment to honor their obligations. If they had doubts about their abilities in that area, the bond market was the wrong place to be, since any reneging on or rescheduling of debt obligations would destroy the country's future prospects in the bond markets for many years to come as bond-holders have long memories. It was for this reason that countries that still face serious debt management problems (that is, category 1 countries) are not able to expect access to the international bond markets.

Beyond this, a number of issues regarding borrowing strategies were brought out in the discussion, including the following.

**Timing**

Bruckermann, of Deutsche Bank, noted that many borrowers who come directly from the international loan markets to the bond markets tend to come only when they need funds. This is a mistaken approach. Instead, it is essential that countries time their entry by reference to the state of the market and avoid especially the flotation of their first issues at times when prices are weak. It is particularly important for countries whose credit risk status is still questionable to stay away from the markets when the market itself is shaky. However, it was recognized that the task of timing a specific issue remained as much of an art as a science, although there are now models of early indicators of market conditions that can be helpful in this regard. Possibly the best advice for any country contemplating a first issue is to be strongly guided by the judgments of the lead investment bank for the issue.
Country Strategies

When entering the bond markets, it is important to have a clear medium- to long-term country market access strategy. This should include a clear idea of which institutions in the country should issue paper and approximately when. The alternative of allowing different companies and governmental bodies to operate independent issuing strategies is likely to be very confusing to the markets and will serve only to scare away potential investors. Associated with this is the need to have well-defined annual borrowing limits embracing both external loan amounts and total bond issues. In the context of a country that has already achieved a reasonably sound macroeconomic position, these limits can serve to establish the longer-term credibility of the country’s credit risk in the international markets. Such an approach will also recognize that new entrants to the international markets cannot instantly launch large issues with long maturities. Instead, they will need to begin with modest aspirations and build an improved structure of borrowings gradually and over time. On whether the country strategy was well served by allowing large and healthy corporations to access the markets in advance of the government itself, there were no hard rules. In the instance of Mexico, it was noted that no less than 20 corporations had floated issues in advance of the government. However, it was unlikely that basic deficiencies in a country’s credit situation could be hidden from the market by using a large corporation to front-up a borrowing campaign. The market would recognize that such corporations could be denied access to the foreign exchange needed to service their bond obligations in the event of the emergence of a difficult external payments position. Thus, in these situations there was no advantage to the country in pushing the corporations to the forefront. In India, for example, corporate enterprise borrowers are regarded by the market as wholly synonymous with the state. In all cases it was essential that the markets should have confidence in the stability and sustainability of a country’s macroeconomic situation. It was the first part of a country’s borrowing strategy that policies should be enacted to establish this confidence. Linked to market confidence was the issue of public relations. It was important not only that a country adopt and maintain sound policies, but that it also be seen to be doing so. Thus, a public relations policy designed to feed the market all relevant information was an essential part of strategy. So too was the imperative of ensuring that different government spokesmen spoke with one voice when addressing international audiences, especially in the weeks preceding a market issue.

Lead Advisers and Support Teams

Bruckermann noted that for the majority of developing countries the underwriting of prospective issues was extremely important. Thus, it was also important to find a lead investment bank prepared to take a minor underwriting position in the issue. The alternative of selling by tender can work well only when the supply of the paper in question is perceived to be limited relative to demand. Normally this was not the case for developing country issues. Their issues had to be actively sold and a good lead adviser was essential to ensure that all the ingredients of the sales campaign were properly handled. The publicity, as well as the set of supporting institutions required were part of the ingredients giving strength to the issue during its first few minutes. A good press conference, as well as a good selling story, was needed to provide “amplifiers” to the basic information about the issue. However, this story should not be long - probably less than ten lines - since most traders who receive 200 or more phone calls per hour do not have the ability to absorb more. The presence of three or four institutions in the market that feel comfortable with the price and other terms of the issue is essential to find initial buyers of the offer, since no one is interested in “warehousing” paper
even for thirty minutes in most of the markets. In this context the judgment of the lead adviser on the volume, timing, and the other terms of the issue ought to be respected. Attempts by the issuer to gain a few extra basis points on the issue at the beginning could prove short-sighted.

Formal Ratings

There was considerable discussion about the advantages and disadvantages of a country seeking and obtaining a formal rating for its bonds from one of the established rating agencies such as Standard & Poor's or Moody's. There was agreement that little purpose was served by trying for a rating prematurely and before all the factors underlying a good credit standing were in place. It was emphasized that countries could achieve placement of some issues in advance of a formal rating by having recourse to private placements. However, when a country was in a position to seek a rating, it was felt that a market target of possibly BB (just below investment grade) was a reasonable first step, since the alternative of trying for a higher, but non-sustainable, rating would be detrimental to future issues if this rating were to be lost subsequently. In general the advice was to approach the issue of obtaining a formal rating systemically as part of the country's borrowing strategy, but to do it slowly and with caution.
The three general aspects of international financial strategies discussed before were complemented by the in-depth discussion of two specific aspects that became important to many developing countries in recent years. These are debt restructuring and debt/equity swaps, discussed in this chapter, and privatization, discussed in chapter 6.

Debt Restructuring

In his introduction to debt restructuring, Jed Shilling of the World Bank commented on the mystique of the syndicated Eurodollar loan. He noted that at one time this had been regarded as the ideal borrowing instrument because it was denominated in foreign exchange (thus no foreign exchange risk). After 1970 it was on a floating rate basis (thus no interest risk), and many loans went to governments (thus there was only a sovereign risk that was perceived to be minimal). Although these advantages were defined from the point of view of the lending banks, ministers of finance and officials in borrowing countries also perceived strong advantages in terms of the ease of access to the funds, the flexibility in the uses to which they could be put, and the absence of a need to do a project analysis before using the funds.

Unfortunately, as the analysis in chapter 2 made clear, the general obligation nature of the Eurodollar loan made it a disaster from the viewpoint of sound risk management. This is because the borrower was fully exposed to both the foreign exchange risk and the risk of interest rate variability and the government needed to guarantee repayment irrespective of the financial outcome of the projects. The Eurodollar loan was the quintessential “fair-weather instrument,” which had disastrous consequences for borrowers when things began to go wrong.

Shilling explained that when the excesses of the Eurocurrency lending arrangements came to be recognized in the early 1980s, there were few, if any, internationally agreed procedures for recontracting the debt that had been accumulated. Thereafter, the first recontracting arrangements involved a straightforward rescheduling of obligations that, by implication, assumed that the debt problem was essentially one of illiquidity. Under these arrangements, international creditor banks grouped themselves together and adopted arrangements that had many parallels with domestic enterprise rehabilitation procedures. When the international initiatives moved on to the so-called “concerted arrangements” such as the Baker plan, more subtle rescheduling arrangements were incorporated, including menus of options, waivers, and exit options. Only with the Brady Plan had it been openly recognized that the debt problem was partly one of insolvency as well as illiquidity and that it was necessary to reduce as well as reschedule debt if the problem was to be resolved. This recognition confirmed the important role of financial arrangements and instruments such as the buyback, exchange bonds, interest reduction bonds, and the debt/equity swaps, all of which serve to reduce rather than merely reschedule debt.
Debt/Equity Swaps

The essential feature of a debt/equity swap is that it is an exchange of liabilities having fundamentally different characteristics. In that respect, it has many of the technical features of a convertible bond, which was well known to financial markets long before debt/equity swaps entered the scene. The initial loan instrument in the exchange involves fixed payments to the lender; restricted negotiability; the absence of any creditor influence on the actions of the debtor; and no direct claim of the creditor on any collateral. By contrast, the new equity instrument involves payments that are contingent on the performance of a specific project; a degree of marketability; and a clear claim of creditors on specific assets.

Such an exchange is of interest to the debtor because it reduces total debt, reduces the foreign exchange obligations of the government, converts contractual to contingent payments, and provides better management of the enterprises issuing the equity. It is of interest to the creditor because it eliminates a non-performing asset from the creditor’s portfolio, provides a marketable instrument with some up-side potential, and can yield a premium on invested funds.

However, there are also potential disadvantages of the debt/equity swap from the debtor’s point of view that have served to limit its use in some countries. First, it does assign the ownership and control of some domestic assets to foreigners. This may be problematic in some political contexts. Second, and depending on the manner in which the domestic resources to finance the deal are raised, it can result in intensified inflation and increased macroeconomic instability. Finally, the country may acquire a contingent liability to pay dividends in excess of the amounts of the existing service on the debt, although this would only happen if the underlying projects are successful.

Pricing

The final point addressed by Shilling concerned the pricing and funding alternatives involved in debt/equity swaps. As regards pricing, there are three distinct stages in each operation, namely:

- The foreign investor buys a country’s debt from one or more banks, normally at a discount relative to face value;
- The foreign investor sells the debt to the government in exchange for local currency at a price that typically enables the investor to achieve a premium over a straightforward investment transaction;
- A domestic firm provides equity to the investor in return for a payment in local currency.

The prices involved can be determined in several ways. First, the government may set a fixed fee for brokering the deal. Second, the price may be set by auction, with the government offering for sale fixed dollar amounts of debt to potential investors. Third, there may be direct negotiations between the government and the potential investors. In these cases, there is scope for variation based on subsidiary objectives that the government may be attempting to achieve. For example, in the case of Brazil, there were differential arrangements offered for would-be investors in the Northeast of the country, who received more favorable terms relative to those in the more developed remainder of the country.

As regards financing, the government could obtain access to the local currency required for the deal in one of three ways. First, it could adjust government revenues and expenditures so as to leave the overall public deficit unchanged in spite of the increased local currency
Debt Restructuring and Debt/Equity Swaps

outlay. Second, it could run a larger fiscal deficit financed by money creation. Third, it could run a larger fiscal deficit financed by issuing government bonds. In the final case, there would normally be some expectation of increased domestic interest rates, with the government in effect exchanging a local currency for a foreign currency liability. It was emphasized that for many governments facing serious domestic and external debt problems, the local funding requirements represent the major constraint on the volume of debt/equity swaps that can be undertaken since it is very difficult to see how the necessary additional funds can be raised without provoking a higher rate of domestic inflation, either immediately or in the future.

The Case of Chile

Substance was given to these propositions through the case study on the Chilean debt conversion program presented by Andres Velasco. In 1985 Chile had been the first country to use debt/equity swaps. At that time, the secondary market price of Chilean debt was 55 percent of nominal value as compared to the 1991 price of 85 percent.

Three types of debt conversion have been used in Chile:

1. The first is the “Chapter 19” debt/equity swaps available to investors from foreign countries. These operated in line with the model discussed in Jed Shilling’s presentation. They were priced to leave the government part of the premium from the discount of the external debt in the markets. The main part of the financing for such deals had come from government bond sales. Restrictions on these arrangements prevent the investor from making profit repatriations until the fourth year and capital repatriations until the tenth year, although waivers to these restrictions were already being sought.

2. The second type is the “Chapter 18” arrangement whereby Chilean residents can use dollars acquired in the informal markets to buy a part of the external debt owed by the central bank. For this purpose, the central bank had from time to time defined quotas for the amounts of such debt that it wished to redeem. However, a feature in common with the Chapter 19 arrangement is the granting of a premium to the investor, who in this case is a domestic resident.

3. Chile has maintained informal schemes that include bilateral debt exchanges and debt reductions, which are part of bankruptcy proceedings where debts are paid off using exchange arrangements.

Since 1985, the total amount of debt reduction under these schemes had been quite substantial. Compared to the total 1985 medium- and long-term debt of Chile of US $20.5 billion, there had been a reduction by 1988 of US $8 billion of commercial bank debt and from 1988 to 1991 of a further US $3 billion, making a total of US $11 billion. However, during this same period the total debt of Chile had only fallen by US $3.4 billion to a new overall total of US $17.1 billion. This was because multilateral agency debt, especially from the IMF and the World Bank, had risen sharply to replace partially the reduced volume of commercial bank debt.

In evaluating the effects of the Chilean debt reduction program, Velasco focused on four areas: the balance of payments, liquidity, the additionality of foreign direct investment, and the macroeconomic effects.

Balance of payments

The debt reduction schemes had contributed to the removal of Chile from the category of most highly-indebted countries. This was a welcome improvement. However, it was arguable
whether the greatly improved macroeconomic management of the country was a more important part of the explanation for this than debt reduction per se. In addition, the greatly improved market perception of the Chilean situation was somewhat paradoxical, given that the degree of indebtedness to the World Bank and other multilateral agencies had risen substantially.

Liquidity

Velasco's view was that Chile had gained relatively little liquidity. The Chapter 19 swaps had merely substituted one liability for another and the reduced debt was also associated with a reduced degree of ownership of domestic assets, and so with enhanced levels of profit and capital repatriations at a later date. Specifically, it was estimated that from 1990 onwards, the annual current account outflow associated with the Chapter 19 arrangements would be US $400 million to US $500 million. Although such amounts were not disastrous from the viewpoint of Chile's overall balance of payments, they were not trivial. They indicated that the breathing space from the swap arrangement had been relatively limited.

The Additionality of Foreign Direct Investment

An analysis of the additionality of foreign direct investment, based on the evidence from Chile, suggested that as much as 50 percent of the new investment financed through Chapter 19 swaps had not been additional. Thus the discounts and premiums received by the investors on these investments had represented windfall profits. The situation regarding Chapter 18 involving domestic residents was different since the effects here depended on the source of the funds used to buy the central bank's debt. If these represented a reversal of earlier capital flight, then the balance of payments effects were positive. However, if they originated from the under-invoicing of exports, then the country was using its official reserves to buy back its own debt. In this case the debt/equity swaps had no advantage over a straightforward official buy-back of debt. Although the additionality of the new direct investment may be in doubt, it was noted that it is still desirable for a country to subsidize such investment for a few years after emerging from a situation of instability for the sake of building up a critical mass of new foreign investment.

Macroeconomic Effects

In relation to the macroeconomic effects, Velasco emphasized that the equity handed over by the government in the context of a debt/equity swap is normally not owned by the government. Where it is, as, for example, in the context of a privatization program, the benefits from the debt/equity swaps are likely to be greater. Where it is not owned by the government, the government needs to buy the equity either by printing money or by selling government bonds. The first method is inflationary, while bond issues postpone the day when one can anticipate enhanced inflationary pressures or increased taxation. There is no net saving on interest payments if the real interest rate domestically exceeds the real international interest rate as incurred on the original external debts. The overall condition for a net fiscal loss on a debt swap is expressed in the following formula:

\[ \text{Net Fiscal Loss} = \text{Interest Payments} \times (1 + \text{Real Interest Rate}) - \text{Net Saving} \]

1. The formula omits foreign exchange devaluation and possible gains of having a lower internal rate of return (IRR) in domestic currency terms.
Debt Restructuring and Debt/Equity Swaps 25

\[ \frac{r^*}{(1-b)-(r)}>0 \]

where

- \( b \) = the average discount captured by the public sector on debt/equity swaps
- \( r^* \) = the real average LIBOR rate, including spread, as charged to the borrowers
- \( r \) = the real average domestic bond interest rate

In three other countries examined by Velasco, Argentina, Brazil, and Mexico, the figure for \( r \) (domestic bond rate) was substantially in excess of that for \( r^* \) (real LIBOR rate). As a consequence, and in spite of the discounts captured by the public sector, there appear to have been significant fiscal losses on the debt/equity swap operations. In Chile, by contrast, where the interest rate differential had been comparatively small, the premium was just sufficient to enable the government to break even.

In general, it is unlikely that countries undergoing stabilization programs can expect real domestic interest rates to be lower than international rates. Thus, countries facing macroeconomic instability, such as Argentina, are ill-advised to make use of debt/equity swaps, at least from the viewpoint of the overall fiscal balance. The fundamental problem is that the most highly indebted countries are generally among the most inflationary. Thus the debt/equity swap arrangements may result in a part of a country’s external debt being exchanged for more inflation.
Euan Macdonald of S. G. Warburg, London, addressed the topic of privatization as a financial reform strategy. He differentiated between two different types of privatization. The first is where assets are sold through an existing capital market with the intention of broadening the ownership of equity securities. The second is where there is a direct sale involving a limited number of buyers.

The first category of privatization had become familiar mainly as a consequence of the Thatcher government's policies in the United Kingdom in the 1980s. There the privatization sales, although extremely large relative to the normal turnover of the United Kingdom's stock market, had involved only a limited number of companies. The major problems that had arisen involved technical matters, such as the confirmation of the true ownership of the shares being sold. In the one case of the Trustees Savings Bank, legal proceedings had established that the company was not owned by the government. In other cases where the valuation of the assets was problematic, it was important that these could be seen to be at once realistic, fair to the Exchequer, and no more politically contentious than necessary.

In the second type of privatization, one of the key pre-conditions for privatization, namely, the existence of willing buyers able to pay the appropriate price, was normally absent. In the case of Eastern Europe, while there are many suggestions about how to deal with the enormous number of weak companies targeted for privatization, no one really knows how to achieve this. There is no tailor-made formula.

Macdonald noted that invariably there are ways of arranging a privatization sale even where the objective value of a company is low, or even negative. He cited the example of a very old and poorly-maintained bauxite company in Guyana, where new investment from a foreign partner was able to convert a very low objective valuation of the company's assets into something far more substantial. The fundamental political problem, namely that the government could not simply “give the company away” to the foreigner, was dealt with by establishing a new joint-venture company involving a 50 percent holding for the foreign investor plus management control and a further holding for the state. The agreement provided for a 50/50 split of the net benefits of the project between the two partners. All tax revenues, customs duties, and redundancy payments were factored into the net benefits, and the foreign partner assumed a commitment for a specified volume of new investment over a specified period of time. This new company has been successful and the government of Guyana is now in a position where it can sell the company's shares if it wishes. As a consequence, several other companies in Guyana have been dealt with in the same way.

Macdonald noted that in both contexts, privatization could have a variety of explicit and hidden objectives, including:

- To develop the local capital markets;
- To improve management capabilities by establishing a more competitive environment for the enterprise;
- To meet the government’s need to raise money;
- To have more private individuals involved in the market economy as shareholders;
- To increase the importance of free markets.
Unfortunately, not all of these objectives can be pursued in all circumstances. Therefore, it is important for any government undertaking privatization to have a clear view of which objectives are feasible, and which are priorities. The manner in which privatization is handled depends greatly on government judgments about the appropriate role of the state in economic affairs. This has to be clearly articulated before privatization can proceed.

Building on these basic propositions, Robert Kopech of Morgan Guaranty, London, elaborated the aspects of the work involved in handling privatization, planning and staffing, preparation, and execution.

**Planning and Staffing**

The first part of the planning operation is to articulate clearly the real objectives of the privatization. Thereafter, there is a strategic decision of which enterprises to privatize first. The Guyanese example provides an illustration of how a model developed for one initial privatization can establish practices and standards for replication in future cases. Similarly, the example cited by Aaron Tornell of a state-owned nightclub being one of the first Mexican privatizations illustrates how a politically non-contentious sale can serve to get the idea of privatization established with the general public. The third ingredient of the planning operation is the selection of appropriate advisers and a privatization team. It is invariably the case that government departments do not contain all the expertise required to handle a complex privatization program. Thus a team needs to be built, including foreign financial and technical advisers, where these are unavailable from the domestic institutions.

**Preparation**

The initial step in the preparation of privatization is a detailed study of the enterprise to be privatized to ensure a full understanding and documentation of its strengths and weaknesses as well as the opportunities and threats it faces (that is, a “SWOT” analysis). This can lead to an initial valuation of the firm and the setting of a price at which it might be sold. However, it is generally inadvisable for a government to form a view as to the minimum acceptable price for a sale since, if excessive, this can easily serve to abort a deal. A second stage is the identification of the legal clearances required for the sale and the obtaining of these clearances. If new legislation is required, this must be dealt with as a part of the preparation stage, since an inappropriate legal structure can prejudice the whole operation. Next, it is essential to combine the steps of first selecting the method of privatization to be employed and then identifying the nature and characteristics of the possible buyers. This task is somewhat easier where a sale in an established capital market is a possibility, as in the case of the United Kingdom. However, in most cases the method of privatization and the target buyers will include the existing workforce and managers of the company, portfolio investors whether active in management or inactive, non-financial corporations, and members of the general public.

With each of these target markets there are specific ways of packaging the sale to enhance its attractiveness. For example, in the case of a sale to another corporation, the sale could be arranged either as a direct sale of all the assets, as the sale of a minority share in the assets combined with a management contract, as a joint venture, or as a sale to a majority of strategic investors. In the case of a sale to employees, arrangements can be devised to enhance the appeal of the offering. These can include payment by installment, and awarding a certain

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1. **SWOT analysis** is a method of making a diagnosis of the realities faced by identifying strengths (S), weaknesses (W), opportunities (O) and threats (T) connected with proposed changes.
number of free shares, linked possibly to length of service. In the case of sales to the public, installment payment arrangements and other "sweeteners" have been common in the privatization schemes of several companies. In all these cases, a decision about the type of buyers who are likely to emerge, combined with the SWOT analysis, should enable the establishment of a target range of prices at which the enterprise might be floated. The particular price that is ultimately set will also depend on the specific objectives for the privatization, which is one of the key elements of the planning process. The final step in the preparation is the compilation of a clear and informative selling document.

**Execution**

Kopech ventured the opinion that there are seven basic rules that, if followed, can ensure the effective execution of a privatization program. They are as follows:

1. **Set clear, but limited, objectives.** There are many reasons why a government may wish to privatize some or all of its state enterprises. However, normally only two or three of these will be achievable in any one operation and going for more is likely to confuse the situation. At present in Eastern Europe there are almost certainly too many objectives being pursued at once.

2. **Ensure coherence of the privatization program with macroeconomic policies.** A privatization that is done badly or in the wrong way can disrupt a macroeconomic adjustment program. For example, a program that is heavily dependent on debt/equity swaps could result in an excessive rate of expansion of the domestic money supply.

3. **Make sure that the government, in all its manifestations, is clearly behind privatization and avoids public declarations that could suggest that this is not the case.** This is the first step to ensure a high degree of general public and investor support for the program. A complementary step is the maintenance of a strong public relations campaign. Chile was cited as a good example of a country that had told a consistent story about privatization for ten years and had supported this with sound macroeconomic policies and the creation of strong investment possibilities. By contrast, in the Eastern European context, statements that five company privatizations had been achieved in twelve months were disappointing relative to the 8,000 companies needing restructuring, and were counterproductive in public relations terms. The reality is that five privatizations in the difficult circumstances of Eastern Europe was a good achievement, and it is this aspect of the story, and not the negatives, that ought to be emphasized in press releases and elsewhere.

4. **Ensure that all the elements of the planning process for privatization are carefully and completely done.**

5. **Take care that the selling process for the shares is entirely transparent so as to avoid any suggestion that deals were being cooked up behind closed doors in favor of one vested interest or another.** In general, complete information should be made available at each level and each stage of the privatization process.

6. **Carefully choose the method of privatization from the list of possible methods listed above in full awareness of the specific objectives that have been set.**

7. **Identify the particular skills and experiences needed in external advisers and then take considerable care in selecting good advisers.** Once selected, make it clear that the advisers' role is one of implementing the government's own program and not that of redefining objectives.
The Case of Mexico

These guidelines were further elaborated in the case study on Mexico presented by Aaron Tornell of Mexico’s Ministry of Finance. Tornell and other participants made the point that a prior step to a successful privatization had to be that of moving the existing private sector on to a more market-oriented basis. Tornell referred to the need to “privatize the private sector,” by which he meant the establishment of a system within which the failure of a private enterprise really results in bankruptcy and closure rather than an automatic bail-out by the government. In Mexico this new environment had been confirmed by the government by declaring a major state-owned airline bankrupt and allowing the closure of a major steel works in Monterey. In Eastern Europe, by contrast, it was necessary to translate the rather amorphous situation in which all assets and property rights theoretically resided with the public into a more solid legal system by formally nationalizing certain companies before they could be privatized.

A complementary point stressed was the need to establish a reasonably stable and non-distorted macroeconomic policy backdrop. This was important to avoid a situation whereby a private company could fail financially through no fault of its own because of the arbitrary removal of a special subsidy or price advantage. It was also helpful to a privatization program to introduce it into a reasonably liberal environment as Mexico had done by first liberalizing its trade barriers and removing restrictions on foreign direct investment. This had provided important signals to foreign investors—for example, that the anti-export bias of the trade regime would be removed—and had also substantially increased the pool of savings available to purchase privatization issues. On this second point the experience of the United Kingdom had been similar in that the removal of exchange controls in 1979 had massively increased the pool of savings available to support privatization sales.

As regards the tactics and public relations in privatization, Tornell noted that it was not bad to assign a part of the privatization proceeds to unambiguously desirable expenditures such as improved rural electricity and hospitals in certain localities. If done on a regional basis, this could greatly dilute public concern about job losses associated with privatization. This tactic certainly had worked well in Mexico. Other participants echoed this message and stressed that governments often failed to point out that the opportunity cost of massively inefficient and loss-making public enterprises was to be found in inadequate expenditures on health care, education, and other social services.

On the question of tactics, it was noted that the ministries responsible for state-owned enterprises could themselves often represent a major vested interest and obstruction to privatization. Consequently, it was inadvisable to use such ministries as an element within the teams responsible for privatization sales.

Sequencing

A further issue concerned the appropriate sequencing between corporate restructuring and privatization. Tornell noted in the case of Telemex and other Mexican companies that a degree of restructuring had been needed to generate improved profitability and value for the enterprise being privatized. A similar sequence had applied in the case of British Airways and other United Kingdom privatizations. These examples confirmed that it was possible to get good management teams into state-owned enterprises. On the other hand, it was noted that where the restructuring need applied across a wide range of companies, the overall task would be an expensive one and some of the revenues from privatization might be needed to finance the restructuring. Thus, some privatization was needed at an early stage. Equally the
management skills of the buying teams might be required to design and implement an effective restructuring program. It was noted that this balancing of the two concerns was especially problematic in Eastern Europe. There the need for restructuring was pervasive, but the proceeds likely to be raised from privatization itself were likely to be small because of the voucher arrangements being used to handle the disposal of the assets. Such approaches also involved the danger that the new owners of the shares would have only a limited interest in the improved management of the privatized companies.

There was broad support in the discussion for including a well-prepared and managed privatization program in a country's overall financial strategy. There was agreement with McDonald's assertion that the shift in the climate of opinion that had made some privatization acceptable in a wide variety of political contexts was amazing. However, numerous practical, legal, and political problems had to be addressed in spite of very useful guidelines being put forward. It was accepted that there is a great deal of country specificity in what needed to be done. In this area the Eastern European countries posed problems that were of a greater order of magnitude than those confronted in most of the other countries.
Macroeconomic and Financial Strategies

Chaiyawat Wibulswasdi from the Central Bank of Thailand introduced macroeconomic and financial strategies by discussing the experience of the management of the economy of Thailand in the 1980s and beyond in the form of a case study. Many of the underlying themes he introduced were further elaborated in the final panel discussion led by Gunay (Turkey), Hernandez (Venezuela), Alimullah (Pakistan), and Kulkarni (India).

The Case of Thailand

Wibulswasdi noted that Thailand had experienced serious economic problems in the early 1980s. These were manifested in a substantial current account deficit (7 percent of GDP in 1983); a rising level of external debt service (19.5 percent of exports in 1983); and falling external reserves. These problems arose in part because of the unfavorable international conditions at that time, but in large measure also from excessive domestic spending that sustained overall growth rates at a high level (around 6 percent), in spite of a temporary slowdown in exports.

In the early stages of Thailand's fifth plan (1982-86), the need to assign a high priority to economic stabilization was emphasized by the definition of three broad benchmarks for economic stability, namely:

- Current account deficit: GDP = no more than 5 percent;
- Foreign exchange reserves: imports = no less than three months;
- Debt service ratio = no greater than 20 percent.

Each component of the policy tool-kit was managed with attention to these benchmarks. For example, in the period 1981 to 1986, fiscal revenues fell persistently below targets, resulting in a rapidly rising ratio of government debt service to total budgetary outlays. Because the external debt service ratio grew to 22 percent—well beyond the benchmark—there was little scope for using fiscal policy to contribute to the overall recovery of output.

Monetary Policy

Similarly, in relation to monetary policy, the authorities needed to reduce progressively the ceilings on the annual borrowing of the public sector relative to those envisioned in the plan. The reduction in absolute terms for external borrowing was US $3.2 billion, which compares with Thailand's entire external debt in 1986 of about US $13.8 billion. This stringency in public borrowing was a critical factor in preventing an explosion of the debt service ratio and in bringing it down eventually to below the 20 percent benchmark. Furthermore, an increased tightening of monetary policy was introduced to compensate for the failure to reach fiscal revenue targets.
Turning to the issue of external debt management, Wibulswasdi noted that the tight ceiling on public borrowing had been important in enabling Thailand to adhere to the broad principle of allowing free in-and-out movement of private capital. This was consistent with the structured reform that the authorities had sought to achieve in the development plans, and in particular with the improved efficiency of resource allocation based on the private sector. This had been the core of the underlying economic philosophy. Meanwhile, the public sector had been required to be far more careful than in the past about larger investment projects in order to maximize the benefits from the limited pool of funds.

The monitoring of the external debt benchmark was supervised by an External Debt Policy Committee comprising senior representation from the central bank, the Ministry of Finance, and other government departments. This committee operated by imposing an annual ceiling on the external borrowing of the public sector, including state-owned enterprises, which had been adjusted downwards progressively to give a total of some US $6.4 billion over the whole 1982-86 plan period, which was US $3 billion below the initial target.

Another aspect of debt management supervised by the committee was that concerned with debt structure. Since 1984, advantage had been taken of the improving current account and international reserves position to refinance part of the debt and also make prepayments. This had been done for a combination of three motives: (a) the avoidance of a bunching of maturities; (b) the reduction of the overall rate of borrowing; and (c) a diversification of total debt by source and currency composition. These objectives contributed to the broader objective of improving Thailand’s overall credit rating and access to international capital markets. Between 1984 and 1990, Thailand refinanced some twenty-nine loans for a total of more than US $4 billion, which was about one-third of the total external debt. During the same period total prepayments of debt amounted to US $2 billion on twenty-one loans. In addition, active use of currency and interest-rate swaps had helped to achieve significant further improvements in the debt structure.

Several participants asked about the manner in which the freedom for private capital movements was dealt with in the context of risk management for the economy. Wibulswasdi noted that the answer lay in part in the method of exchange rate management that Thailand had adopted in November 1984. This had involved a switch from dollar to basket pegging and had served to provide a degree of stability at times of volatile international market conditions. Market participants increasingly gained confidence with the system and learned to adjust to residual uncertainty by the use of hedging instruments. In addition, the central bank of Thailand had assisted private borrowers by guaranteeing their foreign exchange risk and then undertaking the necessary hedging transactions on its own account. However, this practice had built up to a peak of exposure on guarantees of over US $1 billion at certain times and the central bank was anxious to limit the scheme in recognition of its inability to accommodate all the private sector risks, and its anxiety to encourage greater private sector independence in risk management. This new approach created some danger of reduced central knowledge about the external debt of the economy. However, in Thailand even this problem was mitigated by the systems that are still in place to encourage investors to register capital inflows as an incentive for easier capital and profit repatriations later.
Asset and Liability Management

As regards overall assets and liability, Wibulswasdi explained that there was no strong link between the management of the two sides of the balance sheet; no effort, for example, was made to match the currency composition of assets and liabilities. The criteria to deal with asset/reserve management include, in order of importance, safety, liquidity, and return. In the early 1980s, when the current account situation was more problematic than it was in 1991, liquidity was elevated to a higher position in the order of importance than it now occupies. But at no time has the asset management of the economy been broadened to include new and accumulated physical investment in the manner discussed in chapter 2 above. The closer linking together of the asset and liability aspects of the financial management tasks are a matter that was still under review by the Thai authorities.
In the final session, a panel discussion addressed the issues in formulating an international finance strategy and it attempted to weave together the conclusions reached in a summary, based on country experience.

Leading off this discussion, **Kadir Gunay (Turkey)** emphasized the critical interdependence between sound domestic financial policies and the international financial strategy. This required a clear recognition that most risks faced by domestic producers emanated from discretionary and distortionary policies applied by governments. In his view, this risk could best be removed by allowing a greater role for prices in free markets and, in particular, by disposing of state-owned enterprises to the private sector. This should be done rapidly and in advance of serious efforts to restructure the enterprises in question. If governments were good at managing such enterprises, which generally they were not, there would be little need to privatize.

The other lesson he suggested was that developing countries should be more prepared to learn from the experiences of others. Especially in relation to foreign direct investment he felt that the developing countries had been far too reticent about accepting the benefits of greater external involvement in their economies. If Turkish workers could function well and work with German capital inside Germany, he saw no reason why anyone should have problems with other Turkish workers performing equally effectively with foreign capital within Turkey.

**Carlos Hernandez (Venezuela)** drew attention to the integration between domestic policies in a traditional sense and the less familiar risk management policies discussed at the seminar. He argued that it would be a mistake for most countries to begin making extensive use of the specialized risk management instruments without first having a clear view about how the economy works, about how it may be influenced by exogenous circumstances and domestic policies, and, above all, about how the dynamics of the economy's evolution are likely to work over time.

He argued that certain steps, such as the establishment of a coherent policy for the diversification of international reserves, should precede the introduction of complex risk management technologies. He was also enthusiastic about the introduction of some basic financial programming benchmarks of the type used in Thailand. These could serve to constrain domestic fiscal and monetary policies in a manner that would depend on the performance of the economy relative to benchmarks for debt service and reserves.

Hernandez noted that this programming would be more problematic in Venezuela than in Thailand because of the variability that would be injected into some of the benchmarks by changes in the world oil price. He thought that it would be inappropriate for Venezuela to have to cut its external borrowing (that is, to reduce the debt service ratio) just because the oil price had fallen. However, as another participant noted, this was precisely the reason why financial programming of the Thai-type needed to be combined with some hedging operations—in this case, hedging of the oil price. This combined approach would ensure the viability of financial programming as an element of traditional economic management in spite of the problems added on by volatile export and import prices.

Hernandez noted the radically changed attitude to risk in Venezuela from the times in the late 1970s and early 1980s when the economy enjoyed high reserves and also operated with
fixed interest rates, fixed exchange rates and controlled prices. In those days, risk was not an issue. Now, with a more open and liberal economy, risk management is much higher on the agenda of the policymakers. As the earlier presentations had emphasized, there were limits on what could be achieved in terms of risk reduction while the country was operating with a large overhang of debt. Thus the first part of the strategy as far as Venezuela was concerned related to the need to restructure and reduce debt to ensure an improved access to international capital markets.

Qazi Alimullah (Pakistan) returned the focus of the discussion to the issues raised by Kadir Gunay. In particular, he felt that an external borrowing strategy should be based on doing everything possible to ensure that the resources raised should be used efficiently. At the same time, everything possible should be done to reduce the net reliance on external as opposed to domestic savings. In the case of Pakistan, this set of broad objectives needed to be, and had been, pursued by invoking three types of reform measures:

1. First, it had been necessary to dismantle the restrictions that discriminate against the foreign investor to enhance the prospects that new investments would be efficient. In Pakistan, foreign portfolio and direct investment are now allowed. The earlier restriction, whereby investments of US $10,000 or more needed government approval, has now been scrapped. Linked to this, capital and profit repatriations for foreign investors have been made easier, although restrictions on capital outflows by Pakistani nationals still apply.

2. Second, there has been a major program of reform of the domestic financial sector. This has included the privatization of some banks and a significant downgrading of the interest rate advantages formerly applied to the government's own borrowings. These reforms are in the same direction as those advocated by Gunay, namely, of allowing a greater allocative role for free markets.

3. Third, it had been essential to enact a tariff reform to bring down the high rates of protection traditionally maintained in Pakistan. Licensing had been removed and the country had managed to retain this freedom even in the face of the serious foreign reserve position that had emerged during the 1991 Persian Gulf war. He argued that this reform was an essential part of the process of allowing international competitive pressures to impose improved efficiency on the domestic use of capital.

These new dimensions of Pakistan's policies, emphasizing investment efficiency, combined with the country's long-standing success in honoring its payments commitments, have provided a sound basis for its future financial strategy.

Prabhakar B. Kulkarni (India), the fourth member of the panel, commented on the situation from the Indian point of view. In relation to external debt he emphasized two points. The first was the need for a country to avoid default on external obligations, whatever the circumstances. The second was that an external debt ceiling as applied in Thailand was a straightforward and important part of an overall financial strategy.

In relation to asset management, he argued that there was no particular need to match the currency structure of reserve assets and external debt with that applying to the currency basket used for exchange rate purposes. In the case of India, the gold holdings of the country had been a sterile and inactive part of the country's overall reserve holdings. He recognized the point made that gold swaps were available to make this part of reserves more active and useful, and agreed that India, along with other countries, needed to look at this possibility. He also observed that in the Indian context it was likely to be procedures, rather than the absence of a strategy as such, that would render the adoption of a systematic risk management strategy problematic.
Kulkarni reiterated the point that a sound international finance strategy needs to be embedded firmly within a foundation of sound and relatively undistorted macroeconomic management. Several of the technically innovative approaches to risk management could be invoked even in the absence of this foundation. However, the overall profile of risk and uncertainty in the economy at large would not be satisfactory unless the foundation was there.
## Annex I

### Seminar Program

#### PROGRAM CALENDAR

<table>
<thead>
<tr>
<th></th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tr>
<td>April 8</td>
<td>8:00 Arrival of Participants</td>
<td>Financial Instruments for Risk Reduction</td>
<td>Debt/Equity Swaps, and Debt Restructuring</td>
<td>Privatization</td>
<td>Roundtable on: Finance Strategies Frameworks</td>
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<td>02</td>
<td></td>
<td>Lessard / Ambarash</td>
<td>Shilling / Tornell / Velasco</td>
<td>Macdonald / Kopch</td>
<td>Participants</td>
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<td>AM</td>
<td>10:00 Opening Kashiwaya</td>
<td>Work Group Discussions</td>
<td>Work Group Discussions</td>
<td>Work Group Discussions</td>
<td>Roundtable on: Finance Strategies Frameworks</td>
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<td>10:30 Presentation of Participants</td>
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<td>10:30 Tour of Wollsborg</td>
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<td></td>
<td>12:00 LUNCH</td>
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<td>Bus for Visit to Zurich</td>
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<td>PM</td>
<td>1:30 International Finance Strategies, a</td>
<td>Access to World Capital Markets</td>
<td>External Portfolio Management of Thailand</td>
<td>Departure of Participants</td>
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<tr>
<td></td>
<td>Country's Balance Sheet, and Risk Exposure</td>
<td>Bruckemann / Villescazes</td>
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<td>3:00 COFFEE</td>
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<td>3:30 Work Group Discussions</td>
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<td>5:00 Walk through City</td>
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<td>Evenings:</td>
<td>SWISS CULTURE BALLET AT CLOSING EVENT</td>
<td>BALLET AT OPERA IN ZURICH</td>
<td>CLOSING DINNER</td>
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**Seminar Administration:**
- Co-Director: Nicholas Bruck, EDI-World Bank  
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- Co-Director: Marcus Fedder, CFS-World Bank  
  Tel: (202) 458-0007
- Participant Relations: Annie Ronco, EDI-World Bank  
  Tel: (202) 473-6472
- Seminar Assistant: Alexandra Roncal, EDI-World Bank  
  Tel: (202) 473-6398

**Wollsborg Center:**
- Tel.: (4172) 631-111; Fax: (4172) 642-652

**Meals:**
- Breakfast is from 7:00 a.m. to 8:00 a.m.; Lunch is at 12:00 noon; Dinner is at 6:30 p.m.

**Clubroom:**
- Open until midnight. Sports facilities are open from 8:00 a.m. to 10:00 p.m.

**Address:**
- The address of the Wollsborg Center is: CH-8272 Ermatingen, Switzerland, located on Bodensee (Lake Constance).
## Annex II
### List of Participants

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Position/Role</th>
</tr>
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<tbody>
<tr>
<td>Algeria</td>
<td>Cherif Ilmane</td>
<td>Vice Governor, Central Bank</td>
</tr>
<tr>
<td>Colombia</td>
<td>Leonor Montoya</td>
<td>Deputy Manager, Central Bank</td>
</tr>
<tr>
<td></td>
<td>Maria Correa Ordonez</td>
<td>Advisor to Minister of Finance</td>
</tr>
<tr>
<td>Chile</td>
<td>Andres Velasco</td>
<td>Chief of Staff, Ministry of Finance</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>Jaromir Zahradnik</td>
<td>Vice President, Central Bank</td>
</tr>
<tr>
<td>Germany</td>
<td>Gerhard Bruckermann</td>
<td>First Vice President, Deutsche Bank</td>
</tr>
<tr>
<td>Hungary</td>
<td>Sandor Czirjak</td>
<td>Deputy President, Central Bank</td>
</tr>
<tr>
<td></td>
<td>Csaba Pasztor</td>
<td>Deputy General Manager, Central Bank</td>
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<tr>
<td>India</td>
<td>Renuka Vishwanathan</td>
<td>Joint Secretary, Ministry of Finance</td>
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