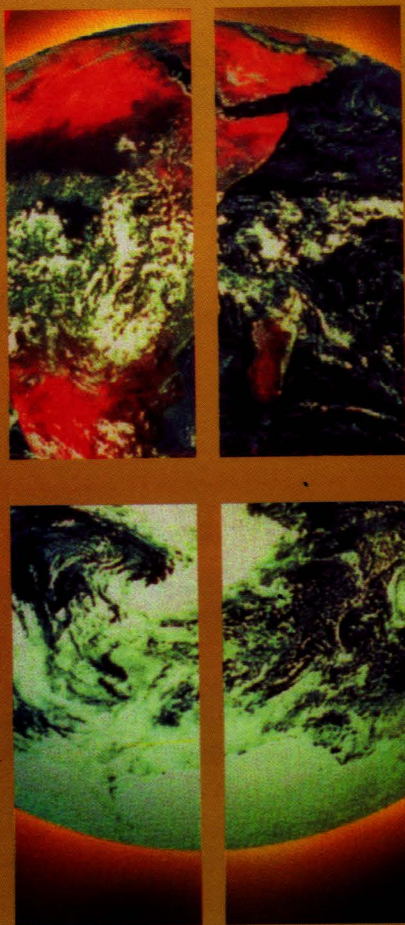




**COMING
TO GRIPS
WITH
GLOBALIZATION**

CAYETANO PADERANGA, JR.

Editor

Coming to Grips with Globalization

Coming to Grips with Globalization



Edited by
CAYETANO PADERANGA, JR.

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FOREWORD

Globalization issues are at the forefront of international and national debate. In the face of rapid developments in telecommunications that have allowed the international economy to penetrate the deepest nooks and corners of the world, even isolated countries like Cuba and North Korea have begun to show signs of increasing openness to the international market. Having resisted world capitalism for decades, the participation of such countries would suggest that liberalization and the integration of national economies to a global system would continue unabated into the first decades of the 21st century. From the dominant perspective in the debate, this trend is laudable because of the promise of greater efficiencies and increased growth as more countries and sectors such as media and public utilities open up to the international market in trade and investments.

On the other hand, opposition to the continuing globalization of national economies is rising. The 1997 Asian financial crisis and subsequent episodes in Russia and other parts of Eastern Europe have laid bare the downside of freely flowing goods, capital and other resources. These events have intensified worldwide anxieties and fears over the negative impacts of globalization that underlie the critical perspectives and protests which spread from Seattle to London to Africa and Latin America. The events at the World Bank-International Monetary Fund annual meeting in Seattle, Washington, were an eloquent expression of the extreme anxiety over, and struggle, against unabated globalization.

The paradox of globalization as a potentially liberating and alienating force has led to a range of positions on appropriate national responses to international economic processes, from full involvement to withdrawal to critical participation. In search of an enlightened response for the Philippines, the University of the Philippines Center for Integrative and Development Studies (UP-CIDS), mandated to mobilize the multidisciplinary expertise of the University to address issues of national concern, has begun to re-examine assumptions and assertions about the effects of globalization. *Coming to Grips with Globalization* represents an initial attempt by the economists working with the Center's Emerging World Environment Program (EWE) to sift through the globalization issues that confront the nation. The authors hope to stimulate discussion with both like-minded colleagues and those who hold contending views. The Center believes that the clarification of assumptions regarding globalization processes and appropriate responses that ought to result from such interactions will lead in the long run to more enlightened and sharpened policy recommendations.

The UP-CIDS acknowledges the contributions of institutions and individuals in the publication of this book. The Office of the UP President has provided logistical support since 1995. Dr. Emil Javier, who was president of the University of the Philippines while these papers were being written, provided the initial funds that launched the Emerging World Environment Program (EWE). Dr. Francisco Nemenzo, who took over the reins of the University's administration in 1999, continued to support the Program and gave additional funds from the UP budget to cover the editorial and printing costs of the book. The book would not have been possible without the untiring efforts of Dr. Cayetano Paderanga Jr., Director of EWE, to convene colleagues who helped think through critical policy issues and bring together the contributions of Dr. Jose Antonio Tan III, Dr. Maria Socorro Gochoco-Bautista, Ms. Rosemarie L.G. Edillon, Dr. Gilberto M. Llanto, Dr. Nimai M. Mehta, Dr. Gwendolyn R. Tecson, Dr. Ma. Joy V. Abrenica and Dr. Epictetus E. Patalinghug.

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DIMENSIONS OF GLOBALIZATION

CAYETANO PADERANGA JR.*

THE WORLD AT THE TURN OF THE 21ST CENTURY

The Reality and Meaning of World Integration

World economic integration has arrived. The implementation of the single European currency, the *euro*, has announced this with unmistakable clarity. This development is another step in the continuing integration of financial and other markets around the world in recent decades. It could also be an additional step toward the gradual unification toward one global market, if regional markets, in the end, can be sewn together into one seamless reality.

The deepening of economic integration in Europe, together with the spread market integration in other regions such as the North American Free Trade Area (NAFTA), the ASEAN Free Trade Area (AFTA), and Southern Economic Community (Mercosur). The collapse of the socialist systems Eastern Europe and the Union of Soviet Socialist Republics (USSR) has added to the growing feeling that the Western-style market economy is spreading to the farthest corners of the world. These developments, together with the increasing integration of capital markets and the deepening of market access and the coverage of multilateral trade agreements embodied in the Uruguay Round agreements also manifest a movement toward one global market.

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At the same time, several developments in the last three years show the darker side of the new world environment. The Asian financial crisis, the financial meltdown in Russia, and the scare given by the developments in Brazil and Argentina illustrate that integrated markets can also be destabilizing, giving rise to global uncertainty. The favorable conviction of most policymakers around the world toward world economic integration has been shaken and a sense of reexamination now permeates discussions in many government discussions around the world.

Contrast with Globalization at the Turn of the 20th Century

It may be interesting to note that the past 20 or 30 years are not the world's first brush with globalization. At the turn of the twentieth century, world commerce and capital integration reached levels that in certain respects have not yet been attained by the degree of integration attained in recent decades (Feenstra 1998). Table 1 shows the ratio of merchandise trade to gross domestic product of selected countries for certain years, illustrating varying degrees of economic integration during the last century.

Table 1
Ratios of Merchandise Trade to GDP (percent)

Country	1890	1913	1960	1970	1980	1990
Australia	15.7	21.0	13.0	11.5	13.6	13.4
Canada	12.8	17.0	14.5	18.0	24.1	22.0
Denmark	24.0	30.7	26.9	23.3	26.8	24.3
France	14.2	15.5	9.9	11.9	16.7	17.1
Germany	15.9	19.9	14.5	16.5	21.6	24.0
Italy	9.7	14.4	10.0	12.8	19.3	15.9
Japan	5.1	12.5	8.8	8.3	11.8	8.4
Norway	21.8	25.5	24.9	27.6	30.8	28.8
Sweden	23.6	21.2	18.8	19.7	25.0	23.5
United Kingdom	27.3	29.8	15.3	16.5	20.3	20.6
United States	5.6	6.1	3.4	4.1	8.8	8.0

Source: Reprinted from Feenstra (1998), p. 33

On the other hand, the same article presents data showing that the degree of integration in the earlier period has already been surpassed. Using the ratio of merchandise trade to merchandise value-added (to reduce the obscuring effect of non-tradable services which increase as income per person increases), Feenstra (1998) shows that most members of the Organization of Economic Cooperation and Development (OECD) have surpassed their earlier commodity integration levels. It remains to be seen whether the trend will continue to the extent that the consensus will be that re-integration has, in fact, occurred.

Table 2

Ratios of Merchandise Trade to GDP (percent)

Country	1890	1913	1960	1970	1980	1990
Australia	27.2	35.6	24.4	25.6	32.4	38.7
Canada	29.7	39.4	37.6	50.5	65.6	69.8
Denmark	47.4	66.2	60.2	65.9	90.0	85.9
France	18.5	23.3	16.8	25.7	44.0	53.5
Germany	22.7	29.2	24.6	31.3	48.5	57.8
Italy	14.4	21.9	19.2	26.0	43.1	43.9
Japan	10.2	23.9	15.3	15.7	25.8	18.9
Norway	46.2	55.2	60.0	73.2	70.9	74.8
Sweden	42.5	37.5	39.7	48.8	72.9	73.1
United Kingdom	61.5	76.3	33.8	40.7	52.6	62.8
United States	14.3	13.2	9.6	13.7	30.9	35.8

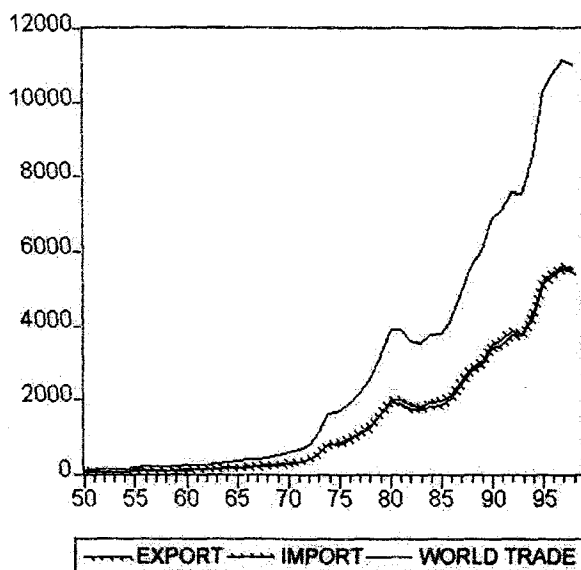
Source: Reprinted from Feenstra (1998), p. 35

Measures of Globalization

Globalization today is substantial by most standards. Trade growth in the last few decades has been rapid. From \$122.6 billion in 1950, it has increased to \$11.0 trillion in 1998. In just 48 years, it has trebled as interdependence among economies intensified.

Figure 1

Levels of Exports, Imports, and World Trade, 1950 - 1998
(in billion US dollars)



Source: International Monetary Fund, *International Financial Statistics*.

Features of the Emerging Environment¹

What differentiates current globalization from the previous one are the sheer size and speed of today's economic integration. While integration at the turn of the twentieth century included a large portion of the world, the greater portion of the globe essentially participated as colonies and adjuncts of economic and political empires. Today, most countries involved in the integration process participate as politically independent states and economic units with full participation rights in multilateral negotiations or international financial institutions. Thus, the number of decision-makers involved have increased by a substantial factor. Real per capita incomes have also risen since the last episode, implying that more of peoples resources are now devoted to expenditures that can be postponed and instead shifted to capital and investment activities.

One of the first attributes of the present globalization episode has to do with the financial integration currently being experienced. The financial markets are now truly global. Money respects no borders. With clicks of a keyboard, investors trade \$1.5 trillion worth of foreign currencies and \$15 trillion in stocks worldwide each day,² putting errant or just unlucky nations at the mercy of merciless speculators.

Table 3

Net Long-Term Resource Flows to Developing Countries, 1990-1997
(in billion US dollars)

Type of Flow	1990	1991	1992	1993	1994	1995	1996	1997
All developing countries	98.3	116.3	143.9	208.1	206.2	243.1	281.6	300.3
Official development finance	56.4	62.7	53.8	53.6	45.5	54.0	34.7	44.2
Total private flows	41.9	53.6	90.1	154.6	160.6	189.1	246.9	256.0
Debt flows	15.0	13.5	33.8	44.0	41.1	55.1	82.2	103.2
Commercial bank loans	3.8	3.4	3.1	2.8	8.9	29.3	34.2	41.1
Bonds	0.1	7.4	8.3	31.8	27.5	23.8	45.7	53.8
Other	11.1	2.7	12.4	9.4	4.7	2.0	2.3	8.3
Foreign direct investment	23.7	32.9	45.3	65.6	86.9	101.5	119.0	120.4
Portfolio equity flows	3.2	7.2	11.0	45.0	32.6	2.5	45.8	32.5

Source: World Bank Debtor Reporting System.

The counterpart of financial integration in the commodities market is the closely intertwined nature of cross-border suppliers and sub-contractors. Because of technological advances in transportation and communication, it is now much easier to coordinate production of a product's components at different locations to be assembled later (perhaps, close to the market) for sales. Marketing itself has become ubiquitous all over the globe. Where before selling was physically concentrated on major markets, products are becoming more available to Web surfers throughout the (cyber)

world. Clerical work or software programming such as credit card processing and billing can be done ("outsourced") from anywhere to workers in Omaha, Nebraska or Bangalore, India. Somebody's sickness in the dry, wind-swept steppes of Kazakhstan can be diagnosed by a doctor in London.

This increased ability to distribute manufacturing among many places and send the components for "just-in-time" assembly or production close to the final destination has brought down inventory and financial costs. It has unearthed hidden costs which can then be eliminated, thereby making commodities available to consumers worldwide at the lowest prices. These lower prices together with the reduced distribution costs have made more goods and services available to an increasingly global market.

The other distinguishing attribute of today's globalization episode is the level of disaggregation in commodity trade and the type of capital involved in financial flows. This is facilitated by the ease of cross-border manufacturing coordination and outsourcing described above. In the earlier episode, trade consisted mostly of finished products and raw materials needed for production which were then assembled in a central factory which exploited economies of scale to lower production costs. Today's commodity trade includes what has come to be known as "disintegration of production" where intermediate products cross national borders several times during the manufacturing process.

Manufacturers trying to wring the last ounce of cost savings out of differing national comparative advantage among nations break up the manufacturing process into several levels and farm out the production of these components to several suppliers who, in turn, may farm out their own sub-components to various sub-suppliers. The various levels of suppliers and components may be in different countries, leading to a single part crossing national borders several times as it is incorporated into increasingly higher levels of manufacturing or assembly.

Feenstra (1998) gives the example of a relatively simple product, the Barbie doll. The raw materials may be obtained from Japan and Taiwan. The assembly can be done in those countries or in the Philippines. (This has since migrated to Indonesia, Malaysia, and China). The molds come from the United States, just as the paints added towards the end of the process. In this simple example, the raw material from Taiwan will cross, at least, two national borders before being sold in a store in the United States. More complex products may involve more parts and more border crossings.

These changes in production and trade practices ultimately link the fortunes of the suppliers and sub-suppliers much more intimately to those of the end-product sellers. Just-in-time inventory management and distribution, as well as coordinated cross-border production disaggregation make the lags between fluctuations in the final market and the gyrations in component production very short. Thus, quivers in

the larger final goods markets in developed markets very quickly become major tremors in emerging economies. On the other, technological innovations allowing these production changes may also allow those nimble enough to quickly move on new markets.

New Features

The new features of the emerging world environment may change the underlying processes of interaction, leading to qualitatively different results from those we expect. For one, it is based on information to a much greater extent than before. In today's knowledge-based economy, intellectual capital drives the value of products. From 1990 to 1996 the number of people making goods fell 1 percent, while the number of workers providing services grew 15 percent.

Technological innovations in transportation, communication, and production techniques over the last few decades have made the intertwined production process described above possible. This has been supported by the rapid rate of innovation in financial instruments during the same period. Advances in financial theory, has led to financial integration and erosion of financial barriers, enabling the global market to bypass economic walls more easily. Finally, changes in economic policy and multilateral agreements have allowed increasing economic interaction among countries.

A virtuous cycle of complementary changes has characterized the process. An increase in commodity flows lead to increase in financial flows, as a surge in payments and settlements reflect increased commerce. On the other side, an increase in financial flows aids increased commerce as enhanced financial and credit support allows more transactions to take place. Increased in financial flows are gross rather than net terms implying that a major portion of these added flows are for portfolio market transactions and as support for commodity flows. It also indicates cross-border foreign direct investments are easier to make, implying an increasingly single market.

Economic, Social, and Political institutions

The foregoing features imply a world of substantially specialized activities. The old economy, which existed throughout most of the twentieth century, was geared to mass production, mass marketing, and mass media. Standardized products spewed out of long production runs from assembly lines in centralized factories. Entertainment and ideas were broadcast from big studios and publishers. A few oligarchic firms in large markets dictated styles, forms, and standards, whether these were in office supplies, dresses or household appliances. The cost advantages of mass production tended to dominate the market value of subtle variations in preferences.

Now, products can more easily be individualized. Cars in many manufacturing companies are ordered from the factory tailor-fitted to the individual customer's desires. Even clothes come in many more styles and sizes because computerization aids tracking and handling of inventory and orders. The same change has happened in production. Cheaper and more precise components are now available from more suppliers easily accessible any time through high-speed communication and computer interconnection. These arrive at the exact time that they are needed for production. As a result, better products can now be made with better quality from cheaper and more dependable intermediate materials, bringing down the cost of production for almost all commodities. Innovations in inventory management, financial practices, and other ancillary activities further reduce the cost of bringing goods to market.

The new environment decentralizes power. As the transistor was being invented, George Orwell, in his book *1984*, was making one of the worst predictions in a century filled with them: that technology would be a centralizing, totalitarian influence. Instead, technology became a force for democracy and individual empowerment. The Internet allows anyone to be a publisher or pundit, e-mail subverts rigid hierarchies, and the tumult of digital innovation rewards wildcats who risk battle with monolithic phone companies. The symbol of the atomic age, which tended to centralize power, was a nucleus with electrons held in tight orbit; the symbol of the digital age is the Web, with countless centers of power all equally networked.

It rewards openness. Information can no longer be easily controlled nor ideas repressed nor societies kept closed. A networked world facilitates free minds, free markets, and free trade. As a result, a more participative mode of government is technologically within reach because of the innovations of the last few decades.

Anxieties About the New Global Environment

Paradoxically, we see increasing fears of the new environment from many sectors. In fact, the puzzle is even as the world is growing fast, inflation is down, and there are many goods and services available, everybody is so afraid. All over the affected region, cries for the review of policies on opening markets are increasingly being heard. The Asian crisis has heightened these fears and anxieties but even before that episode, some sectors felt threatened by the rising globalization of trade and the integration of markets.

These concerns arise not only from fears of dislocation and being left behind. These also come from memories of what had happened from past stabilization and restructuring following the global crises of the 1970s and 1980s³ and the experience of the last episode of globalization. There are indications that in the early part of the

globalization of the nineteenth century, some sectors were adversely affected even though the overall impact was positive. These adversely affected sectors included landowners in the developed countries ("old world"), and low and semi-skilled workers in the new world, which had started as labor-scarce and land abundant (Williamson 1998).⁴ As globalization proceeded, the number of adversely affected sectors increased. Consequently, the political opposition to globalization and its effects grew over time. Together with, and perhaps in interrelationship with, the growing international conflict that was manifested by the outbreak of World War I, these were big reasons for the reversal of the liberalization effort of that period.

The animosities made worse by World War I and the reversal of globalization created the environment that resulted in the tit-for-tat trade retaliations triggered by economic slowdowns in the United States and other major trading countries. The resulting Great Depression ended with very high trade barriers and restrictions on capital movements, labor migration, and other resource flows. It would be another 50 years before globalization as a phenomenon would capture the public's attention. This aspect of the most recent liberalization episode needs to be considered seriously because of the danger of a backlash reversing previous liberalization. Such a reversal of policy would force economies to restructure again (in the opposite direction this time). The overall process of liberalization and reversal would whiplash economies resulting in needless waste of resources as investments become valueless.

Implications of Economic Globalization

The danger of a backlash and the reversal of globalization reveal the fine balance between the speed and sustainability of "reforms." This is particularly important because globalization, at least conceptually or as claimed, has important implications on the longer-run prospects of countries and their sub-groups.

Efficiency and growth

The increased ability of firms to source cheaper inputs and the broader range of choices available to consumers all point to a substantial change in efficiency and increase in world welfare. The ability to break up what businessmen refer to as the "value chain" and to choose parts of the production process where the company has a competitive edge, leaving the portions where it is weak to outside suppliers, enhances a firm's competitive strength. Consequently, it increases the firm's market reach, allowing the company to enter previously inaccessible markets. This latter effect is, of course, magnified by the innovations in transportation and communication and by the consequent ability to choose among distribution channels.

Comparative advantage and trade

As a result, consumers have a much broader range of choices, putting competitive pressure on their traditional suppliers. This in its turn causes further efficiency gains as producers are induced to reduce as much as possible what economists refer to as “x-inefficiencies.” These are unnecessary costs that creep into the production, distribution, and financing costs due to lack of attention, minor affectations, perks, as well as insufficient industry. The resulting competitive pressure leads to market and industry restructuring expected to lead to a leaner and more efficient industrial structure.

At the international level, firms bow out of products where it has no competitive edge. Industries where countries are not competitive disappear and the more efficient, resilient and productive firms increase in number and size. The ending configuration of firms and industries result in industrial structures that are less complete in each country than before. Countries specialize in activities where they have comparative advantage and leave other activities to other countries. In the end, countries become more dependent on each other and global trade increase geometrically.

Dimensions of Globalization

Sectoral dimensions

Globalization shows up in many forms and contexts, affecting reality in various ways. Countries and governments are affected and need to react to these changes in several ways. A recounting of some dimensions help identify possible actions for governments. The first dimension of globalization is the sectoral impact coming from changing comparative advantage and the implications of these changes on the volume and pattern of trade. As comparative advantage at the national level plays out in the microeconomic or firm level, the various sectors experience varying rates of growth and decline. Some industries increase their shares of the domestic product of some countries. Others become less important and even atrophy.

Williamson (1998) and Feenstra (1998) imply that even within the broad sectors, component sub-sectors have differing experiences. For example, even among the labor sector, workers of different skill levels experience different fates. The lot of highly-skilled workers often differ from that of low-skilled labor, leading to different distributional impact even within the labor sector. Still, the same studies reveal that the broad conclusions of Hecksher-Ollin — that is with trade (or free flow of resources such as migration), the more abundant factor in a country gains in per unit income, while the scarce factor experiences relative decline. The main conclusion is

that the different sectors of countries undergoing globalization will experience substantial sectoral shifts that could be quite unnerving.

Two implications immediately flow out of these observations. First, is the implication for labor and human resource policy. The uneven impact on the different sub-sectors imply substantial changes in income distribution. This is especially clear in the changing fortunes of workers of the various skill levels. This is also true of capitalists producing different products with firms of various sizes and landowners cultivating farms of different products and of various sizes. This distributional impact can have dangerous consequences for social and policy stability. It may also require complementary economic policies to mitigate the worst of these effects.

The resulting industrial restructuring requires transition programs to ease the transition to a new structure. For labor, this means a comprehensive package of re-training and matching programs. For capitalists and landowners, this may imply fiscal and financial programs to assist the transition to alternative industries. What is needed is faster liquefaction of fixed investments so inefficient industries are left speedily and new, more efficient firms grow fast. Both aggregate employment and production are expected to benefit from these transition programs.

The other implication has to do with the investment in infrastructure needed by the new industries. Inadequate infrastructure support may obstruct the growth of these industries and unnecessarily magnify the dislocations accompanying industrial restructuring.

Financial dimensions

The most visible manifestation of the financial dimension of globalization is the increasing volume and speed of financial flows throughout the world. This is the result of technological innovation advances, innovations in financial theory, a new attitude in financial policies, and also the increased international trade in goods and services. As the actual goods and services flow in one direction, funds flow the other way as payments and obligations are settled. The resulting change in the global financial structure has unleashed forces that governments and international institutions are only starting to come to grips with. The Asian currency crisis in 1997 and the Russian financial "meltdown" several months later have brought home the dangers spawned by these new conditions. Papers by Gochoco-Bautista and Tan in this volume, written soon after the Asian currency crisis, detail some of the changes brought about the new financial conditions.

Human resources

The human resource dimension of globalization is the most immediate concern flowing out of globalization. Labor retraining and job matching implied by industrial restructuring, discussed above, is just the starting point of this dimension of globalization. These tasks have to be imbedded in the larger context of the broader implications of the emerging world environment. The new trade and financial framework facilitates the existence of virtual companies that can be formed for specific tasks or contracts and then dissolved. This development means that employment in many circumstances can no longer be thought of in terms of long-run employer-worker relationships. Rather, the worker may think of himself as being closer to the medieval craftsman who was engaged for a specific job and then moved on to the next engagement.

The new employment setting requires a whole new framework of social and working arrangements. The first major change is in the kind of worker produced by the educational system. The new graduate coming out of schools and training institutes have to be flexible, well-trained in basic skills that have wide application, and with the attitude of self-confidence, self-reliance, and adaptability to new situations. This may entail a completely new vision of education and the kinds of schools to be developed.

The second major change is in the support for retraining, worker financing during periods of employment "fallow" implicit in the new working environment. Specifically, unemployment insurance, which may be renamed to reflect its new function, may have to be reviewed and reformed to fit the new circumstances. That is, incentives for getting work as soon as possible and skills improvement features and the like may be incorporated. Portability of pension benefits, as well as some uniformity in features, may also be designed into the post-career institutions. Finally, the structure of retraining programs may also be examined with a view to including ease of entry and self-design by workers, availability of choices and variety in forms.

The last major change could be the most difficult for being the most fundamental. Social attitudes towards work, employment/unemployment, and job definition have to be changed. First, we have to removed the social stigma of becoming unemployed and being temporarily "dependent" on either family or the public coffers. This is probably the biggest obstacle to convincing workers that it is acceptable to stop working for a while, even if just to find time to choose a better fit for them in the job market. As virtual companies become more prevalent, it must be acceptable to have workers work at less than one hundred percent of the time, although this will probably be compensated for by *premia* in salaries. The same could be true to variations in "rank" as workers join companies at different levels as they are hired and re-hired.

Legal and institutional

As trade, financial and other flows change the shape of borders and the way that countries interact, legal and institutional arrangements also evolve. Some of the changes will be dictated by the formal requirements of the new environment, others will emerge spontaneously as new relationships are defined, and still others will come as new mechanisms are intentionally designed for the new framework. Whatever the reasons, the legal and institutional landscape will change with the deepening of globalization.

*Implications for Countries**Macroeconomics and financial sector management*

The fundamental changes wrought by globalization dictate equally sweeping adjustments in the way that the economy is managed. Paderanga (1999) discusses the implied alterations in the way that the macroeconomy is managed. In short, the direct impact of fiscal, monetary, and other macroeconomic policies is drastically reduced. Policymakers must now alter the way that they conceive their jobs. The days when mistakes arising from cavalier macroeconomic management can be covered by the manipulation of symptoms have passed. The much more careful and difficult adherence to correct fundamentals is now demanded by markets. All the technological innovations in communications and financial management now allow markets to adjust in substantial ways to policy mistakes, making sloppy managers pay dearly for their mistakes.

Legal and constitutional

Countries will now be induced to make the necessary legal and institutional changes necessary to accommodate the emerging global environment. In some cases, this may entail very difficult changes in fundamental laws and constitutions. Even international treaties will now be more frequently amended to reflect the changing realities. The most visible manifestation of this is the more frequent and broader discussions in the international trading system through the General Agreement on Tariffs and Trade (GATT), now enshrined in the World Trade Organization (WTO). As a result of globalization, therefore, countries may now be induced to examine even their most basic statutes for consistency with the rules needed by globalization.

International relations and diplomacy

Akin to the changes in effectiveness of macroeconomic tools, the instruments of diplomacy and international relations have also changed. This development ranges from the new instruments of warfare available because of the technological innovations identified or coincident with globalization. These new instruments incorporate

techniques in miniaturization, computerization, new materials and production techniques, and even increased ability to deploy resources. At the same time, new diplomatic initiatives have been provided by the increasing facets of engagement and the multiplicity of international arrangements now afforded by the manifestations of globalization. A whole new approach to diplomacy and the practice of international relations may be evolving in the face of the new world environment.

The new developments being induced by globalization are numerous. What have been given above are just a few examples of the possibilities that lie in front of countries, their policymakers, and their individual members. It is a new, exciting world, but one fraught with dangers.

Qualifications to Globalization

Globalization and a "stable" international environment

The boon from the emerging world economy comes with a price. The instrument by which the globalized markets induce ever-increasing efficiency and multiplicity of choices achieves the desired results by putting pressure on firms and workers to work harder and to continuously innovate. This continuous innovation in turn means new products that make old and traditional goods obsolete or irrelevant. Thus, as the new economic environment produces efficiency and variety, it also produces waste and potential unemployment. Unless the adjustment mechanisms work fluidly, the waste and unemployment of resources will persist, leading to lower output and lower welfare for larger portions of the population.

The most deeply felt anxieties seem to be related to the volatility in the new environment. Nothing has brought home this point more than the Asian currency crisis and the contagion experienced by countries all over the world from the Russian currency meltdown. With the size and speed of currency flows accentuating the explosive swings in international finance, calls for a new international financial architecture have reverberated loudly. In the academe, national capitals, and international institutions, a serious search for mechanisms to make the new global financial network more livable is continuing.

Yet, financial volatility is only a part, albeit a clamorous one, of the volatility in the new environment. Resource flows have become easier. In fact, as discussed above, it is a necessary feature of the mechanism that induces efficiency and innovation. And it is this ease of movement that often results in drastic changes in prices, values, and flows which have come to characterize the volatility of markets. This is present in commodities, equities, raw materials, and many other types of markets. This is a feature that distinguishes the modern global markets. Constant swings and the constant possibility of meltdowns are features of this market.

This reality haunts governments, business, labor, and ordinary individuals. The question of whether this price is too high to pay for the benefits accorded by the new

environment will continue to arise until a satisfactory response is designed. The new global architecture must, therefore, include the ability of markets, firms, and individuals to ride out the volatility. Just how much of the required framework will be made up of public or social safety nets, how much will be the responsibility of individuals and firms, will evolve over time.

Possibility of a backlash

The anxieties over the volatility and the sense of helplessness in the face of market turmoil seem to be the largest threats to globalization today. Just as the increasing inequality and the increase in sectors adversely affected by globalization at the start of the twentieth century helped reverse the trend, these negative effects of today's international environment have the potential to bring about a reversal. This is a development that must be addressed with some urgency. Otherwise, the benefits of globalization and international integration can be lost by default.

Implications for the Philippines

In a highly integrated world, the importance of external factors on domestic macroeconomic performance is magnified by capital flows. Many developing countries like the Philippines are already reaping the benefits of the steadfast pursuit of sound financial policies and outward-oriented, market-based structural reforms. This is reflected in large inflows of foreign direct investment, expansion of both exports and imports.

Nonetheless, heavy reliance on external developments and foreign saving has its accompanying risks, which could imperil the stability of the domestic financial system. In some emerging markets, banking sector weaknesses associated with exposure to foreign risk have become apparent following reversal of capital flows.

Aside from the policy and structural weaknesses that openness and integration reveal, there is the added issue that these features of the emerging world environment contain inherent volatility. These qualities are precisely how the new economy (at least partly) imposes the discipline that makes producers more efficient and allows markets and economies to flourish. In other words, increased volatility is an essential characteristic of the new environment, and removing it may also negate the benefits that are expected from the new arrangements. Yet, introducing the policy and structural features that will reduce the adverse effects or mitigate their impact will be the challenge of the immediate future.

In the next article, Jose Antonio Tan III discusses a new monetary policy framework for the emerging world environment. He says that increased openness and globalization may impinge on the current mode of monetary policy. He further

stressed the point that the choice of monetary policy and anchors is essential for the design of a monetary policy. He concludes that as the Philippines moves to becoming a part of the global economy, one option to monetary authorities is to shift from the IMF-designed financial programming framework towards inflation targeting, a framework that is more observable and easily understood by the public and markets. He also suggested that the Bangko Sentral beef up its arsenal of monetary policy instruments and revisit its operating procedures in the light of the emerging world environment.

The third article by Corinna Gochoco-Bautista, attempts to assess the extent to which capital inflows have affected macroeconomic performance in the Philippines by looking at the effect of capital inflows on interest rates, money demand, and consumption and investment demand. Empirical results of her study showed that large capital inflows experienced by the country beginning in late 1989 resulted in the appreciation of the peso and the deterioration of the current account. It also showed that capital account has a significant negative effect on changes in the domestic interest rate. Meanwhile, factors other than capital flows may be responsible for increased money demand and the expansion of monetary aggregates. The results also suggest that the demand for money is influenced by the capital account although not primarily by increasing reserves. However, the results showed that capital flows do not have a significant effect on real consumption demand while the lagged level of real capital account and real capital account growth positively affects investment demand. The results also support the notion that foreign direct investment (FDI) flows are preferable to portfolio inflows as the former tend to be channeled to real investment demand rather than real consumption demand. Lastly, she concluded that while domestic macroeconomic performance is heightened by capital flows, policymakers cannot attribute macroeconomic performance to capital flows alone. In the final analysis, the economic impact of capital flows highly depends on the degree to which the monetary authorities can control the money supply or the availability of credit.

In the fourth article, Rosemarie Edillon tackles the impact of increasing globalization on capital using the capital transformation paradigm as framework. She concludes that in the Philippines, domestic resource mobilization should be a key strategy. At the forefront, the issue on domestic resource mobilization is compounded with the problem of encouraging these resources to remain in the domestic economy. The long-run positive effect of saving into investment and subsequent growth does not work with prolonged dependence on foreign savings. She also notes the creation of a climate conducive to investments maximizing returns (*i.e.*, by improving corporate governance and minimizing costs), minimizing of risks (through disclosure requirements, technical infrastructure, and the presence of reputable credit rating

agencies), increasing labor productivity as well as agricultural productivity, and the introduction of hedging instruments.

The following article by Gilberto Llanto discusses the role of fiscal policy in the emerging world environment. The author counters the theory that fiscal policy is less effective than monetary policy as a tool for macroeconomic stabilization in an emerging world environment of capital mobilization and flexible exchange rates. He says that a fiscal policy that brings about a regime of low inflation, macroeconomic stability, and fiscal surplus creates the appropriate conditions for greater deployment of investment capital. Thus, there is a need for greater attention and care in using tax and expenditure policy to achieve several objectives.

The sixth article by Nimai Mehta explains that the new order of privatization, technological change, and competitive pressures has created the need to reconcile market-based supply with equitable and fair outcomes traditionally associated with the public provision of basic infrastructure. Here, the authorities try to provide a more coherent framework to address the legitimate equity concerns in the provision of basic infrastructure. In sum, he mentions that the role of the regulator is to ensure a fair and equitable relative cost-share for access to shared facilities in basic infrastructure. The concern with efficient supply is secondary, although not unimportant. The regulator should also evaluate the effectiveness of particular regulatory instruments in achieving the goals intended by the majority. Lastly, he says that the decision with regard to a facility's public relevance remains to be judged by the broader constitutional-political decision process.

Gwendolyn Tecson, in article seven, asserts that with greater integration of developing economies into the global economy, the importance of exports growth and competitiveness has become even more highlighted. Since there are now more players to contend with in the global arena, the Philippines will have to move faster to take advantage of the ever-widening possibilities in global markets. In this chapter, she tackles trends in trade and investment flows in world markets. She also defines the Philippines' major sources of competitive strength and weakness and draws out the implications of these in terms of required policy responses and institutional changes. For instance, more disciplined and determined countries such as China and Vietnam offer formidable competition in terms of lower wages and larger market potentials. She mentions that since trends in world market demand are headed towards the direction of skill-intensive manufactured goods, capital is likewise directed to the three main skill-intensive industries of chemicals, machinery, and transport equipment. The Philippines can therefore take advantage of such world trade and investment trends given its relatively abundant and cheaper supply of skilled labor. In terms of export structure, the author concludes that there is a need to move away from low-

skilled labor intensive goods towards high-skilled-labor intensive manufacturing.

In the eight article, Joy Abrenica discusses the regulatory issues that new technologies have brought forth, particularly the telecommunications sector. She cites that the lag in regulatory reforms contributed to the unequal development of the telecommunications sectors. In this chapter, she examines the regulatory regime in the Philippine telecommunications industry since 1993. The article critically reviews the strategy options faced by the regulator and evaluates the regulatory strategy of the Philippines over the past five years. Here, the author discusses the flaws in the Service Area Scheme (SAS) and cross-subsidization of services in the sector.

The last article by Epictetus Patalinghug proposes that the establishment and fostering of an effective competition policy is an important agenda for the future. However, this requires effective legislation that provides substantive authority to assess pre-merger notification, regulate natural monopolies, determine misuse of market power by large firms, and monitor restrictive and anti-competitive practices. He says that an effective competition law regime — which shifts from industry-specific regulation to a comprehensive competition policy framework — requires clear objectives: efficiency and equity. Further, competition policy in the Philippine setting must aim at institutional credibility and providing adequate resources for concerned agencies.

CONCLUSION

While the papers were largely written with the backdrop of a stable environment — the full effects of the Asian crisis had not yet been fully felt — ensuing events confirmed some of the fears of the writers. At the same time, some of the preliminary suggestions given at the conference were validated by research following the Asian crisis. For example, the caution expressed by Tan, Edillon, and Gochoco-Bautista in their papers regarding the danger posed by the international flow of capital, as well as the suggestions they made on how to respond or prepare, were essentially confirmed as the market turmoil run its course. Several examples, found in the other papers, will catch the readers attention as he goes through the following chapters.

These findings could have been serendipitous. A more plausible explanation, though, is that in some sense these developments are not novel. The national and international structures of market and economic activities have continuously evolved as technology has advanced and policy experience has increased. The increasing globalization of the world economy at the end of the nineteenth and twentieth centuries have proceeded from a build-up of slight but continuing changes. What have been different are the number of countries involved and the speed of the changes. The

gross volumes of the flows may also be much larger than before. Still the trends and the structural implications had been observed and studied prior to the latest crisis. This has allowed the rather quick analysis of the causes and consequences of the subsequent events. What may have also been different with the latest crisis is the location (Asia and Eastern Europe) and, perhaps, the rapidity with which it progressed.

A natural question would be why the ensuing events still could not be anticipated with more accuracy as to timing, shape, and size. This may not be a fair question as posed because, in fact, the general characteristics of the causes and process had described in research and policy papers. As an aside, on the eve of the Asian financial crisis, studies pointing to the danger of stresses to the financial sector had started to appear. In other words, the broad characteristics of the dangers arising from the emerging world environment can be described. It is only the specifics of timing, actual triggers, the sequence of events, and other concrete details that cannot be foretold.

While not entirely comforting, the findings above are encouraging for, at least, three reasons. First, we can envision the broad outlines of the stresses that the economy may subjected to, allowing us to develop those parts of the economy expected to undergo the most pressure. As part of this preparatory exercise, adjustment mechanisms can be designed, ready for implementation. Secondly, knowing the broad outlines of the danger may also allow for early recognition of a developing crisis, enabling us to apply mitigating responses earlier. Finally, recognizing that we do have some handle on the dangers of the emerging environment — even if incomplete — could help reduce the anxieties arising from a total absence of knowledge.

It is understandable to think that societies can place the benefits and dangers on a balance and decide whether to participate in the globalization and integration implied by the emerging world environment. Some may even venture that societies can decide *how much* and *how fast* it will allow these trends to intrude into the economy and society. However, a careful look at the evidence — and these papers add to increasing abundance of knowledge on this particular point — seem to indicate that these choices may not be readily available. Given the technical and financial innovations of the last few decades, countries can no longer control the flow of resources in and out of these countries, including labor flows known better as temporary and permanent migration. Much less can countries control the flow of information that may trigger these resource flows. In the extreme, countries stagnating or lagging much behind others will witness the loss of its own citizens (with their belongings and other resources) looking for better lives somewhere else.

On the other hand, another look at the evidence seems to indicate that when everything is put on the balance, the benefits of the emerging world environment most probably outweighs the dangers. However, as these papers conclude, much can be done to avoid many of the dangers or, at least, mitigate the effects of those that cannot be prevented. Much work needs to be done. Plans have to be made, programs implemented and even cherished institutions may have to be modified. It is important to recognize this because sometimes the race goes not to the fastest but to the one who starts earliest.

NOTES

- 1 Adapted from *Time* (December 29, 1997).
- 2 As of 1996.
- 3 See, for example, Jolly, Cornia, and Stewart (1998).
- 4 Although, Williamson states this result in terms of increasing-increasing income inequality between landlords and workers in the old and new worlds.

REFERENCES

- Asian Development Bank. 1997. *Emerging Asia: Changes and Challenges*. Manila: Asian Development Bank.
- Cornia, G., R. Jolly, and F. Stewart. 1998. *Adjustment with a Face: Country Case Studies*. Oxford University Press.
- Feenstra, R. 1998. Integration of Trade and Disintegration of Production in the Global Economy. *Journal of Economic Perspectives*, Fall, Vol. 12, No. 4: 31-50.
- James, H. 1999. Is Liberalization Reversible? *Finance and Development* (December):11-14.
- Ng, F. and A. Yeats. 1996. Open Economies Work Better! Did Africa's Protectionist Policies Cause Its Marginalization in World Trade? Policy Research Working Paper No. 1636, The World Bank, International Economics Department (August).
- Obstfeld, M. 1998. The Global Capital Market: Benefactor or Menace? *Journal of Economic Perspectives*, Fall, Vol. 12, No. 4: 9-30.
- Paderanga Jr., C. 1999. Financial Globalization and National Economic Management. In Olds, Kris *et al.* (eds.) *Globalization and the Asia Pacific: Contested Areas*. London: Routledge.

Rodrik, D. 1998. *Has Globalization Gone Too Far?* Washington, D.C.: Institute for International Economics.

Time. 1997. "Man of the Year: Andrew Grove," December 29.

Williamson, J. 1998. Globalization, Labor Markets and Policy Backlash in the Past. *Journal of Economic Perspectives*, Fall, Vol. 12, No. 4: 51-72.



MONETARY POLICY IN THE EMERGING WORLD ENVIRONMENT

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INTRODUCTION

In recent years, the Philippines has been experiencing a rush of economic reforms which have resulted in rapid but deliberate changes in her economic landscape. Behind these reforms is the notion that liberalizing and opening the economy improve welfare. The Philippines is not alone in this endeavor. Other countries are also pursuing policies toward the same direction. The result is a more open and integrated world economy, and the degree of international integration is expected to intensify over the medium and long-terms.

Among the sectors that have undergone reforms is the financial sector. While the task of reforming the financial sector dates back to the 1980s with interest rate deregulation and the introduction of universal banking, the financial reform program did not have substantial effects until the 1990s when other reforms were set in place.¹ Among the major reforms are the foreign exchange decontrol initiated in 1991, the rehabilitation of the central bank in 1993, and the liberalization of entry of foreign banks in 1994. These led to the internationalization of the Philippine financial market, both in terms of market players and financial instruments. Also, with deregulation, financial variables which in the previous years may be considered as exogenous,

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have somewhat become endogenous.

As the Philippines moves towards a globalized environment, the parameters that depict the relationship between financial and real variables may have changed. The challenge to monetary and financial policy decision-makers is how to keep pace, if not keep ahead, of these developments. This study presents the monetary policy options for the Philippines as she moves towards becoming a part of the global economy. The second section describes the structural reforms that have been undertaken, particularly those which have significant impacts on the financial sector. This sets the conditions that are currently and will be faced over the medium and long-terms. This elucidates to the policymaker the challenges that the emerging world environment brings about in the area of monetary and financial policy design. The next section tackles the framework for monetary policy in the emerging world environment. Section 4 briefly discusses the other challenges posed by the emerging financial environment to policymakers. The last section gives the concluding remarks.

THE CHALLENGES OF THE EMERGING FINANCIAL ENVIRONMENT

Financial reforms in the Philippines started way back in 1980 with the lifting of ceilings of instruments with long-term maturities.² Also implemented was the concept of universal banking. These financial reforms were accompanied by import liberalization which essentially tariffed quantitative trade barriers. More interest rate deregulation followed in succeeding years. However, the reforms were stymied by a banking crisis and a deep economic recession. While there was no reversal of the financial reforms already in place, controls were enforced in the form of banking regulations.³ Bank entry was prohibited and bank branching was curtailed. The Central Bank issued its own debt instruments which raised interest rates to 45 percent. These distortions took away whatever benefits that could have been gained with financial liberalization.

Restrictions in the financial system persisted until the end of the 1980s. The 1990s ushered a new wave of deregulation in the financial system. The intent of the policies crafted was to increase competition and deepen the financial markets. They were also designed to integrate Philippine financial markets with the rest of the world.

Bank branching was gradually liberalized, and today the approval for new branches is almost ministerial to the Bangko Sentral. Bank entry was also made easier, both for domestic and foreign banks. In 1990, the entry of domestic banks was eased. An amendment to the General Banking Act in 1994 allowed the entry of foreign banks.

By 1995, 10 foreign banks established full service branches in the country. Other foreign banks entered by establishing banking subsidiaries. These series of reforms fostered more competition into the banking system.

Another set of financial sector reforms initiated was the lifting of foreign exchange controls which had accumulated over 45 years.⁴ This was initiated with decision to increase the dollar retention limit from 2 percent to 40 percent. By 1993, most of the capital controls were already removed. Due to the relative ease of moving capital, this resulted in the influx of foreign capital. This also broadened the portfolio menu of economic agents.

Completing the set of major reforms over the past seven years is the financial rehabilitation and reorganization of the central bank. This institutional reform was intended to create an independent monetary authority that would focus solely on the conduct of monetary policy. Development finance and quasi-fiscal functions were removed from the Bangko Sentral. More important, the Bangko Sentral was freed of most of its financial obligations which were disguised as assets, thereby, giving it the much needed boost to effectively conduct monetary policy.

The outcome of this gamut of reforms is a financial sector which is open relative to what it was only a few years back. While globalization offers many new opportunities for improving welfare, it too puts forward several tough challenges. There are three areas where globalization poses a major challenge to decision-makers and implementors of monetary policy and financial sector regulation, namely: (1) the design of monetary policy framework, (2) bank supervision and prudential regulation, and (3) susceptibility to external shocks. The next section focuses on the first challenge of the emerging world environment.

A NEW MONETARY POLICY FRAMEWORK FOR THE EMERGING WORLD ENVIRONMENT?

The Design of Monetary Policy

Increased openness and globalization may impinge on the appropriateness of the current mode of monetary policy. The charter of the Bangko Sentral ng Pilipinas clearly indicates that price stability is the ultimate goal and since the Philippines is under IMF tutelage, the targeting process follows the traditional financial programming approach which looks at monetary aggregates as the relevant intermediate targets (see Box 1 for a description of the monetary program).⁵ Under financial programming it is imperative that the relationship between prices, money, output and

Current Monetary Policy Framework

The New Central Bank Act stipulates that the ultimate objective the Bangko Sentral is to "maintain price stability conducive to a balanced and sustainable growth of the economy." Implementation of this objective is done through financial programming. Financial programming begins with the estimation of the monetary aggregate growth target, for the Philippine this is M3. Given the inflation and growth targets, target M3 growth is computed using income and price elasticities of money. The elasticities are derived by estimating a logarithmic money demand function. This implicitly assumes a stable demand for money function. M3 levels are derived from the target growth rates. The base money multiplier is projected, and base money targets are obtained by dividing the target M3 levels by projected money multiplier. Projections of reserve eligible government securities, liquidity floor balances, and reserve deficiency are made to arrive at the reserve money target. Reserve money (RM) is projected from expected movements in the BSP balance sheet, e.g. National Government deposit flows, Net Foreign Asset movements. The gap between the target RM and projected RM sets the amount for open market operations. Open market operations are done by the BSP Treasury Department using direct t-bill purchase/sales, repos, and reverse repos.

central bank instruments be stable. These relationships are depicted by the income velocity of money, real money balances, and the money multiplier.

Income velocity for monetary and credit aggregates, *i.e.*, M1, M2, M3, and Domestic Credit, exhibited a rapid decline in the post-1992 period (Figure 1). This is particularly observable for the broader aggregates. Real monetary and credit balances too, show an abrupt change in behavior as the financial system become deregulated and open (Figure 2). Likewise, the rapid change is most evident in M2, M3, and Domestic Credit.

The money and credit multipliers exhibit a sharp increase after 1993 and continue to do so until the present (Figure 3). This can be attributed to the decline in the reserve requirement (a policy commitment of the Bangko Sentral) and the currency-to-deposit ratio (Figure 4). Paderanga (1996) attributes the declining currency-to-deposit ratio to two factors. First is the proliferation of automated teller machines which shifts preferences from currency towards deposits. The other possible factor is the expectations of the public that the monetary authorities, taking into consideration

that money supply is loose, will implement tighter monetary policy which will increase the yields of interest-bearing assets. Thus, the incentive to hold on to interest-bearing instruments like deposits.

It appears that the reforms have resulted in the rapid changes the relationships between prices, money, output, and central bank instruments, and this may suggest instability in these relationships.⁶ Considering that the financial programming implicitly assumes a stable demand for money (M3) function, the current monetary policy framework are put into question.

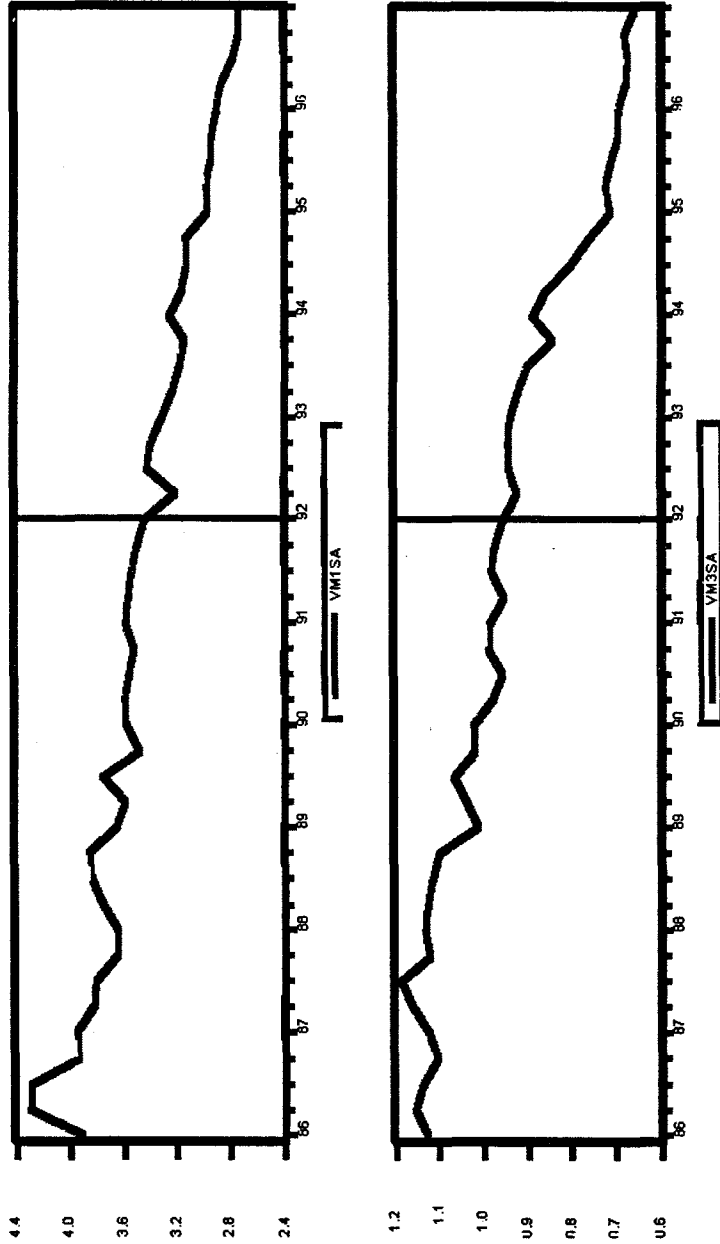
With increasing deregulation, liberalization, and economic integration, the more the market becomes a consideration for the choice and design of the monetary policy framework. The appropriate framework primarily entails that the central bank successfully transmits its signals in a manner that is understood by the general public and the markets. This becomes more imperative as market efficiency improves. The appropriate framework requires the satisfaction of technical and non-technical criteria. The technical criteria include the measurability, stability, predictability, and controllability of the targets, instruments, and economic relationships.⁷ Non-technical (or psychological) criteria pertain to question of transparency, accountability, flexibility, timing, and acceptability by the general public and the markets.

Choice of Monetary Policy Targets and Nominal Anchors⁸

The choice of monetary policy targets and instruments is essential for the design of monetary policy. The process of monetary policy targeting is considered multi-staged. The first stage is defining the ultimate objective. The second stage is the identification of an intermediate target which strongly influences the ultimate target. Monetary authorities cannot directly control the intermediate target. But they can make use of an operational target which affects the intermediate target. The third stage is the designation of an operational target which the monetary authorities can directly control using their instruments.

Over the years, the targeting literature has evolved into a “nominal anchors” literature. A major difference though is that in the targeting literature the main concern is how to determine the appropriate targets while in the nominal anchors literature, an additional aspect is the pre-commitment of the monetary authorities to achieve and maintain the target. A nominal anchor is a variable in which the public can base their expectations of monetary policy stance. It is through this nominal anchor that the monetary authorities can signal their intentions. The nominal anchors also serve to prevent the inflationary bias which is the outcome of the time inconsistency problem of monetary policy.⁹ There are four possible nominal anchors, namely, the price level or inflation, the exchange rate, monetary aggregates and nominal income.

FIGURE I
Income Velocities of Monetary and Credit Aggregates
M1, M2, M3, and Domestic Credit (Seas. Adj.)



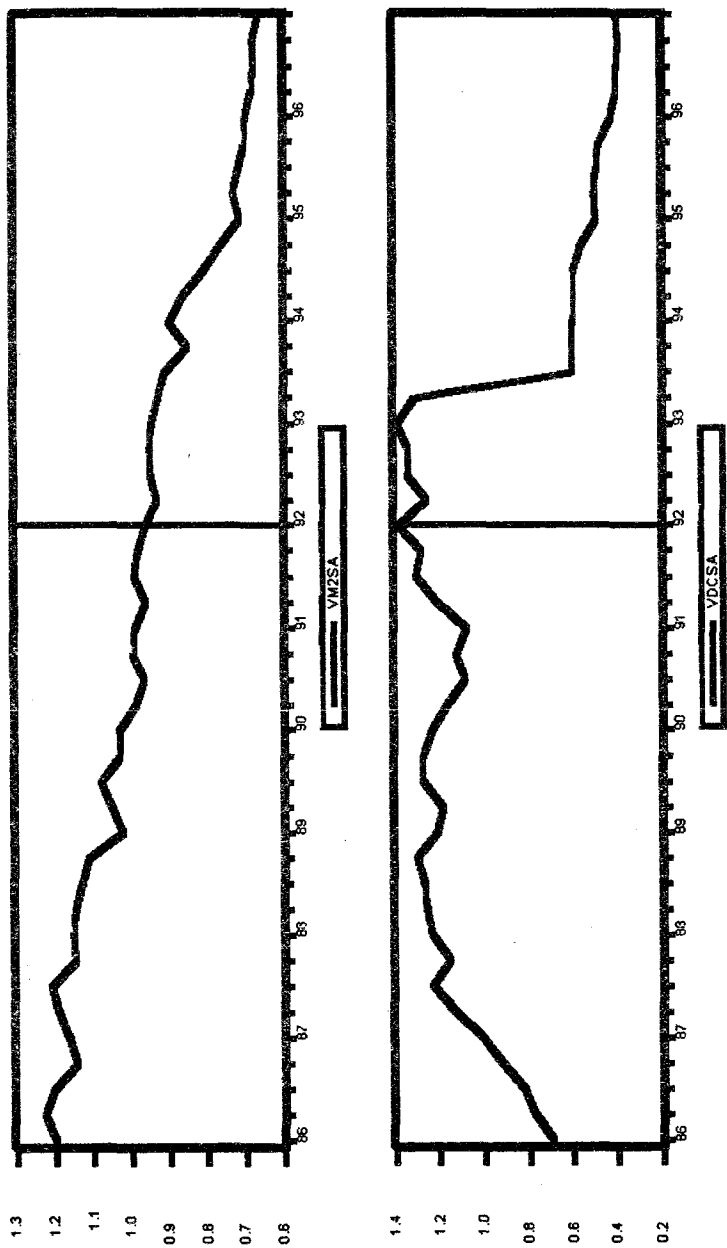
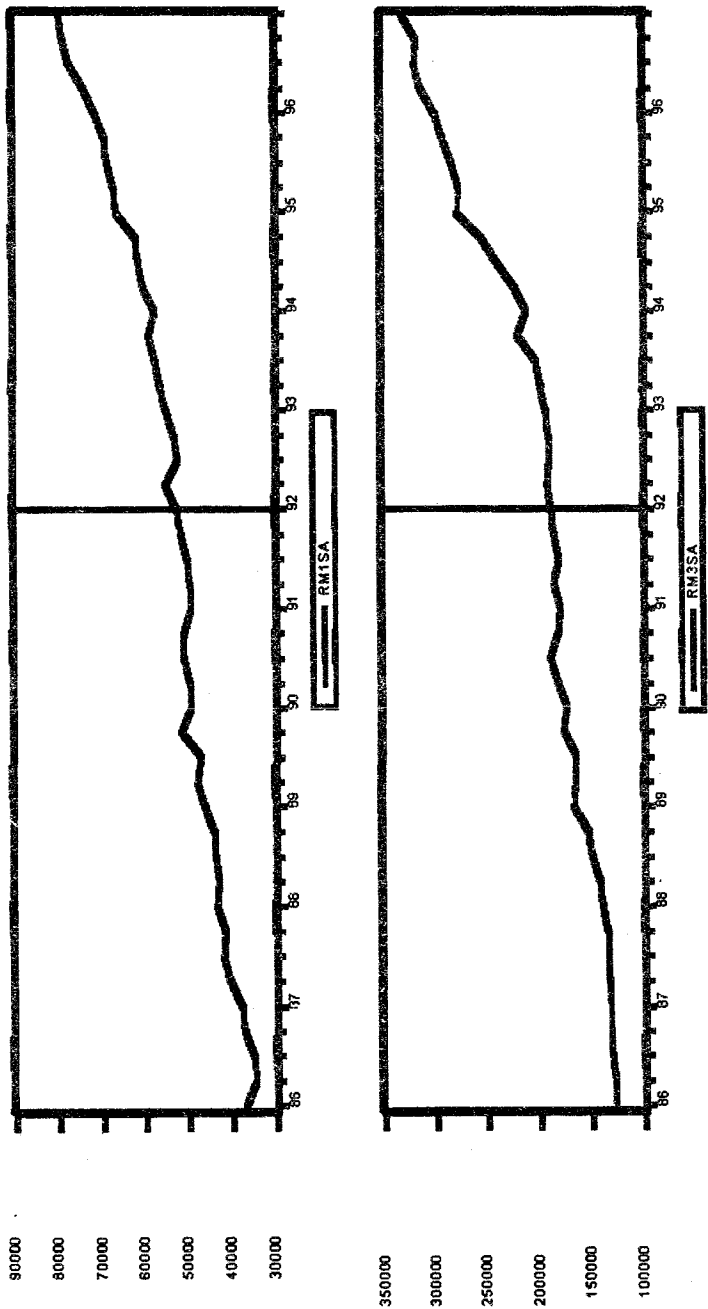


FIGURE 2
Real Balances - Monetary and Credit Aggregates
M1, M2, M3, and Domestic Credit (Seas. Adj.)



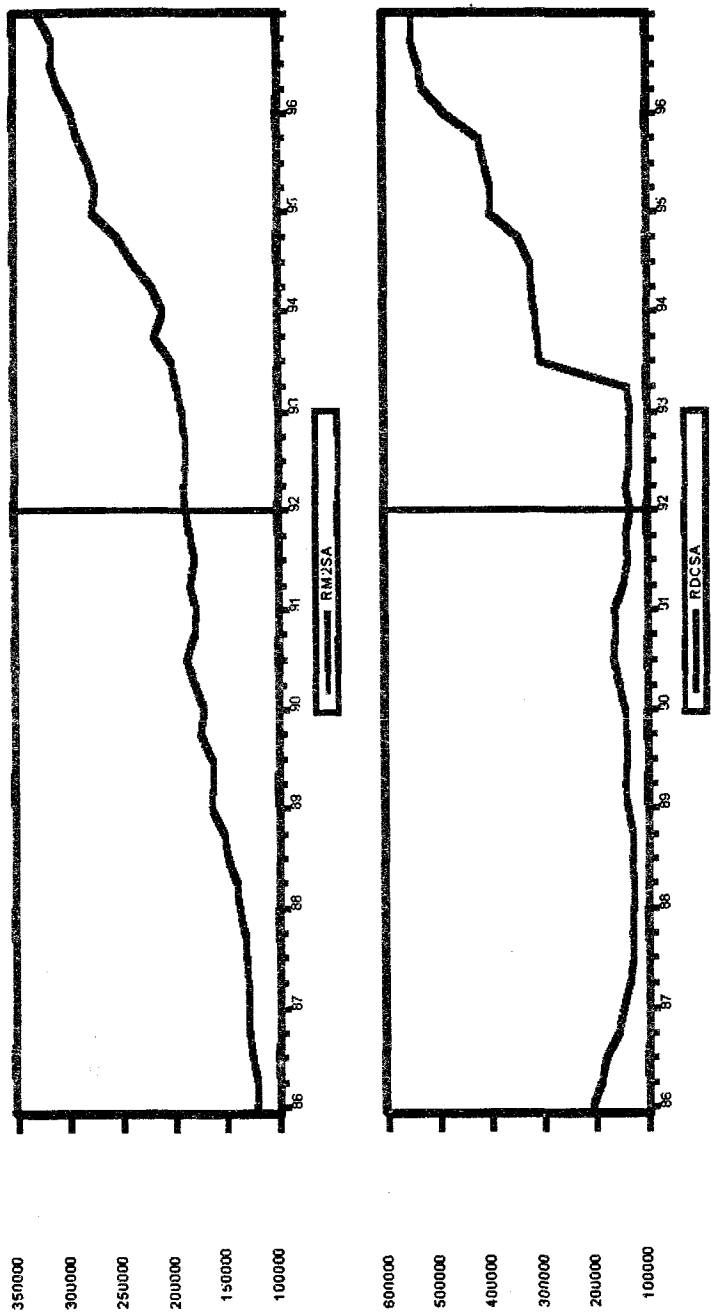
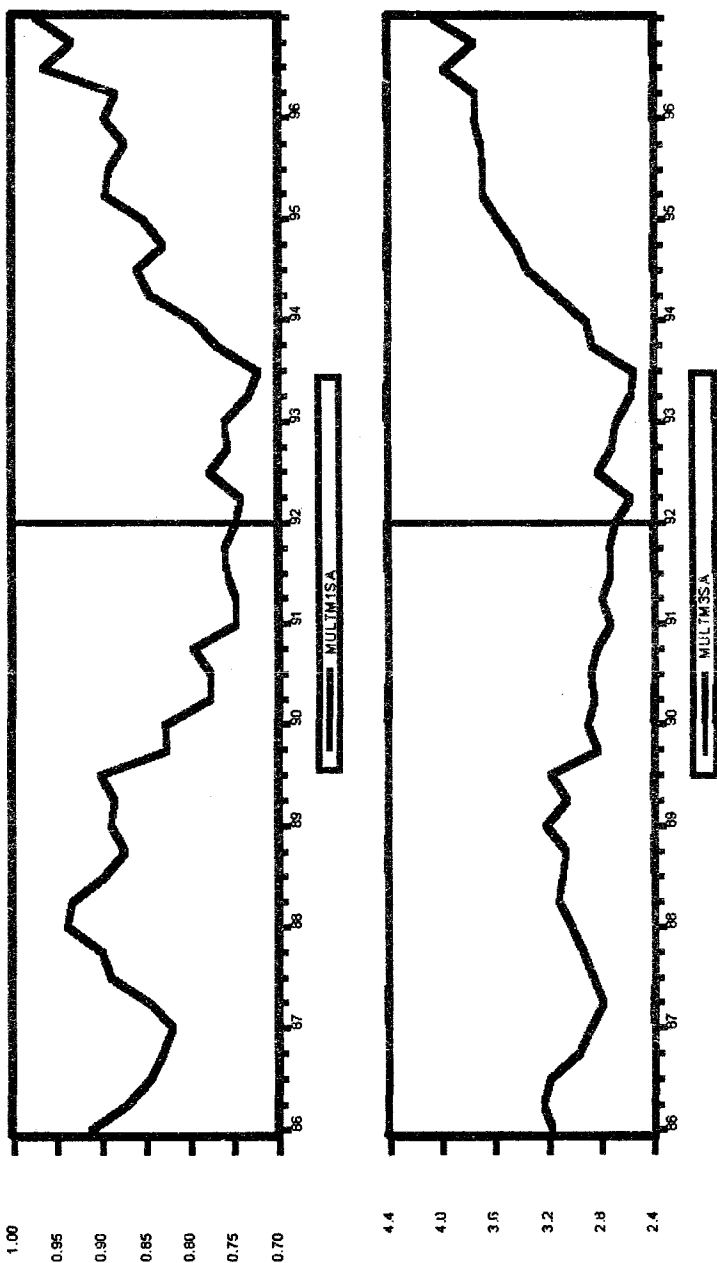


FIGURE 3
Money and Credit Multipliers
M1, M2, M3, and Domestic Credit (Seas. Adj.)



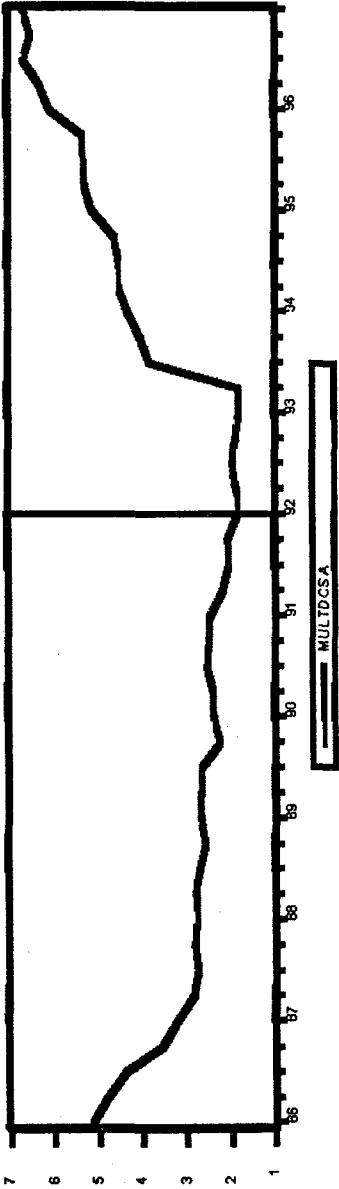
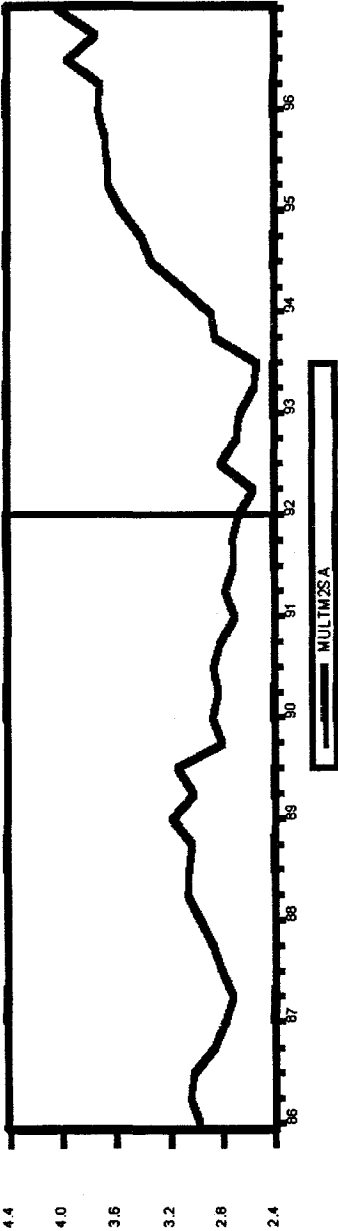
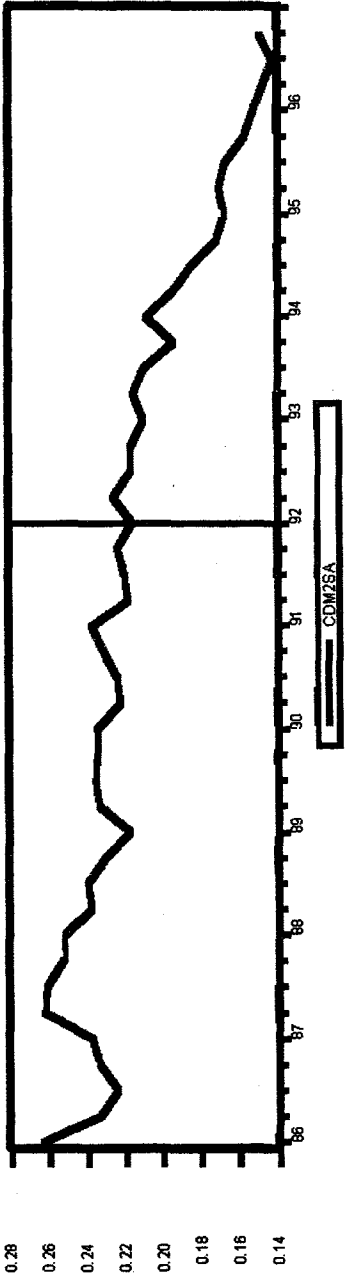
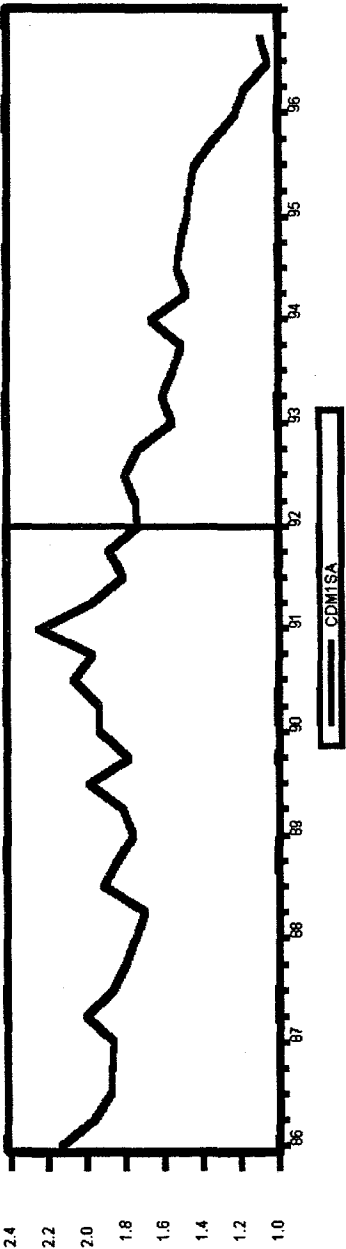
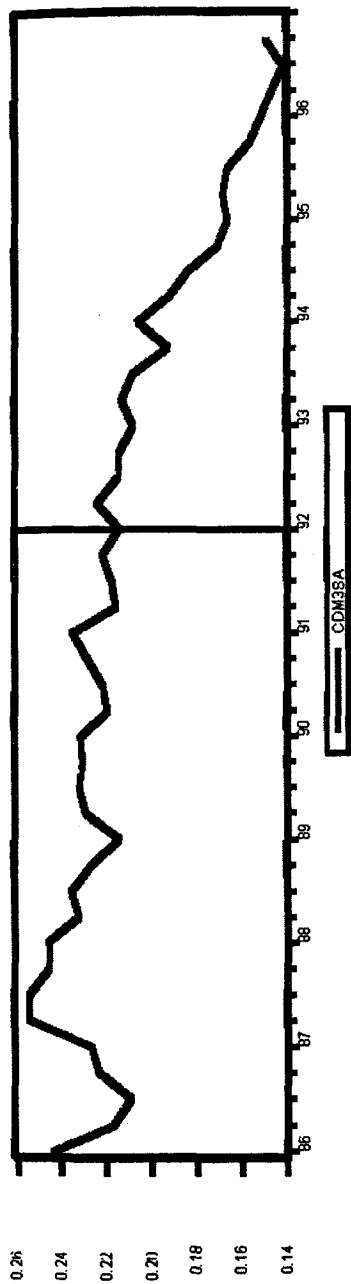


FIGURE 4
Currency-to-Deposit Ratios
M1, M2, and M3 (Seas. Adj.)





The use of monetary aggregates as nominal anchors is drawn from the original targeting literature. Monetary aggregates are used to signal to the public and the markets the intention of the central bank. A monetary anchor is desirable if it has a predictable relationship with the ultimate target. However in many countries, this predictable relationship broke down due to large velocity fluctuations, forcing them to abandon use of monetary aggregates as intermediate targets (Mishkin and Posen 1997).

An alternative nominal anchor is the exchange rate. This means that the exchange rate is the intermediate target used to attain the ultimate objective. This calls for fixing the value of the domestic currency to a low inflation country. By committing to peg the exchange rate, the inflationary bias of time inconsistency does not occur since the central bank cannot overexpand money supply (which will result in the devaluation of the currency). While having its advantages, an exchange rate anchor may have undesired consequences, particular for small open economies. The fixed exchange can lead to an exchange rate misalignment which encourages resources to flow from tradables towards nontradables. The recent experience in Southeast Asia shows how unsustainable this type of growth pattern is. Also, with increased globalization, a fixed exchange rate regime is prone to breakdowns resulting in sharp and undesirable adjustments in the exchange rate. Alternatively, defending the exchange rate may be too costly in terms of interest rate hikes.¹⁰ Lastly, a fixed exchange rate regime entails the surrender of independent monetary policy, thus, it can no longer be used to counter domestic shock and external shocks.

Another choice for a nominal anchor is the inflation rate or the price level. This means that the use of intermediate targets are done away with. A major advantage of this anchor is easily observed and understood by the public. Also, under a price or inflation anchor, the independence of monetary policy is maintained. A major drawback of a price or inflation anchor is that there may be output variability trade-offs to contend with. Consider an adverse supply shock. This results in lower output and higher prices. A price or inflation rule dictates that money supply be tightened. While prices do fall, output contracts further.

The solution to the trade-off problem of price level or inflation targeting is the use of nominal income as an anchor for monetary policy. In the case the adverse supply shock, a nominal income anchor, the necessary contractionary monetary policy may not be as tight as that of an inflation or price anchor. Inflation may not be reduced as much but output variability is minimized. A disadvantage of the a nominal income anchor is that it may not be readily understood by the public compared to inflation. Also, a nominal income anchor calls for the announcement of potential GDP growth. This is problematic because estimating potential GDP can be very

difficult and estimates are hardly precise. Another disadvantage is that the national income accounts are released on a quarterly basis as compared to monetary aggregates and consumer prices which are released on a monthly basis.

Testing for Structural Breaks

Among the earliest and influential articles on monetary policy targeting is Poole's "Optimal Choice of Monetary Policy Instrument in a Simple Stochastic Macro Model" (1970). Comparing money stock policy and interest rate policy, he finds that the superiority of each option *vis-à-vis* the other depends on existing conditions, e.g. interest sensitivity of money demand, the stability of the I-S function. An important inference from the Poole article is that a desirable property of a target is its stable relationship with other targets. Years earlier, Friedman suggested that the appropriate monetary aggregate for monetary policy is the one which has the most stable velocity.

It is instructive to test the stability of key monetary relationships like the income velocity of money, the demand for money, and the reserve money multiplier as the financial sector became more open. Quarterly data from the first quarter of 1986 to first quarter of 1997 is used to estimate income velocity, demand for money and money multiplier functions. Four monetary aggregates were used namely, M1, M2 M3, and M4.¹¹ Domestic credit was used as a credit aggregate. GDP is used as an indicator of income. Ninety-one-day treasury bill rates proxy for interest rates. The functions estimated are specified as follows:

$$\ln V_{mt} = \alpha_1 + \alpha_2 i_t + \alpha_3 \ln M_t + \varepsilon_{1t} \quad (1)$$

$$\ln V/P = \beta_1 + \beta_2 i_t + \beta_3 \ln GDP_t + \varepsilon_{2t} \quad (2)$$

$$\ln MULT_{mt} = K_1 + K_2 i_t + K_3 \ln M_t + \varepsilon_{1t} \quad (3)$$

where $M = M1, M2, M3, M4, DC$; V_m = income velocity of M1, M2, M3, M4, DC; $MULT_m$ = reserve money multiplier of M1, M2, M3, M4, DC; i = 91-day treasury bill rate.

Sequential Chow tests were conducted from the first quarter of 1992 to the fourth quarter of 1994 to check whether there are structural breaks that occur during such period. For M4 only the last year applies. The results are shown in Tables 1 to

Table 1. Income Velocity

	M1	M2	M3	M4	DC
1992-1Q	2.49*	5.27***	4.86***		23.83***
1992-2Q	2.41*	5.49***	5.09***		22.89***
1992-3Q	3.00**	6.20***	5.51***		20.48***
1992-4Q	2.60*	6.45***	5.70***		20.35***
1993-1Q	2.37*	6.33***	5.66***		21.96***
1993-2Q	2.37*	6.32***	5.69***		25.20***
1993-3Q	2.46*	6.69***	5.98***		37.14***
1993-4Q	2.66*	7.45***	6.56***		2.78**
1994-1Q	2.89**	6.32***	5.13***	1.56	1.12
1994-2Q	2.72*	8.42***	6.80***	1.13	0.76
1994-3Q	2.74*	8.51***	6.64***	2.07	0.58
1994-4Q	2.75*	6.32***	4.47***	3.10*	0.40

****, ***, and ** significant at 1 percent, 5 percent and 10 percent, respectively.

Table 2. Demand for Money

	M1	M2	M3	M4	DC
1992-1Q	4.11***	0.87	1.18		1.75
1992-2Q	4.32***	0.91	1.18		1.75
1992-3Q	1.60	0.87	1.08		1.52
1992-4Q	1.50	0.87	1.07		1.76
1993-1Q	1.59	0.95	1.15		2.37*
1993-2Q	1.46	1.25	1.50		6.72***
1993-3Q	1.61	2.15	2.38*		66.11***
1993-4Q	0.76	3.44**	3.60***		0.47
1994-1Q	0.43	2.15*	2.16*	0.15	0.38
1994-2Q	0.51	3.29**	3.34**	0.27	0.37
1994-3Q	0.44	2.99**	2.92**	0.92	0.37
1994-4Q	0.44	1.85	1.75	2.01	0.37

****, ***, and ** significant at 1 percent, 5 percent and 10 percent, respectively.

Table 3. Money Multiplier

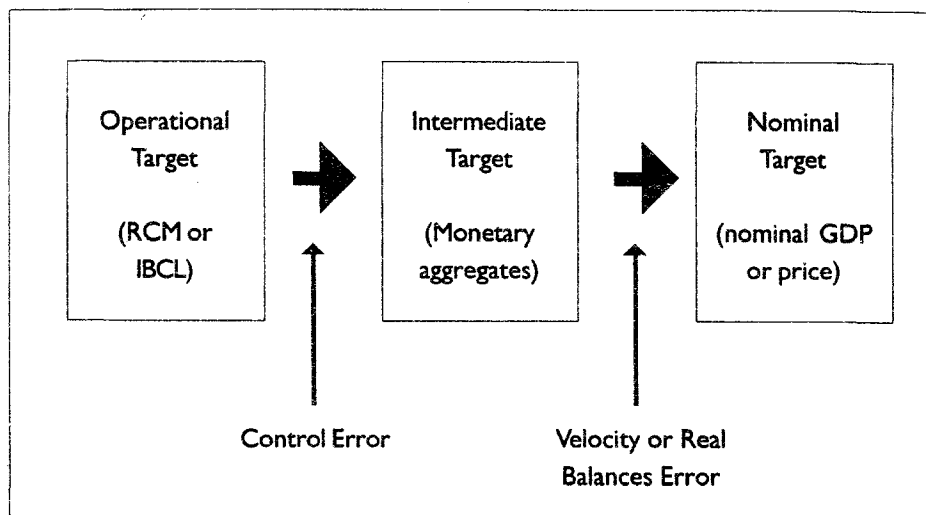
	M1	M2	M3	M4	DC
1992-1Q	2.10***	4.12***	4.35***		28.98***
1992-2Q	4.84***	4.11***	4.38***		23.91***
1992-3Q	4.82***	4.57***	4.98***		23.18***
1992-4Q	4.62***	3.60***	3.84***		22.14***
1993-1Q	3.95***	3.56**	3.85***		22.55***
1993-2Q	3.89***	3.56**	3.86***		23.90***
1993-3Q	3.20**	4.03***	4.39***		37.00***
1993-4Q	3.83***	6.50***	6.92***		3.24**
1994-1Q	3.09**	3.53*	3.65***	2.12	1.42
1994-2Q	3.15**	3.64***	3.66***	2.61*	1.11
1994-3Q	2.08*	2.11*	2.06	2.63*	0.89
1994-4Q	2.28*	1.14	1.16	1.86	0.60

“***”, “**”, and “*” significant at 1 percent, 5 percent and 10 percent, respectively.

3. Except for the demand for M4, all variables were found to have structural breaks during the three year period. The results suggest that the relationships have become unstable as the financial sector was deregulated and liberalized. These also cast doubts on the appropriateness of the current monetary framework.

Testing for Predictability and Controllability¹²

The instability of the income velocity, money demand and money multiplier functions indicate the need to revisit the current monetary policy framework, especially when deregulation and liberalization are expected to further intensify in the years to come. From a technical point of view, a stronger set of criteria for the choice of monetary policy targets consists of controllability and predictability. The dynamics of monetary policy targeting can be thought of as a two-tiered relationship, one relating operational targets with intermediate targets and the other between intermediate targets and ultimate nominal targets (Figure 5). Inaccuracies in estimating the relationship between operational and intermediate targets is referred to as “control error.” The prediction error for the relationship between intermediate targets and ultimate objectives is called either the “velocity error” or the “real balance error,” for nominal GDP and price ultimate targets, respectively.



While it is desired that both control and prediction errors be minimized, it is more important that the errors are negatively correlated with each other. This means that errors must largely cancel each other to produce a small compound error.

In this study, the paths of nominal GDP (GDPN) and prices (proxied by the GDP deflator; P) as potential ultimate nominal targets are discussed. In the Philippines, the New Central Bank Act, while stating that price stability is the ultimate objective, stresses that it has to be conducive to balanced and sustainable growth. Thus, the ultimate objective of the Bangko Sentral can be interpreted as targeting either a stable price path or a stable nominal GDP path. The potential intermediate targets are $M1$, $M2$, $M3$, $M4$, and Domestic Credit (DC). The exchange rate is not included as a potential ultimate or intermediate target because of the adverse effects of a commitment to peg the exchange rate. Reserve Money (RM) and the Interbank Call Loan ($IBCL$) rate are considered as potential operational targets.¹³

If X is the operational target, Y is the intermediate target, and Z is the ultimate target, the relationship between the ultimate target and operational target is given by their ratio, Z/X . This ratio can be decomposed into three components:

$$\ln \left(\frac{Z}{X} \right)_t = \ln \left(\frac{Z}{Y} \right)_{t/t-1} + \ln \left(\frac{Y}{X} \right)_{t/t-1} + \varepsilon_t \quad (4)$$

where $t|t-1$ denotes the value forecasted for time t using information through time $t-1$. If no intermediate target is utilized the decomposition collapses to:

$$\ln \left(\frac{Z}{X} \right)_t = \ln \left(\frac{Z}{X} \right)_{t|t-1} + \varepsilon_{0t} \quad (5)$$

If NGDP and RM are the ultimate and operational targets, equations (4) and (5) are written as:

$$\ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_t = \ln \left(\frac{\text{NGDP}}{\text{M1}} \right)_{t|t-1} + \ln \left(\frac{\text{M1}}{\text{RM}} \right)_{t|t-1} + \varepsilon_{1t} \quad (6)$$

$$\ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_t = \ln \left(\frac{\text{NGDP}}{\text{M2}} \right)_{t|t-1} + \ln \left(\frac{\text{M2}}{\text{RM}} \right)_{t|t-1} + \varepsilon_{2t} \quad (7)$$

$$\ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_t = \ln \left(\frac{\text{NGDP}}{\text{M3}} \right)_{t|t-1} + \ln \left(\frac{\text{M3}}{\text{RM}} \right)_{t|t-1} + \varepsilon_{3t} \quad (8)$$

$$\ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_t = \ln \left(\frac{\text{NGDP}}{\text{M4}} \right)_{t|t-1} + \ln \left(\frac{\text{M4}}{\text{RM}} \right)_{t|t-1} + \varepsilon_{4t} \quad (9)$$

$$\ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_t = \ln \left(\frac{\text{NGDP}}{\text{DC}} \right)_{t|t-1} + \ln \left(\frac{\text{DC}}{\text{RM}} \right)_{t|t-1} + \varepsilon_{5t} \quad (10)$$

$$\ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_t = \ln \left(\frac{\text{NGDP}}{\text{RM}} \right)_{t|t-1} + \varepsilon_{0t} \quad (11)$$

Table 4. Intermediate Target Comparisons (Root Mean Squared Percent Error)
Nominal target: Nominal GDP; Operational Target: Reserve Money

Intermediate Target	Velocity Error		Control Error		Compound Error	
	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1
None					16.214	9.752
M4*		9.805		22.590		12.929
M3	12.771	8.118	16.926	11.592	23.277	10.929
M2	11.943	7.292	24.567	8.400	16.520	6.852
M1	8.857	6.218	7.520	7.109	7.099	5.608
DC	11.520	25.695	8.090	24.953	7.729	17.254

**Sample period for M4 is from 1994-Q4 to 1997-Q1*

Table 5. Intermediate Target Comparisons (Root Mean Squared Percent Error)
Nominal target: Nominal GDP; Operational Target: IBCL rate

Intermediate Target	Real Balances Error		Control Error		Compound Error	
	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1
None					9.242	6.830
M4*		9.805	14.649			21.319
M3	12.771	8.118	10.806	12.044	14.915	14.012
M2	11.943	7.292	11.909	10.478	9.004	11.324
M1	8.857	6.218	7.842	6.618	10.558	8.902
DC	11.520	25.695	12.448	30.769	10.456	17.326

**Sample period for M4 is from 1994-Q4 to 1997-Q1*

Table 6. Intermediate Target Comparisons (Root Mean Squared Percent Error) Nominal target: Prices; Operational Target: Reserve Money

Intermediate Target	Real Balances Error		Control Error		Compound Error	
	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1
None					7.881	7.030
M4*		10.838		22.590		11.651
M3	9.523	4.788	16.926	11.592	26.215	15.117
M2	16.695	4.900	24.567	8.400	47.442	11.910
M1	5.446	4.683	7.520	7.109	8.811	9.938
DC	6.779	21.073	8.090	24.953	6.079	15.155

**Sample period for M4 is from 1994-Q4 to 1997-Q1*

Table 7. Intermediate Target Comparisons (Root Mean Squared Percent Error) Nominal target: Prices; Operational Target: IBCL rate

Intermediate Target	Real Balances Error		Control Error		Compound Error	
	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1	88:4-91:4	92:1-97:1
None					9.185	5.755
M4*		10.838		14.649		22.198
M3	9.523	4.788	10.806	12.044	14.837	12.190
M2	16.695	4.900	11.909	10.478	25.974	9.789
M1	5.446	4.683	7.842	6.618	8.892	5.838
DC	6.779	21.073	12.448	30.769	10.309	13.461

**Sample period for M4 is from 1994-Q4 to 1997-Q1*

All the e_{it} 's are compound errors and they equal the sum of the control error and the prediction error. For example, in equation (9):

$$\varepsilon_{4t} = \left[\ln \left(\frac{\text{NGDP}}{\text{M4}} \right)_t - \ln \left(\frac{\text{NGDP}}{\text{M4}} \right)_{t/t-1} \right] + \left[\ln \left(\frac{\text{M4}}{\text{RM}} \right)_t - \ln \left(\frac{\text{M4}}{\text{RM}} \right)_{t/t-1} \right] \quad (12)$$

The first bracketed term is the velocity (prediction) error while the second bracketed term is the control error. If the ultimate nominal target is the path of prices, the prediction error is referred to as the (inverse) real balances error.

Due to the instability of the relationships, a Kalman filter-based time-varying coefficients model is employed to generate the one-step ahead forecasts. Forecasted values are given by the equations:

$$\ln \left(\frac{Z}{Y} \right)_{t/t-1} = \alpha_1 + \alpha_2 \text{TB91}_{t-1} + \sum_{i=1}^4 \alpha_{2+i} \ln Y_{t-i} \quad (13)$$

$$\ln \left(\frac{Y}{X} \right)_{t/t-1} = \beta_1 + \beta_2 \text{TB91}_{t-1} + \sum_{i=1}^4 \beta_{2+i} \ln Y_{t-i} \quad (14)$$

$$\ln \left(\frac{Z}{X} \right)_{t/t-1} = \alpha_1 + \alpha_2 \text{TB91}_{t-1} + \sum_{i=1}^4 \alpha_{2+i} \ln Z_{t-i} \quad (15)$$

where TB91 is the 91-day treasury bill rate. Equation (15) is used in cases where there are no intermediate targets. The predictions and control errors are computed from the deviation of the one-step ahead forecasts from their actual values. The Kalman filter estimation assumes that the coefficients α and β follow a random walk.¹⁴

Quarterly data are used for the estimated variables starting from the second quarter of 1987 to the first quarter of 1997. The one-step ahead forecasts start in the fourth quarter of 1988.¹⁵ The root mean squared percent error (RMSPE) is computed to evaluate the extent of the errors. The period is divided into two sub-periods,

4Q-1988 to 4Q-1991 and 1Q-1992 to 1Q-1997, to check the difference on the appropriate targets before and during financial sector deregulation and liberalization.

Tables 4 to 7 show the RMSPEs of the various monetary policy targeting combinations for the two sub-periods. Before presenting the best options for monetary policy targets, a few observations are at hand. First, it can be observed that the compound errors are lower in the deregulation and liberalization period. This may be attributed to the better information content of financial variables under a more open and less restrictive financial environment. Second, while most tend to focus on problems arising from the instability of income velocity and money demand, the results indicate that the control errors are generally larger than the velocity and real balances error.

The results indicate that with financial sector deregulation and liberalization, the compound error with the lowest RMSPE (=5.608%) is the process which targets nominal GDP with M1 as the intermediate target and RM as the operational target. A few percentage points higher (RMSPE=3.755%) is the option to directly target the path of prices with the IBCL rate as the operational target. A third option (RMSPE=5.838%) is to have the path of prices as the ultimate goal and use M1 as an intermediate target with IBCL as the operating target. Due to the small disparities in the RMSPEs, based on predictability and controllability framework, either of the three monetary policy targeting options can be adopted under a deregulated and liberalized financial environment.

Non-technical considerations enter in the final choice of the targeting framework. In terms of anchors, the options collapse to a choice between a price or inflation anchor, and a narrow money (M1) anchor. The first non-technical consideration concerns which among these two variables are more observable by the public. Most would assert that a price or inflation anchor is more observable and better understood by the public as compared to a monetary anchor. The second consideration pertains to the lags involved in the release of information regarding either variables. In the Philippines, consumer price indices have a lag of a month. On the other hand, monetary aggregates are released with a two-month lag.

Another aspect that needs to be analyzed in choosing the monetary policy targeting framework is the relationship between central bank instruments and the operational targets. In theory, it is implicitly assumed that the central bank, through its instruments, has direct and perfect control over the operational target. In reality though, controllability may also be an issue between the policy instrument and the operational target. In recent years, the most utilized tool of the Bangko Sentral is the overnight reverse repurchase agreement (also referred to as the overnight reverse repo). Through it, the Bangko Sentral controls the level of reserve money. By

posting its overnight rates, banks can decide on how much reserves they intend to lend to the central bank. The effectiveness of how the posted rate (RRPR) affects the volume of overnight reverse repos (RRPV) can be depicted by this equation:

$$RRPV_t = \alpha_1 + \alpha_2 RRPR_t + u_{1t} \quad (16)$$

where $\alpha_2 > 0$. Since the interbank call loan market competes with the reverse repurchase window competes for reserves, the IBCL rate is also be affected by the overnight reverse repo rate, as in:

$$IBCLR_t = \beta_1 + \beta_2 RRPR_t + u_{2t} \quad (17)$$

If β_2 is not significantly different from 1, then it can be concluded that the IBCL rate is strongly influenced by the overnight reverse repo rate. Daily data on the RRPV, RRPR and IBCL are obtained to estimate equations (16) and (17). The results are presented in Table 8.

The regression results indicate that the overnight reverse repo rate does not influence the volume of overnight reverse repos. The inability to do so means that its control of reserve money is very weak. Table 8 also suggests that RRPR strongly

Table 8

Independent Variable	Dependent Variable	
	RRPV	IBCLR rate
Constant	23704.07 (4.54)***	-0.30 (-.38)
RRPR	-225.54 (-0.61)	1.08 (17.45)***
AR(1)	0.87 (44.62)***	0.75 (29.62)***
R-squared	0.75	0.85
DW	2.17	1.68
F	1022.26***	1868.80***
No. of Observations	673	673

****, ***, and ** significant at 1 percent, 5 percent and 10 percent, respectively.

influences the IBCL rate (β_2 is not significantly different from 1). This results imply that an interest rate operational target is easier to control than a reserve aggregate operational target.

Based on the predictability condition, the non-technical considerations and instrument-operational target control, it is suggested that monetary authorities consider directly targeting the path of prices as a monetary policy targeting framework as the Philippines becomes more financially deregulated and integrated with the rest of the world. While the danger of increased output variability is theoretically possible, experiences of inflation targeting show otherwise. Mishkin and Posen (1997) empirically found, in the case of New Zealand, Canada, and the United Kingdom, that inflation targeting resulted in lower inflation and interest rates with no adverse effect on output.

Implementation Issues in Inflation Targeting

Price level vs inflation targeting

The first implementation issue in using the path of prices as the ultimate target and nominal anchor in a direct targeting framework is the decision on whether to target the price level or its rate of change. This subject is not without any controversy. There are some who contend that inflation targeting dominate price level targeting, e.g. Fillion and Tetlow (1994), Longworth and Poloz (1986), and Judd and Motley (1991). On the other hand, Hansen (1996) and Svensson (forthcoming) derive results which indicate that price targeting is superior to inflation targeting. What is obvious though is that, in implementation, price level targeting is more difficult than inflation targeting. Price level targeting has one property that inflation targeting does not have, that is, in price targeting, the central bank must correct for past deviations from target. For example, if the price level target was exceeded in the last period, then for the current period, the central bank must aim for a price level lower than target. In contrast, with inflation targeting, no corrections are necessary. The central bank will just have to attain the current targets — let bygones be bygones. Svensson (forthcoming) suggests that monetary policymakers first do inflation targeting, and once they have gained experience and establish track record, they move into the more difficult framework of price level targeting. The approach might be the proper one for the Philippines if it decides to go into targeting the path of prices.

Inflation targeting as framework and not as a policy rule

Bernanke and Mishkin (1997) stress that inflation target should be looked at as a framework for monetary policy and not as monetary policy rule. As earlier discussed, the advantage of a nominal GDP anchor over an inflation anchor is that in

case of a supply shock, the latter may result in greater output variability. This happens if inflation targeting is followed as a strict rule. Inflation targeting implies that if inflation exceeds its target by X percent, then the economy should contract by Y percent, no ifs and buts. This rule entails a loss in flexibility. On the other hand, inflation targeting as a framework means that while the anchor prevents the central bank from systematically deviating from its commitments causing long-run undesirable consequence, it allows some discretion for dealing with unforeseen and extraordinary circumstances. Bernanke and Mishkin (1997) termed this as “constrained discretion.” It is then necessary that in adopting the inflation targeting framework, escape clauses be made to allow some flexibility to address supply shock and other types of shocks. However, caution must be exercised so that these escape clauses are not made use of arbitrarily such that it negatively affects the credibility of the monetary authorities.

It must also be made clear that inflation targeting can not be classified as a policy rule since there is no simple and mechanical way of doing it. The central bank has to rely on its econometric and judgmental models of the economic relationships.

What then is the value of inflation targeting if it is not imposed as an ironclad rule? It serves as a way of signaling clearly and understandably to the general public of the intentions of the central bank. Also, having the central bank to pre-commit to an anchor increases the transparency and accountability of its actions. If done correctly, this will result in the increased credibility of the central bank. Also, this will reduce the uncertainty that usually accompanies expectations formation.

Transition to the new framework

A central bank cannot move into an inflation targeting framework by a sheer policy pronouncement. An economy not ready for the new framework is bound to suffer if the transition is not well-managed. Inflation targeting entails that a long-term inflation target be specified. A central bank whose charter stipulates that price stability is the ultimate goal may not necessarily be using an inflation targeting framework.¹⁶ The essential prerequisite to manage the transition towards an inflation targeting framework is to lower the inflation levels, and sustaining it over some time horizon. This is really a credibility building strategy. After gaining credibility, then the central bank can shift to inflation targeting and announce its long-term inflation target along with the corresponding timetable. Likewise, in order to gain more credibility, the central bank has to achieve its inflation targets in the early periods of implementation. In a nutshell, to be able to shift to an inflation targeting framework and successfully implement it, the central bank must establish a track record.

It is also imperative that during the transition, the central bank and the government must initiate actions that will strengthen the real economy and public sector financial position so that future supply and external shocks will be mitigated. It would certainly be desirable that no unforeseen shocks occur during the transition period. As more shocks occur, the longer will the transition period be.

Choosing the inflation indicators

There are two sub-issues here. First, is the choice of whether to target a single value or a range. To infuse flexibility, a range target is preferred over a point target. However, the size of the range will somehow impact on the credibility of the monetary authorities. The wider the range, the more likely will the public doubt the ability of the monetary authorities to stabilize prices. On the other hand, a point target, if not met regularly, will likewise result in a loss of credibility. This is something that the monetary policymakers must decide on.

The second sub-issue, which is related to the first, is the choice of the price index. In most economies, the consumer price index is the index most understood by the public. However, the consumer price index can be subject to shocks, making inflation targeting difficult.¹⁷ The tack taken by most inflation targeting countries is to have a core inflation measure which takes out the items subject to shock. The use of core inflation also adds flexibility to the inflation targeting framework since the central bank need not react to first round effects of shocks. Of course, there is a credibility angle to core inflation measures. For instance, the public will tend to question core inflation measure which is consistently below headline inflation. It is imperative that a central bank be transparent in coming with its core inflation measure. This calls for a core inflation measure that can be replicated by academics and independent practitioners. More important, the central bank must ascertain that the core inflation indicator accurately measures long-term inflation.

Announcements, transparency, and accountability

Inflation targeting is a forward-looking process. The basis for policy actions is the comparison between inflation forecast and the inflation target rather than between the actual inflation and the target (Svensson, forthcoming). Hence, in inflation targeting, the inflation forecast acts like an intermediate target. A necessary component, therefore, of the inflation targeting framework is the regular publication by the central bank of its inflation forecast and movements in other information variables. The central bank must be ready to stake its reputation in defending the forecast. As a rule, the forecasts must not undergo revisions unless there is new information that improves the forecast, and the new information must be made public to retain the

integrity of the of forecast. It is likewise important that the regularity of announcements and publications be maintained. Through time, announcement and publications schedules are gradually built in to the expectations formation process of the public and the markets.

It is imperative that the central bank makes its forecasts credible, *i.e.*, its forecasting model must have a good tracking ability. This entails robust econometric models which capture the dynamics of the economy, particularly, the monetary transmission mechanisms. Also, any judgmental adjustment will have to be justified and transparent. A major problem often experienced by inflation forecasting models in the Philippines is that the economy has been subject to so many random shocks that this behavior cannot be captured by the models. During the transition period towards inflation targeting, the central bank must minimize the shocks in order to generate observations of substantial time horizon which are "shock-free."

In cases where targets are not met, the central bank will have to explain to the public why such occurred. In situation where policy changes will have to be made, accountability means these policy changes are to be thoroughly explained to the public and properly justified.

Menu of Policy Instruments

To conduct monetary policy, the Bangko Sentral ng Pilipinas has two policy levers, namely, open market operations and the statutory reserve requirement. Open market operations are done by either the direct sale and purchase of treasury bills or through repurchase operations. Repurchase or reverse repurchase transaction can either be term or overnight. In recent years, much of the open market operation have done using the repurchase facility.¹⁸

With regard to the reserve requirement, the scope of this tool has changed. The statutory reserve requirement has undergone several reductions since 1993, and part of it has been replaced by a liquidity reserve. The liquidity reserve is similar to the reserve requirement except that the reserves are used to purchase government securities from the Bangko Sentral, thereby earning market rates.¹⁹

As the Philippines becomes integrated with rest of the world, it becomes more difficult to attain and maintain internal and external balance. The difficulty is aggravated by the insufficient number of policy instruments. Definitely, the effectiveness of the reserve requirement as a monetary policy tool will diminish. Banks will just innovate to circumvent new reserve requirements. It may also be to interest to the central bank to lower reserve requirements, and lengthen the maintenance period for reserves to deepen the reserve market.²⁰ Likewise, the return to other forms of direct

controls such as interest rate control, directed credit, and credit ceilings are out of the picture. The use of the foreign exchange window for monetary control is beyond consideration. What remains as a policy lever will be the open market window. The process of deregulation requires the shift towards market-based implementation of monetary policy. Market-based implementation means that in achieving its goals, the central bank will have to enter the financial market as a market player to effect policy. In short, if policy is to be effected, it must be achieved under market conditions. Being a market player, the central bank must diversify its portfolio of monetary policy instruments. To broaden its portfolio menu, the central bank may consider furthering the use of financial derivatives as policy instruments. Another possibility is for the central bank to establish a true discount window to supplement its open market operations.

One of the biggest challenges of being integrated to globalized financial environment is coping with the rapid development of new financial instruments. These instruments need not be developed within a country's borders but the efficiency of the market will move this financial technology to other countries. For instance, some have argued that new financial instruments have increased the ability of market participants to take short-term highly leveraged speculative positions (Bisignano 1996). If advances in financial instruments and technology can be taken advantaged of by market players, what prevents a central bank from using these new instruments to its own advantage? Considering that a central bank has enormous resources under its disposal, more specially for the Bangko Sentral which is financially strong, it can implement monetary policy actions via these new instruments. It is suggested that the Bangko Sentral develop instruments to allow its participation in derivatives markets.²¹ True, there may an escalation of risks taken by a central bank, but risks accompany any yield-earning financial instrument. This can be addressed by instituting an efficient risk management and internal control systems. In some cases, the central bank has to push for the development of more forward markets, e.g. a forward market for interbank call loans may both smoothen interest rate fluctuations and provide a lead indicator for future movements of the interbank rate.

Related to the development of new central bank instruments is the question of taxation and disclosure procedures for the instruments. While there is a need to improve the financial position of the public sector, it is also necessary that revenue-raising measures do not impinge on the usefulness of the central bank instrument. The imposition of taxes and extraordinary disclosure requirements reduces the effectiveness of the instrument. Also, if these taxes and disclosure requirements cannot be done away with, it is imperative that the rules be made clear within a short t time horizon. Adding uncertainty by delaying the announcement of rules only makes the

market more wary of the instrument causing them to look for other instruments.

Another deficiency in the gamut of monetary policy instruments in the Philippines is the absence of a true discount window. What the Philippines has is a rediscount facility which is not primarily for the conduct of monetary policy.²² It does have an emergency facility to assist banks encountering liquidity problems. However, there is no standing credit facility to support regular reserve management operations. While it is true that in most industrial countries, the importance of the discount window has been reduced in importance *vis-à-vis* open market operations, the dynamics between the interest rates of discount loans and those of open market instruments cannot be undermined. The interest rate spread are useful for signaling intentions to the public and the markets. Likewise, the concept of a discount window can be expanded to include both deposit and lending facilities, and the interest rates of these facilities can become the effective floors and ceilings for interest rate fluctuations. In other cases, the discount facility offers several types of discount loans, and these rates may be used as the interest rate floor and ceiling.²³ Bisignano (1996) refers to this as the interest rate "tunnel" or "corridor." Open market operations can do the "fine-tuning" for the interbank rates to fluctuate within the corridor. Lastly, the availability of a standing credit facility helps in reserve management thereby reducing the pressures on the market for reserves. As a safeguard against banks from overusing the facility, surcharges based on access frequency and volume can be imposed.

Operating procedures under a liberalized environment

Building blocks for the design of new operating procedures²⁴

As the world moves toward economic and financial integration, the monetary authorities may have to revisit the existing operating procedures in the implementation of monetary policy. Below are some guidelines and principles that will help in recasting the procedures.

- (1) In financial markets, the information known to the central bank and the market participants differ. There are some information which are available (at least for the current time period) only to market participants. Among these are payment orders in the commercial banks, fund manager and internal assessments of the economy and individual firms, and investment plans. On the hand, the central bank has private information on the determinants of its operational targets and its policy actions. In conducting monetary policy, the central bank wants to send signals to the market, and at the same time, it wants to acquire information from the market. If the central bank wants to send signals, then it intervenes in the market. However, by intervening in the market, market prices become distorted. On the other hand, if the central bank wants to acquire information on true

market behavior, then it must stay out of the markets. Evidently, there is a trade-off between signaling and information acquisition. The optimal strategy is to minimize the cost of the trade-off.

- (2) Some variability in market prices is desirable since it allows the central bank to gain information which will help in the estimation of a better operational target. Also, by allowing more variability (and less frequent interventions), the market participants will find it profitable to act in a stabilizing fashion.²⁵ The responsibility of financial asset price stability should not be borne by the central bank alone.
- (3) Market participants are either informed or uninformed. The informed market participants invest in the collection and processing of market information. In the absence of central bank intervention, the informed market participants, on the average, stand to gain more than the uninformed. However, when the central bank intervenes, there is a disincentive for informed players to enter the market because the central bank distorts market prices rendering their information less valuable, consequently, undermining the profitability of their participation in the market. Hence, the degree of central bank intervention is inversely related to the proportion of informed players in the market.
- (3) Uninformed market participants only add noise to the market. Hence, if the market is dominated by uninformed participants, central bank intervention may not lead to a costly trade-off since the market is already distorted in the first place.
- (4) As a domestic financial market becomes integrated with the rest of the world, the degree of market efficiency rises. Consequently, the share of uninformed market participants declines. Hence, frequent intervention becomes more costly. Also, the information content in the market prices becomes more precise. This suggests that in a liberalized financial environment, information acquisition precedes signaling in the central bank's list of priorities. It is only after the market information is known that the central bank can judge whether the market is in line with its objectives.
- (5) Informed trading becomes more attractive as the markets get efficient because informed traders can earn more profits from the uninformed ones. The search for information, then, becomes an important activity. If the central bank decides to leave the markets alone in order to extract market information, "Fed" watching becomes institutionalized. With zero or minimal central bank intervention, market participants find it difficult to acquire information on central bank intentions. Market participants may find that investing in "Fed" watching activities is worthwhile. The positive side of this is that the central bank will have another mode of signaling aside from intervention. It can send signals of its intentions via the "Fed" watchers. The down side is that if the signals sent by the central bank are noisy, then the market becomes more uncertain and disturbed.

- (6) A central bank has two options on how to intervene in the markets. One option is to decide in advance the intervention program that is consistent with its operational target. The central bank works toward attaining its program by dealing with market participants, by giving and soliciting quotes, and by deciding whether to accept or reject the deals. This approach can be referred to as the interest rate tender approach.²⁶ The second option is to conduct a quantity tender. This means that the central bank commits itself in advance to an intervention price, and market participants will submit its bid and/or offer quantities after the quotes are posted. The quantity tender approach entails that the central bank decides on its operational target without the benefit of observing bid and offer quantities. Consequently, the market information acquired by the central bank is incomplete. If the signals that can be acquired from the market are noisy, then the quantity tender is more advantageous since distorting noisy information is not as costly as doing the same to valuable information. Also, a quantity tender is useful for signaling purposes — by setting the interest rates prior to trading, the central bank gives a clear signal of its intentions. In contrast, if the market information to be acquired is important, the central bank quotes should not be posted in advance. The choice between the two approaches depends on the weight the central bank attaches to information acquisition and signaling intentions.
- (7) In setting up new operating procedures for a central bank, there should be a parallel movement in institution strengthening. First, the supervisory framework for the financial system must be strengthened. This requires that appropriate prudential regulations be put in place. This ensures the stability of the financial system. Second, the central bank must work for an efficient and functioning settlements and payments system. It is imperative that the central bank manages the settlements and payments system. This will ensure that commitments are met and financial transactions are above ground. This will also discipline market participants to desist from undertaking unsound transactions. More importantly, the settlements and payments system will provide the central bank valuable information on reserve conditions in the banking system. Lastly, the central bank must invest in upgrading its capability to monitor financial markets, both domestically and internationally.

Current operating procedures

Traditionally, open market operations of the Bangko Sentral ng Pilipinas have been focused on mopping up excess liquidity, and the reverse repurchase agreement is the primary instrument for doing this. Current operating procedures follow a quantity tender approach.²⁷ Repurchase and reverse repurchase rates of all maturities are

determined by the Monetary Board on a weekly basis.²⁸ The overnight repo/reverse repo window opens at 8:30 a.m. when Bangko Sentral announces its rates. Overnight trading ends at 10:00 a.m. The overnight trading period coincides exactly with trading in the interbank call loan market. Usually, banks call the Bangko Sentral for quotes at the start of overnight trading. This implies that trading in the IBCL market is likely to follow the Bangko Sentral rates. Term repo/reverse repo trading is from 10:00 a.m. to 12:00 noon. Term rates are announced at 9:00 a.m. The trading of government securities are done from 10:00 a.m. to 12:00 noon.

New operating procedures

As financial markets get integrated with the global markets, market information becomes very important. There is also a parallel improvement in market efficiency which reduces the noise in the markets. This implies that the use of a quantity tender approach to open market operations may no longer be appropriate since under such the central bank cannot acquire information from the market. An advantage though of a quantity tender is its signaling function. However, in a deregulated and liberalized environment, information acquisition precedes signaling. Also, with increased market efficiency and the incentive to indulge in "Fed" watching, signaling can be done via other modes. Moreover, the discount window can be used for signaling. A shift toward an interest rate tender is necessary to operationalize monetary policy in the emerging world environment. The interest rate tender gives flexibility to the Bangko Sentral in guiding the intra-day behavior of the interbank call loan rate (if it is to be the operational target). If signaling is really called for using the open market window, the Bangko Sentral can simulate a quantity tender by maintaining a fixed bid/offer quote throughout the trading period.

The new procedures also require the setting of new operating structures within the Bangko Sentral. Under the suggested operating procedures, the Monetary Board meets to set a long-term inflation target and the timetable for its attainment. It is important that the inflation target be announced and the minutes of the meeting be published (with some lag) for transparency. It is likewise important that revisions in the inflation targets be avoided to maintain credibility.

On a quarterly basis, the Monetary Board convenes itself as an open market committee and decides on the interest rate target for the quarter that is consistent with the inflation target. Again, the targets will have to be announced and the minutes published with some lag. The open market committee can also set the interest rates for the discount facility. These discount rates will serve as the interest corridor for short-term interest rate fluctuations.²⁹

For the daily open market operations, there should be a committee composed of a monetary board member,³⁰ senior officers of Treasury, Economic Research, and the department supervising the settlement/payments system. Based on the trading conditions in the interbank call loan market, staff reserve forecasts, recent developments in the financial system, and the latest data on monetary and credit aggregates, the committee will decide on the open market program for the day, e.g. intervention rate and volume, intervention mode (using repos/reverse repos for temporary liquidity movements or direct treasury bill sale/purchase for permanent liquidity movements), and cut-loss directives. The committee will then inform the members of Monetary Board of the program for the day and give the instructions to the open market desk. To permit the committee to acquire the most current market information, it may be desirable that the interbank call loan market open ahead of the open market window (alternatively, no central bank intervention or announcement/quotation of interest rates be made immediately at the start of trading in the reserve market, and that these be made only after some information on interbank trading has been gathered). This will allow the Bangko Sentral to acquire market information. If the monetary authorities want to send a strong signal via the short rates, it can decide to quote a fixed bid/offer for the entire duration of the trading period. There need not be any distinction in the trading hours for overnight and term instruments.

Other Challenges and Areas for Future Research

This section briefly discusses the other major challenges that accompanies globalization and economic integration. While these have an important bearing to monetary policymakers, they themselves are broad research areas. Thus, these may be considered as areas for future research.

Bank Supervision and Prudential Regulations

The series of reforms in banking regulations has fostered competition within the banking system. Paderanga (1996) finds that after a period of negligible growth, the banking system became very vibrant around 1992-1993. For instance, the asset base of the banking system more than doubled from 1990 to 1994. Bank branching of commercial banks also accelerated from almost zero in to more than 300 branches in 1994. Over the past two to three years, many domestic universal banks started gearing up for the competition by establishing thrift bank subsidiaries with the apparent intention of focusing on corporate lending operations and transferring to the new thrift bank subsidiaries consumer and small business lending operations. This would allow them to compete with new foreign banks which certainly will concentrate on corporate lending. Also, it has been observed that banks are getting more sophisti-

cated in their menu of financial products. Many have moved into using financial derivatives in their treasury operations. Product innovation has also been very rapid, offering bank customers a broader variety of deposit and investment instruments.

While the expansion of the banking system and financial innovation are positive steps towards financial deepening, it poses a challenge to bank regulators. It is imperative that the bank supervision and prudential regulations progress in the same direction. The technical capacity of the central bank's supervisory arm has to be strengthened. The last thing a central bank would desire is to be left by the pace of progress in the sector that it supervises. The inability to cope with pace of financial innovation opens the possibility of an overextended banking system which authorities cannot adequately monitor. The challenge to the monetary authorities is to reinforce the supervisory and regulatory framework without impinging on the competition brought about by deregulation and liberalization.

As a country's financial market becomes integrated with the global market, there is a need to put in safeguards such as minimum capital standards, criteria for provisioning for doubtful loans, limits on loan concentration, collateral requirements, and enforcement mechanisms. It is also necessary to improve disclosure standards and procedures. An area for future research is to determine what exactly are the dynamics of financial and prudential regulation to prepare the financial system of a developing country like the Philippines meet the challenge of globalization.

Susceptibility to External Shocks

With globalization, any analysis of monetary policy must factor in external balance issues. An open economy is no longer as insulated from external shocks as compared to a closed (or a semi-closed) economy. The monetary authorities have to balance the price stability goal with the attainment of external balance. This problem becomes very important with the presence of huge capital inflows, which the Philippines experienced over the past four years. Decisions on whether to sterilize capital inflows have to be made. The experience of the recent past brings another form of external shock, *i.e.*, the contagion effects of currency crises. As the Philippines becomes more financially integrated with the rest world, there is increased interdependence between several domestic financial markets open the possibility of a "domino effect" of financial crises. Policies will have to be drawn on how to arrest currency attacks. This is the third challenge of globalization to monetary policy formulation and implementation.

Areas for future research on this directions include: analyzing relationship between the capital inflows problem and currency crises (*i.e.*, does the capital inflows problem precede a currency crisis); differentiating between permanent and palliative solution to currency crises; and identification of leading indicators of currency crises.

5. CONCLUDING REMARKS

Globalization and economic integration opens new opportunities to the Philippine economy but it also brings about difficult challenges. One challenge is directed to the conduct of monetary policy. Even though at present the Philippines has not yet attained the level of full integration, the behavior of key monetary and financial variables have rapidly changed. This puts to question the appropriateness of the current monetary policy framework. This study presents one option to the monetary authorities, that is, to shift from the IMF-designed financial programming framework towards an inflation targeting framework. Empirical estimates bear that directly targeting the path of prices with an interest rate (IBCL rate) operational target produces one of the lowest compound errors among alternative targeting procedures. Moreover, non-technical and psychological considerations point to a price or inflation target as being better than a monetary target. A price level or inflation anchor of monetary policy is observable and easily understood by the public and the markets. However, as in any change of policy regime, the transition can be both difficult and crucial. Some guidelines and words of caution have been suggested in order to successfully manage the transition and implementation, among these are establishing a track record, transparency, accountability and proper timing. The Bangko Sentral should also consider beefing up its arsenal of monetary policy instruments and revisiting its operating procedures in the light of the emerging world environment.

NOTES

- 1 The efficacy of the financial reform program was undermined in 1980s mainly because of the relative instability during the period.
- 2 Paderanga (1996) gives a comprehensive review of the financial reforms implemented since 1980.
- 3 Trade restrictions were reimplemented in 1983.
- 4 Except for the brief de-control period in the early 1960s.
- 5 While some target adjustments are allowed to take into account capital inflows, the procedure used by the Bangko Sentral is still based on monetary targeting.
- 6 This notion is statistically tested in a succeeding section.
- 7 Stability though can be considered as a weaker condition *vis-à-vis* predictability.
- 8 Most of the discussion on nominal anchors are based on the excellent article of Mishkin and Posen (1997).

- 9 The time inconsistency problem arose from rules and discretion article of Kydland and Prescott (1977). Expectations of the public are assumed to be given when policymakers make their decisions. Suppose that policymakers view output expansion rather than inflation control as their ultimate goal, since expectations are given, they try to achieve this by engaging in monetary expansion more than what is expected. However, the public cannot be fooled, and they adjust their expectations accordingly. Increases in wages and prices follow, and the output will not be higher. The economy ends up with the same level of output but with higher inflation. While the monetary authorities believe that it is acting optimally, the outcome is sub-optimal.
- 10 Again, this is illustrated in the experiences in Mexico and Southeast Asia.
- 11 M4 is M3 plus foreign currency deposits held by residents. This aggregate is not yet an official aggregate of the Bangko Sentral. The data are from the first quarter of 1992 to the first quarter of 1997.
- 12 The framework and methodology are based on Dueker (1995).
- 13 The IBCL rate is the interest rate that the Philippines has which is most similar to the Federal Funds rate in the United States.
- 14 The specification of the time-varying coefficients model is given in the appendix.
- 15 For equations involving M4, the estimation period commences on the second quarter of 1993. One-step ahead forecasts start in the fourth quarter of 1994.
- 16 The monetary authorities might be in a monetary aggregate targeting mode, like the Philippines.
- 17 Israel opted to use the consumer price index.
- 18 Except in the recent past, when the Bureau of Internal Revenue subjected the repo and reverse repo agreement to a tax. Also, additional disclosure conditionalities have been imposed on repo and reverse repo transactions with the Bangko Sentral. These developments have somehow reduced the attractiveness of the repo instrument.
- 19 The sum of the statutory reserve requirement and liquidity reserve has been declining except recently when the Bangko Sentral raised the liquidity reserve ratio in response to the currency turmoil.
- 20 The existing maintenance period for reserves in the Philippines is seven days.
- 21 To some extent, the Bangko Sentral has been dealing in these markets, but more participation might be more desirable.
- 22 For instance, one of the Bangko Sentral's rediscount facility is intended for export credit rediscounting.
- 23 For example, Germany uses the discount rate and the Lombard rate as the floor and ceiling, respectively.
- 24 This subsection benefits from Hardy (1997a, 1997b).
- 25 This may also apply to foreign exchange operations.
- 26 In interest rate tenders, the central bank may decide to set a limit to the volume of intervention but this limit is not necessarily announced.

- 27 Although there is also a limit to the transacted volume.
- 28 This is a relatively new procedure since previously, the Bangko Sentral Governor instructed the Bangko Sentral Treasury Department on the interest rates on a daily basis.
- 29 The open market committee can also convene on a monthly basis to set the interest rates of the discount window.
- 30 It is necessary that the monetary board member be an economist or has experience on treasury operations.

REFERENCES

- Alexander, W., T. Balino, and C. Enoch. 1996. Adopting Indirect Instruments of Monetary Policy. *Finance & Development*, 33(1): 14-17.
- Bernanke, B. and A. Blinder. 1992. The Federal Funds Rate and the Channels of Monetary Transmission. *American Economic Review*, 82(4): 901-921.
- Bernanke, B. and F. Mishkin. 1997. Inflation Targeting: A New Framework for Monetary Policy? *Journal of Economic Perspectives*, 11(2): 97-116.
- Bisignano, J. 1996. Varieties of Monetary Policy Operating Procedures: Balancing Monetary Objectives with Market Efficiency. BIS Working Paper No. 35. Bank for International Settlements.
- Borio, C. 1997. Monetary Policy Operating Procedures in Industrial Countries. BIS Working Paper No. 40. Bank for International Settlements.
- Caprio Jr., G. and P. Honohan. 1990. Monetary Policy Instruments for Developing Countries. PRE Working Paper No. 528. World Bank.
- Debelle, G. 1997. Inflation Targeting in Practice. IMF Working Paper No. 35. International Monetary Fund.
- Dueker, M. 1995. Narrow Vs. Broad Measures of Money as Intermediate Targets: Some Forecast Results. *Federal Reserve Bank of St. Louis Review*, 77(1): 41-51.
- Fillion, J. and R. Tetlow. 1994. Zero Inflation or Price Stability: Some answers from stochastic simulations on a small open-economy macro model. In *Economic Behaviour and Policy Choice under Price Stability*. Proceedings of a conference held at the Bank of Canada.
- Frankel, J. 1993. Monetary Regime Choices for A Semi-Open Country. Pacific Basin Working Paper No. PB93-02. San Francisco: Federal Reserve Bank of San Francisco.
- Goldsbrough, D. and I. Zaidi. 1989. Monetary Policy in the Philippines During Periods of Financial Crisis and Changes in Exchange Rate Regime: Targets, Instruments, and the Stability of Money Demand. IMF Working Paper No. 89/98. International Monetary Fund.
- Hamilton, J. 1994. *Time Series Analysis*. New Jersey: Princeton University Press.

- Hansen, E. 1996. Price Level versus Inflation Rate Targets in an Open Economy with Overlapping Wage Contracts. Pacific Basin Working Paper Series No. PB96-01. San Francisco: Federal Reserve Bank of San Francisco.
- Hardy, D. 1997a. Informational Efficiency, Interest Rate Variability, and Central Bank Operations. IMF Working Paper No. 97/26. International Monetary Fund.
- Hardy, D. 1997b. Market Information and Signaling in Central Bank Operations, or, How Often Should a Central Bank Intervene. IMF Working Paper No. 97/28. International Monetary Fund.
- Houben, A. 1997. Exchange Rate Policy and Monetary Strategy Options in the Philippines - The Search for Stability and Sustainability. IMF Paper on Policy Analysis and Assessment No.97/4. International Monetary Fund.
- Judd, J. and B. Motley. 1991. Nominal Feedback Rules for Monetary Policy. *Economic Review*. Federal Reserve Bank of San Francisco, (Summer): 3-17.
- Kydland, F. and E. Prescott. 1977. Rule Rather Than Discretion: The Inconsistency of Optimal Plans. *Journal of Political Economy*, 85(June): 473-491.
- Lane, T., M. Griffiths, and A. Prati. 1995. Can Inflation Targets Help make Monetary Policy Credible? *Finance & Development*, 32(4): 20-23.
- Longworth, D. and S. Poloz. 1986. A Comparison of Alternative Monetary Policy Regimes in a Small Dynamic Open-Economy Simulation Model. Technical Report No. 42. Ottawa: Bank of Canada.
- Mishkin, F. and A. Posen. 1997. Inflation Targeting: Lessons from Four Countries. *FRBNT Economic Policy Review*, August: 9-96.
- New Central Bank Act*. 1993.
- Paderanga Jr., C. 1996. Philippine Financial Development, 1980-95. In E. Esguerra, and K. Ito (eds.) *Financial Sector Issues in the Philippines*. Tokyo: Institute for Developing Economies.
- Poole, W. 1970. Optimal Choice of Monetary Policy Instruments in a Simple Stochastic Macro Model. *Quarterly Journal of Economics*, 84(2): 197-216.
- Rogoff, K. 1985. The Optimal Degree of Commitment to an Intermediate Monetary Target. *Quarterly Journal of Economics*, November: 1169-1189.
- Svensson, L. forthcoming. Inflation Forecast Targeting: Implementing and Monitoring Targets. *European Economic Review*.
- Svensson, L. 1996. Price Level Targeting vs. Inflation Targeting. NBER Working Paper No. 5719. National Bureau of Economic Research.



CAPITAL FLOWS AND THE INTEGRATION OF INTERNATIONAL FINANCIAL MARKETS

MARIA SOCORRO GOCHOCO-BAUTISTA

INTRODUCTION

The Philippines, one of several so-called 'emerging markets,' experienced large capital inflows beginning in 1989.¹ At its maximum, these inflows amounted to over 7 percent of GDP. While the return to private international credit markets was generally welcome as foreign savings could become available to finance projects in pursuit of growth objectives, policymakers soon faced several critical concerns. The large volume and potential for sudden reversal of these flows could imperil the stability of the domestic financial system. These capital inflows have been blamed for real currency appreciation and the widening of current account deficits, accumulations of international reserves by the Central Bank, and undesirable increases in the money supply. Where sterilization was resorted to in order to rein in the money supply, the possibility of incurring a large quasi-fiscal cost arising from the Central Bank's exchanging high-yielding domestic securities for low-yielding foreign assets emerged.

While there is a large literature on the underlying causes of these capital inflows to developing countries, there is no unanimity on the matter. Some attribute the surges in capital inflows to external factors. In their study of Latin American countries, for example, Calvo, Leiderman, and Reinhart (1993) attribute the surge in

capital inflows to low US interest rates. Fernandez-Arias (1994) and Frankel and Okongwu (1995) also find evidence to support this view. On the other hand, Schadler, Carkovic, Bennet, and Kahn (1993) challenge this view on the grounds that changes in the external factors did not coincide exactly with the surges in capital flows. Indeed, for some countries, these external factors postdated the surges in capital flows. Empirical evidence to support the view that internal factors, such as improvements in economic fundamentals in developing countries, were the more important causes of capital inflows is provided by Ghosh and Ostry (1993) and Chuhan, Claessens, and Mamingi (1994).

The difficulty of deciphering whether external or internal factors are largely responsible for the surge in capital inflows to developing countries is complicated by the fact that many of these countries were in the midst of undertaking economic liberalization and structural reforms at about the time of these inflows. It becomes more difficult for policymakers to adopt correct policies when macroeconomic performance is incorrectly attributed to being the result of capital inflows. A successful domestic program to reduce inflation, for example, could lead to declines in the interest rate and an increase in the demand for money. To the extent that the monetary authorities accommodate this, the money supply will increase. An incorrect attribution of the increase in the money supply to capital inflows could lead to incorrect policies to counter capital inflows.

This study attempts to empirically assess the extent to which capital inflows have affected macroeconomic performance in the Philippines using quarterly data from 1982 to 1995.² Specifically, it looks at the effects of capital inflows on interest rates, money demand, and consumption and investment demand in the Philippines. If capital inflows significantly affect interest rates and the domestic money supply, the time paths for these would be different from those in a world without capital inflows. This would also suggest that financial markets have become more integrated as factors other than purely domestic policies affect a country's macroeconomic performance. It is also important to examine the effects of capital inflows on consumption and investment because one of the concerns of policymakers is that these flows be used to finance long-term investment. Aside from its positive effect on growth, long-term investment is seen to be less reversible than short-term portfolio flows and, therefore, less destabilizing. If these inflows primarily finance consumption instead, to the extent that the spending falls on non-traded goods, the latter's relative price will increase and the domestic currency will appreciate in real terms.

The study is organized as follows: section 2 is a review of the literature on tests of financial market integration; section 3 describes features of macroeconomic performance in the Philippines in relation to capital flows; section 4 discusses the empiri-

cal methodology; section 5 presents the empirical results; and section 6 presents the summary and conclusions of the study.

TESTS OF FINANCIAL INTEGRATION

The usual way in which the proposition that greater capital mobility leads to greater financial integration across countries is tested is to see whether real interest rates among financial assets located in different regions converge. In general, most of the empirical work fail to find convergence of real interest rates despite greater capital mobility. Throop (1994), for example, finds no tendency for real interest rates between the US and that in a bilateral industrial country to converge in the 1980s, when barriers to capital mobility had largely been eliminated. Also, the responses of both short-term and long-term real interest rates to one another have become weaker despite greater capital mobility. Frankel and Okongwu (1995) find that capital inflows from the US to Argentina, Chile, Mexico, the Philippines, and Korea in the 1987-1994 period did not lead to interest rate convergence between those in the US and those in these countries due to the presence of a currency premium. The interest rate differential in favor of the domestic country is seen as compensation for fears of future depreciation.

In contrast, Hutchison and Singh (1993) obtain results favorable to interest rate convergence. They point out that real interest rates are equal across countries only in the absence of deviations from purchasing power parity (PPP) and uncovered interest parity (UIP), and that greater capital mobility implies smaller deviations in UIP. Real interest rates fail to converge over shorter-term horizons because PPP holds only in the longer-run and substantial deviations from it exist in the short-run. Employing cointegration methods which allow adjustment between US and Japanese interest rates in a long-run equilibrium setting, they find a high degree of interest rate linkage between Japan and the US in the 1980s. Chinn and Frankel (1995) also use cointegration techniques to test the degree to which long-run real interest parity holds for US, Japanese, and Pacific Rim countries. Their results also show bilateral interest rate linkages and real interest parity upheld for US-Singapore, US-Taiwan, and Japan-Taiwan interest rates.

In theory, capital inflows should lower domestic interest rates. Frankel and Okongwu (1995) point out that sterilization moves by the monetary authority could raise domestic interest rates above their position prior to the capital inflow. However, this is unlikely to occur in the standard model if capital inflows are caused by external

factors such as a decline in world interest rates, an increased demand for portfolio diversification among US investors, or the removal of barriers to capital inflows. Domestic interest rates could be expected to rise if primarily domestic factors cause the capital inflows. For example, successful debt-reduction, an investment boom as a result of deregulation, or an increase in the demand for money in light of a successful program to control inflation would raise domestic interest rates.

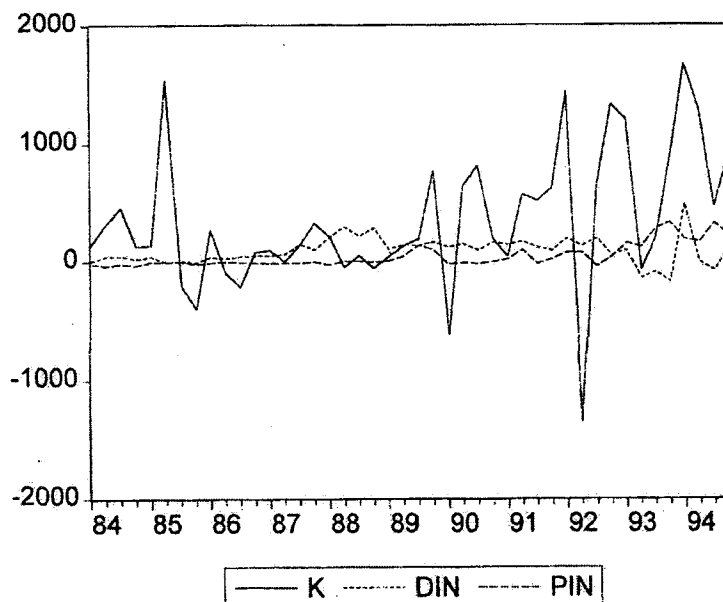
This study examines the effects of capital flows on interest rates and money demand by using counterfactual simulations as to what the time paths of these variables would have been, relative to actual, in the absence of capital flows. The rationale for this is that greater financial integration should allow capital flows to have significant effects on macro variables.

CAPITAL FLOWS AND MACROECONOMIC PERFORMANCE

The Philippines experienced more frequent surges in capital inflows beginning in the fourth quarter of 1989. From US\$189 million (M) in the third quarter of 1989, the capital account ballooned to US\$768 M in the fourth quarter of 1989. Capital flows peaked in the third quarter of 1990, the first and fourth quarters of 1992, and the first quarter of 1994. It is apparent that in general, the capital account was larger and more volatile in the 1990s as shown in Chart 1. Portfolio inflows have increased in the more recent period as these exceeded direct investment inflows in the third quarter of 1989 for the first time. From US\$55M in the second quarter of 1989, portfolio inflows more than doubled to US\$160M in the third quarter of 1989. Since the fourth quarter of 1992, portfolio investments have been larger than direct investment inflows, with the exception of the first quarter in 1994. As a percentage of GDP, from 1.23 percent in 1988, capital inflows rose to 3.43 percent of GDP in 1989, and then further to 6.85 percent in 1991. In 1994, these inflows surged once more to 7.4 percent of GDP.

Both 'push' factors, such as low interest rates in the US, and 'pull' factors, such as the economic reform measures undertaken, presumably played a part in the resurgence of private capital inflows to the Philippines. The country overcame the debt crisis and regained its financial credibility. Foreign debt service fell from almost 36 percent of total exports of goods and services in 1986 to 17 percent in 1993 (de Dios 1995). The liberalization of foreign exchange transactions began in 1992, the year when portfolio inflows began to dominate foreign investment flows. Beginning in 1992, authorized banks could sell foreign exchange without prior approval from the

Chart 1:
 = Capital Inflows; DIN = Net Direct Investment inflows; PIN = Portfolio Investment Inflows
 (US Million Dollars)



Source: Central Bank of the Philippines

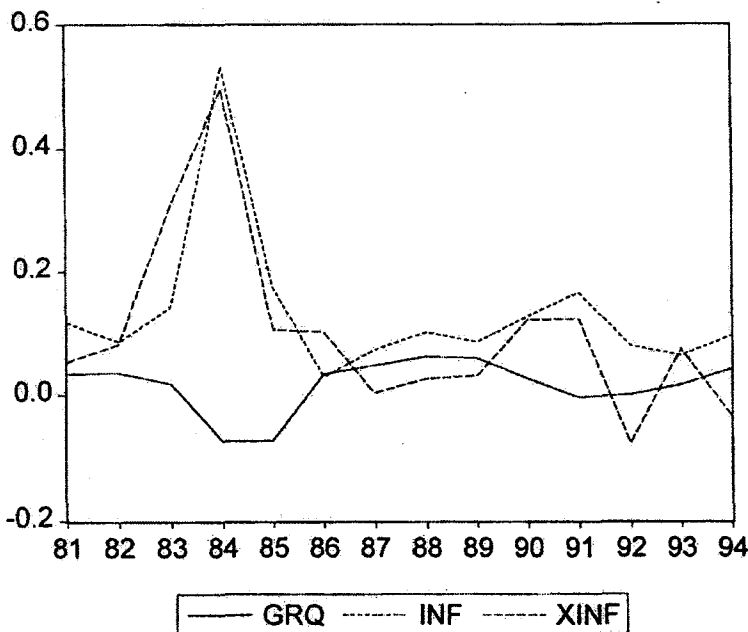
Central Bank, except for certain foreign loan and investment transactions. Banks could also re-lend foreign currency loans with Central Bank approval.

While financial liberalization began in 1981 with the lifting of interest rate controls, many of the other financial sector reforms, such as the liberalization of foreign exchange transactions (1992), and allowing the entry of some foreign banks (1994) occurred after the initial surge in capital inflows in 1989. Hence, these reforms cannot be responsible for all of the surge episodes, particularly the more recent cases. In this regard, it is important to point out that domestic interest rates were high in the third quarter of 1989 relative to interest rate levels in the previous two years, as shown in Chart 4B, and coincided with large inflows. Interest rate levels in 1987 and 1988 ranged from 11.5 percent to about 16 percent. Interest rates in the third quarter of 1989 rose to 20.3 percent from 16.3 percent in the second quarter and remained at levels over 20 percent up to the first quarter of 1991. Note that the third quarter of

1989 coincides with the initial surge in portfolio inflows. Other 'pull' factors include the improved macroeconomic condition of the country. In 1989, the inflation rate declined to 1.22 percent from 8.76 percent in the previous year. Output growth had also recovered from the major recessions of 1984-1985. These are shown in Chart 2.

In the late 1980s and 1990s, the Philippines also exhibited many of the macroeconomic developments consistent with the theoretical literature on the effects of large capital inflows. The peso has been appreciating in real terms between 1988 and 1989, from P23.67 to the dollar to P23.13 to the dollar. The next significant real appreciations occurred in 1992 and 1994, relative to the immediately preceding years. Again, 1994 is a year when capital flows as a percentage of GDP surged. The current account deficit as a percentage of GDP widened from 3.42 percent in 1989 to 5.87 percent in 1990 and then again to 5.64 percent in 1993. Domestic savings as a

Chart 2:
GRQ = GDP Growth; INF = Inflation Rate; XINF = Depreciation Rate
1985=100



Source: National Statistical Coordinating Board; Central Bank of the Philippines

proportion of GDP declined in the 1990s and are similar to those in Latin America. These and other relevant data are shown in Table 1. By logic of BOP accounting, the difference between capital inflows and current account deficits imply an accumulation of official foreign reserve assets. The change in international reserves as a percentage of GDP increased during the periods of capital inflow surges. It increased to 1.04 percent in 1989 from 0.16 percent in the previous year; to 5.35 percent in 1991 from -0.77 percent in 1990; and to 1.9 percent in 1994 from 0.98 percent in 1993.

TABLE I

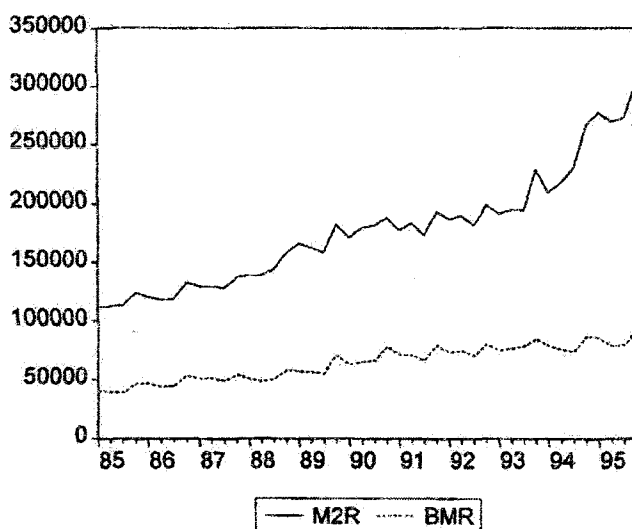
**GROSS DOMESTIC CAPITAL FORMATION (GDCF), Domestic Savings,
and Current Account (As Percent of GDP)**

YEAR	Private GDCF	Public GDCF	Total GDCF	Domestic Savings	Current Account
1981	17.13%	9.66%	26.80%	26.00%	-5.82%
1982	18.64%	8.54%	27.18%	24.33%	-8.60%
1983	18.76%	10.18%	28.94%	25.68%	-8.41%
1984	12.40%	9.88%	22.28%	20.09%	-3.28%
1985	9.77%	6.69%	16.47%	16.43%	-0.33%
1986	10.56%	5.51%	16.08%	17.16%	3.21%
1987	11.29%	5.19%	16.49%	20.51%	-1.33%
1988	12.92%	5.04%	17.96%	21.86%	-1.03%
1989	14.43%	5.70%	20.13%	20.47%	-3.42%
1990	14.75%	8.20%	22.94%	18.49%	-5.87%
1991	13.62%	6.19%	19.80%	18.14%	-1.93%
1992	13.72%	8.67%	22.39%	17.68%	-1.61%
1993	13.17%	9.18%	22.36%	15.67%	-5.64%
1994	14.41%	8.60%	23.01%	18.45%	-4.61%
1995	15.28%	7.81%	23.09%	21.32%	0.00%

*Source: National Statistical Coordinating Board
Central Bank of the Philippines*

Chart 3 shows that real M2 has been on a rising trend since 1989, with sharp increases in 1994-1995, coinciding with the most recent capital inflow surge. The same chart also shows that real base money has remained fairly stable throughout the period in question. The extent to which capital inflows are responsible for the increase in money is not immediately evident. Glick and Moreno (1994) have documented the sterilization measures undertaken by the monetary authorities. In some cases, sterilization attempts were not immediately undertaken. Moreno and Glick's study date sterilization measures as beginning in 1992. As shown in Chart 4A, the largest rate of international reserve accumulation occurred in 1991 to 1992 and 1994, yet real M2 levels have been on a rising trend since at least 1989. This suggests that if capital inflows led to increases in the money supply, ways other than reserve accumulation and monetary base expansion may be responsible.

Chart 3:
M2R = Real M2; BMR = Real Base Money
1985=100



Source: Central Bank of the Philippines

Chart 4A:
D(BGIRX) = Change in Gross International Reserves of the Central Bank
K = Capital Inflows
(US Million Dollars)

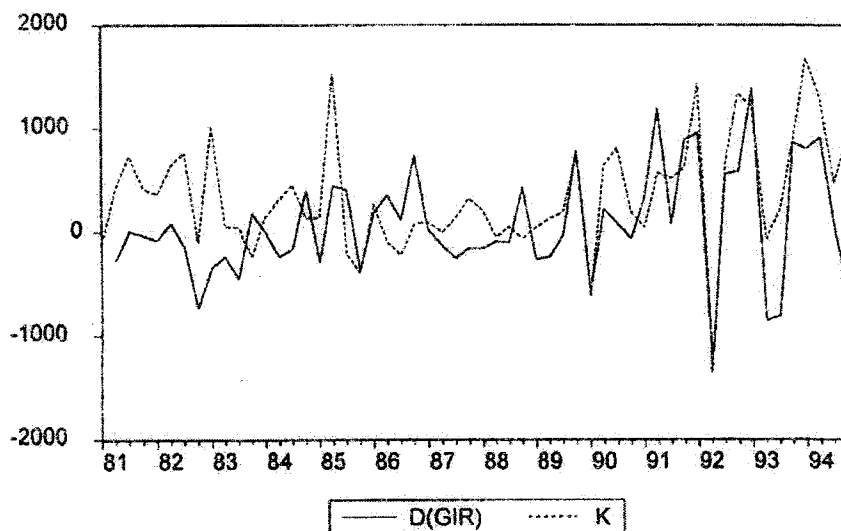
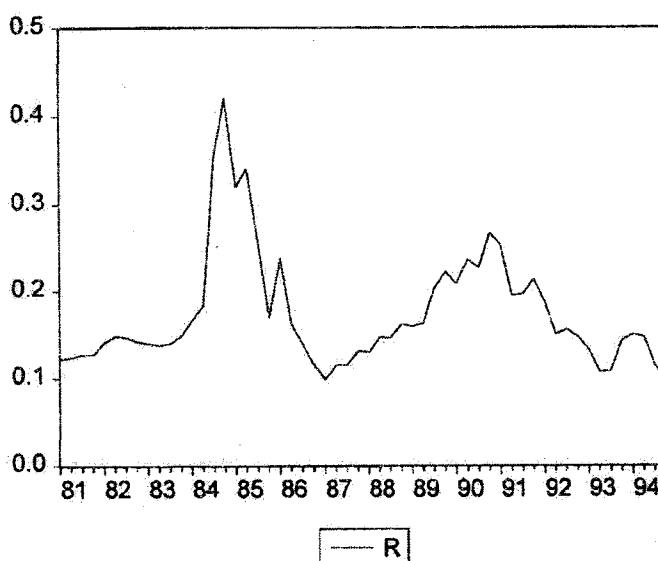


Chart 4B
R=91-day Treasury Bill Rate (Nominal)



Source: Central Bank of the Philippines

Chart 4B shows that with the exception of 1989 to 1990, interest rates were declining between 1991 and 1994, consistent with the theoretical proposition that capital inflows tend to lower domestic interest rates. The latter period was also one in which inflation was declining and real M2 was rising.

EMPIRICAL METHODOLOGY

Following Kamin and Wood (1996), an attempt is made to gauge the impact of capital inflows on the demand for money.³ First, an interest rate reaction function for the monetary authority is specified in which the interest rate is set in response to inflation, output growth, and capital flows.⁴ A conventional money demand equation is specified, with the interest rate and real income as arguments. The impact of capital flows on money demand can then be calculated using a two-stage procedure. The fitted values of the interest rate equation are substituted into the interest rate in the money demand equation. The impact of capital flows on money demand occurs indirectly, via interest rates:

$$\frac{M}{P} = L(r, Q)$$

$$r = r(P, Q, K)$$

where M/P is real money balances, r is the nominal interest rate, Q is output growth, P is the inflation rate, and K is capital flows.

Several assumptions are made. Increases in inflation lead authorities to raise nominal interest rates in order to keep real interest rates from declining. Increases in output growth lead the authorities to raise nominal interest rates to stabilize the cyclical behavior of output. Increases in capital inflows lead authorities to lower nominal interest rates because capital inflows increase the reserve holdings of the authorities and reduce the need for more inflows. Also by lowering nominal interest rates, future inflows are reduced and the cost of sterilization declines.

Quarterly data from 1982-1995 are used and error correction versions of the static money demand and interest rate equations are estimated. The most general specification of both equations are estimated, with explanatory variables with non-significant coefficients removed progressively. Two different measures of capital flows are used: the capital account, which measures net capital inflows to the Philippines,

and the change in international reserves, which reflects the impact of capital flows on base money without any sterilization. Both of these are scaled by lagged nominal M2. The interest rate used is the 91-day treasury bill rate. The inflation rate used is the log change in the consumer price index.

Simulations of counterfactual paths for interest rates and money demand are made, assuming that no capital inflows took place. To do this, the capital flow variable in the interest rate equation is set to zero. Two alternative measures of capital flows are used, namely, the capital account, and the change in international reserves. The results are compared to the actual paths of interest rates and money demand in order to see whether capital flows matter for interest rates and money demand.

A second estimation strategy is to include the variable for capital flows directly in the money demand equation. This estimation strategy is more general than the first one since the effects of capital flows on money demand include, but are not restricted to, their effects via interest rates. Capital flows may affect money demand directly by raising foreign currency deposits without necessarily affecting interest rates on peso-denominated assets. The counterfactual simulation experiments described above are repeated.

To examine the effects of capital inflows on consumption and investment, the following equations are estimated:

$$C = C(Q, i, \frac{M}{P}, K)$$

$$I = I(Q, Q, i, K, I_{-n})$$

where C is real consumption, I is real investment, Q is real output, Q is real output growth, i is real interest rate, M/P is real balances, and K is capital flows.

Error-correction models of each of these equations are estimated. In the real consumption equation, it is assumed that consumption demand is negatively affected by the real interest rate, positively affected by real output, and positively affected by the availability of bank credit, proxied by real money balances.

It is also assumed that investment demand is positively affected by real output, real output growth, and capital flows, and negatively affected by the real interest rate and by lagged investment.

EMPIRICAL RESULTS

Interest Rates, Real M2, and Capital Flows

The first column of Table 2 shows the results of estimating the basic interest rate equation without the capital flow variables. The lagged interest rate is significantly negative as expected, while lagged inflation and lagged changes in inflation are significantly positive as expected, except for the first lag of the change in inflation. The second column shows the results when the capital account is included in the equation. Both the lagged value of the capital account and the second lag of the change in the capital account have a significantly negative effect on the change in the interest rate. The third column shows that when the lagged change in international reserves is used as the capital flow variable, there is also a significantly negative effect on the change in interest rates, and the t-statistic is larger than those for the capital account. These are consistent with the proposition that capital inflows reduce the interest rate target either by reducing the need for the monetary authority to build-up its holdings of international reserves or by reducing pressure for the domestic currency to depreciate. The fourth column of the Table shows the results when both measures of capital flows are used. The lagged change in international reserves continues to be significantly negative while the effect of the capital account becomes insignificant. This suggests that international reserves may have a structural relationship with the interest rate while the capital account may only affect the interest rate indirectly, via international reserves. This is consistent with a monetary authority who cares about the level of international reserves and not about other effects of capital inflows.

The first column in Table 3 is the basic money demand equation. The interest rate coefficient is significantly negative while that on the log of output is significantly positive.

Chart 5 shows the results of the counterfactual simulation of the effect on interest rates and real money M2 levels assuming that the capital flow variable, the capital account in this case, is set to zero. In Chart 5A, the simulated path of the interest rate, indicated by the dashed line, shows that interest rates would have been higher than they actually were, shown by the solid line, in the absence of capital flows. This suggests that capital inflows to the Philippines reduced domestic interest rates below what they otherwise would have been.

Chart 5B shows the effect on real M2 assuming that the capital account in the interest rate equation is set to zero. The counterfactual simulation of the effect on real M2 shows that real M2 levels would have had a rising trend even in the absence of capital flows. This is more pronounced in the 1992 to 1994 period. These findings

TABLE 2

Estimation Results for the Interest Rate Reaction Function 7

Dependent Variable: Change in the 91-day Treasury Bill Rate

	BASIC EQUATION	WITH CAPITAL ACCOUNT	WITH CHANGE IN INT'L RESERVES	WITH BOTH	WITH CAPITAL ACCOUNT (IV)	WITH CHANGE IN INT'L RESERVES (IV)
Constant	-0.011 (0.006)	-0.004 (0.006)	-0.005 (0.005)	-0.004 (0.005)	-0.004 (0.006)	-0.005 (0.005)
Inflation (-1)	0.339 (0.163)	0.295 (0.157)	0.299 (0.131)	0.295 (0.133)	0.295 (0.153)	0.299 (0.131)
Change in Treasury	-0.335 (0.137)	-0.279 (0.134)	-0.284 (0.111)	-0.276 (0.116)	-0.0279 (0.134)	-0.284 (0.111)
Bill Rate (-1)	-0.356 (0.157)	-0.418 (0.146)	-0.363 (0.127)	-0.397 (0.127)	-0.418 (0.146)	-0.363 (0.127)
Change in	0.995 (0.168)	1.053 (0.156)	0.896 (0.137)	0.943 (0.139)	1.053 (0.156)	0.896 (0.137)
Inflation (-3)	0.551 (0.201)	0.648 (0.187)	0.561 (0.162)	0.617 (0.163)	0.648 (0.187)	0.561 (0.162)
Change in						
Inflation (-4)						
Capital Account (-1)		-0.183 (0.075)		-0.077 (0.071)	-0.183 (0.075)	
Change in Capital Account (-2)		-0.107 (0.047)		-0.065 (0.042)	-0.107 (0.047)	
Change in Int'l Reserves (-1)			-0.355 (0.068)	-0.292 (0.076)		-0.355 (0.068)
Adjusted R2	0.46	0.56	0.65	0.72	0.56	0.65
DW Statistic	1.86	1.73	1.87	1.77		

(Note: In this and succeeding Tables, standard errors are in parenthesis.)

TABLE 3

Estimation Results for the M2 Demand Function Including the Capital Flow Variable
Dependent Variable: Log of Real M2

	BASIC EQUATION	WITH CAPITAL ACCOUNT	WITH INT'L RESERVES	WITH BOTH	WITH CAPITAL ACCOUNT (IV)	WITH INT'L RESERVES (IV)
Constant	-5.203 (0.689)	-4.923 (0.707)	-5.180 (0.711)	-4.907 (0.749)	-4.859 (0.708)	-5.154 (0.754)
91-day Treasury Bill Rate	-0.163 (0.092)	-0.202 (0.094)	-0.171 (0.095)	-0.188 (0.097)	-0.226 (0.096)	-0.169 (0.101)
Log of Real Output	0.698 (0.082)	-0.711 (0.083)	-0.699 (0.085)	-0.687 (0.088)	-0.716 (0.083)	-0.694 (0.090)
Log of Real M2 (-1)	0.736 (0.044)	0.698 (0.040)	0.733 (0.044)	0.722 (0.042)	0.688 (0.046)	0.735 (0.045)
Capital Account (-1)		0.210 (0.110)		-0.176 (0.120)	0.236 (0.111)	
Capital Account (-2)		0.210 (0.106)			0.242 (0.108)	
Capital Account (-3)		0.265 (0.107)			0.299 (0.109)	
International Reserves (-1)			-0.007 (0.124)	-0.090 (0.136)		-0.010 (0.130)
Adjusted R2	0.97	0.96	0.96	0.96	0.96	0.97
DW Statistic	1.46	1.42	1.46	1.43		

Chart 5A

Capital Account set to zero in interest rate eqn.
R = actual 91-day Treasury Bill Rate; RZZ = Simulated R

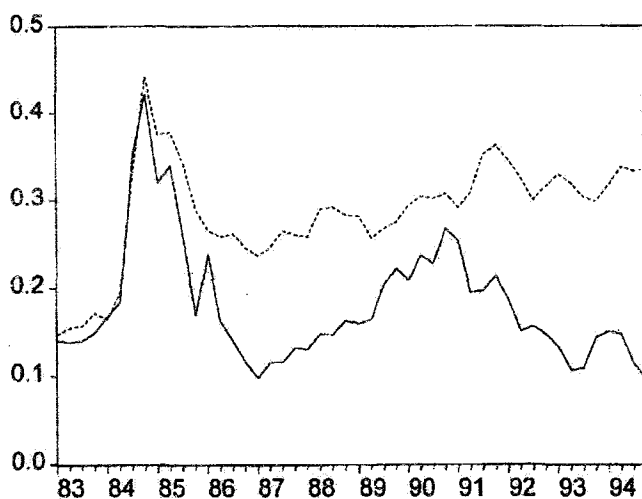
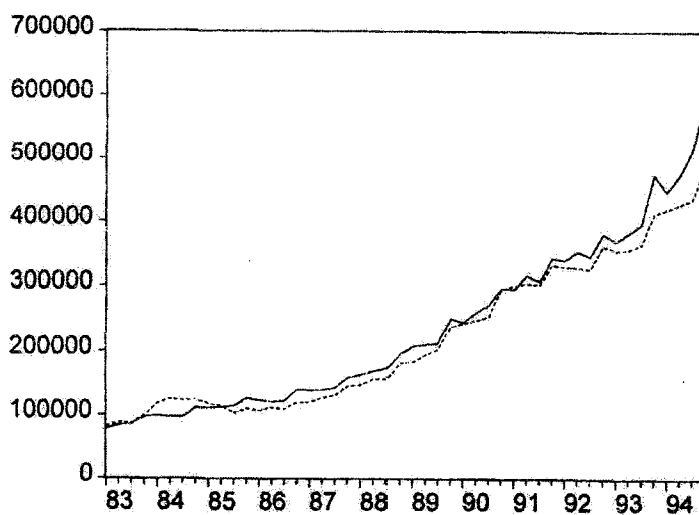


Chart 5B

Capital Account set to zero in interest rate eqn.
M2 = Actual M2; M2ZZ = Simulated M2



suggest that other economic developments, such as the decline in interest rates between 1985 and 1989 and 1991 to 1994 along with the decline in the rate of inflation, may have increased money demand, with corresponding increases in money supply. While the actual and simulated real M2 paths do not differ much from each other from 1990 to 1991, in general, rapid monetary growth in the 1990s cannot be attributed to capital inflows.

Similarly, Chart 6 shows the results of the counterfactual simulation on interest rates and real M2 levels assuming that the capital inflow variable, the change in international reserves, is set to zero in the interest rate equation. Chart 6A shows that interest rates would have been higher without capital flows, with the rise in interest rates being of a greater magnitude than that obtained when the capital account is used as the capital flow variable.

Chart 6B shows the effect on real M2 assuming that the change in international reserves in the interest rate simulation is set to zero. The counterfactual simulation shows, as in the previous case, that real M2 levels would have had a rising trend even in the absence of capital inflows.

Chart 6A
Change in International Reserves set to zero in interest rate eqn.
R = actual 91-day Treasury Bill Rate; RYY = Simulated R

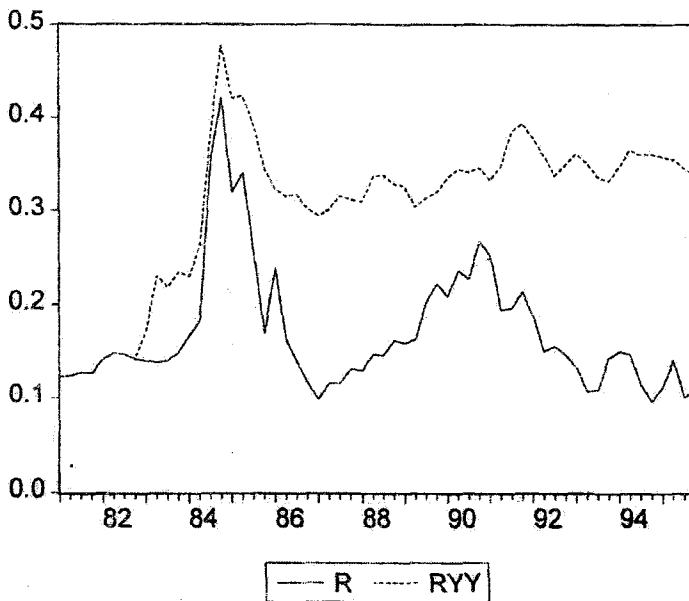
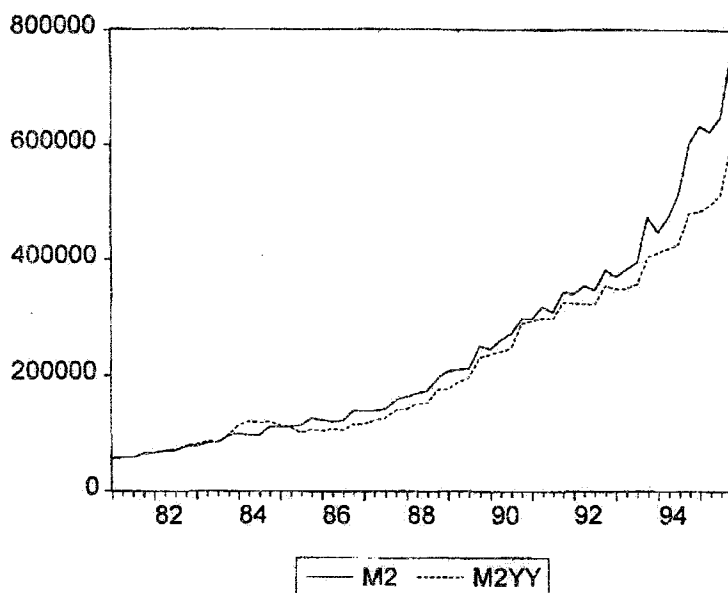


Chart 6B
 Change in International Reserves set to zero in interest rate eqn.
 M2 = Actual M2; M2YY = Simulated M2

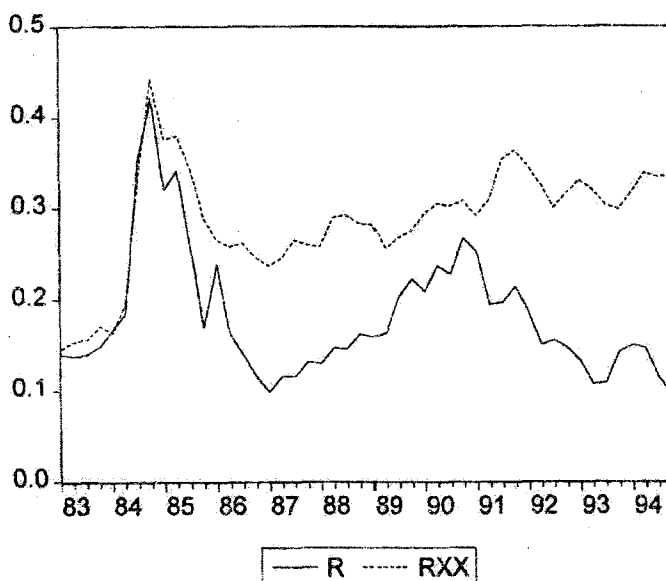


The simulations above only allow for an indirect effect of capital inflows on real M2, via the interest rate. To account for a direct channel in addition to this, the capital inflow variable was also directly included in the money demand equation. The results are shown in the second column of Table 3. The first through third lags of the capital account variable are significantly positive. When the lagged change in international reserves is used as the capital flow variable, the coefficient is negative and insignificant as shown in the third column. In the fourth column, both the lagged capital account and the lagged change in international reserves are included in the money demand equation. Although still positive, the lagged capital account becomes insignificant, although its t-statistic is larger than that for the change in reserves. The latter remains insignificantly negative.

The results obtained using the interest rate equation, in which reserve changes are more important than the capital account, are different from those obtained for money demand, in which the opposite is generally true. They suggest that the capital account affects monetary variables in ways other than through reserve accumulation and increases in monetary base. It is consistent with Chart 3, in which real M2

Chart 7A

Capital Account set to zero in interest rate eqn.; with capital variable in M2 Demand Function
 R = actual 91-day Treasury Bill Rate; RXX = Simulated R



increased over time even as base money remained stable. While there is always the danger that the present results may be spurious, it is possible that the channels through which the capital account influences monetary conditions changed in the 1990s.

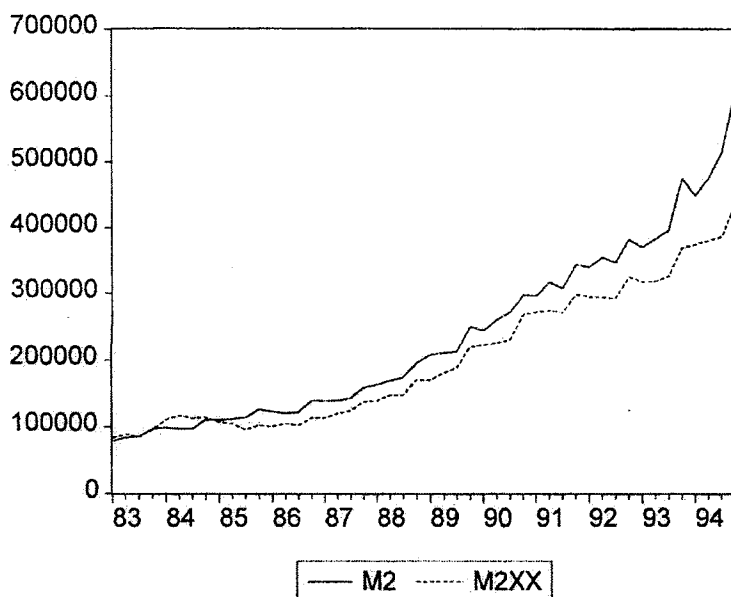
A counterfactual simulation in which the capital account is set to zero in the interest rate equation when the money demand equation includes the capital account variable is shown in Chart 7A. The results show that interest rates would have been higher in the absence of capital inflows.

Chart 7B unambiguously shows that real M2 demand would have been larger even in the absence of capital inflows.

Questions may be raised as to simultaneity bias arising from the interest rate in the money demand equation and from the possible endogeneity of capital flows with respect to the domestic interest rate. The equations in the second and third columns of Tables 2 and 3 were re-estimated using instrumental variables. The results are shown in the fifth and sixth columns of Tables 2 and 3. The results for the interest rate are identical while those for money demand show slightly larger coefficient magnitudes with no changes in their degree of significance.

Chart 7B

Capital Account set to zero in interest rate eqn.; with capital variable in M2 Demand Function
 M2 = Actual M2; M2XX = Simulated M2



Real Consumption Demand and Capital Flows

The estimation results for the real consumption function are shown in Table 4. The first column of Table 4 shows the estimation results for the basic equation, when the capital flow variables are excluded. The coefficient on the real interest rate is negative as expected but insignificant, while that on output growth is significantly positive as expected.⁵ The next column shows the results when the lagged real capital account is included, excluding the real interest rate as it is insignificant. The capital flow variable is scaled by lagged nominal M2 as in the previous cases. The lagged real capital account surprisingly enters negatively, as does the change in the real capital account, although neither of these is statistically significant.

Since different types of capital may have different effects on consumption demand, the types of capital flows were included separately in the consumption function. The third column in Table 4 shows the effects of real FDI on consumption. The coefficients on these are negative but insignificant. The theoretical presumption is that to the extent that FDI finances investment and imports of capital goods, FDI would not significantly affect present consumption. In contrast, portfolio inflows are

TABLE 4**Estimation Results for the Real Consumption Demand Equation****Dependent Variable: Log of Real Consumption**

	Basic Equation	With Capital Account	With Real FDI	With Real Portfolio Inflows
Constant	0.340 (1.051)	0.634 (1.108)	-0.174 (0.907)	0.921 (1.05)
Change in Real Interest Rate	-0.101 (0.324)			
Real Interest Rate (-1)	0.220 (0.318)			
Real Output Growth	0.789 (0.104)	0.763 (0.106)	0.852 (0.104)	0.846 (0.102)
Log of Real Output (-1)	0.147 (1.77)	0.133 (0.184)	0.365 (0.221)	0.398 (0.212)
Log of Real Consumption (-1)	0.819 (0.121)	0.809 (0.133)	0.641 (0.176)	0.512 (0.180)
Growth in Real Consumption (-1)	-0.258 (0.086)	-0.230 (0.087)	-0.172 (0.090)	-0.119 (0.090)
Real Capital Account (-1)		-0.117 (1.174)		
Change in Real Capital Account		-0.232 (0.121)		
Change in Real FDI (-1)			-0.300 (1.170)	
Change in Real FDI (-1)			-0.268 (1.358)	
Real Portfolio Inflows (-1)				2.247 (1.221)
Change in Real Portfolio Inflows				2.137 (1.743)
Adjusted R ²	0.87	0.87	0.90	0.91
DW Statistic	1.84	2.06	2.04	1.92

TABLE 5

Estimation Results for the Consumption Demand Including a Credit Availability
Variable Dependent Variable: Log of Real Consumption

	Basic Equation	Capital Account	With Real FDI	With Real Portfolio Inflows
Constant	5.012 (1.831)	5.190 (1.866)	4.748 (1.501)	4.481 (1.473)
Change in Real Interest Rate	-0.060 (0.356)			
Real Interest Rate (-1)	-0.033 (0.358)			
Real Output Growth	0.379 (0.173)	0.351 (0.162)	0.611 (0.135)	0.633 (0.134)
Log of Real Output (-1)	-0.425 (0.250)	-0.424 (0.269)	-0.031 (0.213)	-0.080 (0.219)
Log of Real Consumption (-1)	0.714 (0.125)	0.633 (0.134)	0.186 (0.193)	0.184 (0.194)
Growth in Real Consumption (-1)	-0.197 (0.096)	-0.162 (0.087)	0.033 (0.098)	0.034 (0.098)
Log of Real M2 (-1)	0.288 (0.106)	0.352 (0.124)	0.368 (0.095)	0.344 (0.108)
Growth in Real M2	0.381 (0.202)	0.403 (0.183)	0.222 (0.174)	0.220 (0.165)
Real Capital Account (-1)		-0.017 (0.165)		
Growth in Real Capital Account		-0.197 (0.112)		
Change in Real FDI (-1)			0.571 (1.055)	
Change in the Real FDI			0.261 (1.231)	
Real Portfolio Inflows (-1)				0.215 (1.282)
Change in Real Real Portfolio Inflows (-1)				0.688 (1.651)
Adjusted R2	0.89	0.87	0.92	0.92
DW Statistic	1.61	1.62	1.55	1.59

thought to increase consumption demand as they tend to increase bank deposits and hence, bank loans and consumption. The fourth column in Table 4 shows that lagged real portfolio inflows have a positive and near significant effect on real consumption demand.

If the effect of capital flows on consumption demand works primarily through an availability of bank credit channel, this would have the effect of reducing the coefficient on the capital account and portfolio investment. In Table 5, real M2 is used as a proxy for credit availability in the consumption equation. Lagged real M2 is significantly positive as expected. When the real interest rate is dropped from the equation as it is insignificant, the growth of real M2 is still positively significant. The second column of Table 5 shows the results when the real capital account variable is included in a consumption function with a variable for the availability of credit. The coefficients on the capital account variables are still insignificant, but including real M2 does reduce slightly the size of the coefficient on the lagged capital account variable. The third column shows the results when FDI is included in the consumption function. The coefficients on FDI are positive but statistically insignificant. The fourth column shows the results when portfolio flows are included in the consumption equation. The coefficients on portfolio inflows are positive but not statistically significant.

Overall, the results in Tables 4 and 5 show that in general, capital flows do not have a direct and significant effect on consumption demand. While portfolio inflows have a near significant positive effect on consumption demand, this effect appears to work through the availability of credit channel proxied by real M2, as it consistently shows a significantly positive effect on consumption demand. In fact, the near significance of portfolio inflows in the consumption demand equation disappears when real M2 is included in the equation. FDI flows do not tend to raise consumption demand.

Real Investment Demand and Capital Flows

Table 6 shows the results of estimating an equation for real investment demand.⁶ In the first column, no capital flow variables are included. Output growth and lagged output growth are significantly positive. The real interest rate enters negatively but is not significant. Lagged investment is significantly positive, in contrast with theoretical predictions. The second column shows the results when the lagged real capital account and the growth in the real capital account are included. They both have significant positive coefficients. The third column shows the effects of lagged changes in real FDI and the growth of real FDI on investment demand. While both have positive coefficients, neither of them is significant. The fourth column shows

TABLE 6

Estimation Results for Real Investment Demand Equation

Dependent Variable: Log of Real Investment Demand

	Basic Equation	Capital Account	With Real FDI	With Real Portfolio Inflows
Constant	-8.478 (2.800)	-13.029 (3.548)	-18.155 (2.896)	-18.988 (3.519)
Real Interest Rate (-1)	-0.350 (0.890)	-0.995 (0.972)		
Change in Real Interest Rate	0.202 (0.870)	-1.004 (0.954)		
Growth in Real Output	1.452 (0.233)	1.664 (0.236)	1.734 (0.204)	1.790 (0.216)
Log of Real Output	1.042 (0.292)	1.565 (0.392)	2.252 (0.325)	2.296 (0.367)
Log of Real Output (-1)	0.612 (0.111)	0.442 (0.146)	0.135 (0.121)	0.169 (0.121)
Log of Real Investment (-1)	0.013 (0.124)	-0.004 (0.119)	0.027 (0.101)	0.040 (0.099)
Real Capital Account (-1)	(0.492)	1.210		
Growth in Real Capital Account		0.991 (0.305)		
Change in Real FDI (-1)		(2.983)	3.035	
Change in the Real FDI			1.831 (0.531)	
Real Portfolio Inflows (-1)				-2.296 (3.018)
Change in Real Real Portfolio Inflows (-1)				-6.579 (4.419)
Adjusted R2	0.76	0.79	0.85	0.86
DW Statistic	2.05	2.06	2.22	2.20

that portfolio inflows do not have a statistically significant effect on investment, and they have unexpected negative signs. Overall, the results show that level of the lagged real capital account and real capital account growth significantly affect investment demand in a positive manner. However, it is unclear whether this is through FDI or portfolio inflows as both of these variables are statistically insignificant. Given the incorrect negative sign on the portfolio inflows variable, it is more likely that the overall positive effect of capital inflows on investment demand comes from real FDI growth.

SUMMARY AND CONCLUSIONS

This study attempts to empirically assess the extent to which capital inflows have affected macroeconomic performance in the Philippines using quarterly data from 1982 to 1995. It examines the effects of capital inflows on interest rates, real money demand, real consumption demand, and real investment demand. The empirical methodology follows Kamin and Wood (1996) and estimates the impact of capital inflows on money demand indirectly, via interest rates, as well as directly. Error correction versions of the money demand and interest rate equations are estimated. To the degree that capital flows significantly affect interest rates and money demand, the simulated paths of these, assuming no capital inflows, would be different from the actual. This would provide evidence that financial markets have become more integrated as factors other than purely domestic policies affect macroeconomic performance. In the Philippines, large capital inflows occurred beginning in late 1989. Consistent with the theoretical literature on the effects of large capital inflows, the Philippine peso appreciated in real terms, and the current account generally deteriorated in these periods.

The results show that the capital account has a significantly negative effect on changes in the domestic interest rate. The same result is obtained when the change in international reserves is used as the capital flow variable. These results imply that interest rates would have been higher in the absence of capital inflows.

In contrast, the simulation results show that real M2 demand would have continued its rising trend even in the absence of capital inflows, using the capital account as the capital flow variable. This finding suggests that factors other than capital flows *per se*, such as successful domestic reform measures which lowered inflation, may be responsible for increased money demand and the expansion of monetary aggregates.

While the results suggest that reserve changes have a structural relationship with interest rates, it appears that the demand for money is influenced by the capital

account, although not primarily by increasing reserves. This seems to be consistent with the data that show that in the face of large capital inflows, the Central Bank accumulated large amounts of reserves without causing any large increases in base money, indicating that these flows were sterilized. There may be other channels of influence from the capital account to money demand and the importance of these may have changed over time. The return to voluntary capital markets, reductions in the public sector deficit, financial liberalization, and changes in the money multiplier may have become more important.

Capital flows do not have a significant effect on real consumption demand. While real portfolio inflows have a nearly significant positive impact on real consumption demand, this effect appears to work through the availability of credit channel. The lagged level of the real capital account and real capital account growth significantly affect real investment demand in a positive manner, more likely through real FDI growth rather than real portfolio inflows.

The results also lend support to the notion that FDI flows are preferable to portfolio inflows from a growth perspective, as the former tend to be channeled to real investment demand rather than real consumption demand. In the final analysis, policymakers cannot attribute macro performance to capital flows alone. While the importance of external factors on domestic macroeconomic performance in an integrated world is heightened by capital flows, the effects of these also depend on the degree to which the monetary authorities can control the money supply or the availability of credit.

NOTES

- 1 There was a large increase in the capital account in the second quarter of 1985 but it did not persist. This temporary phenomenon coincided with a tight money policy to control inflation in the previous two years, during which the country experienced its largest postwar recessions. More frequent capital inflow surges began in late 1989.
- 2 In 1982, interest rate decontrol began a year earlier was completed. In 1992, the foreign exchange market was likewise liberalized. Official pronouncements by the Central Bank state that the exchange rate was henceforth to be determined by market forces.
- 3 Kamin and Wood stress that while capital inflows directly affect the supply of money in theory, the linkages between capital flows and the money supply are not likely to remain constant over time. Hence, they attempt instead to estimate the impact of capital inflows on the demand for money.
- 4 Gochoco (1991) finds evidence for the equivalence between interest rate targeting and exchange rate targeting.

- 5 The real interest rate used here is ex-post, calculated as the difference between the nominal interest rate and the actual rate of inflation.
- 6 The investment data used here include both private and public gross capital formation as the data for gross private capital formation alone are not available on a quarterly basis.

REFERENCES

- Buchanan, J. 1965. An Economic Theory of Clubs. *Economica*, 32:1-14.
- De Dios, E. 1995. On Recent Financial Flows; Causes and Consequences. In R. Fabella, and H. Sakai (eds.) *Towards Sustained Growth*. Tokyo: Institute for Developing Economies.
- Harris, R. and J. Kraft. 1997. Meddling Through: Regulating Local Telephone Competition in the United States. *The Journal of Economic Perspectives*, 11:92-112.
- Hausman, J. 1998. Taxation by Telecommunications Regulation. In J. Poterba (ed.) *Tax Policy and the Economy* 12, National Bureau of Economic Research. Cambridge, Massachusetts: MIT Press
- Irwin, T. 1997. Prices, Cross-Subsidies, and Competition in Infrastructure. In *The Private Sector in Infrastructure: Strategy, Regulation, and Risk*. World Bank, Washington D.C.
- Joskow, P. 1998. Regulatory Practice for Reforming Infrastructure Sectors in Developing Countries. Prepared for the Annual World Bank Conference on Development Economics. Washington D.C.
- Posner, R. 1971. Taxation by Regulation. *Bell Journal of Economics and Management Science*, 2:22-55.
- Viscusi, K. et al. 1995. *Economics of Regulation and Antitrust*. Cambridge, Massachusetts: MIT Press
- World Bank. 1994. *World Development Report: Infrastructure for Development*. Washington D.C.
- World Bank. 1997. *The Private Sector in Infrastructure: Strategy, Regulation, and Risk*. Washington D.C.
- World Bank. 1997. *Infrastructure Strategies in East Asia: The Untold Story*. Washington D.C.



A GLOBAL CAPITAL STRATEGY IN THE EMERGING WORLD ENVIRONMENT

ROSEMARIE L.G. EDILLON*

INTRODUCTION

Over the past six years, globalization has demonstrated that it can just easily display its indulgent smile as its disapproving frown — rewarding the “strong” and punishing the “weak.” The question remains, though, if it has patience to give room for the weak to strengthen itself.

Up until two years ago, our dream of becoming a tiger economy seemed attainable; our strategy, well-defined. It will be as our neighbors had done — liberalize trade, encourage foreign investments, promote exports. However, our experience in the last couple of years makes us rethink our strategy. There are suggestions that openness to foreign capital spelled the fall of Asian economies. The most prominent position is that of Prime Minister Mahathir of Malaysia who went to the extent of instituting capital controls to contain the crisis. In addition, the two economies in the region, Chinese Taipei and China, which have not really opened up its capital mar-

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kets, seem to have been insulated from the Asian virus and are the ones expected to still post positive economic growth. There has also been a perception that the international capital market is so full of imperfections mostly arising from information asymmetries. Players are not able to adequately price the risks of international transactions. George Soros, for instance, has called for the creation of an International Credit Insurance Corporation that would guarantee international loans to a country up to a limit.

This paper seeks to describe the impact of increasing globalization to capital. The next section discusses the framework while the third section presents empirical results. The fourth section examines the effect of global agreements and in this context, how we can strategize to attract capital. We conclude the paper with a summary of observations and recommendations.

THE CAPITAL TRANSFORMATION PARADIGM

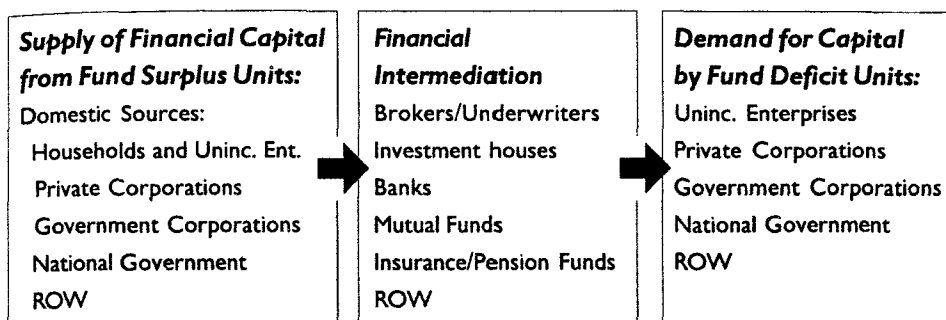
Growth models, whether neoclassical or endogenous models, posit saving rate and productivity of capital as engines of growth. The illustration is that of a virtuous cycle of increased savings being able to finance more investments, leading to higher output/income, and therefore more savings, and so on. However, with open capital markets, the relationship between saving behavior and investments is obscured. Domestically mobilized savings can be invested abroad. Similarly, foreign savings can be channeled anywhere. Thus, with capital mobility (as a consequence of increasing globalization), the problem of domestic resource mobilization is compounded with the problem of encouraging these resources to remain in the domestic economy.

Savings constitute the supply of financial capital. It is motivated by the prospect of being adequately rewarded for forgoing current consumption. The distinction between financial and physical capital is necessary, and as applied in the past, rather unfortunate. By convention, physical capital is considered part of the real sector of the economy. Financial capital, on the other hand, is viewed only as a means of obtaining the physical capital.

The key to understanding how financial capital can be mobilized and encouraged to remain in the domestic economy is in realizing that financial capital transforms into physical capital only after a process of financial intermediation. Furthermore, several different players are involved. Figure 1 illustrates this paradigm. Fund surplus units supply the financial capital. Financial intermediaries mobilize the financial capital and allocate the same to the users of capital. In some cases, they act only

as conduit between the suppliers and demanders of surplus funds, e.g. brokers, dealers, and underwriters. In other cases, intermediation involves a process called asset transformation so that the form of surplus funds being sold to the users of capital is different from when it was originally supplied. This type of opaque intermediation is being performed by banks, mutual funds, insurance companies, and pension funds.

Figure 1. The Capital Transformation Paradigm



Meanwhile, the users of capital are primarily the corporate sector, and the public sector. Financial capital is utilized either for operating expenses or physical capital formation.

SOME STYLIZED FACTS AND EMPIRICAL RESULTS

Fund Surplus Units

Domestic Savers

Domestic resource mobilization remains the biggest problem of our country. Table 1 shows the breakdown of net national saving by institution. Up until 1991, the proportion of saving by an institution has been directly related to its share in the net national income. Beginning 1992, we see a disturbing pattern where households and unincorporated enterprises receive at least 80 percent of income and yet share only at most 25 percent to net national saving. We see a parallel picture concerning net savings rate by institution.

The results concerning private corporations support the optimal saving rule — that the amount you save is directly proportional to the income growth level you desire. We see the institution's share in net savings increasing by almost four-fold

Table 1.

Fund Surplus Units

	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Net National Income	224964	714907	833075	985618	1151632	1262233	1369755	1584845	1786569	2070906	2318874
(In million pesos)											
<i>Private Corporation</i>	3516	29661	21932	30134	39655	83157	89538	122190	135725	165481	198055
<i>Government Corporation</i>	2538	5129	134	4720	-12592	-4893	424	6581	13358	22748	22397
<i>General Government</i>	22756	45371	64858	50528	94956	114119	123895	144099	162848	172492	243355
<i>Households</i>	196154	645004	746151	900236	1029613	1069850	1155898	1311975	1474638	1710185	1855067
Net National Saving	49206	100047	113367	125888	134015	133246	115369	175323	188964	228005	304054
(In million pesos)											
<i>Private Corporation</i>	362	15625	7020	10903	14090	52536	56306	77368	69151	75327	92041
<i>Government Corporations</i>	2336	-6360	-1692	-764	-17409	-8437	-6320	3576	7997	11281	11514
<i>General Government</i>	11464	11659	26219	10036	52675	70621	58524	68061	73795	90180	125321
<i>Households and Uninc.</i>	35044	79123	81820	105713	84659	18526	6859	26298	38021	51217	75178
Net National Income, Distribution by Institution											
(In percent)											
<i>Private Corporation</i>	1.56	4.15	2.63	3.06	3.44	6.59	6.54	7.71	7.60	7.99	8.54
<i>Government Corporations</i>	1.13	-0.72	0.02	0.48	-1.09	-0.39	0.03	0.42	0.75	1.10	0.97
<i>General Government</i>	10.12	6.35	7.79	5.13	8.25	9.04	9.05	9.09	9.12	8.33	10.49
<i>Households and Uninc.</i>	87.19	90.22	89.57	91.34	89.40	84.76	84.39	82.78	82.54	82.58	80.00

Net Saving, Distribution by Institution (In percent)											
<i>Private Corporation</i>											
	0.74	15.62	6.19	8.66	10.51	39.43	48.81	44.13	36.59	33.04	30.27
<i>Government Corporations</i>											
	4.75	-6.36	-1.49	-0.61	-12.99	-6.33	-5.48	2.04	4.23	4.95	3.79
<i>General Government</i>											
	23.30	11.65	23.13	7.97	39.31	53.00	50.73	38.83	39.05	39.55	41.22
<i>Households and Uninc.</i>											
	71.22	79.09	72.17	83.97	63.17	13.90	5.95	15.00	20.12	22.46	24.73
Net Saving Rate by Institution											
<i>Private Corporation</i>											
	10.30	52.68	32.01	36.18	35.53	63.18	62.89	63.32	50.95	45.52	46.47
<i>Government Corporations</i>											
	92.04	124.00	-1262.69	-16.19	138.25	172.43	-1490.57	54.34	59.87	49.59	51.41
<i>General Government</i>											
	50.38	25.70	40.43	19.86	55.47	61.88	47.24	47.25	45.32	52.28	51.50
<i>Households and Uninc.</i>											
	17.87	12.27	10.97	11.74	8.22	1.73	0.59	2.00	2.58	2.99	4.05
Net Saving Rate (weighted)											
<i>Private Corporation</i>											
	0.16	2.19	0.84	1.11	1.22	4.16	4.11	4.88	3.87	3.64	3.97
<i>Government Corporations</i>											
	1.04	-0.89	-0.20	-0.08	-1.51	-0.67	-0.46	0.23	0.45	0.54	0.50
<i>General Government</i>											
	5.10	1.63	3.15	1.02	4.57	5.59	4.27	4.30	4.13	4.35	5.40
<i>Households and Uninc.</i>											
	15.58	11.07	9.82	10.73	7.35	1.47	0.50	1.66	2.13	2.47	3.24
<i>All Institutions</i>											
	21.87	13.99	13.61	12.77	11.64	10.56	8.42	11.06	10.58	11.01	13.11

Source: NIA, various issues

between 1991 and 1992 and true enough, its share in income increased by almost nine-fold between 1992 and 1993.

While we welcome the fact that the slack in savings by the households and unincorporated enterprises has been taken up by private corporations, such pattern does not augur well for distributional equity. Since earnings of private corporations largely accrue to those in the upper economic echelons and without any dramatic changes in the savings pattern by institutions, we would then see the rich getting richer in the future. In fact, such was the case between the periods 1991 and 1994, as shown in Edillon, Yap and Yap (1997).

ROW Savers

Globalization makes it possible for us heavy spenders to tap fund surplus units abroad. Table 2 details the net external resource flows to the country during the period 1991-1996 and including 1980. Immediately we see the dramatic rise of net portfolio flows beginning 1992. Likewise, bonds have become important sources of external funds. Except for the steep decline in 1992, foreign direct investment has also been on the rise. In fact, arguing on the basis of fungibility of foreign funds from private sources, one can say that the would-have-been foreign direct investors briefly

Figure 2. Exponentially Smoothed Series of Gross National Saving, Gross Domestic Investment and Current Account Balance (% of GDP)

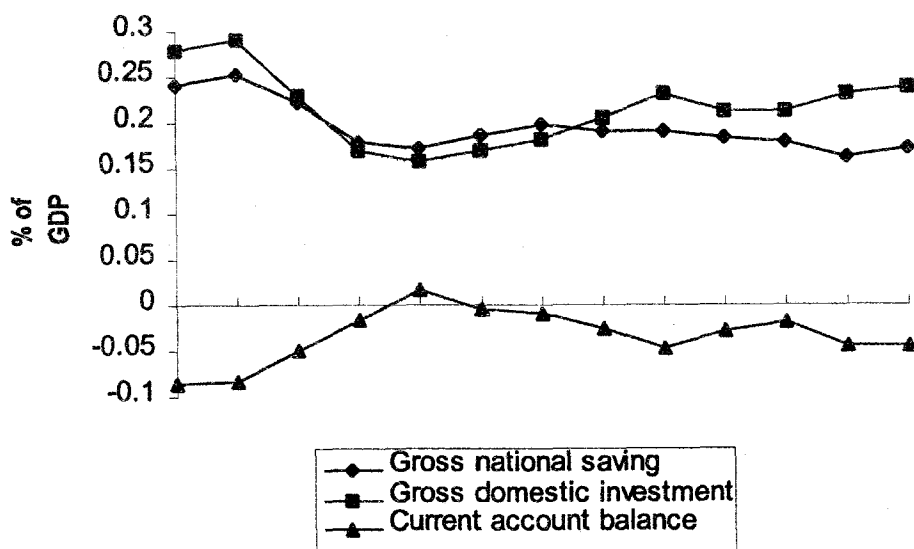


Table 2.

Net External Resource Flows to the Philippines

Net External Resource Flows	1980	1991	1992	1993	1994	1995	1996
Aggregate							
Long-term Net	1266	1488	896	4501	5245	4230	4537
Resource Flows							
(\$million)							
of which:							
Net flows from							
official sources	426	1091	1673	1235	509	-351	-63
Net flows from							
private sources	840	397	-777	3266	4736	4581	4600
of which:							
Foreign Direct							
Investment	-106	544	228	1238	1591	1478	1408
Portfolio Equity							
Investment	0	0	333	1445	1407	1961	1333
Commercial							
Banks	766	-343	-1429	-112	-19	20	-180
Bonds	80	124	-52	734	972	1060	2319
Short-term Net							
Debt Flows ...	452	429	-221	681	-437	2690	
Memo items:							
Aggregate							
Long-term Net	3.90	3.23	1.65	8.13	7.97	5.55	5.21
Resource							
Flows/GNP (%)							
Net Flows from							
Private Sources/	66.35	26.68	-86.72	72.56	90.30	108.30	101.39
Aggregate							
Long-term Net							
Resource Flows (%)							
Composition of							
Net Flows from							
Private Sources							
(% of Total Private)							
Bonds	9.52	31.23	6.69	22.47	20.52	23.14	50.41
Bank Lending	91.19	-86.40	183.91	-3.43	-0.40	0.44	-3.91
Net Foreign							
Direct							
Investment	-12.62	137.03	-29.34	37.91	33.59	32.26	30.61
Net Portfolio							
Equity							
Investment	0.00	0.00	-42.86	44.24	29.71	42.81	28.98

Source: *Global Development Finance, 1998; Author's estimates*

Table 3.

Accumulation of Capital and Sources of Finance

	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Accumulation of Capital (million pesos)	70898	149193	199900	260165	252327	288401	361453	407367	427896	521605	601953
<i>Gross fixed capital formation</i>	66350	142226	192665	248954	250147	282783	358401	400139	423197	508745	593284
<i>Changes in stocks</i>	4548	6967	7235	11211	2180	5618	3052	7228	4699	12860	8669
Finance of Gross Accumulation (million pesos)	70898	149193	199900	260165	252327	288401	361453	407367	427896	521605	601953
<i>Net National Saving</i>	49206	100047	113367	125888	134015	133246	115369	175323	188964	228005	304054
<i>Depreciation</i>	17113	67162	72384	82456	98398	109082	132049	151537	171986	190433	208017
<i>Foreign Saving</i>	10447	-10593	22188	55122	12650	25703	86235	31339	65173	89476	84794
<i>Statistical Discrepancy</i>	5868	7423	8039	3301	-7264	-20370	-27800	-49168	1773	13691	5088
Finance of Gross Accumulation (in percent)											
<i>Net National Saving</i>	69.40	67.06	56.71	48.39	53.11	46.20	31.92	43.04	44.16	43.71	50.51
<i>Depreciation</i>	24.14	45.02	36.21	31.69	39.00	37.82	36.53	37.20	40.19	36.51	34.56
<i>Foreign Saving</i>	14.74	-7.10	11.10	21.19	5.01	8.91	23.86	7.69	15.23	17.15	14.09

Source: NIA, various issues

experimented on portfolio investments to take advantage of the liberalization of foreign exchange controls at the time.

Comparing the trends of gross domestic investment, gross national savings, and foreign savings illustrates the participation of the Philippines to widespread globalization. Figure 2 plots the exponentially-smoothed series of the above aggregates expressed as percentages of GDP. Prior to 1986 and beginning 1990, investments outstripped national savings. However, the big difference lies in the behavior of the resource gap. Prior to 1986, investments moved in tandem with savings. In contrast, the trend of investments beginning 1990 has been widely divergent from that of savings, while being congruent to that of foreign savings.

Meanwhile, we see in Table 3 that foreign savings has been financing an average of about 16 percent of our gross accumulation requirements during the period 1993-1997 compared to only about 11 percent in 1989-1991.

Performance of Financial Intermediaries

Domestic FIs

The finance sector contributes more than 4 percent to the country's GDP in constant terms during the 1990s. The sector has even proven its resilience growing at 13 percent in 1997, only a slight moderation from its 1996 growth of 13.8 percent. In fact, the sector is expected to post positive growth for the year, in stark contrast to the agriculture and industry sectors. Banks remain the dominant industry group in the sector even with the identified stock market boom in 1993 (Table 4).

1. Banks

For the fiscal year ending 31 March 1997, 24 Philippine banks figured in Asia's top 500. Taken together, they demonstrate a profitability rate of 1.95 percent,¹ the highest in the region. Of the six that figure in the top 300 in terms of assets, four are ranked among the top 100 in terms of rate of profit growth.

Six of the country's 10 largest banks — Metrobank, BPI, RCBC, FEBTC, PCIBank, and PNB — continue to be among the 20 most active stocks being traded in the local bourses in terms of market capitalization.² Recently, the *Business World* surveyed selected commercial banks. Some selected statistics are reproduced in Table 5. Quite expectedly, foreign banks are about twice more liquid and almost twice as vigilant in intermediation than private domestic banks.³ It must be noted that the mean intermediation ratio of 97 percent by private domestic banks is much higher than that of Asia's biggest bank — Bank of Tokyo-Mitsubishi with a ratio of 91.7 percent. Table 6 shows the profile of gross domestic credits extended by deposit

Table 4.

Gross Value Added in Finance At Constant Prices

	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Gross Value Added by Industry Group (In million pesos)											
Banks	12360	16417	19094	21443	20274	20277	20734	21886	23541	27261	31326
Non-banks	5173	2516	2883	2979	3067	3126	3226	3396	3608	3879	4137
Insurance	6470	4912	5284	5546	5773	5814	5949	6264	6703	7373	8044
GVA in Finance	24003	23845	27261	29968	29114	29217	29909	31546	33852	38513	43507
Distribution by Industry Group (% of GVA in Finance)											
Banks	51.49	68.85	70.04	71.55	69.64	69.40	69.32	69.38	69.54	70.78	72.00
Non-banks	21.55	10.55	10.58	9.94	10.53	10.70	10.79	10.77	10.66	10.07	9.51
Insurance	26.95	20.60	19.38	18.51	19.83	19.90	19.89	19.86	19.80	19.14	18.49
(% of GDP)											
GVA in Finance	3.94	3.62	3.90	4.16	4.06	4.06	4.06	4.07	4.12	4.11	4.36
% change (y-on-y)											
Banks		16.31	12.30	-5.45	0.01	2.25	5.56	7.56	15.80	14.91	
Non-banks			14.59	3.33	2.95	1.92	3.20	5.27	6.24	7.51	6.65
Insurance			7.57	4.96	4.09	0.71	2.32	5.30	7.01	10.00	9.10
GVA in Finance			14.33	9.93	-2.85	0.35	2.37	5.47	7.31	13.77	12.97

Source: NIA, various issues

Table 5.

Selected Financial Ratios of Commercial Banks

Financial Ratios	Liquidity Ratio			Solvency Ratio			Intermediation Ratio			Efficiency Ratio		
	q2 '97	q1 '97	q2 '96	q2 '97	q1 '97	q2 '96	q2 '97	q1 '97	q2 '96	q2 '97	q1 '97	q2 '96
Selected Commercial Banks												
BPI	0.3313	0.3146	0.4171	0.2659	0.2648	0.2832	0.9052	0.8783	0.7499	0.6737	0.6264	0.6632
FEBTC	0.3792	0.3945	0.3243	0.1908	0.1951	0.1633	0.9116	0.8980	0.9413	0.7776	0.7859	0.7928
MBTC	0.3554	0.3789	0.3320	0.2574	0.2637	0.2418	0.9675	0.9362	1.0488			
PCIB	0.2779	0.2668	0.2106	0.2254	0.2292	0.2240	1.0618	1.1084	1.0674			
PNB	0.3367	0.3562	0.4167	0.1781	0.1996	0.2197	0.7644	0.7535	0.6477			
RCBC	0.2400	0.2448	0.2376	0.1831	0.1562	0.1636	1.0269	1.0076	1.0151	0.8028	0.8171	0.8205
Private Domestic Banks												
	0.3155	0.3206	0.3283	0.2157	0.2144	0.2190	0.9687	0.9555	0.9384			
Foreign Banks	0.6886	0.7640	0.7191	0.0806	0.0900	0.1161	1.9430	1.7709	2.0514			
Government Bank	0.4473	0.4341	0.4142	0.1765	0.1773	0.1798	0.7901	0.8186	0.7989			
Note: Liquidity ratio = liquid assets/(total deposits+bills payable)										Solvency ratio = capital accounts/total loans		
Intermediation ratio = total loans/total deposits										Efficiency ratio = total expenses/total income		

Source: *Business World*, 18 August 1997

PERCENTAGE SHARE

End of Period	DOMESTIC SECURITIES				LOANS AND ADVANCES						
	Grand Total	Local		Private businesses and individuals	Total	Local		Credit to Central Bank CB-BOI			
		National Govern- ment	gov't semi- gov't entities			gov't and semi- gov't entities	Private and individuals				
1988	100.0	23.1	18.8	0.7	3.5	76.6	1.9	6.6	68.1	0.3	
1989	100.0	25.2	21.6	0.4	3.1	74.4	1.7	6.1	66.6	0.5	
1990	100.0	22.2	18.7	0.5	3.1	77.5	1.6	6.3	69.5	0.3	
1991	100.0	20.6	16.7	0.5	3.4	73.5	1.7	5.7	66.1	5.9	
1992	100.0	24.2	20.1	0.6	3.5	74.8	1.2	4.9	68.7	0.9	
1993	100.0	18.7	14.3	0.5	3.9	77.1	0.8	4.0	72.3	0.4	3.7
1994	100.0	21.8	17.6	0.5	3.7	74.4	0.3	6.8	71.8	0.1	3.6
1995	100.0	19.7	15.8	0.4	3.6	77.3	0.1	1.7	75.5	0.0	3.0
1996	100.0	18.1	14.9	0.2	3.0	79.8	0.1	1.4	78.2	0.0	2.1

Source: PSY 1997.

money banks. For the period 1988 to 1992, loans extended to private businesses and individuals averaged 68 percent of grand total, while beginning 1993, this share increased to 73 percent. This difference in profile has been complemented by marked decreases in investments in national government securities. Since the national government has been running fiscal surpluses around this period, then it may not be a conscious move by deposit money banks to favor private businesses and individuals over the national government. On the other hand, it demonstrates how prudent fiscal spending can induce banks to increase lending to private entities.

Referring back to Table 5, we find a curious situation that while the liquidity ratio of foreign banks has been decreasing at the same time that intermediation ratio has been decreasing, the liquidity ratio of private domestic banks has been on the decline while intermediation ratio has been on the rise. As yet, this should not be cause for alarm since the industry maintains a very high tier one capital-to-asset ratio of about 18 percent. For the second quarter of 1998, most commercial banks have increased their liquidity ratios and have decreased their intermediation ratios. The highest intermediation ratio among commercial banks was only 0.8920. Earlier in the year, banks have increased lending rates which proved to be too prohibitive for most borrowers. Even with the moves of monetary authorities to lower interest rates, banks are still unwilling to lend. We can therefore expect lower investments for the year which can compromise our growth prospects for the next year.

2. Equity Market

Excepting the previous 15 months or so, the performance of the equity market has been commendable. It is considered as one of the world's emerging markets by the International Finance Corporation (IFC). In 1996, the IFC, in constructing its index of investable funds in emerging markets referred to as the IFCI, reweighted the Philippine market upwards to 3.3 percent from 2.8 percent in 1995.⁴ Market capitalization reached \$80.6B by end-1996, a whopping 37 percent increase over the end-1995 figures. Listed companies in April numbered 220, compared to an average of 152 during the years 1986-1993. Nevertheless, we continue to be outperformed by our neighbors as shown in the following comparative statistics:

Moreover, the concern over market concentration remains, with the top ten active stocks cornering 49 percent of the market. In the developed markets of the US and Japan, the figure stands at less than 20 percent.

Cayanan and Sazon (1995) briefly cited studies relating to the efficiency of the Philippine stock market. A stock market is said to be efficient if players are able to assimilate relevant information readily and price their bids accordingly.⁵ One study involving six common stocks finds that prices do not adjust perfectly to the theoretical price at the ex-date, meaning that the market is inefficient in the semi-strong form.

Table 7.

Comparative Statistics of ASEAN-4 Stock Markets

	1995	1996	% Change
Market Weight in IFCI Composite Index			
Indonesia	3.2	4.5	
Malaysia	19.7	22.9	
Philippines	2.8	3.3	
Thailand	4.7	2.9	
% Change in IFCI Price Index			
Indonesia	9.9	16.4	
Malaysia	0.9	24.1	
Philippines	-12.9	13.1	
Thailand	-2.0	-41.1	
Market Capitalization (US\$ mil)			
Indonesia	66,585	91,016	36.7
Malaysia	222,729	307,179	37.9
Philippines	58,859	80,649	37.0
Thailand	141,507	99,828	-29.4
Number of Listed Domestic Companies			
Indonesia	238	253	6.3
Malaysia	529	621	17.4
Philippines	205	216	5.4
Thailand	416	454	9.1

Source: IFC, Factbook 1996 and 1997.

Another study covering six common stocks that account for about 60 percent of the composite index finds ARIMA patterns which meant that historical prices can influence future price movements and therefore, that the market is inefficient in the weak form.

Recently, there have been moves to upgrade the technical infrastructure; then again our neighbors have at least a couple of years lead on this. This will undoubtedly speed up the assimilation of information by the players. But the other side to efficiency and perhaps the overriding concern of the moment is to improve the quality and timeliness of information.

Table 8.

Net Purchases of Stocks by 13 US Funds into the PSE
and % Change in PHISIX

	% Change in PHISIX	Net Purchases of Stocks by 13 Emerging Market Funds
1993 - Q4	40.00	-127
1994 - Q1	-1.07	53
Q2	1.29	-30
Q3	5.89	17
Q4	-4.21	78
1995 - Q1	-14.13	-17
Q2	15.64	9
Q3	-4.96	105
Q4	-1.33	-34

Source: PSE, ICI(1996).

Note: Net purchases are computed based on the beginning-of-quarter and end-of quarter value of holdings. % change is computed as difference between end-of-quarter and end-of-previous-quarter price indices.

3. Bond Market

Bonds enable fund deficit units, say corporations, to raise financing without having to alter their ownership structure. In developed economies especially those with maturing age structure of the populace, bonds are considered a favored investment tool especially since holders have senior claim over the assets of the issuers. In fact, a corporation which issues the bonds also sends out a signal about the equity-holders' favorable forecast of future stream of profits. In the Philippines, the bond market remains underdeveloped. As of end-1995, the government dominates about 97.9 percent of issues — national government issues about 97.5 percent, state enterprises issues another 0.4 percent. The corporate sector issues the remaining 2 percent. Considering that most government bond issues have maturity of less than a year, then the country's bond market functions largely as a money market.

ROW Intermediaries

Ten foreign banks recently joined the pack of financial intermediaries operating in the country. Table 5 describes their recent performance. Apart from the impressive financial ratios, their indirect effect also improved resource mobilization by domestic banks by forcing them to mobilize sources from the peripheral areas.

Trading in the local stock market continues to be dominated by foreign investors. Although foreign equity investors are limited to only the B shares of selected stocks which are no more than 40 percent of capitalization, trading volume has been dominated by foreign investors. Take the cases of the A and B shares of MERALCO and San Miguel Corporation. For the first four months of 1997, volume of trades in B shares accounted for 82 percent and 55 percent of trade in MERALCO and San Miguel stocks, respectively. For the first four months of 1998, B shares traded more actively, accounting for 90 percent and 68 percent of trading volume for MERALCO and San Miguel stocks, respectively. Overall, foreign investors are said to be responsible for some 70 percent of trades in any given trading day.

There is also the apprehension that foreign portfolio investors introduce great instability to domestic equity markets, a claim that has been refuted by a recent study involving 13 of the largest US emerging market funds. Investment Company Institute (1996) finds that between 1991 to 1996, these US mutual funds did not redeem shares in large volumes during periods of market weakness. During the period of high volatility, managers even bought shares at times when prices were falling and sold in rising markets. Liquidations were generally small and short-lived. The table below shows the basis of their claims in the case of the Philippines. Note that in only two of nine quarters are the flows pro-cyclical as claimed by the study. The recent plummeting of stock prices is again attributed to foreign funds abandoning ship. Consequently, there have been talks about instituting measures to curb outflows, a move which appears unjustified based on the ICI study.

The major obstacle to tapping the international bond market is the sovereign rating of the Philippines which is still below investment grade despite the recent upgrading. Nevertheless, international bond placement is slowly gaining popularity among domestic issuers. In 1996, almost one-third of debt issues have been raised internationally.

Table 9.
Initial Capital Investments of Newly Registered Domestic Stock Corporations and Partnerships
By Industry Group (In million pesos)

	1990	1991	1992	1993	1994	1995	1996	1997	Jan - Jun 1997	Jan - Jun 1998
Agriculture, Fishery and Forestry	25.2	263.8	194.1	179.5	157.3	1,604.8	2,022.7	222.9	107.5	61.7
Mining and Quarrying	25.0	136.4	82.5	228.2	231.2	397.6	474.2	344.6	206.1	601.3
Manufacturing	1,203.4	5,770.4	1,963.1	1,862.7	5,160.3	7,702.0	6,642.3	7,437.6	3,561.9	3,575.9
Electricity, Gas and Water	22.2	71.3	338.1	617.4	446.4	1,044.8	1,459.6	324.4	81.9	19.2
Construction	-	212.3	155.2	211.1	103.9	291.2	356.2	3,529.5	2,342.4	390.9
Wholesale and Retail Trade	189.6	780.7	1,027.4	1,670.1	2,008.0	2,760.9	3,738.4	11,105.4	5,888.6	4,343.5
Transportation, Storage and Communication	826.0	3,528.5	3,809.3	7,993.1	12,175.8	13,523.7	17,748.6	1,062.6	550.8	551.3
Financing, Insurance, Real Estate and Business Services	61.8	313.5	432.1	755.3	1,044.0	2,173.8	2,136.6	26,116.0	9,271.5	7,302.5
Community, Social and Personal Services	482.9	858.1	533.9	920.6	1,194.6	2,765.4	5,170.0	1,322.8	514.4	611.5
TOTAL	2,836.4	11,935.0	8,535.7	14,438.0	22,521.5	32,264.2	39,748.6	51,465.8	22,525.1	17,457.8

	1990	1991	1992	1993	1994	1995	1996	1997	Jan - Jun 1997	Jan - Jun 1998
<i>Year-on-Year Growth Rate</i>										
Agriculture, Fishery and Forestry	946.83	-26.42	-7.52	-12.37	920.22	26.04	-88.98			-42.64
Mining and Quarrying	445.60	-39.52	176.61	1.31	71.97	19.27	-27.33			191.80
Manufacturing	379.51	-65.98	-5.11	177.03	49.25	-13.76	11.97			0.39
Electricity, Gas and Water	221.17	374.19	82.61	-27.70	134.05	39.70	-77.77			-76.51
Construction	0.00	-26.90	36.02	-50.78	180.27	22.32	890.88			-83.31
Wholesale and Retail Trade	311.76	31.60	62.56	20.23	37.50	35.41	197.06			-26.24
Transportation, Storage and Communication	327.18	7.96	109.83	52.33	11.07	31.24	-94.01			0.08
Financing, Insurance, Real Estate and Business Services	407.28	37.83	74.80	38.22	108.22	-1.71	1122.32			-21.24
Community, Social and Personal Services	77.70	-37.78	72.43	29.76	131.49	86.95	-74.41			18.87
TOTAL	320.78	-28.48	69.15	55.99	43.26	23.20	29.48			22.50

Source: PSY, 1997, *Economic Indicators*, Aug 1998.

Table 10.

GROSS DOMESTIC PRODUCT											
By Industrial Origin At constant 1985 prices; Weighted Percentage Change, 1988 to 1997											
INDUSTRY	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
1. AGRI., FISHERY & FORESTRY		0.69	0.11	0.31	0.09	0.48	0.58	0.18	0.81	0.61	
a. Agriculture and fishery	1.00	0.38	0.69	0.17	0.58	0.65	0.34	0.79	0.70		
b. Forestry	-0.23	-0.21	-0.23	-0.07	-0.08	-0.06	-0.09	0.01	-0.05		
2. INDUSTRY SECTOR		2.63	0.91	-0.93	-0.18	0.56	2.00	2.38	2.29	2.21	
a. Mining & Quarrying		-0.04	-0.04	-0.04	0.11	0.01	-0.10	-0.08	0.02	0.02	
b. Manufacturing		1.49	0.68	-0.11	-0.43	0.18	1.24	1.72	1.41	1.06	
c. Construction		1.14	0.29	-0.77	0.14	0.30	0.49	0.36	0.63	1.04	
d. Electricity, Gas & Water		0.14	-0.01	0.13	0.02	0.08	0.42	0.42	0.25	0.16	
3. SERVICE SECTOR		2.92	2.05	0.06	0.44	1.07	1.82	2.16	2.76	2.37	
a. Trans, Comm & Storage		0.36	0.12	0.03	0.08	0.15	0.25	0.34	0.44	0.51	
b. Trade		1.16	0.68	0.08	0.25	0.38	0.60	0.86	0.85	0.59	
c. Finance and Real Estate		0.92	0.56	-0.10	13.71	2.01	-2.93	0.47	0.85	0.83	
d. Private Services		0.33	0.26	-0.01	0.04	0.20	0.30	0.30	0.34	0.33	
e. Government Services		0.17	0.44	0.08	0.01	0.14	0.29	0.19	0.31	0.15	
GROSS DOMESTIC PRODUCT		6.21	3.04	-0.58	0.34	2.12	4.39	4.76	5.76	5.17	

Source: PSY, 1996, *Author's calculations*

Demanders of Capital

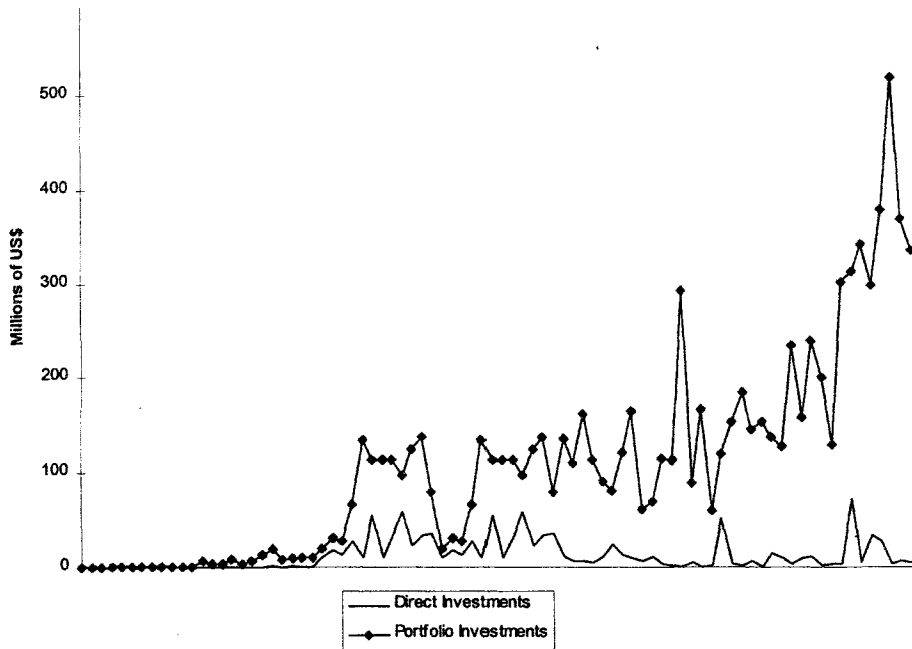
Domestic Users of Capital

Table 9 lists the initial paid-up capital investments of newly registered domestic stock corporations and partnerships by industry classification. In 1995 and 1996 and even more spectacularly in 1997, investments in finance and real estate overshadowed investments in manufacturing. On the other hand, referring to Table 10, one notes that the runaway performer in terms of contribution to GDP growth is the manufacturing sector. The two observations taken together imply that investments are not being channeled to the most productive sector. The recent devaluation of the peso and the slump in the property sector will hopefully bring about a favorable restructuring of investments and economic activity. Already, the investment figures for the first semester seem encouraging. The sectors that attracted the biggest increase in investments is the mining and quarrying sector; the community, social and personal services come as a far second. Investments into the manufacturing and transportation and communication sectors have been maintained at almost the level of the previous year while investments into the other industry groups, including the finance and real estate sectors, have declined.

Table 11 shows that Metro Manila continues to attract the biggest chunk of the investment pie, followed by Central Luzon and Southern Luzon. Since these three areas are contiguous to each other, then the investment pattern conforms to the center-periphery model. The same pattern seems to hold in the Visayas, although on a smaller scale. For instance, up until 1994, Central Visayas managed to attract a huge portion of investments. As bottlenecks in capacity — mostly infrastructure — overwhelm the advantages we see a trend reversal with investments in the neighboring Western Visayas being substantially greater than in Central Visayas during the past couple of years.

ROW as Users of Capital

In the recently held "First Fixed Income Forum," a Bangko Sentral official disclosed that between 1993 and 1996, Filipinos have invested a total of \$8.6 billion abroad. In fact, in the following figure, we see outflows of direct and portfolio investments by residents increasing beginning 1992. At times, portfolio outflows by residents even exceed those by nonresidents. This implies that with increasing globalization, not only should we compete for foreign investors to park their money in our shores but also for our domestic investors not to look further away. On the up side, globalization has increased opportunities for our domestic investors. However, one cannot expect the benefits to trickle down to the rest of the economy. Since the financial capital is being translated into physical capital in a foreign land, the chances

Figure 3. Outflow of Investments by Residents

for domestic employment creation are very limited, if not nil. Hence, we can expect the benefits of increased investment opportunities due to globalization to accrue to only the few owners of financial capital.

THE CHALLENGE OF GLOBALIZATION

A Look at International Agreements

The increasingly complementary relationship between trade and foreign direct investment (FDI) has been cited as the rationale behind global agreements on investments. Alongside the direct impact of these agreements are the indirect effects of international trade accords. Vocke (1997) discusses some of these global agreements and their possible effects on domestic investments.

First is the agreement on Trade-Related Intellectual Property (TRIPs) which seeks the protection of intellectual property, e.g. patents, copyright and related rights, trademarks, industrial designs, etc. While it may encourage investments in research and development (R&D), the agreement will lead to a decrease in investments in counterfeit or imitation goods. Since developed countries have the advantage over

Table 11.

Investment by Region

YEAR	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996
<i>In Millions of Php</i>										
Ilocos	17.8	19.8	34.2	27.8	46.1	41.5	89.3	203.9	165.3	61.8
Cagayan Valley	9.3	9.4	15.3	8.9	18	23.1	13.5	39.1	25.5	40.3
Central Luzon	33	107.4	169.2	157.8	134	218.6	292.9	705.4	999.8	2662.7
Metro Manila	1374.3	5396.9	7155.9	11251.8	6289.7	6894.3	12421.8	17706.7	23446.2	27008.2
Southern Tagalog	35.4	133.7	287.7	197.5	326	686.2	697.5	2470.7	5007.8	2592.8
Bicol Region	11.7	13.8	27.4	23.4	38	41.7	53.5	112.1	21.8	49.1
Western Visayas	26	55.9	56.5	76.2	91.6	102.7	140.5	253.2	66.4	282.6
Central Visayas	27.6	82.7	240.2	277.7	133.4	290.4	587.4	587.4	40.6	160.5
Eastern Visayas	2.8	13.9	27.1	26.6	4.5	41.5	22.7	22.7	22.5	42.5
Western Mindanao	8.7	10	18.7	28.2	9.3	16.7	22.1	22.1	18	11.3
Northern Mindanao	8.6	25.7	17.1	34.2	173.7	89	612	612	68	60.1
Southern Mindanao	19	18.3	39.7	64.9	143.6	54.2	14.8	14.8	57.2	52.4
Eastern Mindanao	8.1	7.9	9.1	12.5	11.5	7.8	20.5	20.5	9.7	7.9

<i>% Change y-on-y</i>	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996
Ilocos			72.73	-18.71	65.83	-9.98	115.18	128.33	-18.93	-62.61
Cagayan Valley			62.77	-41.83	102.25	28.33	-41.56	189.63	-34.78	58.04
Central Luzon			57.54	-6.74	-15.08	63.13	33.99	140.83	41.74	166.32
Metro Manila			32.59	57.24	-44.10	9.61	80.17	42.55	32.41	15.19
Southern Tagalog			115.18	-31.35	65.06	110.49	1.65	254.22	102.69	-48.22
Bicol Region			98.55	-14.60	62.39	9.74	28.30	109.53	-80.55	125.23
Western Visayas			1.07	34.87	20.21	12.12	36.81	80.21	-73.78	325.60
Central Visayas			190.45	15.61	-51.96	117.69	102.27	0.00	-93.09	295.32
Eastern Visayas			94.96	-1.85	-83.08	822.22	-45.30	0.00	-0.88	88.89
Western Mindanao			87.00	50.80	-67.02	79.57	32.34	0.00	-18.55	-37.22
Northern Mindanao			-33.46	100.00	407.89	-48.76	587.64	0.00	-88.89	-11.62
Southern Mindanao			116.94	63.48	121.26	-62.26	-72.69	0.00	286.49	-8.39
Eastern Mindanao			15.19	37.36	-8.00	-32.17	162.82	0.00	-52.68	-18.56

Source: Securities and Exchange Commission

R&D activities, then they are the ones to benefit the most from the TRIPs agreement. In fact, they may even enjoy a measure of market power in countries which enforce intellectual property rights (IPRs).

The General Agreement of Trade in Services (GATS) purports that there should be no restrictions on capital inflows to countries receiving FDI. They are to receive treatment no less favorable than the treatment accorded to domestic services and service suppliers. As yet, it does not disallow restrictions on capital outflows although it does require the free crossborder transfer of capital if such is required by the FDI. The impact of GATS on investment is ambiguous. While foreign investors may be encouraged by the Most Favored Nation (MFN) treatment, investments in financial services may decrease since crossborder flows can be carried out without restrictions.

Meanwhile, the agreement on trade-related investment measures (TRIMs) prohibits the use of negative incentives directly intended to influence corporate decisions on FDI. These include local content requirements, trade balancing requirements, domestic sales requirements, etc. The unfavorable impact of the agreement results from the increased uncertainty it can create when countries shift to other investment measures not covered by the agreement.

It is also expected that the World Trade Organization (WTO) will include multilateral investment policy framework more in the spirit of the Multilateral Agreement on Investment (MAI). The MAI was originally intended to be an agreement among Organization of Economic Cooperation and Development (OECD) countries and involved all forms of investments — foreign direct investments, portfolio, real estate and rights under contract. It called for a “level” playing field between national and foreign investors (national treatment) and among foreign investors (most-favored-nation treatment).

Perhaps the WTO Agreement on Subsidies and Countervailing Measures will have the most telling impact on investments especially in developing countries. The agreement defines subsidy as “a financial contribution by a government or any public body,” or “any form of income or price support.” Incentives have been classified into three: (i) prohibited if linked to export performance or favor domestic over imported goods; (ii) specific if it discriminates in favor of some firms or industries; and (iii) non-specific and therefore non-actionable, if they do not discriminate between firms or industries, or if they are granted to industrial research and pre-competitive development activities, environment and regional development. In the interest of keeping a level playing field with respect to investment, the first two classes of incentives are not allowed under the agreement. Right away, we can identify all the incentives granted under our various investment rules as falling into either of these two.

Alongside the other trade agreements seeking to reduce tariffs, in the extreme case, these international agreements may result in a very unpleasant scenario — one where FDI, which used to flow into the country either to evade trade restrictions or to take advantage of attractive incentive packages, no longer find reason to invest outside their home country; home producers no longer produce as home consumers turn to unrestricted imported goods and home investors simply venture into trading.

Mobilizing Resources

Referring once again to the capital transformation paradigm, we see that the role of financial capital is to enable investments in physical capital. Therefore, return to financial capital cannot exceed that of physical capital. The strategy then to increase mobilization of financial capital is to improve the productivity of physical capital. Towards this end, the responsibilities of the major players need to be identified, with government playing a supporting role.

The corporate sector is the main user of capital and is thus tasked with the major responsibility of improving the capital productivity, mostly through improved corporate governance. On the other hand, suppliers of capital, e.g. shareholders, can impose discipline on corporate managers by taking an active role in corporate decision-making. Government can facilitate the process by mandating strict disclosure requirements. The absence of all these factors led to the recent financial debacle confronting Victorias Milling Co., Inc. Unwise investment decisions, even tainted with much irregularities, by management have been carried out quite easily because the other stockholders did not offer violent oppositions. Records of its finance and treasury department are so muddled that irregularities could not be detected until it was too late.

Institutional investors can play an even bigger role in inducing the corporate sector to improve its governance. Since they are capable of obtaining huge amounts of shares, they can play a more active role in corporate decision making. Likewise, the incentive structure of managers can be linked to the financial performance of the company. If the company is listed in the stock exchange then the market can impose discipline on the former as is the case in the US.

Government can encourage the participation of institutional investors in the corporate sector by liberalizing the former. Care should be taken that the encouragement does not come by way of incentives or mandatory investments. Moreover, it is worthwhile to examine the feasibility of establishing an exchange dedicated to small- and medium-scale businesses.

Equally effective are structural reforms and improvements in technical infrastructure. These would include the following:

Disclosure requirements

Strict disclosure requirements can also work to encourage foreign investors while being able to protect the interests of existing investors. At the same time, financial capital is directed to its most productive use. Needless to say, accounting standards have to conform with international levels. This latter issue admittedly may still be a long time in coming since the forum to revise the International Accounting Standards is yet to resume. However, government can plan to cooperate in such an endeavor and implement the revised but improved standards. This may require re-training of accountants and revising certain materials such as books, forms, procedures and others.

Transparency and Stability of Investment Rules

In addition, foreign investors require transparency and stability of investment rules. The recent experiences of the country involving overturned decisions, e.g. Manila Hotel, Hutchison Ports, Inc., has annoyed a few investors and worried a few more.

Recently, the APEC Business Advisory Council proposed a set of APEC Voluntary Investment Principles (A-VIP). Essentially the principles would ensure the transparency, stability, and equity of investment rules. Rules on bidding, policies on repatriation of earnings, protection against expropriation need to be clear. More importantly, government needs to demonstrate credibility in implementing these rules and policies.

Credit Rating Agencies

The existence of a credible and independent rating agency is likewise significant. At present, the country has one local credit rating agency — the Credit Information Bureau, Inc. Since its establishment in 1982, it has been able to post profit only in 1994. Part of the reason is the meager demand for credit ratings as most debt papers are issues by the government. Lately, the market for commercial paper (CPs) has been growing. Although these issues are not required to be rated, the fact that obtaining a rating increases the chances of the issue being approved, has thus increased the demand for ratings. However, ratings can only be as good as the data on which it was based. Which brings back to the forefront the issue of strict disclosure requirements.

The same disclosure requirements can improve the efficiency of capital allocation by the financial intermediaries. In developed countries, banks are given incentives when extending capital to highly rated business investments. In addition, government must always strive for a healthy fiscal position so as not to crowd out private demand for capital. Needless to say, mandatory credit allocations should be kept to a bare minimum.

The merits of mandatory ratings, on the other hand, will need a more careful examination. For instance, it may run contrary to the government's thrust of encouraging more private participation in infrastructure provision as most of these projects will not likely obtain investment grade rating.

Tax Perks

The issue of tax perks, especially those locating in the special economic zones, continues to draw sparks of arguments from all sides. In the future, though such arguments will just be academic as the international agreements take effect. This being the case, tax incentives need to be rationalized. In addition to the time limit imposed by the global community is the economic cost of such incentives. The idea is to be able to guide capital to its most productive use but not to distort market signals. Fry (1993) illustrates the interaction between efficiency, distortions, and incentive packages. He notes that incentives and disincentives can be used only to compensate for the existing market distortions. While the package is in effect, governments should address the distortions, e.g. strive towards better provision of basic infrastructure — roads, ports, airports, railways, power, telecommunications, water — which can work to drive down distribution costs; simplify listing procedures to minimize transaction costs; etc. To induce efficient allocation of incentives, the Board of Incentives must come up with a Tax Incentive budget. At the same time, measures need to be implemented that incentives are given with consideration for welfare effects, compensation for distortions and not simply on a first come-first serve basis.

Attracting FDI

In the emerging world environment, competition for FDI will be fierce — on the one hand, supply of global savings is expected to decrease (IMF 1995), on the other hand, developing countries, including the first generation newly industrializing economies (NIEs) still have a lot of catching up to do, and in the middle of this tug-of-war, investment perks are either prohibited or actionable. A useful framework to attracting FDI can be derived from the attractiveness index constructed by Kasper (1991):

$$\text{Attractiveness} = \left(\frac{\text{selling price}_i}{\text{selling price}_w} - \frac{\text{unit-factor costs}_i}{\text{unit-factor costs}_w} \right) \times \text{sales volumes}_{w,i}$$

where *i* refers to the domestic market and *w* refers to average of world market.

The above index, however, is incomplete. Inclusion of the exchange rate into the index will complete the framework at the same time that commensurability is

ensured. Moreover, with almost every country joining the global community, the multiplier sales volumes $w+i$ will no longer significantly differ, at least in expected value. Therefore, suppose that the choice is between a small open economy i and another small open economy j , then we have the following:

$$\text{Attractiveness}^* = \left(\frac{\text{selling price}_i}{\text{selling price}_j} - \frac{\text{unit-factor costs}_i / \text{er}_i}{\text{unit-factor costs}_j / \text{er}_j} \right) \times \text{sales volumes}_w$$

The modified index assumes that the selling price is denominated in foreign currency since we assume that the economies involved are small so that bulk of the sales will have to come from the ROW. Meanwhile, since the production takes place in the domestic economy, then it will have to be denominated in the local currency.

Note that governments may no longer directly influence the selling price, the unit-factor costs and the sales volumes considering all the international agreements on trade and investments about to take place. If at all, small economies like ours, which dwarf in comparison to China, say, will be at a disadvantage. Governments then need to dedicate their efforts and resources, and rightly so, toward indirectly influencing unit-factor costs. The cost of doing business has to be brought down, there can be no room for red tape. Service utilities need to be efficient to minimize distribution, transportation and overhead costs. Personnel should be highly skilled to minimize wastage, improve quality and possibly enjoy temporary market power because of high quality output. All these imply the following necessary steps: (i) streamlining the bureaucracy, (ii) investments in infrastructure and public utilities, and (iii) investment in human capital.

Investments in infrastructure and public utilities need to be accompanied by a policy framework that encourages competition of providers for the market. The objective is to bring down the cost of utilities to international norms. Perhaps, power suppliers and/or distributors can be allowed to deal directly with the users.

There is also the issue of an adequate supply of productive human capital. While it is true that the Philippines has a very high literacy rate, slowly this advantage is being eroded by other inefficiencies. In addition, our neighbors have been catching up on our advantage. There is also a need to restructure and update our engineering courses. Perhaps, the possibility of introducing an intermediate engineering course, focusing on the skills required to service the routine engineering tasks need to be considered. Wages have also been rising and these have not been accompanied by commensurate increases in productivity. World Bank (1997), for instance, finds that unit labor costs defined as the ratio of total annual compensation cost per employee to value added per employee in the Philippines increased much faster than in other

Asian countries and second only to Korea between the years 1986 to 1993. This implies that overall compensation was excessive given the marginal improvement in productivity during the period.

The modified index given above also shows that the exchange rate has to be competitive. This is not to suggest though that competitive devaluation be undertaken, but that the exchange rate reflect the true price of the currency. An overvalued currency introduces distortions in favor of the external economies.

Attracting Foreign Portfolio Investments

Like FDI, portfolio investments seek the highest return for a tolerable amount of risk. The difference is that, portfolio investors are not willing to take on setup risks. For the marginal investors, they are also not willing to assume management responsibility. With perfect capital mobility, portfolio investments are supposed to flow into investments offering the highest return. But the simultaneous inflow and outflow of investments confound the relationship. Portfolio diversification has been offered as an explanation for this seeming anomaly (actually, a reality). Of course, the other obvious explanation is that mobility is still imperfect — there exists transaction costs, tax perks, incentives and disincentives, etc.

In the emerging world environment, tax perks, incentives, and disincentives will no longer be allowed. The effort should then be redirected to decreasing transaction costs. The recent liberalization of the banking industry provides an interesting lesson (one already written in the books). Note that the entry of foreign banks have caused the domestic banks to be more dynamic in their mobilization efforts. Interest rates have gone down (excepting the recent episodes coinciding with the regional currency crisis) and the spread has been reduced. Recently, there have been talks about instituting a fixed fee for brokers. Note that in the developed markets, broker fees are competitively set, therefore the move towards a fixed fee system is a step backward. Equally significant are strategies to upgrade technical infrastructure and professionalize the industry.

The exchange rate figures prominently into the portfolio investment decision but not in the same way as in FDI. Suppose that e_1 is the exchange rate prevailing at time 1, e_2 the one prevailing at time 2 and r^d is the domestic internal rate of return. Consider a one-period investment, *i.e.*, between time 1 and 2, then given a dollar (\$) worth of investment, the investor earns the following:

$$\text{RETURN} = \$ * e_1 * (1 + r^d) / e_2 - \$$$

so that the implied rate of return is

$$r = e_1 / e_2 * (1 + r^d) - 1.$$

At time 1, the variables e_2 and r^d are yet unknown and are distributed according to certain distribution functions. Denoting by P^e the ratio, e_1/e_2 , r can be rewritten as

$$r = P^e + P^e * r^d - 1.$$

The expected value of the above expression is given by:

$$E[r] = E[P^e] - 1 + E[P^e] * E[r^d] + \text{Cov}[P^e, r^d]$$

Expanding the last term,

$$E[r] = (E[P^e] - 1) + E[P^e] * E[r^d] + r[P^e, r^d] * s_{P^e} s_{r^d}$$

The relationships can be summarized in the following functional form:

$$E[r] = f(E[P^e], E[r^d], r[P^e, r^d])$$

+ + +

Therefore, an expected appreciation works to improve $E[r]$ in the same way as r^d . Likewise, a positive correlation between P^e and r^d increases $E[r]$. Quite obviously, expectations regarding r^d need to be enhanced. The earlier discussion on disclosure requirements, accounting standards can work towards this end. The policy move concerning the exchange rate is a bit more complex. With capital mobility, $r[P^e, r^d]$ is expected to be positive. As foreign funds come in because of the high expected r^d , there will be pressure on the local currency to appreciate. However, this can reduce the competitiveness of the export sector. In the end, though, what is crucial is that the exchange rate be set at the correct price. If there is evidence that the currency is overvalued and that devaluation is inevitable, so that $E[P^e - 1]$ is negative, then there will be substantial outflows of capital as recently experienced.

Some portfolio investors (and others would say, most) are not so keen on waiting out their investments until dividends have been declared. Rather, they are more interested in prospects for capital gains.

The condition for a foreign portfolio investor to realize capital gains is the following:

$$\frac{P_2}{P_1} > \frac{e_2}{e_1}$$

P_1 and P_2 are the asset prices prevailing at time 1 and 2, respectively while e_1 and e_2 are the exchange rates at time 1 and 2, respectively, expressed in pesos to a dollar. Foreign investors are happier with an expected appreciation of the currency since the condition above is easily satisfied. In such a situation, the right-hand side is less than 1, asset prices need not even appreciate. In fact, even a modest decline in prices can

be accommodated. On the other hand, an expected depreciation means that the right-hand side is greater than 1. The above condition then becomes more restricted:

$$\frac{P_2}{P_1} > \frac{e_2}{e_1} > 1$$

Note that the above cannot be easily satisfied. Only firms which can be expected to benefit from a currency depreciation will have the potential of meeting the condition. The group includes firms with export revenues or a revenue stream from a foreign economy not plagued by a similar currency crisis.

The situation can only turn for the worse if the market is undercapitalized so that foreign investors tend to dominate the trades and influence prices greatly. There will then be the objective of being the first one out leading to disastrous results, as was the experience of the previous year.

This is the type of portfolio flows that is difficult to manage. Perhaps, the answer lies in increasing domestic participation. Domestic players need not worry about the right hand side of the equation. It is in their interest to keep asset prices up but they will only be able to do that if they trade more actively than do the foreign investors. We may also consider limiting foreign capital to firms with an expected foreign denominated revenue stream.

Portfolio diversification can explain the other flows. These flows are not attracted into the country because of the high expected returns but because they do not correlate highly with portfolio held in the other markets. Table 12 shows the correlation coefficients of IFCI indices in several emerging markets, including the indices in some developed markets. During the period December 1991- December 1997, the correlation between the Philippine market and the US S&P 500 is 0.17, the lowest in ASEAN. During the previous five-year period, the correlation stands at 0.20. Closer examination reveals that this downward trend can be traced to the correlation coefficient prevailing in 1995-1996, equal to -0.60 and is significant at the 0.003 level. This trend is a bit disturbing since this implies that when the US market booms, a slump is expected in the local market and conversely. All the more that speculative flows are being encouraged. Note though that with increasing integration of capital markets, this "dis"-advantage disappears.

Fiscal and Monetary Policy Framework

Fiscal and monetary policies must promote macroeconomic stability without sacrificing economic efficiency.

A situation where the trend of output is characterized by booms and busts is not healthy for investments. In periods of booms, firms are encouraged to expand capacity; if followed by a period of bust, then they will be saddled with idle capacity at best, and mounting mortgage obligations at worst. Presently, the firms that are going under are those whose expansion plans have compromised their growth.

In July 1998, 11.4 percent of firms covered in the monthly survey of selected industries conducted by the NSO with the DTI reported less than 50 percent capacity utilization compared to only 7 percent the previous year. Quite expectedly, for the first three quarters of 1998, capital formation decreased from its year ago level. Firms can also be seen depleting stocks, instead of stocking up on inventory.

Tax and monetary policies can work to distort choices among financial instruments. The danger is that the incentives or disincentives serve to misinform the issuers and buyers of the instruments about the risks involved. For instance, FCDU loans are less costly to acquire than peso denominated loans which means that the exchange risks are not accurately considered. Keeping interest rates artificially down discourages lending even more as creditors grope for a true value of the social discount rate.

The challenge of implementing policies while maintaining a balance between seemingly competing objectives will be even more daunting in the context of increasing globalization. The influx of foreign capital will put pressure on the foreign currency to appreciate which will hurt the exports sector. In the past, it also discouraged the growth of the import substituting sector and encouraged an exports sector with a low level of domestic integration. Over a prolonged period, the current account situation will strain the international reserve position, inviting speculations of a possible depreciation that can result in reversals of capital flows.

SUMMARY

The first generation NIEs are probably fortunate in that they embarked on their growth strategy before globalization has reached the stage in which we find ourselves. In contrast, the Philippine growth plan has to be implemented within the context of increasing globalization. As daunting as the challenge may be, we find that solutions are not as different as originally supposed. The only distinction is that they need to be

carried out more intensively and in some cases, very quickly. For instance, Chen and Khan (1997) developed a framework that explains why portfolio capital may flow into economies with high growth potential even with inefficient capital markets and how reversals may occur in economies experiencing mediocre economic growth and mediocre capital market efficiency. Their recommendation, therefore, is that structural reforms be undertaken fast so that economies avoid this middle ground.

In the Philippines, domestic resource mobilization should be a key strategy. The long-run favorable effect of saving into investment and subsequently growth does not work with prolonged dependence on foreign savings. Perhaps, our value system does not really encourage savings. Or perhaps, it is too much to ask of a third world country to forgo current consumption in order to save. Or perhaps there not too many attractive saving instruments.

Creating a climate conducive to investments is other strategy. Recall that in the emerging world environment, tax perks will no longer be allowed except with respect to research and development or if it is implemented indiscriminately. The key therefore is to maximize returns by improving corporate governance and minimizing costs. Risks must also be kept to a minimum. Disclosure requirements that comply with international accounting standards must be strictly enforced. With increasing globalization, the quality and timeliness of information on international transactions need to be improved. This includes sovereign debt issues and private debt with sovereign guarantees. The cost of doing business must also be minimized — financial transaction costs, transport and communication costs. Minimizing risks will also require disclosure requirements, technical infrastructure, and the presence of reputable credit rating agencies. Just as important is the introduction of hedging instruments. If players expect exchange rate flexibility, there will be demand for these risk management instruments. Labor productivity must likewise be increased. Another relevant strategy on the side is to improve the productivity of the agricultural sector to minimize pressure for wage increases.

Stability of the macroeconomy must also be promoted to encourage saving and investment behavior. Furthermore, getting the exchange rate right becomes even more important as we integrate even more into the global community.

NOTES

- 1 As measured by return on assets.
- 2 According to May 1997 PSE figures. If stocks are sorted according to value turnover, then the following banks figure in the top 20 list: MBTC, BPI, PNB, and EBC.
- 3 The ratios are computed with reference to 30 private domestic banks, 17 foreign banks, and one government bank.
- 4 Note however that the markets listed above have been weighted downwards beginning May 1997.
- 5 To be more accurate, one should distinguish between three forms of efficiency — semi-strong, weak, and strong. See Cayanan and Sazon (1995).

REFERENCES

- Asian Development Bank. 1997. *Promoting Financial and Capital Market Development, Voluntary Principles and Collaborative Initiatives*.
- Asiaweek. 1997. *The Asiaweek Financial 500*. The Region's Largest Banks 1997. Vol. 23, No. 37, September 19.
- Cayanan, A. and T. Sazon. 1995. *Technical Analysis. Investment Management and the Philippine Stock Market*.
- Chen, Z. and M. Khan. 1997. Patterns of Capital Flows to Emerging Markets: A Theoretical Perspective. IMF Working Paper WP/97/13.
- Edillon, R., E. F. Yap and J. T. Yap. 1997. *Defining the Middle Class: Concepts and Policy Issues*. NEDA-NPPS.
- Fry, M. 1993. Foreign Direct Investment in a Macroeconomic Framework: Finance, Efficiency, Incentives and Distortions. World Bank, Policy Research Working Paper, WPS 1141.
- International Finance Corporation, Emerging Market Factbook. 1996, 1997, and 1998 issues.
- International Monetary Fund. 1995. *World Economic Outlook*.
- Investment Company Institute. 1996. *Perspective. US Emerging Market Funds: Hot Money or Stable Source of Investment Capital?*
- Investment Implications of Selected WTO Agreements and the Proposed Multilateral Agreement on Investment. Prepared by Matthias Vocke (1997). IMF Working Paper WP/97/60.
- Kasper, W. 1997. Globalization, Locational Innovation and East Asian Development. Pacific Basin Working Paper Series. PB91-02.
- National Statistical Coordination Board, National Income Accounts. Various issues. *Philippine Statistical Yearbook*, 1996 and 1997.
- World Bank. 1997. Philippines Managing Global Integration. Report No. 17024-PH.
- World Bank. 1998. Global Development Finance.



FISCAL POLICY IN THE EMERGING WORLD ENVIRONMENT

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INTRODUCTION

What role is there for the country's fiscal policy in the emerging world environment? This is the basic question that the paper attempts to tackle. To answer the question, I propose to view the problem in terms of difficult fiscal choices the country has to make in the highly competitive world environment that is fast emerging. The motivation is the observation that fiscal policy tends to be less effective than monetary policy as a tool for macroeconomic stabilization in the emerging world environment of capital mobility and flexible exchange rates. The suggestion is that fiscal policy can thus be used as a tool to promote competitiveness of the country by spending on infrastructure, education, science and technology and by having tax reforms that reconfigure the incentive structure in favor of the tradable sector (Paderanga 1997). On the expenditure side, the provision of world class soft and hard infrastructure with which mobile capital combines to create value added is seen as a necessary requirement for competitiveness (Fabella 1997). This approach of using expenditure policy to promote competitiveness contrasts with the traditional method of deploying a host of tax incentives to attract investments, especially foreign direct investments, to targeted sectors.

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The Philippines, a latecomer among Southeast Asian countries, finally faced up to the challenge of globalization. It cannot escape the fact that it now "lives in a harsher environment" (de Dios 1996) with trading rules drastically changed by global economic integration and the fierce competition by developing countries for investment capital. For many developing countries, it is a matter of finding capital for investment, markets for exports and access to competitive production technologies (Bahl 1992) in order to attain higher economic growth. Indeed, the more outward-looking and competitive economies seem to have realized this goal.

There is evidence that countries adopting a more outward trade orientation had a higher gross national product (GNP) growth rate (7.7% per year) compared to those with an inward trade orientation (2.2% per year), as pointed out by Bahl, citing an IMF study (1990). Thus, the Philippines like other developing countries liberalized its trade regime, deregulated and liberalized its financial markets and in general, adopted policies conducive to domestic and foreign investments.

In the next section, I dwell briefly on the new world environment, the "harsher environment" of today and the future that the economy faces. Recent research and data show that a formidable but challenging task awaits the economy (Paderanga 1996; Fabella 1996; de Dios 1996; Alburo 1996). The purpose is to identify factors in the emerging world environment that will shape the future thrusts of taxation and expenditure. Then, I turn to a review of recent fiscal reforms undertaken by the Aquino and Ramos administrations to see how the economy has been geared to undertake the challenging task of becoming more competitive. The section notes that the fiscal reforms have laid down the foundation for future economic growth in the form of macroeconomic balance and restored confidence in the economy. The reforms finally bore fruit under the Ramos administration, chiefly through the containment of inflation and the generation of a fiscal surplus. Finally, I consider some of the important fiscal choices that have to be made to build the capacity of the economy to deal with globalization and the "harsher environment" of the future.

In general, the paper argues that the economy has to make serious fiscal choices that will help create an appropriate economic environment and incentive structure for economic agents to make informed decisions on consumption, saving and investment. It has to restore confidence in the economy through fiscal reforms but it also has to reorient the expenditure pattern toward public goods and services that prime higher factor productivity.

II. THE EMERGING WORLD ENVIRONMENT: HARSHER, MEANER?

What is the nature of the emerging world environment that led to the quip that it is a "harsher environment" that the country is now forced to take? How integrated is the Philippine economy to the world markets?

Paderanga (1996, 346ff) observed that the increased integration to the goods market has been matched by a parallel integration in financial markets. There has been almost a hundred-fold increase in annual capital flows to developing countries from the 1960s to 1993. Equity market capitalization has also increased together with the capital flows. The ratio of the country's exports to gross domestic product (GDP) was 21.03 in 1994 compared to 16.21 in 1986; the ratio of imports to GDP was 33.27 in 1994 compared to 16.89 in 1986. Total external trade as a ratio to GDP was 54.30 in 1994 compared to 33.10 in 1986 (Paderanga 1996). I chose 1986 as the comparative year because it was during the first year of the Aquino administration that the economy earnestly undertook the road to liberalization and deregulation. Paderanga (1996) explained that substantial integration with global financial markets is due to policy reforms. Sakai (1994) found out that domestic interest rates are more correlated with New York and Hongkong interest rates than with domestic supply and demand conditions. A test using the uncovered interest rate parity conditions by Paderanga and Tan (1996) indicated that the Philippines is financially integrated to the rest of the world.

Foreign direct investments have been the major fuel of economic growth in the rapidly growing Asian and Latin American countries as may be seen in Table 1.

For all developing countries, foreign direct investments was 4.5 percent of gross domestic capital formation in 1991, rising to as much as a fifth of gross domestic capital formation in Malaysia and Venezuela. It was 5.6 percent in Thailand and 3.6 percent in Indonesia (Table 2). The Philippines has to work doubly hard to attract foreign capital, not of the speculative type, but foreign direct investments that bring innovations and technological progress.

The integration to the world markets has raised fears about the vulnerability of the domestic economy to external policies and events that are beyond the control of domestic agents. In the small country context, this reality is disturbing for a small economy such as the Philippines. It will not be difficult to comprehend the impact of global integration to the economy. The current volatility of the foreign exchange markets, the uncertainty hovering over interest rates and the behavior of investments are illustrative of the impact of global integration. Opportunities for greater economic growth appear as well with threats to standards of living. This is a harsh reality. An economy that fails to adjust and become more competitive suffers the conse-

Table 1. Ratio of foreign direct investment to gross domestic product

	1970	1980	1990
ASIA			
South Korea	0.82	0.01	0.30
Taiwan	0.01	0.10	3.35
Singapore	4.91	9.36	13.90
Thailand	0.61	0.58	2.96
Malaysia	2.24	3.74	5.50
Indonesia	1.44	0.17	0.90
Philippines	-0.37	-0.32	1.21
China	-	0.16	0.96
LATIN AMERICA			
Chile	-0.97	0.76	2.14
Argentina	0.05	0.43	1.93
Mexico	0.84	1.10	1.11

Source: Paderanga (1996) referring to a table of Urata (1994)

Table 2. Foreign direct investments in selected developing countries, 1991

	US \$billion	%of GDCF*
Mexico	4.8	7.4
China	4.4	3.3
Malaysia	3.5	20.5
Argentina	2.4	15.1
Thailand	2.0	5.6
Venezuela	1.9	19.2
Brazil	1.6	2.0
Indonesia	1.5	3.6
South Korea	1.1	1.0
Turkey	0.8	3.9
All developing countries	35.9	4.5

Source: Fabella (1996) citing The Economist, September 15, 1993, p.15.

*Note: * gross domestic capital formation*

Table 3. Real GDP and real GDP per capita growth rates for low and middle income countries, 1965-2000 (annual percentage change)

Region or Group	Real GDP growth		Real GDP per capital growth	
	Trend (1965-1989)	Projection for 1990s	Trend (1965-1989)	Projection for 1990s
All low and middle income	4.7	4.9	2.5	2.9
East Asia	7.2	6.7	5.2	5.3
South Asia	4.2	4.7	1.8	2.6
Latin America and Carribean	4.3	3.8	1.8	2.0

Source: World Development Report, 1991

quences of lost markets and investments, slower growth and higher unemployment levels. One may conclude rather naively that a retreat from the interdependency across economies is the rational way of dealing with the increased vulnerability of the domestic economy to external events beyond its control. But the reality is that unless an economy becomes competitive, it has a very slim chance of making it in the global marketplace.

Thus, notwithstanding the threat of significant cross-border short term capital arbitraging with its implications on the stability of capital markets, and the presence of a very aggressive player like China which has given very stiff competition to the Philippines, (Fabella 1996)¹ the differential growth rates between outward and inward looking countries cited by Bahl (1992) seem to indicate that greater opportunities await the developing country that can take advantage of more open markets and greater accessibility of technology. Alburo (1996) argued in favor of globalization because of the efficiency gains coming from better resource allocation brought by freer trade. The potential for realizing higher global welfare is maximized by having a more open global economy.² He quickly noted though that the possibilities will be "dictated by the internal policies within the small country." Such policies include "the degree of privatization and deregulation, the macroeconomic conditions including efforts to contain inflation and maintain competitive exchange rates" and the "support that infrastructure can give to potential producers" (Alburo, *ibid.*).

Who are expected to benefit from the emerging world environment? World Bank projections indicate the East Asian countries leading the pack among low and middle income countries (Table 3). These are the countries that have been aggressive in courting foreign direct investments, opening their economies and adopting macro-economic policies which contained inflation and maintain competitive exchange rates.

In summary, the opportunities offered by globalization include access to export markets, investment capital, and innovative production technologies. The countries which took the greatest advantage of the opportunities lifted restrictions on trade, maintained competitive exchange rates, reduced public sector dominance of the economy, and pursued fiscal policies which cut the deficit and allowed greater private sector participation in their respective economies. It is not coincidental that a regime of low inflation led to confidence in goods and money markets that attracted more capital flows, especially foreign direct investments. One can also note that the availability of infrastructure and good transportation increased factor productivity, a requirement for competitiveness.³

More specifically, the successful Taiwan experience as cited by Fabella (1996), indicated the importance of upgrading the general economic environment. Upgrading consists of: (a) macroeconomic stability and (b) the provision of competitive infrastructure. According to Fabella, once these conditions are met, firms on the technological frontier will come and operate. This way greater output, exports, and employment may be expected.

Fabella distinguishes two types of infrastructure: hard and soft. The former refers to infrastructure in the form of roads, ports, telecommunications, and shipping. Considering the archipelagic conditions of the country, shipping and telecommunications are very important hard infrastructure. Soft infrastructure consists of peace and order, that is, governance concerns, and human infrastructure in the form of skilled and educated labor in a predictable labor market. Unfortunately, the Philippines lags behind the provision of soft and hard infrastructure. It ranks thirty-ninth out of 41 countries in the 1991 World Competitiveness Report. Making available the required soft and hard infrastructure requires the allocation of substantial resources and reorientation of the country's economic policies like fiscal policy.

The implication is that through appropriate fiscal choices, the government can make the macroeconomic environment conducive for private investment capital to bring about the expected economic growth.⁴ More than this, following a Fabella-Von Thunen concept of competitiveness, once international factor mobility is assumed, inter-country differences spelled out by soft and hard infrastructure determine where factors of production will choose to be employed. Thus, the relative attractiveness of the country to private investment capital will be principally motivated by the availabil-

ity of “immobile factors with which mobile capital combines to produce value added” (Fabella 1996).

The emphasis on the provision of soft and hard infrastructure through a reorientation of government expenditure patterns does not belittle the critical role of fiscal policy in establishing and maintaining macroeconomic balance. The Philippine experience shows that a drastic cut of the fiscal deficits was instrumental in having low inflation and low domestic interest rates which create the conditions for more investment and risk taking by private agents. The capacity to attract investment capital depends, to a great extent, on the sustainability of policies that restore confidence in the economy (Goldstein *et al.* 1991). Greene and William (1991) found out that the rate of total private investment in developing countries is positively related to the rate of real GDP growth, the level of per capital GDP and the rate of government investments. The investment rate has been found to be negatively related to the real interest rates and the levels of inflation and debt.⁵

This is an important point to consider in view of the increased demand by developing countries for investment capital. Bahl (1992) maintains that the distribution of investment capital among the developing countries will be partly determined by government policies in those countries. This view emphasizes the importance of macroeconomic balance that not only restores confidence in the local economy but also creates positive expectations of the future. The confidence and positive expectation will be bolstered by the availability of “world class” immobile factors that combine with the mobile factors to produce value added. Thus, for the country, the challenge is how to develop the capacity “to find markets for exports, to find sources of capital for industrial and infrastructure development and increasingly, to develop competitive production technologies” (Bahl 1992). The fiscal policy choices of the future have a significant bearing in developing that capacity.

RECENT FISCAL REFORMS

This section is a brief summary of the fiscal reforms undertaken by the Aquino and Ramos governments in the last 10 years (1987-1997). It focuses on the period when the economy made substantial strides toward economic liberalization, openness, and integration to the world markets. The simple message of this section is that an economy cannot aspire for competitiveness unless it has successfully addressed the basic macroeconomic imbalances. A strong fiscal position, defined as a situation of a fiscal surplus, is a key factor in addressing those imbalances. Conversely, huge fiscal deficits lead to strong inflationary pressure and deterioration of the external balance.

A fiscal surplus enables the economy to enjoy a regime of low inflation that generates confidence in the capital markets and greater private risk taking that ensures greater private sector participation in the economy. Additionally, greater public savings make possible greater public investments on human resource and physical infrastructure.

The economy suffered serious macroeconomic imbalances under the Marcos martial law regime. In 1985, the last year of the Marcos regime, the consolidated public sector deficit (CPSD) was 6.1 percent of GNP. Patronage politics, the spoils system and the public sector monopoly in various industries contributed to the immense fiscal deficit. For example, government corporations grew from 44 in the 1950s to as many as 301 by the time Marcos left office. Those government corporations had monopoly or near monopoly control over sugar, coconut, cereal trading, power generation, hotel, land transportation, airline operations, rubber, and coffee production. In 1984, they accounted for 31.1 percent of the total investments but generated only 1.3 percent of value added.⁶ When the most serious balance of payments crisis ever to hit the country came in 1983-1985, GNP had a negative growth rate averaging -4.8 percent.

Fiscal Reforms Under Aquino

The Aquino government immediately undertook major economic reforms to recover the economy. It cut down public sector dominance of the economy, increased private sector investments and stimulated export-oriented industries. It focused on revenue generation and more efficient use of scarce budgetary resources. The government introduced reforms in the tax structure, tax administration, and the quality and distribution of government expenditures. The revenue program attempted to increase tax compliance and plug revenue loopholes. The result was an increase in total revenue effort from an average of 11.7 percent in 1980-1985 to 14.5 percent in 1986-1989. On the expenditure side, current spending grew from an average 8.9 percent of GNP in 1980-1985 to 13.3 percent in 1986-1990 primarily because of an increase in interest payments and personal service expenditures. The increase in interest payments was due to the national government's assumption of the guaranteed loans and obligations of government corporations and financial institutions (Diokno 1990).

Beginning 1986, the government assumed certain non-fiscal obligations in the national budget. These included debt payment on liabilities of the Development Bank of the Philippines and the Philippine National Bank that the Marcos administration used to provide behest loans to cronies and relatives. Other non-fiscal obligations included the debt service of the National Nuclear Power Plant and interest payments on Central Bank of the Philippines open market support operations in the flotation of

Table 4. 1986 Tax reform package

Tax Reform	Features of the Reform Measure
<i>Direct Taxation</i>	
1. partial shift to global personal taxation compensation and business/professional income	0-35% tax rate applied to both
2. uniform final tax on passive income	royalties, prizes, winnings from lotteries and interest income from bank deposits subject to uniform 20% final tax
3. withdrawal of tax exemption of franchise holders	franchise holders subject to income tax
4. uniform corporate income tax rate	2 tier corporate rate replaced with single 35%
5. increased private vehicle tax	average 50% increase on motor vehicle tax
6. increased personal exemption allowances	personal exemption allowance increased and the poverty threshold income exempted from tax
7. separate taxation of married taxpayers	option to file separate income tax returns
8. elimination of double taxation of dividend income	elimination of tax on intercorporate dividends and gradual removal of tax on shareholder's dividend income
9. tax amnesty on undeclared income	tax amnesty to raise additional revenue
<i>Indirect Taxation</i>	
10. value added tax, generally 10%	simplified indirect tax structure to yield more revenues
11. conversion of excise taxes to ad valorem taxes	prevented the erosion of excise taxes by inflation
12. abolition of export taxes, except on logs	removal of penalty on exports to raise additional revenue
13. minimum 10% import duty (later scrapped as duties on some raw materials were reduced to 3%, in some cases, zero)	
14. removal of tax exemption of GOCCs*	to improve tax collections; to financially troubled GOCCs, subsidies through the budget were provided for transparency
* government owned or controlled corporations	

government securities and advances related to the debt reduction program. In addition, the subsidy to the Oil Price Stabilization Fund contributed to the increased obligations of the government. Thus, the non-fiscal transactions increased the consolidated public sector deficit because of the government's assumption of various non-governmental liabilities. Interest payments alone became the single biggest item in the government's payment obligations. Note that the national government fiscal deficit constituted only some 50 percent of the consolidated public sector deficit (CPSD) which included non-fiscal obligations.

To address the huge CPSD, the Aquino government enacted a number of tax reforms in 1986. Table 4 summarizes the tax reform package of the government. There was a serious attempt to increase the revenue intake and simplify tax administration. Later in 1988, a notable tax reform was undertaken with the introduction of a broad-based value added tax. This simplified the structure and administration of a complicated sales tax system and generated additional revenues. It has a uniform rate of 10 percent.

An important component of fiscal reforms is the privatization of various government assets deployed in various industries such as banking, oil, and other businesses. The intention was to rid government of many non-performing assets and encourage private sector initiative in business undertakings formerly controlled by government owned or controlled corporations (GOCCs). The privatization program brought in substantial revenues to the government over the period 1987-1991 (Table 5).

A complementary reform to privatization was the rationalization of the government corporate sector. The government adopted the following measures:

- imposition of market interest rates on government advances to GOCCs;
- requirement to declare dividends and remit 10 percent of net income to the government;

Table 5. Receipts from privatization (in billion pesos)

Year	Amount	% of GNP
1987	5.4	0.8
1988	10.1	1.3
1989	8.6	1.0
1990	4.5	0.4
1991	6.6	0.5
<i>Total</i>	<i>35.2</i>	

Source: Department of Finance

- prioritization of access to government support, reduction of budgetary support
- government guarantee solely to the National Power Corporation, with the rest of GOCCs asked to borrow based on their respective credit ratings;
- performance evaluation based on plans and target accomplishment; and the
- establishment of Government Corporate Monitoring and Coordinating Committee to supervise GOCCs

As a result of the reforms in the GOCC sector, net flows to GOCCs dropped from 5.6 percent of GNP in 1986 to 1.5 percent of GNP in 1987 and to less than 1 percent of GNP from 1988-1991 (de la Cruz and Beltran 1991). This meant substantial savings for the government.

The 1986 tax reform package resulted in an improvement of the tax effort from 11 percent in 1986 to 15.2 percent in 1992. With the privatization program, the revenue effort increased from 13.3 percent to 17.7 percent in the same period (Table 6).

Thus, the overall buoyancy of the tax system with respect to GNP rose from an average of 0.93 in 1976-1986 to 1.41 in 1987-1992 with significant improvements in the buoyancy figures for the individual and corporate income taxes (Table 7).

On the expenditure side, the Aquino administration had to contend with the demands of the rehabilitation of the government corporate sector. Thus, it absorbed the liabilities of the rehabilitated government financial institutions and also allocated a very substantial share of the budget to debt service. From 28.5 percent in 1985, the ratio of debt service to total expenditure rose to 49.2 percent in 1990 before dropping to 37.3 percent by 1992. Government expenditure on personnel services also rose because of the enactment of the salary standardization law, resulting in the increase of personnel services from 4.2 percent of GNP in 1985 to 5.8 percent in

Table 6. Tax and revenue effort, 1986-1992 (in percent)

	Tax Effort	Revenue Effort
1986	11.0	13.3
1987	12.8	15.4
1988	11.4	14.2
1989	13.4	16.7
1990	14.0	16.7
1991	14.5	17.6
1992	15.2	17.7

Source: Department of Finance

Table 7. Overall bouyancy coefficients of major tax groups

	1976-1986	1987-1992
Total tax revenue	0.93	1.41
Individual income tax	0.62*	1.67
Corporate income tax	0.90*	1.57
Sales tax/VAT and licenses	0.95	1.43
Excise taxes	1.22	0.60
Import duties	0.71	1.88

*average for 1980-1986

Source: Manasan (1997)

1991 (Department of Finance 1997). The 1988 government wide reorganization resulted in the expansion of the bureaucracy. Diokno (1990) estimated that from a level of about 1 million employees in 1987, the bureaucracy expanded to approximately 1.2 million employees in 1990.

In addition, the Aquino administration had marked preference for expenditure in education, health and social welfare, including mass housing, agrarian reform, and free secondary education. In 1980-1985, the Marcos regime spent some 2.9 percent of GNP for infrastructure (power, energy, water, roads, and flood control) and 2.5 percent of GNP for education, health and social welfare. Aquino reversed the situation by spending as much as 2.7 percent of GNP on education, health, and social welfare compared to 1.9 percent of GNP on infrastructure (Diokno 1990).

The sustainability of the fiscal deficit became a problem as the CPSD rose to almost 5 percent of GNP in 1990. A tight stabilization program was imposed in 1990-1992. Excise taxes on tobacco and alcohol were raised with a 9 percent import levy together with a specific levy on oil importation. Capital spending which had been on a decline was cut further. An immediate result was the severe electric power shortage in 1992 that had an adverse impact on investments and on the country's competitiveness.

FISCAL REFORMS UNDER RAMOS

The Ramos administration basically continued the tax policy stance of the Aquino administration. It tried to develop more revenue generating capacity, simplify and

strengthen tax administration and improve the equity of the tax system. Given the country's relatively low public savings, the government had a single-minded effort to raise revenues.

In 1993, new revenue measures were passed, among which are the excise taxes on cigarette, the use of the withholding tax for the value added tax (VAT) on government contractors and suppliers and an increase in dividends from GOCCs. In 1994, the documentary stamp tax and the stock transaction tax were increased. The government also undertook an expansion of the coverage of the value added tax. The excise taxes on liquor and tobacco were also increased. The temporary oil levy was converted into a permanent excise tax in mid-1996. In this regard, the oil industry was finally deregulated which terminated the subsidization of the Oil Price Stabilization Fund (OPSF). To contain tax evasion, legislation was passed which increased penalties and removed restraints on disposition of smuggling cases. The import inspection scheme implemented by a private firm hired for the purpose was expanded to cover all ports. The minimum value of import shipments for inspection was also removed.⁷

Because of fiscal reforms, the government realized its first surplus in 20 years in 1994. The following year, it realized another fiscal surplus. This led to the decrease of the CPSD to 0.5 percent of GNP in 1994 and to 0.1 percent of GNP in 1995. The tax effort increased from 15 percent of GNP in 1992 to 15.7 percent of GNP in 1995, despite tax exemptions granted to exporters, thrift banks, and build-operate-transfer (BOT) projects. Table 8 shows the overall buoyancy coefficients of major tax groups and the resulting tax effort.

Despite the positive fiscal performance, Manasan (1997) pointed out the worrisome deterioration of overall buoyancy from 1.31 in 1987-1996 to 1.15 in 1993-1996. She observed that the sharp drop was caused by the decrease in buoyancy of tariff revenues and the individual income tax.

Legislation provided for new tax incentives and an increase in personal exemption levels. The Thrift Bank Act exempted thrifts, rural banks, and specialized government banks from the gross receipts tax. The Export Development Act of 1995 provided new tax incentives which will result in an annual revenue loss of close to P2 billion according to Department of Finance estimates. These new measures eroded the taxable base and brought revenue losses at a time that the economy needed more revenues to finance the increasing demand for public investment in physical infrastructure and human resource development.

Privatization was pursued with the transfer to private investors of big corporations such as Petron, Philippine National Bank and lately, the Manila Waterworks and Sewerage System (MWSS). The government completed the privatization of the

Table 8. Overall bouyancy coefficients of major tax groups and tax effort

Bouyancy	1987-1996	1993-1996
Total tax revenue	1.31	1.15
Individual income tax	1.62	1.53
Corporate income tax	1.60	1.67
Sales tax/VAT and licenses	1.52	1.67
Excise taxes	0.80	1.14
Import duties	1.25	0.29
Tax effort	% of GNP	
1992	15.2	
1993	15.3	
1994	15.6	
1995	15.7	

Source: Buoyancy: Manasan (1997)

Tax effort: Department of Finance (1997):

Philippine National Bank and sold PNB warrants in December 1995. This last measure generated P1.75 billion for the national treasury. The warrants were later listed in the stock exchange. Congress created a new Bangko Sentral ng Pilipinas to replace the bankrupt Central Bank of the Philippines. A Central Bank Board of Liquidators (CB-BOL) was also created to unwind the huge indebtedness of the former Central Bank. The government provided more than P30 billion to refinance the assistance to the CB-BOL.⁸

The Ramos administration also implemented BOT schemes, first to solve the power crisis which came to a head during the last year of the Aquino administration and later, to tap private sector expertise and resources for other hard infrastructure. The enactment of the BOT law enabled greater private sector investment in various infrastructure projects. It also attracted foreign capital which sought out road, energy, and other infrastructure projects.

The present efforts are concentrated on the passage of the Comprehensive Tax Reform Program (CTRP).⁹ The government expects this to be the vehicle for generating additional revenues in an effort to offset the revenue-eroding measures passed by a populist Congress. The new revenues will also be necessary to maintain a fiscal surplus since the remaining assets to be privatized will not yield as much revenues as

before. Most of the big assets have already been sold or transferred to private hands. The CTRP has three main parts: (a) the excise tax reform (already passed by Congress), (b) the income tax reform (now under discussion by the bicameral committee of Congress) and (c) the fiscal incentives reform (not yet tabled for discussion in the legislature). The income tax reform component seeks to (1) broaden the income tax base by removing areas of discretion between taxpayer and tax examiner, (2) simplify tax administration for efficient collection of income taxes, and (3) reduce the corporate income tax rate to encourage investments.

The estimated yield from the excise tax reform is about P7 billion in 1997 or 0.3 percent of GNP. This is a very big source of incremental revenue in the CTRP. However, the shift from ad valorem to specific tax system will reduce tax buoyancy. The original Department of Finance income tax reform package is estimated to yield incremental revenue of about P7.4 billion. However, a populist Congress mangled the proposed income tax reform package. The House of Representatives' version reduces tax revenue by almost P36 billion or 1.2 percent of GNP in 1998 while the Senate version will lead to incremental revenue of only P4.5 billion or 0.1 percent of GNP in 1998.

The general conclusion of this section is that the recent fiscal reforms brought a regime of low inflation and relatively stable prices. Cutting down the fiscal deficit to a more manageable level and eventually, turning a fiscal surplus were two important feats of the Ramos administration. This is a necessary although not sufficient condition for economic growth. A very large public sector presence crowds out private investment and lowers growth, thus, the need to cut the fiscal deficit. Low inflation and stable prices have encouraged domestic and foreign private capital investment. However, the constraints imposed by inadequate or lacking soft and hard infrastructure on attracting more private capital are very real problems. Thus, as the country becomes more and more integrated into the world economy, using fiscal policy as a competitiveness building instrument seems not only intuitively appealing but also very practical and strategic.

This has to be undertaken in a non-inflationary way. This will require greater use of taxation and user charges to generate revenues and reordering the expenditure pattern of government to ensure financing for soft and hard infrastructure. But as the economy moves toward the goal of higher economic growth in the midst of integrated world markets through competitiveness enhancing strategies such as providing soft and hard infrastructure for mobile private capital, what fiscal choices await it?

IV. FISCAL CHOICES: TO BE OR NOT TO BE COMPETITIVE

Several critical fiscal choice issues present themselves in the emerging world environment. There is of course the overriding objective of continuing a regime of low inflation and price stability. More importantly, as the economy grows, the overall fiscal policy choice is to create a policy environment that would allow a greater private investment and productivity. Thus, the main suggestion of this paper is that the government must start to consider fiscal policy not only as a tool for macroeconomic stabilization, but also as a potent tool for influencing consumption and investment decisions of economic agents toward what would maximize society's welfare.

The myopic view of tax policy is to regard it as purely a tool for generating substantial revenues and to look at expenditure policy as an instrument to offset the deadweight losses arising from distortionary taxation. Thus, a government should raise as much tax revenues as possible, regardless of a distortionary impact on private economic agents' consumption and investment decisions. It is expected that the appropriate expenditure policy will offset the distortion so created. In this context, what fiscal choices confront the economy as it strives to be more competitive in the emerging world environment?

I suggest the following as the more critical fiscal choices of the future with respect to meeting the objective of improving competitiveness:¹¹

A. Should there be growth in public expenditures or a decline in taxes and borrowings?

The traditional view seems to be that there should be increased tax effort in order to raise the revenues that will finance the growing public expenditures. However, while taxation and expenditure should be analyzed together, the problem is not simply using taxes to fund a fixed, exogenously given expenditure (Burgess and Stern 1996). Expenditures are financed by taxation, borrowing or money creation. Considering the relative costs and disadvantages of these different instruments used to finance expenditure, one has to carefully find a good justification for even suggesting a particular expenditure item. Bahl (1992) pointed out that the government should not take an interventionist approach except where the presence of important externalities demands it. Tax, trade, and industrial policies should be coordinated and should interfere as little as possible with the market.

The sad thing, however, is that populist legislators have a penchant for enacting revenue-eroding laws bereft of any economic justification.¹² Burgess and Stern argue that the identification of important and costly areas for government intervention does

not *per se* warrant extensive government action. They further point out that even in systems where government is honest and constructive, one has to take into serious account the cost of raising resources whenever a spending item is proposed. Thus, the difficult fiscal choice to make is to identify the appropriate mode of financing (most preferably, a tax or group of taxes) that will be used to finance an expenditure item. The relative costs and disadvantages of the financing instrument must be thoroughly discussed and if possible, made known to the public. A good question to raise is whether a particular expenditure item will raise the competitiveness of the local economy.

Following Bahl, a good rule for debt finance is that borrowing should be limited by the growth in the economy's taxable capacity, the present level of debt burden and the intrinsic value of projects. Given the known limitations and pitfalls of debt finance or money creation, the only viable, long term funding source is taxation, and no other.¹³

The composition of government expenditures is as important as its aggregate value. For competitiveness in the global marketplace, expenditure policy should give greater attention to investment in human capital, e.g. basic education, nutrition and health. However, while there has been an attempt to provide the social sectors more resources relative to the other sectors, the resources such as those in the education sector have not been used for the most socially useful expenditure item, namely, basic education. Manasan, Llanto, and Nuqui (1996) pointed out that the need for greater investment in basic education can be appreciated in the context of rapid development sustained by the neighboring countries. Those countries made better use of their respective labor force's skills and training to create more jobs and wealth. This would have been impossible without a strong foundation in basic education that is a requirement for a competitive work force. If a good basic education is the key to a future competitive labor force, then the difficult choice lies between providing adequate support to basic education and privatizing state colleges and universities (SUCS) which provide tertiary education.¹⁴

A decline in the infrastructure budget has long-term implications on future economic growth and the competitiveness of the economy. However, neglect of recurrent expenditures may also require more capital expenditure to replace assets that have deteriorated because of poor maintenance. It will be important to determine recent changes and future trends in sectoral allocation of expenditures and to establish whether there is some significant relationship between share of government expenditure allocated to infrastructure and/or the level of total expenditure on infrastructure on the one hand, and growth in GDP on the other. In other words, it will be interesting to find out the impact of public expenditure on private investment deci-

sions. This way, the suggestion to deploy more resources to physical infrastructure may be justified relative to other schemes such as fiscal incentives which have been assumed to be significant determinants of private investment decisions. The problem with fiscal incentives is that despite the claim that they encourage private investments in particular areas, nobody is sure whether they increase factor productivity and the competitiveness of the economy. One thing is certain: they erode the taxable base and contribute to revenue losses.

B. Should fiscal incentives be used to promote certain sectors, e.g. tradable sector?

The interesting issues gravitate around the debate between having a tax structure favoring tradables on the one hand, and having a more neutral tax policy across sectors and transactions, on the other. For instance, Korea used tax policy to promote changing economic objectives in different ways. In the outward-oriented phase of economic expansion (1961-72), it used rebates of direct and indirect taxes on exports to encourage growth. In the most recent trade liberalization and structural adjustment phase (1980-89), the revenue-raising potential of the value added tax has played an important role in moving toward tax policy neutrality.¹⁵

Those who believe in the Korean (fiscal) model argue that generous tax incentives such as tax holidays and accelerated depreciation among others, will create tremendous investment opportunities in the tradable sector. The tradable sector will then be the locomotive of economic growth for the country. This paper holds that market forces and an appropriately structured tax system can provide the impetus for private investments, e.g. in the tradable sector that could bring about economic growth. Market forces will determine the volume and allocation of private investments. Tax policy will be a critical factor in investment decisions and this calls for a better understanding of the relationship between tax incentives and market investment decisions.

The problem with the tax or fiscal incentives approach is that the expectation arising from the grant of tax incentives is not confirmed by research findings. Recent research¹⁶ indicates that the tax incentives have an insignificant role in attracting foreign direct investments. In contrast, the availability of infrastructure, not generous tax or fiscal incentives, is one of several factors significantly influencing investment flows. Not only has the country's fiscal incentive system been an insignificant determinant of investments, it has also served "to reinforce the import substituting nature of the economy."¹⁷ In addition, generous tax holidays have eroded the tax base and

the tax effort of the economy. The low tax effort means insufficient resources will be at hand to build the soft and hard for competitiveness.

Thus, it may be a choice between generating sufficient revenues for infrastructure and providing tax incentives to domestic and foreign investors because of the expectation of higher levels of investment. Bahl (1992) has an excellent argument against the interventionist bias of tax incentives. He argues that the cost of tax incentives in terms of revenue loss (not to mention the distortions in preferences) must be made up with a higher tax rate (or level of taxation, if you may) somewhere else in the system. The real cost will likely be in terms of slower economic growth because of the higher nominal tax rates elsewhere in the system, distortions in economic choices and the revenue loss. The unfortunate thing is that there may be few opportunities for replacing the revenue losses arising from tax incentives as shown by Philippine experience.

The use of tax incentives creates a bias for the growth of particular types of desired economic activities or sectors. This leads to a lack of tax neutrality across economic sectors. It is desirable to move toward a greater tax neutrality across economic sectors, institutions, transactions, and financial instruments. This will enhance the efficiency of the economy, a necessary requirement for competitiveness. The implication is that tax policy must not tilt in favor of a particular sector, e.g. the tradable sector, or a particular activity, e.g. import substitution. A neutral tax policy allows for the nimbleness which firms or individuals must have in order to stay competitive in a rapidly changing world. In other words, it will be costly for the economy to have a tax policy locked up in favor of certain sectors or activities. Tax policy which is biased toward certain sectors or transactions will only lead to serious resource misallocation.

The best approach to attract foreign investment and encourage the inflow of flight capital is to maintain a stable macroeconomic performance buttressed by political stability and to show the availability of soft and hard infrastructure that enhances competitiveness of economic agents. Low and steady rate of inflation, small deficits on the government and trade accounts and a stable exchange rate will do more to attract and retain economic activity than will the most attractive package of targeted incentives (Bahl 1992). Thus, broadening the tax base and lowering the tax rate across sectors would seem to be a better choice for attracting investment capital. It seems that the job of motivating investments in the tradable sector falls squarely on the exchange rate policy and not on fiscal policy. Fiscal policy's job is to establish neutral taxation of sectors and economic activities and to generate resources for soft and hard infrastructure financed by broad based, low rate taxation.¹⁸

C. Should taxation of income be based on economic efficiency or vertical equity?

A major tax policy issue concerns the taxation of income. Shirazi and Shah (1991) observed that the emphasis on the redistributive role of the tax system is gradually waning due to widespread tax evasion. Progressivity seems to be treasured still in the political agenda but it seems that the failure to have an effectively progressive income tax has consigned vertical equity to the bottom of priority fiscal reforms. However, the idea refuses to die. In the proposed CTRP, Congress has proposed a relatively very high level of personal exemptions which exceeds the poverty threshold for a family of six. The intention is to exclude poor people from paying tax on income spent on basic necessities and survival. However, the proposal fails to address the noble intention. It erodes the country's small income tax base but the worse part of it is that it is anti-poor. This is because it provides proportionately bigger tax benefits to the middle and high income groups who really do not need it. The poor or those falling in the poverty threshold income do not enjoy it because in the first place, they are not liable to income tax.

It is perhaps, more practical to have fewer income tax brackets and lower marginal rates. Simplicity and ease in tax administration seem to be preferred to progressivity. This is seen in the country's modified gross income tax (MGIT) scheme for compensation income which started in 1981. This scheme used a lower and flatter tax rate structure compared to the global net income tax scheme with steeply progressive rates. The harder-to-tax self employment income of professionals and unincorporated business was taxed according to the simplified net income tax scheme (SNITS) which disallowed expenses that are easily subject to abuse. At present, the government has proposed to Congress further modifications of the income tax system, including that applying to corporations.

Manasan (1997) critiques the proposed income tax reform under CTRP, calling it a "taxing problem." The overall verdict seems to be that the legislative versions are revenue losers while that of the government achieves incremental revenue (noted elsewhere in this paper) and some measure of simplicity. The fiscal choice then is between the more pragmatic and realistic "economic efficiency" (*i.e.*, revenue and simplicity) and the more politically attractive but elusive "vertical equity." Table 9 shows the tax base index, an indicator of the coverage of the individual income tax, and the high tax bracket index, an indicator of equity of the individual income tax.¹⁹ A zero tax base index implies all incomes are taxed. A tax base index of 0.11 (Japan) means that 11 percent of average family income is not taxed. In the Philippines, about 20 percent of average family income is not taxed. On the other hand, a high tax

bracket index of 3.08 under the country's individual income taxation means that the top marginal rate of 30 percent will apply to a significant fraction of taxpayers. The proposed income tax reform package for individuals will reduce the coverage of that tax.

Table 9. Tax base index and high tax bracket index

	Tax base index	High tax bracket index
Existing system	0.203	3.082
House Bill no. 9077	0.613	3.082
Senate Bill no. 454	0.289	1.540
<i>Other countries</i>		
Thailand	0.121	15.220
Japan	0.110	6.930
United States	0.120	2.340

Source: Table 2, Manasan (1997)

On a positive note, the proposed rate schedule for individual income taxes will apply to both compensation and business income. This will take away the disincentive effects to individuals receiving the same amount of income but facing different tax rates because the incomes come from different sources.²⁰

The remaining issue concerns the taxes on passive income. The government shifted to a schedular individual income taxation in 1981 because of the difficulty of taxing interest income on bank deposits and dividend income on a global basis. Administrative efficiency became the excuse for not imposing a global income tax, i.e., aggregating all types of income and subjecting them to a common rate schedule. This is fine for as long as all passive incomes are subjected to the same withholding rate. At present, interest income on bank deposits, treasury bills and other securities are subject to a 20 percent final withholding tax. On the other hand, capital gains on real property accruing to individuals are imposed a tax of 5 percent of gross selling price of the real property. Capital gains on shares of stocks are taxed differently depending on whether or not the share is listed in the stock exchange.

What is the implication for competitiveness? A tax measure which erodes the revenue base and thus, leads to revenue loss without clear and certain compensating gains in efficiency and equity is a bad measure. Such is the income tax reform version

of Congress. The revenue loss will impact on the ability of the government to finance the soft and hard infrastructure for competitiveness. On the part of economic agents, private investment decisions will not be determined by comparative advantage but by the extent of effective protection provided by distortionary taxation.

D. Should government become more decentralized or centralized?

This question is new for some countries, e.g. China and Russia and an old one in countries such as Colombia and Argentina. It stems from the belief that local governments have a comparative advantage in identifying what is best for the local area and delivering the best package to the area (Bahl 1992). This is called by McLure (1997) the "principle of subsidiarity" which means increasing the local people's influence over government decisions affecting them.²¹ While the justification for decentralization is largely on allocative or efficiency grounds, there are also political arguments in its favor (Tanzi 1995).

It gained much ground in the country because decentralization was considered an important component of participatory development in the sense that the local areas will now be involved in tax and expenditure decision processes. The Philippines has gone a long way in decentralization with the enactment into law of the Local Government Code of 1991 that laid down the framework and financing of decentralization and devolution of the delivery of certain public goods and resources. It is now a commonly accepted belief that there is no going back on decentralization. In fact, local governments are clamoring for a greater share in the tax revenues through an increase in their share of internal revenue allotment (IRA).²²

Decentralization requires the assignment of local taxing powers and local expenditure responsibilities to local governments. Through a grant system, local governments are also given their share in national taxes or claims on natural resources found in their territories. To be effective, local governments must have adequate taxing and spending powers. They must also have access to overseas development assistance funds and the capital markets.

Decentralization creates tension between the local governments and the national government with respect to the sharing of taxing and spending powers. The assignment of taxing powers, expenditure responsibilities, and the grant system may "reduce the flexibility of the central government to pursue a stabilization program, equalize services within the country and to implement development spending priorities" (Bahl 1992). The national government may be pursuing macroeconomic policy objectives, e.g. low inflation, low domestic interest rates in order to attract both domestic and foreign investment capital. However, this may not be possible if the national govern-

ment has yielded substantial tax and expenditure responsibilities to the local governments. There could be divergence between local and national interests.

Thus, the difficult fiscal decision lies in balancing, on the one hand, local interests and the corresponding access to resources to promote those local interests and on the other hand, allowing the national government to meet its macroeconomic policy objectives. For example, national interest may require the building of a certain infrastructure in a local area that may not be seen as local priority interest. Funding this through a non-inflationary way, *i.e.*, through benefit taxation may conflict with local demand for tax revenues. This will require close policy coordination and cooperation between the national and local governments. A way out may be to reduce the size of the national public sector through privatization schemes, *e.g.* contracting private agents to deliver the public goods for a fee. This will eliminate the conflicting demand for tax revenues by the two levels of government.

Another area of choice lies in assigning taxes. This is a difficult and complicated field (McLure 1997, Tanzi 1995, Hommes 1995).²³ McLure (1995, 1997) tries to provide a normative solution by citing Musgrave's (1959) three-branch view of public households, assigning income redistribution and macroeconomic stabilization to the central government but dividing the allocation function among two or more levels of government. Thus, following this formula, revenue assignment²⁴ may be as shown in Box 1.

Box 1. Assignment of revenues from major taxes to levels of government

Type of tax and assignments	Justification
individual income tax: national	macroeconomic stabilization income redistribution generalized benefit/revenue
corporation income tax : national	macroeconomic stabilization income redistribution
value added tax: national	generalized benefit/revenue
business taxes: local	residence-related benefits
excise taxes: national	specific benefits/cost of service
natural resources: national/local	national patrimony equity
property taxes: local	specific benefits/cost of service

The problem may not be as severe as discussed here. There seems to be a continuing dialogue and openness between the national government and local governments with respect to the issue at hand. Perhaps, it is not a question of choosing either centralization or decentralization. The choice is not between these two cases but in finding the happy mean between the two.

The main implication on competitiveness building lies in the fact that infrastructure may be more efficiently provided by the local government (say, feeder roads, small scale irrigation) than by the national government. There could be instances though when because of scale economies and externalities, provision must be centrally provided. Thus, discussion of the degree of decentralization and centralization is critical for competitiveness. Resources are fungible and are easily dissipated unless put to their most efficient use. Should a larger share of the internal revenues be provided to local governments? Should the national government retain more of the resources? How should revenues from national wealth, e.g. mining output, be shared with local communities?

CONCLUSION

The paper points out the obvious. A fiscal policy regime that brings about a regime of low inflation, macroeconomic stability, and fiscal surplus creates the appropriate conditions for greater deployment of investment capital. What are not so obvious are the fiscal choices that must be made which affect the economy's competitiveness in the emerging world environment. The paper suggested that there is a need for greater attention to and care in using tax and expenditure policy to achieve several and sometimes, conflicting objectives. An understanding of the difficult fiscal choices facing the economy will help policy makers arrive at informed decisions.

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NOTES

- 1 As examples, Fabella (1996) cited the loss of chip-maker Unidem to China, the closure of the rubber shoe manufacturing firm, Rubberworld in 1985 and the large trade deficit with China which stood at US\$127 million in 1994.
- 2 Macaranas (1996) commented that the observed efficiency gains should not be taken apart from the distributional implications of greater interdependency and freer trade. He noted that in 1980, the World Development Report estimated that close to 800 million people lived in absolute poverty and that by the end of the decade, this number would increase to more than 1 billion people.
- 3 See Bahl (1992), Fabella (1996), and Alburo (1996).
- 4 This does not suggest that fiscal reforms are the only thing that matter. Obviously, other economic policy reforms are warranted, but certainly, without trimming the fiscal deficit, macroeconomic stability will be hard to achieve.
- 5 See Bahl (1992).
- 6 The figures came from the Department of Finance, 'Fiscal Policy and Performance,' undated and unpublished paper.
- 7 Department of Finance (1997)
- 8 Department of Finance (1997)
- 9 The Presidential Task Force on Tax and Tariff spent two years of intensive study to prepare the tax package which was submitted to Congress in 1995.
- 10 See Manasan (1997) for the estimates and a critical review of the income tax reform under the CTRP. One easily gets the impression that instead of helping the precarious revenue position of the government, the Congress version of the income tax reform package will result in unwarranted revenue losses, without compensating improvements in efficiency and equity in taxation.
- 11 The list is not exhaustive but carries only the most critical ones from the point of view of the author.
- 12 Consider for example the hare-brained legislative proposal to establish and fund a "tobacco bank" for tobacco farmers. We might as well have a "jeepney drivers' bank" or a "bank for the disabled."
- 13 Burgess and Stern forcefully argued this point, cautioning against borrowing which will increase taxation or reduce expenditure in the future or money creation which is inflationary. The latter has many distortionary effects on markets (Sachs 1989, Buiter 1989).
- 14 Again, this is not a popular idea. It seems that creating new SUCs provides more political capital and good press copy.
- 15 Irene Tela and John Whalley, "Taxes, Outward Orientation and Growth Performance in Korea," World Bank, 1990.
- 16 Mario Lamberte, "Attracting Foreign Direct Investments to the Philippines," Development Research News XI, Jan-Feb 1993 and Rafaelita Mercado-Aldaba, "Foreign Direct Investment in the Philippines: A Reassessment," PIDS Research Paper Series No. 94-10, 1994.

- 17 Aldaba, *ibid.*
- 18 The combination of broad-based and low rate taxation will perhaps yield more revenue than a regime of narrow tax base and high rates. Taxpayer resistance to high rates lead to tax evasion and smuggling.
- 19 Tax base index refers to the ratio of the threshold taxable family income of the typical household to the average family income. High tax bracket index refers to the ratio of the minimum income at which the highest marginal tax rate begins to be applicable to the average family income (Manasan 1997)
- 20 See Manasan (1997) for an extended discussion.
- 21 Oates (1968, 1972, and 1994) explains this very thoroughly.
- 22 This is expected to increase to as much as 40 percent of national tax revenues in 1998.
- 23 Hommes (1995) views this as a political problem. The transfer of taxing and spending power represents a shift of power without a guarantee that a political equilibrium will ever take place. He cites the case of Colombia where in his view "political and budgetary gamesmanship" is taking place which has a negative impact on the fiscal picture.
- 24 This is merely suggestive and does not take into account the administrative feasibility of assigning certain taxes to a particular level of government.

REFERENCES

- Alburo, F. 1996. An Overview of the Emerging World Economic Environment. In C. Paderanga Jr.(ed.) *The Philippines in the Emerging World Environment*. Quezon City: Center for Integrative and Development Studies, University of the Philippines.
- Aldaba, R.M. 1994. Foreign Direct Investments in the Philippines: A Reassessment. PIDS Research Paper 94-10.
- Bahl, R. 1992. Trends in the World Economy: Implications for Fiscal Choices. Bulletin, International Bureau of Fiscal Documentation, December.
- Buiter, W. 1989. *Principles of Budgetary and Financial Policy*. London: Harvester Wheatsheaf.
- Burgess, R. and N. Stern. 1996. Taxation and Development. *Journal of Economic Literature*.
- De Dios, E. 1996. Comments. In C. Paderanga Jr.(ed.) *The Philippines in the Emerging World Environment*. Quezon City: Center for Integrative and Development Studies, University of the Philippines.
- De la Cruz, E. and G. Beltran. 1991. Fiscal Policy and Performance: Pre-1986 to the Present and Medium-Term Outlook. unpublished document.
- Department of Finance. 1997. Fiscal Performance and Outlook. A Presentation before the Committee on Appropriations, House of Representatives, August 5.
- Diokno, B. 1990. Fiscal Performance in the 1980s, A Policy Perspective. Paper presented at the 28th Annual Meeting of the Philippine Economic Society, Manila Hotel, December 10.

- Fabella, R. 1997. Features of the Emerging World Economic Order: Implications for Growth Policy Options. unpublished paper.
- Goldstein, M. et al. 1991. Determinants and Systematic Consequences of International Capital Flows. Occasional Paper No. 77. International Monetary Fund.
- Lamberte, M. 1993. Attracting Foreign Direct Investments to the Philippines. *Development Research News*, January-February.
- Hommes, R. 1995. Conflicts and Dilemmas of Decentralization," *Annual World Bank Conference on Development Economics*. The World Bank.
- Macaranas, F. 1996. Comments. In C. Paderanga (ed.) *The Philippines in the Emerging World Environment*. Quezon City: Center for Integrative and Development Studies, University of the Philippines.
- Manasan, R. 1997. Income Tax Reform under CTRP: A Taxing Problem. *PIDS Policy Notes* 97-10, September.
- Manasan, R., G. Llanto, and W. Nuqui. 1995. *Financing Social Programs in the Philippines: Public Policy and Restructuring*. Makati City: Philippine Institute for Development Studies.
- McLure Jr., C. 1997. The Revenue Assignment Problem: Ends, Means and Constraints. *Journal of Public Budgeting, Accounting and Financial Management*, Vol.9, No.1, Summer.
- McLure Jr., C. 1995. Revenue Assignment and Intergovernmental Fiscal Relations in Russia. In E. Lazear (ed.) *Economic Transition in Eastern Europe and Russia: Realities of Reform*. Palo Alto: Hoover Institution Press.
- Musgrave, R. 1959. *The Theory of Public Finance*. New York: McGraw-Hill.
- Oates, W. 1968. The Theory of Public Finance in a Federal System. *Canadian Journal of Economics* Vol.1, February.
- Oates, W. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- Oates, W. 1994. Federalism and Government Finance. In J.M.Quigley and E. Smolensky (eds.) *Modern Public Finance*. Cambridge, Massachusetts: Harvard University Press.
- Paderanga Jr., C. 1997. Emerging World Environment: Research Program. unpublished paper.
- Paderanga Jr., C. 1996. Economic Interdependence and Macroeconomic Coordination. In C. Paderanga Jr. (ed.) *The Philippines in the Emerging World Environment*. Quezon City: Center for Integrative and Development Studies, University of the Philippines.
- Sachs, J. (ed.). 1989. *Developing Country Debt and Economic Performance*, Vols. I-III. Chicago: University of Chicago Press.
- Shirazi, J. and A. Shah (eds.). 1991. *Tax Policy in Developing Countries*. Washington D.C: The World Bank.
- Tanzi, V. 1995. Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects. Annual World Bank Conference on Development Economics, The World Bank.

Trela, I. and J. Whalley. 1991. Taxes, Outward Orientation and Growth Performance in the Republic of Korea. In J. Shirazi and A. Shah (eds.) *Tax Policy in Developing Countries*. Washington D.C.:The World Bank.



TAXATION BY REGULATION: SEARCH FOR A POST-PRIVATIZATION FRAMEWORK

NIMAI M. MEHTA

BACKGROUND FOR DEVELOPING COUNTRIES

The new order of privatization, technological change, and competitive pressures has created the need to reconcile market-based supply with equitable and fair outcomes traditionally associated with the public provision of basic infrastructure in water, roads, power, and telecommunications. The desire for equitable outcomes as determined by the distribution, the cost of, and, therefore, access to these facilities across regions, communities, and individuals or groups has historically motivated their outright nationalization and public provision by the state. However, as noted in the World Development Report: Infrastructure for Development (World Bank 1994), endemic failures of the welfare state, especially in the developing world, imposed a high cost on the economy and undermined the ability to effect and sustain equity objectives in the various infrastructure sectors. Where combined with wider growth-retarding macro and micro policies, infrastructure sectors in these countries have suffered an acute shortage of capital and investments. While this account of public provision is true for most developing countries, notable exceptions are to be found among East Asian countries — Japan, South Korea, Taiwan, Hong Kong — that combined public provision of infrastructure, including equity objectives, with broader growth-inducing policies (see Mody 1997). Nevertheless, rapid technological change

and competitive pressures are motivating a shift toward increased private provision of basic infrastructure services in these countries too. The shift to market-based supply in these countries, however, is expected to generate less significant equity trade-offs, given their higher per capita income and more equitable access to basic infrastructure across the population. This is clearly not the case for the less developed countries — China, India, Indonesia, Philippines, Thailand. Here, the governments are expected to be less willing to bear the equity implications of an unconstrained private-sector led growth of infrastructure facilities. The challenge before developing countries is, therefore, to effect a post-privatization framework for regulation that addresses these concerns while preserving the efficiency enhancing incentives of private supply.

EXPLAINING TAXATION BY REGULATION: THE TRADITIONAL APPROACHES

"I hope to show that any theory that conceives the function of regulation to be to approximate the results of competition, or to enrich the regulated firms, or to do sometimes the one and sometimes the other, is incomplete. But it does not follow that a broadened public-interest approach (one that accommodated certain subsidy elements) or a broadened effective-political-group approach (one that viewed certain customer classes as effective political groups) might not be tenable."

Richard Posner 1971:23
(emphasis added)

The use of regulation for existing or new industries has been more often than not motivated by the desire of governments to effect equitable outcomes, including redistribution of income. This has been true for both developed and developing countries. Cable television regulation in the United States provides a good example. Though thought to display characteristics resembling a natural monopoly, early regulation of this industry (as well as later deregulation in the mid-1980s) did not concern itself with cable rates or monopoly pricing (see Posner 1971 and Viscusi 1995). Instead, regulation instituted local private cable monopolies through franchise agreements with the municipal authorities who, in turn, collect significant fees and impose various social obligations — such as provision of free channels to schools — on the local monopoly. **The result is subscriber rates higher than what would have prevailed in a state of unregulated monopoly provision.** The regulatory intention has been

an explicit redistribution of income-in-kind from household cable subscribers towards socially valued recipients such as municipal schools. More recently, the US Telecommunications Act of 1996 provides schools and libraries subsidized access to the Internet funded through higher charges on interstate telephone users (Hausman 1998).

The theory of taxation and government expenditure would be a natural framework for an analysis of the government's attempts to achieve equitable outcomes in basic infrastructure or to redistribute income through regulation. Such an extension was made by Richard Posner in his 1971 article, "Taxation by Regulation." In this seminal contribution, Posner pointed to the common use of cross-subsidization, enforced by the authorities on both regulated private firms and public enterprises, for the provision of otherwise un-remunerative services. The presence of cross-subsidization is troublesome since it is contrary to both the efficiency norms of welfare theory and the maximization of monopoly profits. Posner explained the practice by suggesting that regulation is a legitimate instrument of taxation through which the government attempts to effect a redistribution of income between different consumer groups. The use of regulatory instruments as part of the wider system of taxes and expenditures could be justified, according to Posner, under conditions that made regulation a more cost-efficient way to achieve the desired redistributive outcomes. Thus, weak tax administration and the lack of an effective social expenditures system — both common to developing countries — would justify employing regulation as an instrument of taxation. However, it would be an open question whether these cost-efficiency conditions were actually being fulfilled in every case of cross-subsidization. That is, conventional theory could still claim, on empirical grounds, that regulation, in many cases, remains a relatively inefficient instrument to effect social obligations or to redistribute income. Thus, in a study quantifying comparative efficiency losses to the economy of cross-subsidies and alternative taxes, Hausman (1998) makes such a claim for recent telecommunications regulation in the United States. And in some developing countries, policy reform has indeed shifted the burden of social obligations from regulatory instruments to the broader tax base. This has been the case in Chile (see Irwin 1997) where traditional cross-subsidies in water supply have been replaced by targeted subsidies funded through economy-wide taxes.

While the issue of most cost-efficient instruments available for the government's tax and expenditure/subsidy program is clearly a general one, the persistent use of regulatory instruments for redistributive purposes in infrastructure remains to be explained. Neither can the use of regulation in the infrastructure sector be justified by "least-cost" properties *vis-à-vis* tax or direct subsidy in standard welfare theory framework, nor is it sufficiently explained by efficiency concerns associated with monopoly

or imperfect competition.

The Samuelsonian public good argument provides a partial answer to these questions, and is a well recognized basis for public involvement in the provision of infrastructure. However, the traditional public good argument in itself does not explain the preference for regulation over general taxes and subsidies. Here, the less-considered “club,” or more accurately, “shared good” quality of most infrastructure facilities may provide a more coherent explanatory framework for the phenomenon of taxation by regulation.

SHARING OF COMMON FACILITIES: EQUITY DILEMMAS

“...property does become clothed with public interest when used in a manner to make it of public consequence and affect the community at large. When, therefore, one devoted his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good.”

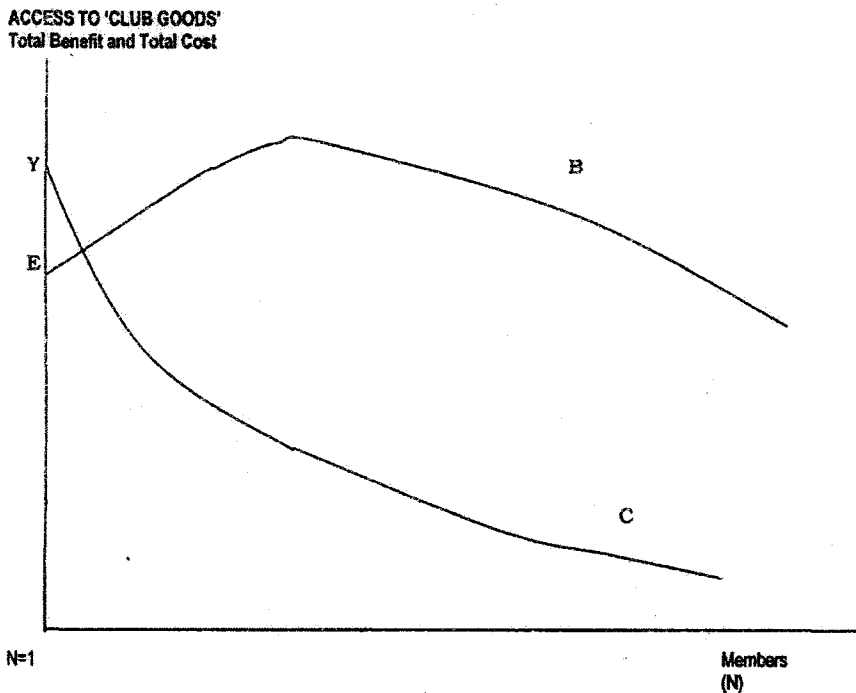
US Supreme Court
Munn vs. Illinois (1877)

The above quote is taken from a landmark case on regulation considered by the US Supreme Court that concerned the regulation of rates charged by private operators of grain elevators and warehouses in the state of Illinois. It is instructive to note the direction of causality that the justices’ reasoned with in legitimizing the need for rate regulation. It is the **manner of use** that creates a **public interest**, rather than the other way around. Further, ownership — private or public — is secondary to the identification of public interest. The nature of use identified in the Munn vs. Illinois case is the use of **common facilities**. The justices’ were clearly identifying a range of goods that lie between the purely private and the purely public, Samuelsonian good. These were goods or facilities that are used in common or shared by consumers both in time and over time. The range of such goods is, of course, large. It could include the sharing of a room or a taxi to the sharing of common facilities in telecommunications and water. However, in all of these cases, the form and terms of sharing are potentially characterized by significant equity dilemmas. These dilemmas may be illustrated by considering the so-called economic theory of clubs which seems more

suited to infrastructure facilities than the conventional theory of natural monopoly. In an early contribution, Buchanan (1965) investigated the determinants of club size — that is, optimal membership size, and the optimal quantity of club facilities. Buchanan's focus was on more traditional optima, rather than on issues of equity, which he set aside by assuming throughout an identical set of individuals in all relevant respects, including preferences and income. However, his basic analysis of club optima easily allows itself to be subject to issues of equity under a more realistic set of assumptions.

The following diagram provides a good start for understanding the relevant set of equity issues. The two curves B and C, respectively, trace the total benefit and total cost, measured along the ordinate, for an individual club member with reference to a single club facility, such as a swimming pool, and derived in relation to the total number of members in the club, indicated along the abscissa. The points Y and E on the ordinate indicate the total cost and benefit of the facility for a single-member club. Instead of considering the optimum club size, consider the following features that are unique to the choice calculus for shared facilities:

1. The individual, in this particular case, will not consider self-provision worthwhile, given $Y > E$ for the entire facility.



2. The individual cost share is purely a function of membership and total facility cost (of given size and quality) — note the absence of any marginal or variable cost associated with membership. Membership here could mean both the number of individuals and the frequency of use of facilities by any individual. That is, the use of any shared facility is a mere unit of account towards the total cost recovery of the shared facility. Thus, the number of phone calls made or the liters of water consumed represent significant units of account or membership in these infrastructure facilities. More importantly, the individual share in the total cost of the facility, however calculated — per visit or as a lump sum, would be based upon an *agreed* cost-sharing plan between the club members. Furthermore, any club member, for any given size of club membership and use, is potentially confronted with an all-or-nothing choice with regard to the facility. The potential cost sharing plans, acceptable to any individual member, again, irrespective of club size or use, would range from the full cost Y to a share that is a function of the number of members and the particular cost-share plan chosen. **The primacy of fair or equitable criteria is clear here in the determination of the relative cost-share of individual consumers of a shared facility.**
3. The benefit curve captures, for the individual member, both the utility and disutility of sharing facilities as opposed to the private enjoyment of the facility. Obviously, both income and preferences affect the height and shape of the benefit curve. The disutility of sharing would, most commonly, reflect the relative congestion and inflexibility of common as opposed to private consumption.
4. The determination of optimum club size is automatic if the assumption of identical individuals is maintained. However, once the more realistic assumption of differing individuals is introduced, the cost-sharing agreement and the process by which this is reached assumes greater significance in terms of equity.
5. Lastly, the matter of optimum quantity of club facilities, for identical individuals too, is mechanistically related to membership size. However, with differing preferences and income, the quantity and quality of club facilities become a matter of social choice as they would differently affect individual cost shares and benefit functions.¹

TAXATION BY REGULATION RECONSIDERED

Let me try and rephrase some of the traditional regulatory issues in the context of the just discussed equity concerns underlying shared consumption. In the context

of shared facilities, **privatization**, or market provision, is clearly not separable, even in theory, from the equity issue. Instead, privatization may be seen as merely a more efficient arrangement, among other possible institutional arrangements — such as cooperatives or government provision, for the delivery of shared facilities. The considerations that determine the “optimum” cost-shares, club size, and quantity/quality of club facilities remain valid under various ownership-management forms. This principle is clearly recognized in the earlier quoted ruling of the US Supreme Court in the *Munn vs. Illinois* case on rate regulation.

The actual institutional arrangements under which infrastructure facilities are provided are, of course, quite different from the model of voluntary and cooperative clubs described earlier. For most facilities, the form of provision has been a dominant or monopolist provider without the possibility of consumers having a say, through either voice or exit options, in the supply and pricing of the facilities. The theory of natural monopoly is obviously concerned with such an institutional arrangement. Here, the two related regulatory concerns have been the level and structure of prices at which supply is forthcoming.

The issue of **price structure** has been exclusively seen as one of allocative efficiency, with the advocacy of various forms of marginal cost pricing, Ramsey pricing, multipart tariffs, peak load pricing, etc. However, for the consumption of common facilities, none of these pricing rules, by themselves, offer a welfare maximizing structure of prices. The dominance of shared facilities in infrastructure, that cannot be unambiguously tied to the consumption of a single individual or group, would imply that the **resulting share** in common costs through any of these pricing rules would be arbitrary, unless voluntarily agreed upon by consumers — the confrontation of an all-or-nothing choice by consumers of facilities provided by a monopolist certainly does not meet the requirements of a welfare maximizing voluntary choice. The burden is therefore upon the regulator, guided by his government’s overall objectives, to provide an explicit or implicit justification of the particular pricing structure adopted. It is this role that the regulator seems to effect through the practice of cross-subsidies. The latter is, therefore, discussed in some detail next.

The framework of shared consumption emphasized here lends itself to a more coherent analysis of the almost universal presence of **cross-subsidies** imposed by the regulator in basic infrastructure. As argued above, the regulatory imposition of cross-subsidies can be justified within an overall attempt to ensure a socially desired distribution of access costs, across the relevant population, for the shared facility. Furthermore, and unlike in the competitive equilibrium for private goods of standard welfare analysis, cross-subsidization of relative consumption may well result from voluntary cost-sharing agreements.² In contrast, the unregulated private provider is typically

indifferent to the particular distributive character of individual or group share in common costs that result from its profit-maximizing set of prices. In the absence of reasonable alternatives, an evaluation of the distributive consequences of private supply may thus be legitimately required by the regulator. For example, the ability of a monopolist to extract rents through price discrimination could be limited by the imposition of a progressive, cost-sharing price structure that subsidizes access to the facility by certain groups or individuals. Or, uniform rates may be imposed based on a facility-wide averaging of costs that ignores location-specific differences in access-costs. A typical example is the requirement for uniform basic telephone rates between urban and rural communities that, in effect, subsidize the latter by ignoring the possibly higher “stand-alone” costs of rural provision. Thus, in order to close the urban-rural access gap for private telephones,³ the Malaysian government directed Telekom Malaysia Berhad — the dominant private provider, to lower rental rates for rural phones irrespective of their distance from the central exchange stations. A similar subsidy to increase rural access to electricity has been provided in connecting the outer areas to the national grid network. Regulation may therefore afford access to facilities to an extent and at rates that would not be forthcoming under unregulated market provision.

A significant regulatory function that has usually accompanied the imposition of cross-subsidies is the **control over market entry and exit**. The private provider is often assured a dominant market by the regulator that protects the net earnings required to cover the internal subsidies. At the same time, regulatory control — through, for example, universal service obligations — over the withdrawal of, or a refusal to supply subsidized assets is imposed on the dominant provider.⁴ Such attempts to sustain the **preferred** relative cost-shares for individual or group access to the common facility may be seen as legitimate in a situation where technological and institutional innovations create **selective competition** within a yet dominant shared infrastructure. This is especially true for facilities — such as water and sewage systems, electricity transmission and distribution, local telecom networks, etc. — where the stand-alone costs may remain prohibitively expensive, relative to demand, for the development of sufficient substitutes. Long-distance telecommunications and independent electricity generation are two examples where selective competition has affected the sustainability of preferred cost-shares and potentially reversed the subsidy from the less to the now more competitive market segments served by the common facility. The regulator would thus be justified in weighing such a trade-off while considering the allowance and terms of increased competition. Here, the **price of entry** — such as interconnection or access charges for long-distance telecommunications providers — would be part of the regulator’s overall attempt to effect a just distribu-

tion of cost shares for the dominant facility. The preferred entry price level and allowable competition to be considered would be one that sustained existing and legitimate cross-subsidies while allowing for sufficient competition to restrain monopolistic profit-maximization.

The need to sustain internal subsidies through earnings in a protected market raises the additional question of regulating **monopoly profits**. Here regulators, in applying rate-of-return or price-cap controls, seem to have been less concerned with profits earned in the dominant facility's protected — either by natural or artifactual means — markets, and more with prices charged in the subsidized market. If the intention was to replicate competitive outcomes, one would expect the opposite. Such regulatory practice does, however, make sense in context of the regulator's overall intentions to redistribute income. Profit regulation of Hong Kong Telecoms is a typical example of this practice. Hong Kong Telecoms, a private firm with exclusive franchises to service the local market and to provide international services has traditionally been subject to rate-of-return regulation on its subsidized local services while no profit or price control is imposed on its relatively high-profit international subsidiary.⁵ In 1993, the rate-of-return regulation over its local franchise was replaced with a price-cap which, in effect, institutionalized existing cross-subsidies to local users. Since the expiry of Hong Kong Telephone's exclusive franchise for the local market in 1995, the government has allowed greater competition in the local market. In contrast, no competition is expected to be allowed for its international services until 2006 when Hong Kong Telecom's international franchise expires.⁶ Of course, control over entry may not always be necessary to sustain cross-subsidization if improved productivity can substitute for protected earnings. In fact, removing restrictions on entry may be perceived as an important inducement to increase efficiency, especially if large X-inefficiencies are thought to afflict the incumbent firm. The existence of such a trade-off thus seems to have informed the regulator's actions in the mid-1980s that subjected the then recently privatized Nippon Telegraph and Telephone (NTT) company to increased competition in long-distance services without allowing it to rebalance its rates in the subsidized local market. However, in 1994, the Japanese Ministry of Ports and Telecoms allowed NTT to start collecting access charges from its competitors.

A different, but related, issue of sustainability arises in the case of declining industries — passenger railroads, telegraph services, postal services, etc., which may cease to function as significant public utilities while, at the same time, be faced with a shrinking market-revenue base. In such circumstances, the decision to sustain the declining industry in its present size through both direct and indirect subsidies may be justified only with regard to the government's constitutionally determined broader

program of taxes and expenditures. Here, subjecting the subsidy to a wider trade-off seems more feasible than in the case of regulation concerned with the distributive aspects of a dominant infrastructure facility.

CONCLUSION

The paper has tried to provide a more coherent framework to address the legitimate equity concerns in provision of basic infrastructure. The role of the regulator has been defined as being representative of a broader public concern with regard to ensuring a fair or equitable relative cost-share for individual and group access to shared facilities in basic infrastructure. The concern with efficient supply assumes a secondary — though not unimportant — role in regulation of shared facilities. Once a public-policy relevance is decided for a particular facility or sector, achieving the desired distribution of access in the most efficient manner possible, including privatization of facilities, is a legitimate constraint that the use of regulation, as an instrument of taxation, ought to be subject to. The decision as to a facility's public relevance remains, however, to be judged by the broader constitutional-political decision process. The regulator would not, arguably, be concerned with the social trade-off identified at that level. Evaluating the effectiveness of particular regulatory instruments in achieving the intended "public" goals would, however, be a legitimate exercise for the regulator.

NOTES

- 1 The problem of cost-sharing in the presence of common facilities should be distinguished from the economic category of fixed costs, which is based, in theory, on a temporal separation between fixed and variable factors. The above equity concerns with regard to common facilities would remain even in the absence of conventional fixed costs in supply.
- 2 In addition, the presence of positive consumption externalities associated with both objective network properties as well with subjective inter-dependent utility functions could directly suggest cross-subsidization of access to the common facility.
- 3 In 1990, the number of telephone access in rural Malaysia was 2.2 phones per 100 persons, against the national average of 10.3 phones per 100. In 1995, rural access increased to 5.5 phones per 100.

- 4 Thus, in the US telecoms sector, rate-of-return regulation has traditionally been accompanied by grant of monopoly rights and universal service obligations (Harris and Kraft 1997).
- 5 The imposition of cross-subsidies does, of course, result in profits less than full monopoly profits. In addition, for a rate-of-return regulation, the regulator ought to disallow inclusion of subsidized assets in valuation of the rate base.
- 6 In an agreement reached with Hong Kong Telecoms in January 1998, the government has sought to postpone the introduction of competition in the international call market.

REFERENCES

- Buchanan, J. 1965. An Economic Theory of Clubs. *Economica*, 32:1-14.
- Harris, R. and J. Kraft. 1997. Meddling Through: Regulating Local Telephone Competition in the United States. *The Journal of Economic Perspectives*, 11:92-112.
- Hausman, J. 1998. Taxation by Telecommunications Regulation. In J. Poterba (ed.) *Tax Policy and the Economy* 12, National Bureau of Economic Research. Cambridge, Massachusetts: MIT Press.
- Irwin, T. 1997. Prices, Cross-Subsidies, and Competition in Infrastructure. In *The Private Sector in Infrastructure: Strategy, Regulation, and Risk*. Washington D.C.:World Bank.
- Joskow, P. 1998. Regulatory Practice for Reforming Infrastructure Sectors in Developing Countries. Prepared for the Annual World Bank Conference on Development Economics. Washington D.C.
- Posner, R. 1971. Taxation by Regulation. *Bell Journal of Economics and Management Science*, 2:22-55.
- Viscusi, K. et.al. 1995. *Economics of Regulation and Antitrust*. Cambridge, Massachusetts: MIT Press.
- World Bank. 1994. World Development Report: Infrastructure for Development. Washington D.C.
- World Bank. 1997. The Private Sector in Infrastructure: Strategy, Regulation, and Risk. Washington D.C.
- World Bank. 1997. Infrastructure Strategies in East Asia: The Untold Story. Washington D.C.



THE EMERGING WORLD ECONOMIC ORDER: IMPACT AND PROSPECTS FOR MANUFACTURING SECTOR DEVELOPMENT

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INTRODUCTION

The world of free market economies is said to have entered a new era characterized by greater integration into the global economy. This is superficially similar to, but substantially different from, the integration that characterized the world economy at the end of the nineteenth century until the eve of World War II. A striking feature of the emerging world economic order is the greater integration of developing economies into the global economy, up till now dominated by developed economies. Unilateral trade liberalization is being undertaken on an unprecedented degree by developing countries that have previously adopted state-led industrialization policies. The results for the early liberalizers are well known: success at export markets and growth (often with equity, as in the East Asian cases). Moreover, the need for technology acquisition has led to the opening up of capital markets, sometimes almost simultaneously with countries' trade accounts. Developed country firms, on their side, have undertaken globalization strategies in the face of changing

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patterns of comparative and competitive advantages. They have taken advantage of, and even helped bring about, such liberal trade and investment regimes, locating their export bases in developing countries and bringing in both investment capital and technology. This includes not only production technology but also management and marketing know-how, quality control, supply networks, and an entire corporate culture.

Statement of the Problem

The Philippines, after a rather protracted period of fascination with inward-looking strategy, has finally joined the league of developing country liberalizers. Probably among the boldest attempts ever attempted by a developing country, the goal is a 5 percent uniform trade policy by year 2004. As with the experience of her Asian neighbors, the country expects to reap the benefits of greater export orientation and enhanced investment climate in both import-substituting and export industries. Fortunately, her liberalizing efforts are occurring in the midst of multilateral and regional trade and investment liberalization initiatives (Uruguay Round, APEC, AFTA). Such initiatives will ensure the opening up of markets for her exports. Unfortunately, however, there are now more players to contend with in the global arena. In particular, battle-scarred and hence more disciplined and determined countries — such as China and Vietnam — offer formidable competition in terms of absolutely lower wages and much larger market potentials. These too have discovered, however late, the rich potentials of growing into world markets.

These imply that the Philippines will have to move fast to take advantage of the ever-widening possibilities in global markets, while holding its own against actual and potential competition. In short, it is imperative for the country to redefine for itself the route it has to take through the global maze. What this route is and what the requirements are to travel it are the main questions that the present study wishes to address.

Objectives of the Study

Specifically, the study proposes to achieve the following objectives:

1. to determine the trends in trade and investment flows in world markets;
2. to define the country's major sources of competitive strength (and weaknesses) and to analyze these in the light of (1);
3. to draw out the implications of the findings in (1) and (2) in terms of required policy responses and institutional changes.

Working Hypothesis

The liberalization of trade and investment regimes, both in the Philippines and in its trading partners, has already begun to reveal the 'true' competitive strengths (and weaknesses) of domestic industries. On the one hand, technological change is definitely moving in the direction of industries characterized by greater research and development (R&D) — and its complement, skill intensity. The Philippines, on the other hand, together with India, is said to have the greatest pool of skilled labor (including engineers, technicians and managers) in Asia. It also appears that the Philippines is already at the verge of losing — if it has not actually lost — its comparative advantage in low skilled labor-intensive production, given the lower wages in Indonesia, China, Vietnam. The implication is that given the country's relative skill abundance, it is potentially well positioned to take advantage of the emerging world economic order that will be increasingly dominated by high technology industries demanding a high degree of skill intensity. Policy effort must then be mobilized to translate such potentials into concrete realities.

Brief Outline of the Study

The next section reviews the relevant literature and discusses the conceptual framework of the study in terms of the dynamic comparative advantage theory in the context of developing country stages of growth. The third section briefly discusses the methodology of the study. The fourth section presents the current trends in world manufactured trade and investments and the changing patterns of East Asian newly industrializing economies' (NIEs) trade and foreign direct investment (FDI) as well as sources of such shifts. The fifth section analyzes the changing nature of the Philippines trade and FDI, highlighting the movement towards greater skill intensity. The sixth section takes a closer look at the related problem of import dependence of skill-intensive FDI. It presents as an illustrative example the experience of the electronics industry in the Philippines and how it has induced localization of parts and components. It also draws on the experience of the electronics industry of Singapore. The seventh and final section summarizes the results of the study and offers some of its policy implications.

REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK

The Leontief Paradox opened up a Pandora's box of theories and counter-theories, of tests and counter-tests around the Heckscher-Ohlin Theorem (H-O). Admittedly, the textbook H-O or factor proportions model was too simplistic to be

realistic, especially given the complexities of modern-day trade and investment flows. Among others, it implies that trade in factors is a substitute for trade in goods so that FDI is trade-reducing. Given however the current picture of FDI flows bringing about cross-border division of labor due precisely to changing comparative advantage, such a static model clearly is not fit to handle the new waves of trade and investments lapping at the shores of many developing countries.

One could then argue à la Kemp-Jones that the basement H-O model can be extended and yield the result that capital mobility reinforces trade in goods. However, for the purpose of discussing industrial growth, it might be more appropriate to simply expand the original H-O model to include other factors of production (neo-factor proportions theory) and then *dynamize* it in order to explain the changing pattern of comparative advantage that a typical developing country undergoes.

Studies have documented that Japan's exports have increasingly become physical and human-capital intensive over time. This was attributed to the changing pattern of Japan's factor abundance brought about by its rapid accumulation of physical and human capital *vis-à-vis* the slow growth in its labor force. Balassa's 1977 study attempted to corroborate this finding by investigating the changing pattern of comparative advantage in the process of the accumulation of physical and human capital for a cross-section of 36 countries, of which 18 were developed and 18 developing. The use of an inter-country framework allowed Balassa to compare the differences in structure of exports (with the use of revealed comparative advantage indices) across countries characterized by differences in physical and human capital endowments. His empirical results tend to support the "stages" approach to comparative advantage, according to which the structure of exports changes with the accumulation of physical and human capital. For instance the Philippines' regression analysis yields negative regression coefficients with respect to both stock and flow measures of capital intensity¹ (-1.34 and -2.28 respectively), implying that in 1972, the country's comparative advantage lay in (unskilled) labor-intensive goods. At the other extreme is the US with significantly positive regression coefficients for both stock and flow measures (0.84 and 1.47, respectively). Japan comes in between, with negative regression coefficients that are of smaller magnitudes than those of the Philippines (-0.31 and -0.52) and significant only at the 10 percent level with regard to the stock measure of physical capital. With this approach, Balassa concludes that one can predict the exports of countries progressing on the comparative advantage scale to supplant the exports of countries that graduate to a higher level.

Balassa's stages approach to comparative advantage is similar in implications to those of the *flying geese* paradigm that is often used to describe the development of latecomer economies such as the NIEs. In fact it was originally a general theory of

economic development developed by K. Akamatsu in the 1930s. Published in its English version in 1964, it predated Vernon's product cycle theory to which it is often compared. Essentially, Akamatsu was trying to model the development of an industry in a latecomer economy, specifically Japan, from the introduction of a product through imports, through its import-substituting phase to the emergence and eventual growth of exports. Akamatsu found such sequential pattern of importation, import substitution, and export orientation in a number of Japanese consumer goods industries (such as cotton textiles) and after a time-lag also in intermediate and capital goods industries (such as chemical dyes and textile machinery). He thus modeled the changing competitiveness of industries, and hence the restructuring that takes place in the manufacturing sector of an economy undergoing development. Kojima (1973) generalized the model to apply to latecomer economies in East Asia and referred to Akamatsu's model as a "catching-up product cycle." Yamazawa (1990) introduced into the model the role of FDI. He examined the role of Japan's investments into the East and Southeast Asian industries (e.g. textiles) as bringing about a restructuring of these economies, allowing them to catch up with Japan as the latter lost its comparative advantage in these industries. He introduced a stage into the model that Akamatsu never lived long enough to observe, namely the stage of 'reverse imports' as Japan became a net importer (from East and Southeast Asia) of the goods in which it has lost comparative advantage. Kojima and Ozawa (1985) dealt specifically with the role of transnational corporations (TNCs) in changing the shape of the flying-geese curves (UN 1995). Akamatsu found a time-lag in the flying-geese development of consumer goods and that of producer goods. Similarly, Vernon's product cycle model envisioned exports and eventually foreign production only after a time-lag, that is, after the product's technology has been perfected and has become mature. However, according to Kojima and Ozawa, present-day TNCs can now set up foreign production even at the very beginning of the product cycle and go directly into exporting from the host country, bypassing the importation stage. Likewise, it is possible for TNCs to compress the time lag of appearance between consumer goods and producer goods industries. Both production and export curves for producer goods can occur simultaneously in the early stages of industrial growth soon after the appearance of a production curve for consumer goods.

Using the dynamic H-O model as underlying paradigm, Chow and Kellman (1993) examined the compositional shifts in NIEs' (Hongkong, Singapore, Taiwan, and South Korea) exports to the major Organization of Economic Cooperation and Development (OECD) markets in terms of embodied factors and characteristics. Their results clearly support the hypothesis "that the past several decades may be understood in terms of a clear linear "maturation process" (Chow and Kellman,

1995, p. 79). The NIE patterns of exports followed the stage process of comparative advantage suggested by Balassa and others. Until the mid-1970s, the four NIEs' export patterns matched the expectations of a simple Ricardian or H-O model, *i.e.*, a declining capital-labor ratio indicating labor-intensive exports. However, from this date to the early 1990s, there is a clear increase in the capital-labor intensity of their exports to three OECD markets, that is, they were moving away from simple labor-intensive consumer goods and finding their comparative advantage in more sophisticated capital-intensive exports. With regard to human capital indicators, Chow and Kellman's findings for the four NIEs also showed a clear increase in embodied human capital, that is, a continuous shift to products embodying a higher proportion of human capital during the full two and a half decades (1965 to 1990) of NIE exports to the US and EC. A similar finding was found for Japan-bound exports after the mid-1970s. By the late 1980s, a convergence to a growing similarity between these three markets is found when human capital measures are used.

One could, of course, raise a number of theoretical points regarding the model. A major limitation is that it is a partial equilibrium model.² It is silent on the model's implications on terms of trade or on the balance of payments position of a country or countries following the flying-geese formation. It has also been criticized for over-emphasizing the role of Japan as a lead-geese in the Asian firmament, whereas other countries in Asia could very well take on that role. However, for all its limitations, it remains a useful model in stylizing the development experience of industries in late-comer countries. Together with Balassa's stages approach to comparative advantage, this model is adopted by the present study to provide a direction to possible future trends in the country's manufacturing industries.

METHODOLOGY

There have been a number of ways cited in literature to measure a country's skill intensity. Analysts have measured skill intensity of the US using the ratio of skilled to unskilled labor in industries, where skilled labor is defined as the sum of professional, technical, and managerial employees and craftsmen and foremen in an industry while operatives are considered unskilled labor. Similarly, Hufbauer's (1970) classification of industries according to skill intensity gives the percentage of the industry's labor force accounted for in the United States in 1960 by professionals and technical and scientific personnel. This classification had been employed by Chow and Kellman (1993) in their study of the changing pattern of comparative advantage

of the Asian NICs. A weakness of this measure is that it reflects the US' factor proportions and possible substitution of skilled labor for unskilled labor and other factors that were relatively scarce in the US in 1960. However, for purposes of ranking industries according to whether they can be considered skilled-labor or unskilled labor intensive, the Hufbauer remains useful. Moreover, its use can be justified from the viewpoint of international comparability. One of the weaknesses of the Philippines' industrial censuses is that they lump together operatives (generally low-skilled) and craftsmen/foremen in their categorization of production workers. Moreover, there is no fine distinction as in US data of 'professional, technical, and scientific personnel.' This is a serious weakness since craftsmen/foremen are usually the skilled members of the labor force. We are thus obliged to adopt here the Hufbauer classification to distinguish in general terms manufacturing industries according to whether they are (high) skill intensive or (low) unskilled intensive.

Kravis (1956) likewise argued that the greater investments in human capital embodied by industrial labor is reflected in a higher wage/salary received by workers in an industry. Assuming that the higher salaries of skilled labor reflects the amount of investment in human capital undertaken, the skill intensity of an industry could be defined, as follows:

$$S_i = \frac{\text{Ave. salary skilled labor in industry } j}{\text{Ave. salary of unskilled labor in industry } j}$$

An alternative measure is the ratio of salaries of skilled labor in industry j to the sum of the salaries of skilled and unskilled labor in the same industry. However, given the above weakness of available Philippine manufacturing data, it is not possible to adopt this definition.

To measure the difference in the country's comparative advantage across manufacturing industries, we employ Balassa's revealed comparative advantage (likewise used by Chow and Kellman for comparative purposes) :

$$RCA_{ij} = \frac{X_{ij}/C_j}{X_i/W}$$

where X_{ij} = total exports of i th product by j th country
 C_j = total manufactured exports of j th country
 X_i = total world exports of i th product
 W = total manufactured exports of the world

A country is said to have comparative advantage when it is specializing in export of good j (given its share of the country's manufactured exports) relative to the world.

TRENDS IN TRADE AND INVESTMENT IN SKILL-INTENSIVE INDUSTRIES

In this section, we observe the global trends in demand for skill-intensive goods in order to set the background for our succeeding discussion on the possible development path being opened up for the Philippines. As discussed in the methodology (section 3), there are different ways of measuring the factor intensity of goods. In this section, we adopt the classification of skill-intensive goods based on the skill ratio derived by Hufbauer (1970), because of the lack of Philippine data of sufficient disaggregation to capture the differentiation between skilled and unskilled labor. Although the Hufbauer classification is essentially influenced by the skill abundance in the US in the 1960s, it remains useful for cross-country comparisons. Moreover, the importance attached to it here lies in the *ranking* of industries, rather than the actual skill ratio. Thus, it can be observed that in this classification (Table 4.1), the chemical industry (SITC 5 and includes medicine and pharmaceuticals, essential oils and perfumes, manufactured fertilizers, plastic materials, articles, resins, dyeing, tanning, and coloring), electrical machinery and appliances, and transport equipment (SITC 7) can be considered the more skill-intensive commodities.³ The commodities with the lowest skill ratios are those one would generally consider unskilled or low-skilled labor intensive commodities (relative to the above three), that is, textiles and yarns, furniture, leather and manufactures, travel goods, handbags, etc., clothing, footwear, and miscellaneous manufactures (SITC 6 and 8). We classify the rest of the industries as producing natural resource intensive goods.

Given this classification, we can observe from Table 4.2 the share of world manufactured imports of products originating from skill-intensive industries (chemicals, machinery and transport equipment) over the years 1975 to 1990. From 46 percent, it rose to 53 percent over almost two decades, with machinery demonstrating the greatest increase in share. Most of such changes in commodity structure of global trade is certainly accounted for by changes in demand structures of developed countries, although some developing countries, such as the Asian NIEs, have managed to extract an increasing share of the growing pie. Table 4.3 shows the share of the four Asian NIEs (Hongkong, Singapore, South Korea, and Taiwan) in world imports of all commodities in general and of manufactured goods in particular. The

Table 4.1

Skill Ratio by Industry

Industry	Skill Ratio
Iron & steel	0.5020
Medicine & pharmaceuticals	0.1926
Instruments, photographic goods	0.1622
Chemical Elements & compounds	0.1564
Chemical materials & products	0.1564
Essential oils & perfumes	0.1564
Manufactured fertilizers	0.1564
Plastic materials, articles, resins	0.1564
Electrical machinery, appliances	0.1523
Transport equipment	0.1218
Dyeing, tanning, coloring	0.1075
Manufactures of metals, nes	0.0966
Machinery other than electrical	0.0913
Nonferrous materials	0.0735
Rubber manufactures, nes	0.0604
Non-metallic minerals	0.0500
Paper & paperboard	0.0390
Textiles, yarns	0.0208
Furniture	0.0197
Leather & manufactures	0.0171
Travel goods, handbags, etc.	0.0138
Clothing	0.0102
Footwear	0.0066
Miscellaneous manufactures	0.0730

Source: Hufbauer, 1970.

trend is definitely on the rise for both. The four NIEs demonstrated a marked increase in their share of world imports of machinery, chemicals, and to a certain extent, of transport equipment. In the case of the ASEAN 4 (Indonesia, Malaysia, the Philippines, and Thailand) the trend is already present, though at a slower pace than for the Asian NIEs.

The rising world demand for goods originating from the skill-intensive industries, in both absolute and relative terms, is paralleled by and has possibly helped induce a change in the commodity structure of major Asian developing country exports. Given the rapid pace of industrialization in these countries over the last two decades, their export structure has become increasingly dominated by manufactures (Table 4.4). Starting with comparative advantage in natural-resource intensive commodities, these countries

Table 4.2

Skill-Intensive Goods in World Manufactured Imports

1975, 1980, 1985, 1990

(in million US Dollars; percent)

Year	Manu- factured Imports	Skill- Intensive Imports (1-3)	Chemicals (1)	Machinery (2)	Transport Equipment (3)
1975	565,725 (100.00)	258,668 (45.72)	61,015 (10.78)	129,056 (22.81)	68,597 (12.13)
1980	1,293,525 (100.00)	567,098 (43.84)	141,539 (10.94)	277,321 (21.44)	148,238 (11.46)
1985	1,344,004 (100.00)	648,420 (48.24)	150,046 (11.16)	319,886 (23.80)	178,488 (13.28)
1990	2,698,154 (100.00)	1,422,761 (52.73)	310,821 (11.52)	750,485 (27.81)	361,455 (13.40)

Source of Basic Data: International Trade Matrix for Asia-Pacific Region by Industrial Group, 1975-1992. Vol. I: Import, Institute of Developing Economies, Tokyo, 1995.

Table 4.3

Share of Asian NIEs and ASEAN of World Imports
1975, 1980, 1985, 1990, 1992 (In percent)

Year	Total Imports		Manufactured Imports		Chemicals		Machinery		Transport Equipment	
	NIEs		NIEs		NIEs		NIEs		NIEs	
	ASEAN		ASEAN		ASEAN		ASEAN		ASEAN	
1975	3.5	1.9	3.7	2.2	4.5	3.4	4.4	2.9	2.2	2.2
1980	4.8	2.2	4.8	2.4	5.4	3.1	6.4	3.2	3.3	2.3
1985	6.0	2.1	6.0	2.3	6.3	3.5	7.7	3.1	4.3	1.4
1990	8.4	2.6	8.5	2.8	8.6	3.3	11.6	3.9	3.3	2.3

Note: NIEs refer to 4 Asian NIEs: Hongkong, Singapore, South Korea, Taiwan.
ASEAN refers to ASEAN 4: Indonesia, Malaysia, Philippines, Thailand

Source of Basic Data: International Trade Matrix for Asia-Pacific Region by Industrial Group, 1975 - 1992. Vol I: Import, IDE, 1995.

rapidly shed off their export specialization in such goods in favor of low-skill intensive exports, mainly textiles, garments, and footwear. However, even the share of these low-skill intensive and basic manufactured exports had already peaked in the 1980s and seems to be on the downtrend. In contrast, the share of chemicals, machinery and transport is on the rise, though at different rates (Fig. 4.1).

As discussed in section 3, the picture is even clearer for a smaller subset of developing countries, namely the four East Asian NIEs' exports to OECD countries (US, EC, Japan). Chow and Kellman (1993) found "a continuous shift to products embodying a higher proportion of human capital over the full two and half decades examined in NIC exports to the United and the EC." Similarly, a rising trend has emerged in their skill-intensive exports to Japan after the mid-1970s. When ranked according to the two indicators of embodied human capital in exports, Singapore came out first, followed by Taiwan, Korea, and finally by Hongkong. In addition, by applying a stages approach to comparative advantage (Balassa 1979), Chow and Kellman were able to periodize the changes in the development process of the NIEs.

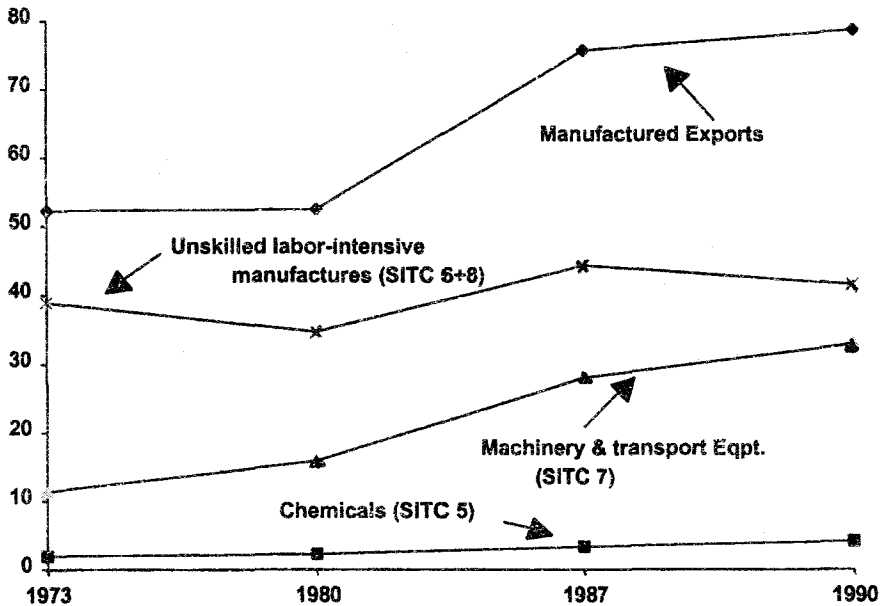


Figure 4.1
Share of Major Asian Developing Country Exports in World Exports,
1973 - 1990

They found that by the late 1970s, the NIEs were moving away from simple labor-intensive consumer goods towards more sophisticated capital-intensive production, which embodied new technologies. In particular, by the mid-1970s, low wages no longer played a significant role in explaining Singapore's exports to the three OECD markets. Rather, the skilled-labor ratio appeared to be the main explanatory variable in all the three markets. This implied that Singapore had increasingly found its comparative advantage in export products embodying highly skilled human capital.

Complementary to trade flows are the FDI flows. An OECD report on FDI indicates that FDI in the four NIEs is engaged in more technologically advanced industries. In Taiwan, FDI is concentrated in manufacturing, especially of electronic appliances and electronics. From the assembly of simple consumer electronics such as transistor radios and television sets, FDI moved to more complex electronics such as monitors, computers, and semiconductors. In Korea and Singapore, FDI is growing fast in the chemical industry. In a few years, Korea increased its output eight-fold and became a net exporter of chemicals. Singapore also exports 90 percent of its production of chemicals. In Malaysia and Thailand, FDI is moving away from low value-added textiles and food production to concentrate in manufacturing areas like

Table 4.4

Changes in Commodity Structure of Exports of Major Asian Developing Country Exporters, 1973 - 1990 (in per cent)

Commodity Group	1973	1980	1987	1990
Primary Commodities	46.7	44.9	22.3	20.1
Manufactures (SITC 5-8 less 68)	52.3	52.8	75.8	78.8
Labor-intensive mfrs (SITC 6+8 less 68)	38.8	34.6	44.4	41.7
Of which:				
Textiles (SITC 65)	7.5	5.5	6.9	6.8
Clothing (SITC 64)	11.9	9.4	11.9	10.0
Iron & steel (SITC 67)	1.2	1.9	1.7	1.7
Chemical products (SITC 5)	2.0	2.3	3.4	4.2
Machinery & Transport Eqpt (SITC 7)	11.5	15.9	28.1	33.0

Source: Tables 10, p. 19, Trade and Development Report, 1993, UN.

electrical appliances, machinery, and electronics. In Malaysia and Thailand, most of the consumer electronics production is exported. (OECD 1995: p. 30.)

We, therefore, observe the role of FDI in restructuring the economies of East and Southeast Asia towards skill-intensive production. And in most cases, FDI brings about trade rather than suppresses it, consistent with the stylization of the flying geese model.

SKILL ABUNDANCE AND SKILL-INTENSIVE INDUSTRIAL DEVELOPMENT IN THE PHILIPPINES

In this section, we argue that in terms of resource supply, the Philippines is generally well endowed with skills and, in some cases, even more so than other countries in Asia. Then we address the main question of the section, that is, whether such skill abundance is reflected in the export structure of the country and other measures of comparative advantage.

Relative Skill Abundance

At the most basic level, a country's potential supply of skills may be seen from the degree to which it has provided its people with the fundamental ability to read and write, or what we commonly refer to as 'literacy.' Table 5.1 shows that relative to its neighboring Asian countries, the Philippines' adult literacy ratio (expressed as percent of population) is among the highest among the selected group of East and Southeast Asian countries, second only to South Korea and even better than that of Singapore. However, for purposes of modern technology transfer in production, it is necessary to go beyond these basic literacy skills. The subject must be endowed with a minimum amount of logic and an understanding of the the basic laws of science and mathematics. Is the Philippines also relatively abundant in the type of skills generally required by industries?

Tertiary graduates in engineering and technology in government and private schools of the country average about 30,000 annually. This figure is rather impressive relative to the corresponding numbers in our Asian neighbors. According to the World Bank (1993), when the Philippines had about 35,000 such graduates per million population in 1982, the comparable figures were 2,540 Korea (1986) and 1,805 in Malaysia (1982), 1,121 in Thailand (1984), and 1,207 in Indonesia (1986). Another way of verifying the country's relative abundance of technical graduates compared to her ASEAN neighbors is by observing their relative monthly wages. It will be seen in Table 5.2 that the monthly wage of technical college graduates in the Philippines is the lowest in the region, even lower than in Indonesia. In relative terms, they have to be paid seven times the Philippine wage in Singapore, three times in Malaysia, and 2.5 times in Thailand. In contrast, the Philippines is second to the lowest in terms of monthly wages of factory workers and junior high school graduates, the lowest being in Indonesia. In relative terms, the gap is not as large, except for Singapore where they have to be paid about four to five times that in the Philippines. The salaries for managers (division and department) are lowest for the Philippines and Indonesia, about 1.6 times in Thailand and Malaysia, and three times in Singapore.

On the other hand, such potential does not seem to have been matched by a corresponding demand for technology graduates so far. When seen from the number of scientists and technical personnel engaged in R&D per 1,000 of its population, the Philippines finds itself at the bottom of the heap, together with Malaysia, with a figure of 0.1. Predictably, South Korea is at the top (2.6), followed by Singapore (2.2). There is evidence of a rather high degree of unemployment of educated labor. The figures cited by Tan (1997) show a 12.5 percent rate of college graduate unemployment for the Philippines in 1991, with the highest unemployment rate of 20 percent

Table 5.1

Comparative Statistics on Human Development Indicators

Country	Adult Literacy (%) 1994	Education Index	Tertiary enrolment in natl & applied sciences (% of tertiary) 1992	R&D scientists and technicians (per 1,000 people) 1992
Philippines	94.4	0.89	26	0.1
Indonesia	83.2	0.76	22	0.2
Malaysia	83	0.76	27	0.1
Singapore	91.0	0.85	-	2.2
Thailand	93.5	0.80	19	0.2
China	80.9	0.73	47	0.3
Vietnam	93.0	0.80	-	0.3
Rep. of Korea	97.9	0.93	40	2.6
Hongkong	92.3	0.56	35	-

Source : Human Development Report, UN, 1997

among engineering graduates. Another indicator of unemployment of our skilled workers, including those at the middle-management level, is the number that have sought and continue to seek employment overseas. Given such abundant supply of engineers and technicians, the country is considered by some business analysts as having the most readily available labor at all skill levels in the region.⁴ As Nagamine, the President of a world-renowned electronics company from Japan, Fujitsu, remarked "In the Philippines, when you advertise for ten engineers, 100 will queue up."

From industry surveys and cursory discussions with foreign investors in the country, two attributes of the country's labor force that seem to attract them in favor of the country against other potential Southeast Asian host countries are Philippine labor's ability to understand English and the relative abundance of engineers and technicians⁵ in the country. The first is considered important especially in highly competitive, technology-intensive industries with short life cycles such as hard disk drives. The reason is that given a six to nine-month life cycle, it is imperative that production be organized fast in order that the product may reach the market "fresh,"⁶

Table 5.2

Relative Wage Levels in ASEAN

Country	Factory Workers	Junior HS	Technical College	Managers	
		Graduates	Graduates	Division	Department
Philippines	1.00	1.0	1.0	1.0*	1.0*
Indonesia	0.63	0.54	1.36	1.0*	1.0*
Thailand	1.23	1.29	2.46	1.83**	1.63-1.7**
Malaysia	1.28	1.36	3.12	1.83**	1.63-1.7**
Singapore	4.10	4.70	6.91	4.83	3.0-3.33

* Data are lumped for Philippines and Indonesia; ** Likewise for Thailand and Malaysia

Source of Basic Data: *The Current State of Japanese Affiliated Manufacturers in ASEAN, 1995: JETRO, Overseas Research Department, August, 1996.*

otherwise the product suffers a price decline brought about by a shift to new and better technology. The second, *i.e.*, relative abundance of engineers and technicians, had already been noted above.

Admittedly, these figures say nothing of the *quality* of such graduates. However, discussions with industry people who have had some experience managing firms both in the Philippines and other countries of Southeast Asia tend to substantiate this general presumption of the country's relatively bigger supply of engineers and technicians. Indeed, the recent attractiveness of the Philippines to Japanese TNCs in the electronics industry seems to be based on their appreciation of the long-run possibilities for high-technology industrialization in the country precisely because of the relatively abundant supply of engineering and technology graduates compared with the shortage situation in other ASEAN countries (Singapore, Malaysia, Thailand) in these types of manpower. And for them, although the general quality level of such graduates can pose a problem, it does not seem to constitute a major one because of Filipino labor's *trainability*.

A JETRO survey on the current state of Japanese affiliated manufacturers in ASEAN in 1995⁷ probed into the Japanese firms' primary reasons for locating in the ASEAN country. The Philippines stands out with an 'impressive' 82 percent of the respondents citing "a competent work force (in terms of quality, education, trainability) as the primary reasons for locating in the Philippines. Philippine workers were highly

regarded for their high percentage of college graduates, their English language skills, and their aptitude for work requiring attention to fine detail. Low-cost labor (53%) only came second as a commonly cited reason. This contrasts with the primary reasons cited for the other ASEAN countries. More than half of those locating in Thailand cited social and political stability (65.6%); 'a competent labor force' came only second (52%). In Malaysia, again political and social stability was the primary reason (76%), infrastructure (51%), and incentives to foreign investment (48%). In Indonesia, the most important reason was low-cost labor (61%) followed by local market potential (60.4%). In Singapore, it was first of all its political and social stability (76.8%) followed by infrastructure (69.7%).

Given that the Philippines is characterized by a relative abundance of skilled labor, is this somehow reflected in its structure of comparative advantage?

Changing Comparative Advantage

Like most developing countries, the Philippines started off with exports of natural-resource intensive manufactures. In 1970, 85 percent of total manufactured exports were accounted for by natural resource intensive goods (Table 5.3). However, by 1980, this group's share of total manufactured exports had already gone down to a little over 50 percent, and by 1995, it was only about 13 percent. It is clear then that the country had already lost much of its initial specialization in natural-resource intensive manufactured exports.

But while natural resource-intensive goods were in the process of losing their share of total manufactured exports, they were being replaced by labor-intensive exports. From a share of only 3 percent in 1970, the share of unskilled and low-skilled labor-intensive and basic manufactures steadily rose to some 25 percent of total manufactured exports in 1985 and peaked at 36 percent in 1990.

One can observe such contrasting trends in Fig. 5.1. It can be seen though that another structural change is underway. By 1995, the share of low skill-intensive manufactured exports had slipped to 24 percent, down about 12 percentage points from 1990. On the other hand, in the same year, skill-intensive exports (chemicals, machinery, and transport equipment) approached a share of 60 percent of the country's total manufactured exports, after having rapidly risen from a low 5 percent share in 1970. Clearly, the Philippines' structure of export specialization has been undergoing changes in the direction of skilled-labor intensive commodities. Partly as a result of the steadily rising legislated minimum wages for unskilled labor in the country — in contrast to the market-determined returns to abundant skilled labor — there has been a compression in the wage structure (World Bank 1993), which in turn resulted

Table 5.3

Structure of Philippine Exports, 1970 - 1995

(US \$ millions; per cent)

Industry Classification	1970	1975	1980	1985	1990	1995
Natural-Resource						
Intensive Goods	381 (85.43)	997 (75.76)	1,937 (52.21)	1,062 (31.28)	1,372 (20.83)	1,961 (12.96)
311 Food	337	897	1,569	808	860	1,367
332 Furniture	1	5	77	84	189	154
369 Non-metallic minis	3	33	60	24	57	108
371 Iron & steel	1	2	49	40	77	56
Unskilled-labor						
Intensive Goods	13 (2.91)	181 (13.75)	801 (21.59)	857 (25.24)	2,349 (35.66)	3,651 (24.12)
321 Textiles, garments	6	122	576	662	1,869	2,778
Travel goods	1	10	9	10	43	110
324 Footwear	1	3	67	49	109	207
390 Misc. Mfts.	5	46	149	136	328	556
Skilled-Labor						
Intensive Goods	23 (5.16)	115 (8.74)	897 (24.18)	1,327 (39.09)	2,530 (38.41)	8,668 (57.28)
351 Chemicals	5	21	89	150	261	343
354 Petrochemicals	17	37	90	91	155	171
382/84 Machinery other than Elec/ Transpt Eqpt	1	10	47	30	150	741
383 Elect Machinery	-	47	671	1,056	1,964	7,413
Others	29 (6.50)	23 (1.75)	75 (2.02)	149 (4.39)	336 (5.10)	854 (5.64)
Total	446 (100.00)	1,316 (100.00)	3,710 (100.00)	3,395 (100.00)	6,587 (100.00)	15,134 (100.00)

Notes: Figures in parentheses are shares to total exports.

Source of Basic Data: Philippine Statistical Yearbook, various years.

in the rather early decline of the country's comparative advantage in unskilled labor-intensive goods. This was hastened by the entry into the scene of low-wage countries such as Vietnam, China, and Bangladesh. On the other hand, the rapid rise in the relative position of the country's skill-intensive exports had been induced mainly by the influx of foreign capital into these sectors, bringing with it the package of technology, management, and marketing skills that TNCs are known for.

Measures of the country's revealed comparative advantage tend to confirm such observations, though to a lesser degree. Figs. 5.2a and 5.2b show the revealed comparative advantage (RCA) of export commodity groups.⁸ The decline in the country's RCA is most evident in natural-resource intensive manufactures, especially food/beverages and wood products. Although the figures do not indicate that by 1990 the country has lost comparative advantage in low skill-intensive goods (such as textiles and leather, other manufactures), because their RCAs remain greater than 1.0, the trend in RCA is no longer rising. On the other hand, while the country has not yet attained greater-than-one RCA⁹ in skill-intensive goods, the most dramatic increase in RCA is found in machinery products, with a twenty-fold increase over its 1975 figure. Fig. 5.2 shows the trend in RCA by broad commodity groups over time.

What might all these indicate from a longer-run point of view? Using the 'stage theory of comparative advantage' advanced by Balassa (1979), one could predict that as developing countries advance in the ladder of world trade, their export structures tend to resemble those of their predecessors. Chow and Kellman (1993) examined whether the pattern of international competitiveness of the ASEAN had grown more similar with that of the NIEs over time. Among others, they compared the Spearman rank correlation coefficients between the RCA indices of the ASEAN in

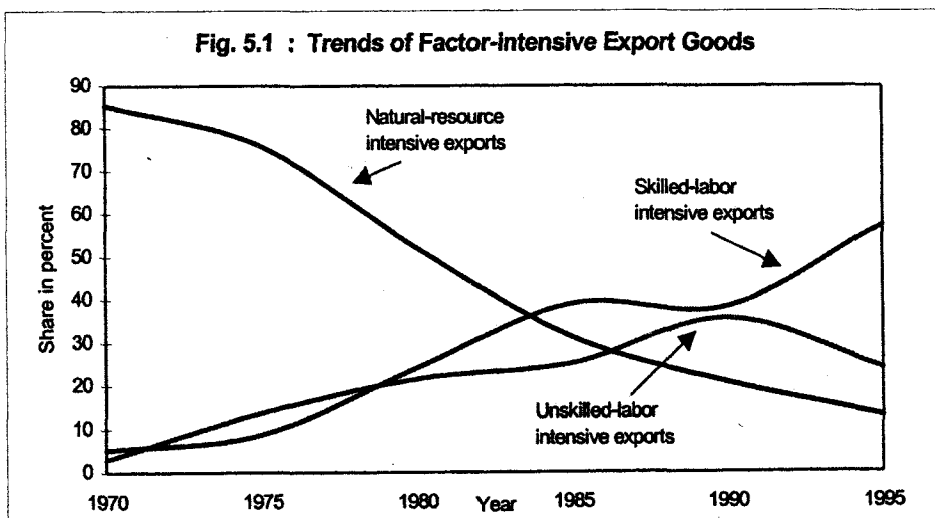


Fig. 5.2a: Revealed Comparative Advantage in Non-manufactured Exports 1970-1994

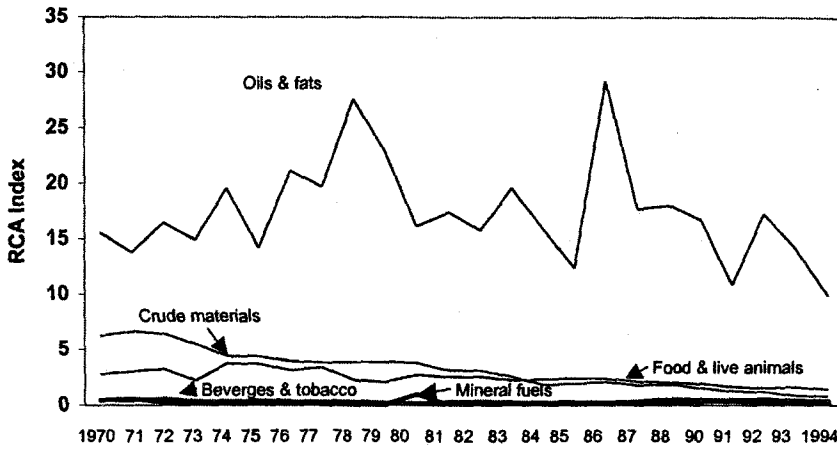
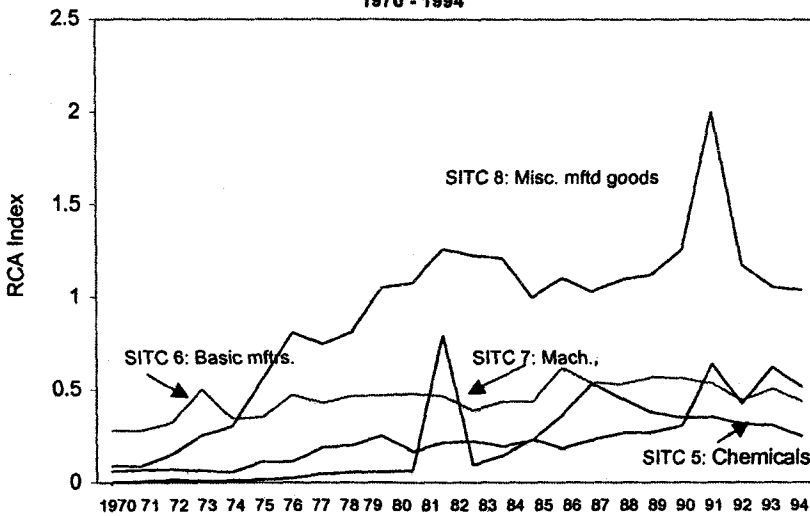


Fig. 5.2b : Revealed Comparative Advantage in Manufactured Exports 1970 - 1994



1990 and the indices of the NIEs from 1965 to 1990. The ASEAN country whose 1990 RCA pattern most closely correlated with a NIE's pattern of that year would be the most likely to emulate that NIE's export success pattern. Given the ranking of each ASEAN for all the four NIEs (Hongkong, South Korea, Singapore, and Taiwan), Thailand came out on the top, followed by the Philippines, then by Malaysia

and Indonesia. Moreover, they examined the degree of industrialization and export diversification among the ASEAN 4 by observing the standard deviation and coefficients of variation of their RCA over time. *Ceteris paribus*, the more industrialized an economy, the more diversified its export composition. This dynamic change can be caught by the 'shrinking' of the the standard deviation of its RCA indices over time. By comparing the ASEAN patterns they found the most dramatic change occurring in the Philippines, whose coefficient of variation in RCA indices was second highest (5.48), indicating a high degree of specialization. By 1990, it dropped to 1.92, the lowest in ASEAN. A similar observation was made for Malaysia. If export diversification then can be considered as an indirect evidence of economic growth, Chow and Kellman conclude that Philippines and Malaysia could be leading the race in next-tier NIC-dom.

The upshot of the above discussion is that given the relative abundance of skills in the country, the emerging trend towards a comparative advantage in skill-intensive exports, and against the backdrop of ever expanding demand in world markets for such goods, the Philippines seems to have nowhere else to go but in the direction of skill-intensive production.

The Fly in the Soup: High Exports, Low Value Added

However, a disturbing facet of such a changing structure of export specialization and comparative advantage in the Philippines is that it does not yet seem to show up in terms of profound changes in the production structure of the country. While the export structure has clearly shifted towards skill-intensive industries, there was only a two to three percentage point increase between 1978 and 1993 in the share of the same skill-intensive industries in manufacturing value-added. This implies that such export performance has created little backward linkage with the economy. This is particularly true of the highest export grosser, *i.e.*, the electrical and electronics industry. Direct and indirect labor content — which is often the only domestic contribution to final output — hardly constitutes 5 percent of the final value of the electronic export. Parts and components which make up about 90 percent or so of the final value are still overwhelmingly sourced outside the country. And in most cases, the Filipino supplier turns out to be only the carton-box manufacturer! Typically, it is the final value of the output, rather than its domestic value added that is recorded as "Philippine exports." This is the reason why the top exporting firms such as Intel (American) or Ionics (Philippine) are the acclaimed 'export champions' of the electronics industry.

Such a high degree of import dependence of the skilled-labor intensive industries is easily explainable in terms of the inherent difficulty of creating backward

linkages in these industries. By their very nature, these industries, except possibly the chemical industry, actually lend themselves to large possibilities for backward-linkage creation, because they are made up of literally hundreds of parts and components. However, the current inability to create such linkages is due to the increasingly technological and skill-intensive nature of upstream industries that produce these parts and components. For instance, the silicon wafers so far are still being produced in the US, Japan or Europe and in a few of the NIEs. And R&D is still mainly undertaken in the developed countries. Moreover, such parts and components production are often characterized by economies of scale, requiring huge cost outlays on capital equipment embodying state-of-the-art technology, creating high entry barriers (e.g. wafer fab). As a result, these industries tend to be dominated by TNCS which are both highly export-oriented and highly import dependent. Thus, one sees an almost insignificant impact on national value added. While they offer potentially significant room for backward linkages with the domestic economy, this has not occurred automatically.

The experience of Singapore is instructive on this point and shows that backward linkage with the domestic economy can be created if supported by the appropriate policy initiatives. In the 1970s, a study of Singapore's electronic industry (Lim and Pang 1982) showed a gloomy picture similar to that of the Philippines today, namely, one that was characterized by a high degree of TNC-dominance, high export growth and share of electronic products in total exports, but with little links to the economy. The study ended on a rather pessimistic note on the long-run implications of FDI on the Singaporean economy. However, a study by the same authors about a few years later showed a totally different picture. The latter revealed that over time, *regardless of nationality and product type*, branches of international firms operating in the economy increasingly preferred to buy local inputs *as they upgraded into more complex technologies*. In other words, Singapore was able to make import-dependent TNCs develop linkages with the local market. Singapore is thus observed to have experienced development from 'first-stage' international sourcing — such as when assembly plants are located in Singapore but are initially dependent on external sources of parts and components — to 'second-stage' international sourcing, whereby input production was transferred to Singapore. Although this might involve backward integration within the firm (in-house production) at the start, 'vertical disintegration' was observed to have eventually taken place, as parts and components manufacturing, as well as processes, became increasingly subcontracted or sourced from local firms. Indeed, evidence abounds that the birth and growth of local supplier firms were induced by such rapid growth of the assembly industries.

Is there evidence that this type of development might be underway in the Philippines? In the next section, we address this issue in the context of Philippine industrial development by examining the experience of linkage creation with the economy in the electrical and electronics industry.

BACKWARD LINKAGE CREATION IN THE ELECTRICAL AND ELECTRONICS INDUSTRY: AN ILLUSTRATIVE EXAMPLE

In a large survey of Japanese manufacturing firms in ASEAN,¹⁰ the Philippines registered the lowest rate of local parts procurement (24%) by Japanese affiliates in ASEAN, especially in the electrical and electronic industries. A smaller survey of 13 assembly firms¹¹ showed a similar picture, with the lowest degree of local procurement in the electronics assembly industry of about 10 percent, 15-20 percent in the automotive industry, and 45-55 percent in the appliance industry.

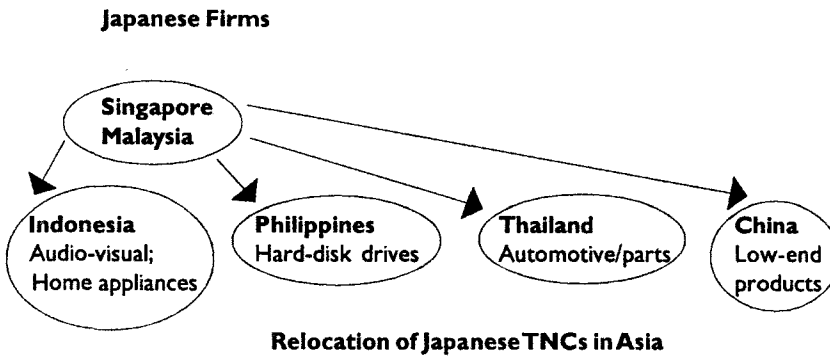
The Philippines, like a number of developing countries, first resorted to the adoption of an "Electronic Local Content Program" (ELCP) in 1975 which was applied to audio-visual appliances, TV sets, stereos, cassette recorders, and transistor radios. It required assemblers to source from local suppliers the parts and components included in a list drawn up by government. It applied only to the production of import substitutes which by their very nature were domestic-market oriented. Export-oriented electronics products were exempt, which is why they remained import dependent but successful in the export markets. This local-content program was eventually scrapped in 1986 (or effectively in 1983, with the start of the economic crisis) with the trade policy reform adopted by the Aquino government.

To a limited extent, supplier industry development had taken place in the electrical and electronics industries. At present, there are 118 Filipino-owned firms in the industry (32% of the total 364), in a network that has accumulated production experience and possesses a large potential production capacity. Filipino-owned firms can be found in the range of supporting industries, from tools and dies production to IC packaging, and sub-assembly of magnetic headstacks, printed circuit boards, hard disk drives, etc. A small number have even managed to attain world-class standards, mainly as OEM (original equipment manufacturing) producers (such as Integrated Microelectronics for Yamaha), or as third-party subcontractors mainly in the components and devices sector. The industry vision is to move from the industrial subcontracting mode to more OEM manufacturing, and eventually to ODM (original design manufacturing). Already, a Japanese TNC has set up a subsidiary specializing in designing circuits and mask layouts, managed and wholly manned by Filipinos.

However, it is not clear to what extent such a development was due to the local content policy, or whether it would have developed in its absence. After all, quite a number of such Filipino subcontractors and independent suppliers are generally export-oriented and hence, not subject to the local-content policy of the past. Moreover, a supplier industry of world-class quality developed in Singapore even with a minimum of direct¹² government intervention (Lim and Pang 1982). The reason is that there are clear advantages for assemblers to be able to source their parts and components from the domestic economy: it reduces transport and other costs associated with importing; it reduces inventory cost; it allows producers to adopt the just-in-time system of inventory management more effectively, and especially for high-technology products, it allows for greater interaction and consultations between assemblers and parts-and-components producers. On the other hand, one of the criticisms of the local-content program adopted in the country was that because it coerced assemblers to source locally, they were at times forced to settle for high-priced, low-quality parts and components. The net effect was that by so discouraging exports, the program might have unwittingly limited the assemblers' output growth and ultimately, their demand for parts and components. Perhaps a less coercive but more effective form of intervention might have been for government to provide the policy supports for quality upgrading and cost competitiveness of suppliers, while making the environment conducive to expansion of assemblers who ultimately create the demand for local parts and components.

In any case, the recent emergence of the Philippines as a viable host country to foreign investment in the electronics industry has certainly improved its chances of simultaneously developing a local supplier industry. In particular, the recent surge of investments and expansions of Japanese electronics firms into the country has already induced the transfer of production plants by Japanese supplier firms in the Philippines. For instance, Cebu Mitsumi, Inc., which employs about 10,000 workers and produces FDDs (floppy disk drives) in huge volumes at Danao City in Cebu, has attracted seven of its Japanese suppliers to locate in the country. These include a metal press maker, a plastic-mold maker, and a precision spring producer. Another example is Uniden, a big exporter of cordless phones and audio products which has brought with it several of its suppliers from Taiwan when it relocated its production site from that country to the Philippines, under pressure of rapidly rising production costs. Four Japanese lead frame makers have decided to produce in the Philippines to supply IC packaging firms the lead frames they used to import. Among the most promising relocations of a segment of the electronics industry is that of the Japanese hard-disk drive industry, with the recent entry of its four HDD (hard disk drive) makers into the country, namely Fujitsu, NEC, Toshiba, and Hitachi.¹³ Already, their presence has attracted a number of investments by their supplier firms (whether

independent subcontractors in Japan or members of their *keiretsu*), such as those of spindle motors (e.g. Nidec, which has the largest share in the world's production of spindle motors), of flexible printed circuits, spacer rings, voice coil motors, actuators, molds and dies for base and cover, and magnetic heads (TDK, while American-owned Seagate has already established itself in Cebu). From a Japanese viewpoint, relocation of Japanese firms is currently taking place from traditional bastions of Japanese investments, Singapore and Malaysia, to other host countries of East and Southeast Asia. As the figure below indicates, specialization in investment relocation has identified the Philippines as host to Japanese HDD overseas expansion:



Source: Fig. 12, p. 46 of "96 Toyo-Ajia Denshi-kogyo no Dookoo"
 ('96 Trends in East Asian Electronics Industry' : in Japanese) Japan Electronic Machinery
 Industry Association, Marketing Research Group, Tokyo, 1996.

It will be noted however that 'local procurement' meant that Japanese assemblers would be sourcing mainly from Japanese supplier firms operating in the country. What are the chances that national value added will be created in the process? Since the relocations particularly in HDD industry have been quite recent (occurring mostly between 1995 and 1997) it is too early to expect local suppliers to have developed. However, one can learn much from the experience of Singapore. There has been an agglomeration of HDD assemblers making Singapore the world's single most important location for HDD assembly operations. In turn, this induced the rapid growth of various supporting industries ranging from printed circuit board assembly (PCBA), tools and molds making, die-casting, machining, plating, metal stamping, and other sub-assembly operations associated with precision engineering work. It is possible that the concentration of Japanese electronics producers, such as in the HDD industry in the country, and hopefully the relocation of more American,

Taiwanese, and Korean TNCs will likewise induce the rapid development of supplier industries in the Philippines. However, to achieve this, a number of policy initiatives has to be put in place to make the Philippines a viable center for skill-intensive industries in the region. We turn our discussion to this in the next section.

SUMMARY AND POLICY IMPLICATIONS OF THE STUDY

The present study argued that the trends in world market demand are clearly moving in the direction of skill-intensive manufactured goods. Possibly as an offshoot, developed country capital has also been flowing to developing countries in a similar direction, namely in the three main skill-intensive industries of chemicals, machinery, and transport equipment. The study also argued that the Philippines is well poised to take advantage of such current world trade and FDI trends because of its relatively abundant (and hence cheaper) supply of skilled labor in the region. Examination of its export structure clearly indicates a structural change away from natural resource-intensive manufactured exports, to a certain extent away from low skilled labor-intensive goods and towards semi and high skilled labor-intensive manufacturing. The study also explored the problem of low value-added and hence, the weak backward linkage created by such industries, particularly by the electronics industry. However the paper also showed that because of the entry of foreign capital into these industries, some development has taken place in inducing the growth of Filipino-owned supplier industries. In particular, the example of Singapore whose strong attractiveness to skill-intensive foreign investments has paid off in terms of a rapid growth of a local supporting industry gives some reassurance on the possibilities of linkage creation of FDI with the domestic economy. Behind this development, however, certain policy initiatives in a number of areas have to be undertaken. Without attempting to be comprehensive, we shall discuss below three areas that we consider important in embarking on the path of skill-intensive industrialization.

Role of Human Resource Development in Skill-Intensive Growth

The Philippines seems, at present, to have at least a numerical edge over its Southeast Asian neighbors in terms of semi-skilled and engineering capabilities. However, for purposes of building a competitive edge for the Philippines over the long run, it is necessary to create a resource base or asset that is location-specific, *i.e.*, specific to the country, if it is to attract investments into skill-intensive industries, particularly the electronics industry. In the case of Singapore, these location-specific resources that gave it locational advantages over other countries in the region were

the availability of a “significantly large pool of process engineering skills” and of “a sizable cluster of high-capability precision engineering supporting firms” (e.g. to the HDD industry; see for instance, Wong, 1996).

The point here is that it is not enough to have an abundant supply of technicians and engineers but of those who possess a certain skill critical to the industry while remaining generic enough not to be specific to a firm or a sub-industry. An example of this in the Singaporean case seems to be that of ‘precision engineering.’ Precision parts are required by most electronics products such as consumer electronics, office equipment, PCs, and other parts requiring miniaturized, high-precision parts. Another capability cited by Wong (1996) is the printed circuit board assembly (PCBA) capability, since most discrete electronics products require some form of PCB.

The above requires a strong linkage between the technical/engineering schools and industry. Such synergy is said to be at the heart of the success of Japan and the NIEs. The Philippines, on the other hand, is generally characterized by the almost total absence of such linkage.¹⁴ The curricula of such schools and colleges are said to be irrelevant to the requirements of industries and the equipment/machines students are exposed to are quite obsolete. As a result, the skills accumulated by vocational/technical/engineering graduates fall very short of the requirements of the electronics industries, requiring large investments in skill development and on-the-job training on the part of the firms.

In connection with industry-academe linkages, the spillover effects of the presence of knowledge-intensive firms could be maximized by harnessing the assistance for such firms in sharing their knowledge or skills in the education of future engineers or technical people. A number of countries are currently doing this, through hands-on training given by firms to university students as part of their curriculum (India), through the inclusion of industry people in examination committees or discussions of reform of technical education (Malaysia, Cote d’Ivoire), through participation of private firms in drawing up of university-level curricula (Singapore) and offering of scholarships and financial assistance to technical and engineering students (Indonesia, Singapore). Such synergies are also harnessed through the creation of science parks (see Box 1) where R&D institutes and academic institutions engaged in research can interact with private firms in the vicinity.

The very basic level, however, is the commitment of society to invest in its people. Table 7.1 shows that the Philippines is not at the forefront of such commitment among her Asian neighbors, to say the least. And from the viewpoint of sustainable growth along the skill-intensive industrial path, the Philippines must be able to build a strong science and technology (S&T) infrastructure. Professor Jose Magpantay has only scathing words for the country’s current state of S&T: “The country’s

science and technology today is backward and cannot make us competitive in the world market in the twenty-first century." He suggests that we build up a "national innovation system" with the science and technology sector as its most important component.¹⁵

Table 7.1

Education Expenditures in Selected Asian Countries

Country	Public Expenditure in Education as % of GNP		Education as Percent of Total Govt. Expenditure 1992-94	Education as Percent of Central Govt. Expenditure		Primary & Secondary Enrolment (% of all levels) 1990-94	Higher Education (% of all levels) 1990-94
	1980	1993-94		1980	1992-95		
Philippines	1.7	2.4	-	15.9	15.9	-	-
Indonesia	1.7	1.3	-	7.9	10.0	47	48
Malaysia	6.0	5.3	15.5	15.9	21.8	71	17
Singapore	2.8	2.2	24.2	19.2	24.8	62	33
Thailand	3.4	3.8	18.9	18.9	21.1	93	17
China	2.5	2.6	-	-	2.9	67	17
Vietnam	-	-	-	-	-	-	-
Rep. of Korea	3.7	4.5	16.0	18.0	20.2	80	8
Hongkong	-	-	17.0	-	-	66	30

Source: Human Development Report, UN, 1997.

Basic Preconditions for the Establishment of a Science Park

- *There should be a university department or technological institute undertaking both research and teaching in at least one branch of technology to which enterprises in the park have easy physical and intellectual access. It would be preferable for such an institute to exist already and, indeed, to be of renown in its own sphere. Otherwise, there have to be good prospects that such a centre of learning can be created or raised to the necessary standard. Not only is an existing university an asset, but its research strength can also be reinforced by decentralizing it to some public sector research. For example, in France, the Toulouse Technopole benefited from the relocation of the Ecole Nationale d'Aviation Civile; the decision to locate the Eurobus consortium in Toulouse further supported this Technopole.*
- *The area under consideration should be made attractive to highly qualified research personnel in terms of its environment, social infrastructure, etc. If competitive standards cannot be offered in this respect, the whole concept may have to be downgraded (e.g. initial premises might be provided, but with no special effort made to link them to an institute or campus).*
- *An extensive collective site is an important requirement to accommodate future growth.*

Source: OECD, 1987 : p. 282, World Investment Report 1995: Transnational Corporations and Competitiveness (UN, 1995).

Role of Foreign Direct Investment in Skill-Intensive Growth

Pursuing the skill-intensive industrialization path is almost synonymous with encouraging FDI into the relevant industries. This is because the tremendous amount of capital and know-how that have to be accumulated in the process of establishing skill and knowledge-intensive industries are definitely beyond the possibilities of any developing country. Singapore realized this early enough, which gave it first-mover advantage over other ASEAN countries in establishing itself as a major offshore production platform in Asia for MNCs in US, Europe, and Japan in the early 1970s. With the entry of major electronics producers, Singapore was able to take advantage of the agglomeration economies as a regional manufacturing, transport/communications, and financial/business services hub. With Singapore, Malaysia, and Thailand having been more successful in attracting FDI than the Philippines, the only advantage that remains for the Philippines is the perception that these economies are heavily saturated with FDI and are experiencing skill shortage and rising costs.

In attracting FDI, there is an advantage to **focused** or **targeted** investment promotion because it encourages synergies and agglomeration advantages which improve a country's competitive edge especially in knowledge-intensive industries. Assembly firms are able to reduce costs with the presence of specialized skills or when a network of efficient parts and components manufacturers already exists. Moreover, the attractiveness of a country as an investment site is enhanced by the presence of a group of investors in the same industry, since it demonstrates the possibilities of the investment site. Many parts and components manufacturers are also induced to set up operations close to their major customers. However, a focused or targeted FDI promotion approach requires that the host-country know what investment areas are most appropriate to its long-term development objectives (UN World Development Report 1995).

Role of Government in Skill-Intensive Growth

A liberalized economic environment which the Philippines aspires to achieve imposes a role for government that is radically different from a protected environment that it has been used to. In this new environment, the traditional incentive system based on protectionist import policies, subsidies, local content policies, etc. are no longer allowed so that a new approach to industrial promotion is needed. It requires a bureaucracy that is globally minded, forward-looking, and pro-active. The liberalized environment of Taiwan and Singapore gave the impression that government had nothing else to do with the direction of industrial growth. Such a myth had long been dispelled with in-depth studies of these economies (e.g. Amsden 1991) showing that the government did institute policies that were perhaps less visible because they did not appear on tariff codes, but nonetheless effective in transiting from an economy whose comparative advantage was in low-skilled, cheap labor-intensive goods to one that was to be specialized in skill- and knowledge-intensive industries. In Singapore,¹⁶ it consisted — in addition to the basic policies of prudent macroeconomic management, openness of trade and capital account, generous tax incentives to FDI, heavy investment in infrastructure — mainly of **public investment in human capital**. There was early investment in a large number of training institutions (e.g. for precision engineering skills) as well as policies on upgrading of training programs as skills demanded by industry increased over time. In particular, Singapore established an innovative Local Industry Upgrading Programme (LIUP) to upgrade supplier industries to MNC manufacturers. It also set up public R&D institutions and programs that focused on certain generic skills (such as the Institute of Manufacturing Technology) as well as research centers in universities and polytechnics engaged in

research on these skills. The government was also active in increasing the supply of well-trained engineers through heavy investment in tertiary engineering education and training.

Moreover, Singapore adopted an "explicit industry cluster development strategy" (Strategic Economic Plan 1991) wherein the government recognized the need to promote industrial development as an integrated cluster linking downstream industries, upstream supporting industries, and enabling capabilities. In line with this strategy, there was strong emphasis on inter-government agency cooperation and coordination in formulating industrial policies and implementing industrial promotion programmes. There was also strong emphasis on involving the various players in particular industry clusters in policy formulation and dialogue and implementation consultation. Industry players are also strongly represented in the board of government agencies involved in industry and technology promotion, industrial training, and tertiary educational institutions. (Wong 1996)

Such an industrial development strategy requires an 'informed' bureaucracy that is knowledgeable of even the technical aspects of industries. It requires, at the very least, technical knowledge of which firms or industries belong to which industry clusters (*i.e.*, industry linkages). It requires information on which firms or industries in industry clusters are in the country, where they are located, and where gaps in linkages and capabilities still exist. In short, giving some direction to industrial development requires a *smart* bureaucracy that can dialogue intelligently and hence, effectively, with industry players.

On the question of incentives, the rule on market failure and specificity of intervention remains the safest guideline to take in order to avoid resource misallocation and rent-seeking. It was mentioned earlier that FDI plays a crucial role, at least in the initial stages, in encouraging the growth of skill-intensive industries. There has been considerable debate on whether foreign investors should be given incentives in the first place. From a theoretical viewpoint, it could be argued that FDI brings about sufficient positive externalities to justify incentives such as technology diffusion, skills training, and even the externalities associated with their export orientation such as information, quality standards, and reputation. Externalities through scale economies and agglomeration and technology spillovers are likewise justifications for promotion of investments with backward linkages or high domestic value added (UNCTAD 1995). From a practical viewpoint, most developing countries including the Philippines, have incentives that compensate TNCs for the distortions created by government policies themselves. Moreover, the phenomenon of competition for FDI among developing countries is very real so that TNCs, while not generally considering such incentives as the main reason for choice of location site for its overseas investments,

do compare the attractiveness of such incentives. Thus, there are reasons why the Philippines could at least try to match the incentives granted by its competitors for FDI.¹⁷ However, for purposes of attracting both FDI and local investors into a skill-intensive industrial development path, incentives in the form of human capital formation and skills upgrading seem the most useful. In addition, the creation of other complementary assets seems necessary. Even if the country were abundant in the skills required by investors, investments will still not flow in desirable magnitudes if the complementary assets of infrastructure, efficient institutions, and political and economic stability were not in place. Indeed, the abundant human capital might simply flow out instead, as has been the experience of the country's skilled and managerial class employed all over Asia and elsewhere. The task of providing such complementary assets belongs properly to government.

In the final analysis, national value added has to be created. This means that even if FDI has a crucial role to play in the restructuring of the economy towards a skill- and knowledge-intensive industrial sector, locally-owned investment has to take place. To this end, policy initiatives have to be drawn up and implemented that would best enhance backward and forward linkages, given the core of FDI-initiated industries.

NOTES

- 1 The stock measure of capital intensity (ks) is expressed for industry i as follows:

$$k_i^s = p_i^s + h_i^s = p_i^s + (w_i^a - w_i^u)/r^h$$
 where p_i and h_i respectively refer to physical and human capital per workers, w_i^a is the average wage rate, w_i^u the wage of unskilled labor, and r^h the discount rate used in calculating the stock of human capital.
 The flow measure of capital intensity (k^f) is expressed as:

$$k_i^f = va_i - p_i^f + h_i^f = (va_i - w_i) + w_i$$
 where va_i refers to value added per worker; nonwage value added per worker ($va_i - w_i$) is taken to represent physical capital intensity and wage value added per worker (w_i) human capital intensity.
- 2 The comments of Professor Emmanuel De Dios in this regard are gratefully acknowledged.
- 3 Iron and steel in fact came out with the highest skill ratio of 0.5020, but we classify it here as a natural-resource intensive good.
- 4 In a scale of 1 to 10 (highest to lowest grade), the Philippines received a score of 1 for availability and 2 for cost, 3 for quality of production labor. For managerial labor, the scores were 1 for both availability and cost and 3 for quality. The Philippines thus received the highest rating among countries in the region in terms of quality, availability,

- and cost, according to the index provided by Political & Economic Risk Consultancy Ltd. in 1992.
- 5 Interviews with Japanese investors in the electronics industries who have scanned the Asian scenario in search of investment sites have underscored this edge of the Philippines, in addition to the country's strategic location in Asia.
 - 6 For this reason, Japanese businessmen compare such goods to 'sashimi,' the term for 'raw fish' that is considered a Japanese delicacy.
 - 7 The survey consisted of 977 companies in five ASEAN countries, with 84 responding companies located in the Philippines, with the following distribution: 16 (19.3%) from the transport equipment industry; 13 (15.7%) from the electronic and electrical industry; 12 (14.5%) from metal products industry; 7 (8.4%) from chemical and pharmaceutical products industry; 6 (7.2%) from textiles and textiles products industry; and the rest, 36 (43.4%) from other industries. Other country respondents were as follows: 317 from Thailand; 269 from Malaysia, 203 from Indonesia, and 104 from Singapore.
 - 8 Using four classifications of factor intensity (unskilled labour-intensive, human capital-intensive, technology intensive, and physical capital intensive), UNCTAD computed RCAs for a number of countries, including the Philippines, for 1980, 1985, and 1990. The Philippines appeared to be strengthening its RCA in unskilled labor intensive until 1990 and had RCA greater than 1.0 in 1990 for technology intensive goods. It has no RCA yet in human capital intensive goods, although the RCA shows a rising trend. Definitely, the country has no RCA in physical capital intensive exports. (UNCTAD: Trade and Development Report, 1993, Table 49, p. 135.)
 - 9 However, the revealed comparative advantage (RCA) of machinery in 1991 turned out to be slightly greater than 1.0.
 - 10 JETRO (Japan External Trade Organization) conducted a survey of 2,100 Japanese-affiliated manufacturing firms in ASEAN in November-December 1994. The response rate was 44.38 percent or 931 respondents, of which 80 were based in the Philippines. The breakdown of the Philippine sample is as follows: electronic and electrical equipment industry (12); transport equipment industry (11); textiles and textiles products (8); metal products (7), chemical and pharmaceutical products (5); other manufacturing industries (37).
 - 11 "Promoting Backward Linkages" FIAS, 1995.
 - 12 Though probably with a maximum of *indirect* government assistance to industry, as will be made clear in the following text.
 - 13 This seems to be unique in ASEAN and parallels Singapore's agglomeration of American HDD assemblers: Seagate, Conner, Western Digital, and Micropolis.
 - 14 Exceptions are Meralco Foundation, the Don Bosco Technical School, Dualtech. But hardly any of the country's engineering colleges seem to have similar linkages with industry.
 - 15 See Jose A. Magpantay, "Science and Technology in the Philippines: An Assessment," 1997.

- 16 The discussion on Singapore draws heavily from Poh-Kam Wong's "Supply Infrastructure for Flexible Production: The Case of Hard Disk Drive Industry in Singapore" presented to the Conference on Economic Governance and Flexible Production in East Asia held in Taipei, Taiwan from 4-6 October 1996.
- 17 It could be very well argued that the similarity in incentives to FDI offered by the different ASEAN countries points to their wastefulness since they do not give any country a definite edge in terms of attracting foreign investors. They merely deprive all countries of precious tax revenues. A strong case has thus been made to eliminate them, but this has not been received favorably at the policy-making level.

REFERENCES

- Akamatsu, K. 1962 . A Historical Pattern of Economic Growth in Developing Countries. *Developing Economies* no. 1 (March-August): 12-21.
- Amsden, A. 1991. Diffusion of Development: The Late Industrializing Model and Greater East Asia. *American Economic Review* . 282-91.
- Balassa, B. 1979. The Changing Pattern of Comparative Advantage in Manufactured Goods. *Review of Economics and Statistics* 61 : 259-66. 77:5: 791-809.
- Balassa, B. 1965. Trade Liberalization and Revealed Comparative Advantage. *Manchester School of Economics and Social Studies* 33-39-123.
- Bowen, H., E. Leamer, and L. Sveikauskas. 1987. Multicountry, Multifactor Tests of the Factor Abundance Theory. *American Economic Review*.
- Chow, P. and M. Kellman. 1993. *Trade — the Engine of Growth in East Asia*. New York: Oxford University Press.
- Conference on Economic Governance and Flexible Production in East Asia. 1996. October 4-6. Tapei, Taiwan.
- Hufbauer, G. 1970. The Impact of National Characteristics and Technology on the Commodity Composition of Trade in Manufactured Goods. In R. Vernon (ed.) *The Technology Factor in International Trade*. Chicago: National Bureau of Economic Research.
- Institute of Developing Economies. 1995. International Trade Matrix for Asia-Pacific Region by Industrial Group, 1975-1992. Vol. I : Export; Vol. II: Import. Tokyo.
- Japan Development Institute Engineering Consulting Firms Association. 1995. Supporting Industry Development of Electric and Electronics Industrial Sector in the Philippines.
- JETRO. 1996. The Current State of Japanese Affiliated Manufacturers in ASEAN, 1995. Overseas Research Department.
- Keesing, D. 1966. Labor Skills and Comparative Advantage *American Economic Review*. May.
- Kenen, P. 1965. Nature, Capital, and Trade. *The Journal of Political Economy*. 73: 5: 437-460.

- Kravis, I. 1956. Wages and Foreign Trade. *Review of Economics and Statistics*. February.
- Kojima, K. 1972. Nihon Keizai no Gakokeitaiteki Hatten to Boeki no Yakuwari. In K. Kojima (ed.) *Nihon Boeki no Kozo to Hatten*. Tokyo: Shiseido.
- Kojima, K. and T. Ozawa. 1985. Toward a Theory of Industrial Restructuring and Dynamic Comparative Advantage. *Hitotsubashi Journal of Economics*, 25.2 (December): 135-145.
- Lall, S. 1993. Policies for Building Technological Capabilities: Lessons from Asian Experience. *Asian Development Review*. 11: 2.: 73-103.
- Lee, Y.S. 1980. Changing Export Patterns in Korea, Taiwan and Japan. *Weltwirtschaftliches Archiv* 122, no. 1: 150-63.
- Lim, L. and Pang E.F. 1982. Vertical Linkages and Multinational Enterprises in Developing Countries. *World Development* 10: 7: 585-595.
- Magpantay, J. 1997. Science and Technology in the Philippines: An Assessment. unpublished.
- Morisawa, K. and G.R. Tecson. 1996. Japan's Role in the Development of Supporting Industry in the Philippine Electrical and Electronics Industry. Paper Delivered at the International Conference on the Role of Japan in the Development of Supporting Industry in ASEAN. Thammasat University, Bangkok.
- Nihon denshi Kikai Kogyo Kai. 1996. '96 Tonan Ajia Denshi Kogyo no Dookoo. Trends in East Asian Electronics Industry, 1996.
- OECD. 1995. Foreign Direct Investment: OECD Countries and Dynamic Economies of Asia and Latin America. Paris.
- Pang E.F. and L. Lim. 1977. The Electronics Industry in Singapore: Structure, Technology, and Linkages. Research Monograph Series no.7. Economic Research Centre, University of Singapore.
- UNCTAD. 1995. World Investment Report 1995: Transnational Corporations and Competitiveness. New York.
- UNCTAD. 1993. Trade and Development Report, 1993. New York.
- Wong, P. 1996. Supply Infrastructure for Flexible Production: The Case of the Hard Disk Drive Industry in Singapore. Paper delivered at the Conference on Economic Governance and Flexible Production in Asia. Taiwan. October 4-6.
- Yamazawa, I. 1990. *Economic Development and International Trade: the Japanese Model*. Honolulu: East-West Center.



A NOTE ON THE REGULATORY ENVIRONMENT IN THE TELECOMMUNICATIONS INDUSTRY

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Progress in telecommunications can be likened to a four-oared rowing boat in a river. Basic technology is the coxswain (steerman) who cannot control the speed. The second rower is R&D which is used to set the pace but now cannot keep up with user needs. Competition is number three — she used to be 'the weak sister' but is getting stronger all the time. Finally there is world-wide regulatory reform — rowing in the same direction as everyone else, but at a much slower pace. As a result, the boat makes erratic progress as the rowers are more or less synchronised.

(Pye 1991)

All over the world, incumbent telephone companies are endangered by the bewildering technological changes sweeping the telecommunications landscape. These changes have cracked the protective shield of natural monopoly, nurtured new network operators, and sent the regulators back to the drawing board. The shape of the industry that will emerge and the underlying policy regime, however, remain cryptic.

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Recently, for example, a breakthrough in Internet telephony sent jitters to major telecommunications providers in the US. A new device, called "Aplio Internet phone," permits one to call over the internet without need for a computer. Prior technologies are software packages that allow computer users to carry out voice conversation with another computer user (VocalTec's InternetPhone), or with a regular phone user (IDT's Net2Phone). The hype in this new technology springs from the expectation that a phone-to-phone technology will have a broader reach compared to the computer-to-computer and computer-to-phone technologies. And considering that the price of Internet telephony is a small fraction of charges for a long distance call using traditional infrastructures, this innovation threatens the dominance of long distance carriers. Quite belatedly, long distance companies have recognized Internet providers as their serious rivals, as changes in network computing made it easy to bypass traditional infrastructures.

The convergence of computing and telecommunications technologies is only a part of the stream of innovations that had transformed the industry since the 1980s. More profound and far-reaching changes were obtained from advances in transmission and switching techniques (from analogue to digital mode), in transmission support (from copper wire to fiber optics and satellite), and in softwares and terminals. Digital system transforms the voice data print and video into common signals, and transmits the same in a common medium, in a much more compressed form and hence is more efficient and cheaper than an analogue system. Broad-band fiber-optic cables carry more traffic than copper wires, but the installation and maintenance costs are almost the same as the old technology. Satellite-based mobile phones offer flexible communication systems, and extend telecommunications services to remote or poor locations where conventional cable services are nonexistent. New softwares create vast opportunities to add value to basic telephone calls, thus the emergence of so-called "value-added network services." Finally, the cost of computerized telephone exchange switches is falling, but their capacity has been expanding incessantly. On the whole, these innovations have rendered many existing capital investments obsolete, reduced entry barriers, and created capacity glut, all of which invariably drive prices towards costs and dissipate fat margins.

For countries with underdeveloped networks, these rapid and continuous technological changes present opportunities for lower-cost and reliable expansion of networks, *i.e.*, a chance to leapfrog intermediate stages of network development. But they have also made the tasks of selecting, designing, procuring, and managing new networks much more complex. Concretely, a major concern in network development is ensuring that plans based on today's dominant technologies are able to accommodate major systemic changes in the future.

Yet equally beguiling as technology management concerns are the regulatory issues that the new technologies have brought forth. In the past, telecommunications carriers were considered natural monopolists, entrenched by economies of scale created by networks and standards. Technology has substantially reduced the costs of service provision and expanded market demand. Natural monopoly conditions were removed, hence new industry players may be accommodated. If the regulatory regime fails to recognize these changed conditions, then it can stifle network development and diffusion of new technologies.

In the long run, continuous advances in technologies could make regulation redundant as these changes submit many telecommunications operations to the discipline of the market. But while the networks remain underdeveloped and the markets uncompetitive, a *laissez-faire* strategy is not appropriate. A good regulatory system is in fact needed to resolve issues related to: (1) provision of public goods (infrastructure development, interconnectivity, and standardization); (2) externalities (allocation of scarce spectrum); and (3) market access. The most important challenge to the regulator is to curb the market dominance of incumbent carriers who own the common infrastructures on which competition is to be created.

Certainly, the lag in regulatory reforms has contributed to the unequal development of telecommunications sectors. Telephone ownership in many developing countries is still less than one for every 100 inhabitants, compared to more than 50 in developed countries. Generally, countries that have liberalized their markets earlier enjoy higher telephone density. Thus, the global direction of regulatory reforms is heading towards greater privatization, liberalization, and deregulation. Still, only one country in the world, New Zealand, has fully privatized, liberalized and deregulated its telecommunications sector.¹ This shows the regulatory inertia associated with a long history of natural monopoly, as well as the technical difficulty of creating and policing competition on a common infrastructure.

This paper examines the regulatory regime that had governed the Philippine telecommunications industry since 1993. It critically reviews the strategy options faced by the regulator. The choice of regulatory strategy is evaluated in the light of the sector's performance over the past five years and growth prospects in the near and medium term.

PHILIPPINE TELECOMMUNICATIONS SECTOR UNDER REFORM

The realization that demand for telecommunications services had far outpaced infrastructure development came as early as 1982 with the first Philippine National

Telecommunications Development Plan. It led to the launching of the National Telephone Program that would have installed two million new telephone lines between 1982 and 1987. But the economic and political crisis that besieged the country during the period stalled the implementation of the program.

Before the reform, the local telephone service was virtually a monopoly of the Philippine Long Distance Co. (PLDT), controlling about 94 percent of main stations, while the rest of the stations were owned by government and small private carriers. PLDT also controlled the national long-distance service by virtue of its ownership of the only nationwide backbone transmission network. In addition, PLDT dominated the international long distance service although international record carriers such as Eastern Telecommunications Philippines Inc. (ETPI) and Philippine Global Communications, Inc. (PhilCom) posed minimum competition. The market for cellular mobile telephone service was a duopoly, controlled by Pilipino Telephone Corp. (Piltel) and Express Telecommunications Co., Inc. (Extelcom). Rivalry in the market for domestic record carrier services was between Philippine Telegraph & Telephone Corporation (PT&T) and Radio Communications of the Philippines (RCPI).

In 1977, the Philippine telephone density was 0.8 percent; it remained less than 1 percent until 1990. The waiting line for telephone service was overextended as only a mere 6 percent of line applications could be served within four months. PLDT was saddled with an 800,000 telephone backlog, three-quarters of which were applications for new telephone lines in Metro Manila. But the problems of the telecommunications sector were more serious than the supply shortage. Poor quality of service, unbalanced distribution of service between rural and urban areas, outdated infrastructure, and inadequate interconnection of telecommunications facilities stemmed from weak pressure on carriers to upgrade and expand existing infrastructures owing to the absence of market competition.

Complaints about the dominant carriers' diffidence to interconnect were far too many. Consider the case of domestic record services where consumers were forced to subscribe to two or more terminals because there was no interconnection.² Several attempts to cut into PLDT's franchise areas, such as that by Retelco, were repressed by interconnection failures.

Efforts to revitalize the lethargic sector began with the Aquino government when it assumed leadership in 1986. A Department Circular (DOTC Circular No. 87-188) enunciated the administration's policy framework as regards telecommunications development. The policy objective was to create an integrated national telecommunications network under a competitive but regulated market environment. In 1989, an *ad hoc* committee composed of government and industry representatives

drafted a 20-year National Telecommunications Development Plan (NTDP) to cover the period 1991-2010.

NTDP's targets were relatively modest: (1) raising telephone density from less than 1 percent to 3.8 percent by 1998, and to 10 percent by 2010; (2) providing local telephone exchange service to all municipalities by 2010; (3) upgrading the quality of telephone service; (4) extending public calling office service to all unserved municipalities and to about 50 percent of all barangays nationwide by 2010; (5) broadening the access to public data network services; (6) nationwide coverage of cellular mobile telephone service; and (7) deploying integrated services digital network (ISDN)³ trial exchanges in Metro Manila by 1994 and in Cebu by 1995. The strategy to attain these service expansion targets was to enlist private sector investment, while limiting the role of the government to policymaking and regulation. All government telecommunications operations were to be turned over to the private sector to increase service efficiency and to stimulate investments. The government, however, would facilitate official development assistance (ODA)-funded telecommunications projects, such as the installation of public telephones in underserved and economically unviable areas under the Municipal Telephone Act of 1989 (RA 6849).

In local exchange services, the policy was to rationalize its provision, which meant authorizing only one franchised local exchange carrier for each defined local exchange service area (DOTC Circular No. 91-260). The basis for such policy was the view that local exchange service is a natural monopoly, hence the imperative to maximize economies of scale and to minimize network fragmentation. Franchising and certification policies favored larger economic units and encouraged mergers of small carriers in the interest of economies of scale. For long distance telephone service (national and international), regulators aimed to introduce some degree of competition, but entry was to be regulated and price competition limited, to maintain the intra-sectoral subsidy that flows from long distance to local exchange service.

Shortly after the Ramos government assumed office in 1992, Singapore's Premier Lee Kuan Yew passed a cynical remark about the quality of telecommunications service in the Philippines. To be sure, the criticism, coming as it did from a head of state drew public attention, but it would be presumptuous to claim that it triggered the wave of reforms that followed. The fact was that the limited reforms introduced by its predecessor kept the country's telephone penetration record dismal at 1.17 percent by the end of 1992, compared to neighboring Thailand's 2.4 percent, Malaysia's 10 percent, and Korea's 33 percent. Private investments came in trickles despite a huge unmet demand. Moreover, the introduction of limited competition in long distance service did not materialize as the incumbent carrier, PLDT, challenged the granting of authority in courts to rival Eastern Telecommunications Philippines,

Inc. (ETPI) to operate its own international gateway. Neither did the privatization of government telecommunications facilities proceed as scheduled since this was again delayed by the legal battle between PLDT and winning bidder Digital Telecommunications Philippines Inc. (Digitel). It was apparent that the industry needed a shake-up to subdue the domination of the monopoly carrier, PLDT, and thus to encourage private investments in the sector.

On 24 February 1993, Executive Order No. 59, also known as the "Telecommunications Interconnection Policy" was enacted, mandating all authorized carriers to interconnect in an effort to create a universally accessible and integrated nationwide telecommunications network. This was followed in July 1993 by the issuance of Executive Order No. 109, the "Universal Telephone Service Policy," which required international gateway and cellular telephone operators to provide local exchange service in unserved and underserved areas.

The implementing rules and regulations of EO 109 (issued a few months later) laid down the provisions of the so-called Service Area Scheme (SAS), in which the country was divided into 11 service or franchise areas assigned to nine telecommunication carriers who are either cellular operators or international carriers, or both. The motivation for the scheme was to hasten the provision of telecommunications services in areas which were formerly franchised solely to PLDT. Cellular operators were obliged to install at least 400,000 telephone lines in three years, while international carriers were given five years to put up 300,000 domestic lines.

In 1 March 1995, Republic Act 7925, also known as the Public Telecommunications Act, put the legislative seal to the telecommunications reforms. Among the salient provisions of the Act are: (1) reducing the time given to international carriers to provide local exchange service from five to three years; (2) removing the 12 percent ceiling on the rate of return; (3) institutionalizing revenue sharing negotiations between carriers as the manner of settling interconnection agreements; (4) broadening ownership of telecommunications systems by requiring carriers to make a public offering of their stocks; and (5) prohibiting a single franchise to engage in both telecommunications and broadcasting either through the airwaves or by cable.

The entry of nine companies into the local exchange market generated a commitment to install 5.36 million lines, which translates to a giant stride in teledensity from 1.21 percent in 1993 to 9.78 percent by the end of the program, *i.e.*, in 1998. Faced with the threat of competition, PLDT launched its Zero Backlog Program aimed at sharply reducing pending applications by installing 1.25 million lines between 1993 and 1996.

Partial deregulation of the telecommunications sector registered successes but also threw up a sundry of anomalies. Most apparent of these successes is the growth

Table I.

Service Area Scheme

SERVICE AREA		COVERAGE	ASSIGNED CARRIER
1	Region I	Abra, Ilocos Norte, Ilocos Sur, La Union, Pangasinan, Mt. Province, Benguet	Smart Digitel
	NCR - D	Pasay City, Las Pinas, Paranaque, Pateros, Taguig, Muntinlupa	Smart
2	Region II	Batanes, Cagayan Valley, Isabela, Quirino, Nueva Viscaya, Ifugao, Kalinga-Apayao	ETPI Digitel
	NCR - A	Manila, Navotas, Caloocan City	ETPI
3	Region III	Tarlac, Pampanga, Zambales, Bataan, Bulacan, Nueva Ecija	Smart Digitel
4	Region IVA	Aurora, Laguna, Quezon, Marinduque, Rizal, Romblon	PT&T/Capwire Digitel
5	Region IVB	Cavite, Batangas, Mindoro Occidental, Mindoro Oriental, Palawan	Globe Digitel
6	Region V	Albay, Camarines Norte, Camarines Sur, Catanduanes, Masbate, Sorsogon	Bayantel/ICC Digitel
7	Region VI	Aklan, Antique, Capiz, Iloilo, Negros Occidental, Guimaras	Islacom
	Region VIIA	Negros Oriental, Siquijor	Islacom
8	Region VIIB	Bohol, Cebu	Islacom
	Region VIII	Eastern Samar, Leyte, Northern Samar, Southern Leyte, Samar, Biliran	Islacom

SERVICE AREA		COVERAGE	ASSIGNED CARRIER
9	Region IXA	Zamboanga del Norte, Zamboanga del Sur	Piltel Major/Philcom
	Region X	Agusan del Norte, Agusan del Sur, Bukidnon, Camiguin, Misamis Occidental, Misamis Oriental, Surigao del Norte	Piltel Major/Philcom
	Region XIB	Surigao del Sur, Davao Oriental	Piltel Philcom
10	Region XIA	Davao del Norte, Davao del Sur, South Cotobato, Sarangani	Piltel Major/Philcom
	Region IXB	Basilan, Sulu, Tawi-Tawi	Piltel Major/Philcom
11	Region XII	Lanao del Norte, Lanao del Sur, Maguindanao, North Cotabato, Sultan Kudarat	Globe
	NCR - C	Makati, San Juan, Mandaluyong, Marikina, Pasig	Globe

Source: National Telecommunications Commission.

of the network, surpassing the targets envisioned under the NTDP. By the end of 1997, teledensity was registered at 8.07, which is slightly short of the 8.31 tdi SAS target, but more than twice the 3.5 tdi NTDP target. Moreover, there is a good chance that the 1998 target of almost 10 phones per 100 inhabitants (9.78 tdi) will be met if the first semester report proves accurate (9.55 tdi).

It is useful to note that five out of nine carriers with lines commitment under EO 109 missed out on their roll-out targets.⁴ The difficulty lies in sourcing funds for capital investments. Significantly, few carriers have tapped the stockmarket despite a law requiring them to offer 30 percent of their authorized capital stock to the public within the first five years of operation and at least 51 percent by the fifteenth year. Only six telecom companies are currently listed in the Philippine Stock Exchange, two of which are thinly traded.

Table 2.

ROLL-OUT ACCOMPLISHMENT					
Carrier	Foreign Partner	Lines required under EO 109	Lines committed under revised roll-out plan	Lines installed * (as of 2 nd qtr 1998)	% of Accom.
Digitel	Telia-AB Sweden; Jasmine International of Thailand	300,000	337,932	374,816	110.9%
Globe Telecom	Singapore Telecom	700,000	705,205	705,288	100.0%
ICC/Bayantel	Nynex International; Telecom Holdings; Chase Manhattan; AIF	300,000	341,410	462,509	135.5%
Islacom	Shinawatra; Deutsche Telecom	700,000	701,330	455,438	64.9%
Major/Philcom	Malaysian Group/ Comsat (USA)	300,000	305,760	71,334	23.3%
Pitrel	none	400,000	417,858	379,413	90.8%
PLDT	none	0	1,254,372	1,274,282	101.6%
PT&T/Capwire	Korea Telecom	300,000	300,000	172,314	57.4%
Smart	First Pacific Co. Ltd. NIT-Japan	700,000	700,310	704,073	100.5%
ETPI	Cable & Wireless	300,000	300,497	71,357	23.7%
ALL CARRIERS		4,000,000	5,364,620	4,670,824	8.59%

*includes claimed PCO credits.

Source: National Telecommunications Commission.

Table 3.

COMPARATIVE PERFORMANCE, 1994 and 1996

	1994	1996
Telephone Mainlines		
Total working lines ('000)	1,109.7	1,787.0
Per 100 inhabitants	1.68	2.49
Payphones/1000 inhabitants	0.09	0.12
% of main lines in urban	70.8	60.4
Int'l Telephone traffic		
Total (million minutes)	166.2	192.6
Minutes per inhabitant	2.5	2.7
Quality Indicators		
% of Satisfied demand	56.7	66.5
Waiting list for tel lines ('000)	874.4	900.2
Waiting time	5.5	2.9
% of digitalised lines	63.9	85.0
Telecom Investment		
Total (US\$ million)	371.8	834.5
Per inhabitant	5.7	11.6
% of revenue	49.2	76.5
% of GPCF	2.8	4.8
Telecom Staff		
Main lines per employee	55	98

Source: *International Telecommunications Union.*

The failure of some carriers to meet their roll-out deadlines raises concern that many of the targeted areas will remain unserved when SAS terminates. As of the end of 1997, only 596 out of 1,398 targeted cities and municipalities have local exchange service. This is despite the standing policy requiring carriers to install at least one line in a rural area for every 10 lines installed in an urban area. If targets are met, then 223 areas representing 13.8 percent of the total 1,611 cities and municipalities will remain unserved.

Still, the program has introduced competition in almost all services. There are now 10 major local exchange carriers, five cellular operators, nine international carriers and 14 paging companies. Competition improved service quality and stimulated

Table 4.

Basic Telecommunications Indicators, Selected Countries, 1996

	Philippines	Thailand	Indonesia	Malaysia	Hong Kong	Taiwan	Singapore
Telephone Mainlines							
Total working lines ('000)	1,787.0	4,200.2	4,186.0	3,771.3	3,451.2	10,010.6	1,562.7
Per 100 inhabitants	2.49	7.00	2.13	18.32	54.69	46.62	51.33
Proj. working lines per 100 inhabitants, year 2000*							
	4.66	12.85	4.54	26.53	58.98	57.26	59.02
Payphones/1000 inhabitants	0.12	0.96	0.68	6.69	1.73	5.87	5.48
Cellular Subscribers							
Per 100 inhabitants	1.33	1.54	0.26	7.39	21.58	4.52	14.12
Telecom Staff							
Mainlines per employee	98	120	105	137	91	286	260
Telecom Investment							
Per inhabitant (US\$)	11.6	1.3	10.6	85.2	310.7	76.3	118.6
As a % of revenue	76.5	3.4	77.9	68.6	30.5	28.8	12.9
Targets (M US\$), 1995-2000	7,636	4,122	6,719	7,532	2,066	7,585	836

*Based on average growth rate in main telephone lines over last 4 years.

Source: *International Telecommunications Union*.

investments as evidenced by the quality and investment indicators shown in Table 3. It also eroded profit margins which compelled the incumbent carrier to trim down a bloated organization in order to realize greater efficiency, *i.e.*, more lines per employee. In particular, PLDT had to reduce its workforce by one-third.

Except perhaps for the rapid growth in teledensity, the performance of the Philippine telecommunications sector has not been particularly impressive when compared to other developing countries. As of 1996, the ratio of lines in service per 100 inhabitants⁵ in the Philippines is a little over a third of Thailand's. Meeting the target of 9.78 in 1998 will bring the Philippine's index to only half of Malaysia's. The payphone and cellular subscription densities still show the Philippines among the countries with the lowest telephone accessibility in the region. Thus, the Philippine investment target from 1995 to 2000, while exceeding those of other Asian countries — US\$ 7.6 billion, compared to Singapore's US\$ 836 million, will have to make up for decades of underinvestment.

Table 5 shows a cross-country comparison of some quality indicators. The Philippine telecommunications sector has more unsatisfied demand, longer waiting time and lower degree of digitalization, and generally higher prices than its Asian counterparts. It should also be noted that the subsidy of business to residential consumers is much higher in the Philippines while such price distortion does not exist in Thailand.

It is fair to conclude that the dose of market reforms transformed Philippine telecommunications from a sluggish to an exuberant sector that is now catching up with the level of development attained by other countries. The successes of the present reforms, in particular the Service Area Scheme, should not however restrain one from inquiring if the growth momentum attained can be sustained. The reforms have, of course, shaken off the inertia but the sector's development trajectory is yet uncertain. Is the present market structure optimal? Are more investments forthcoming after the roll-out obligations have been satisfied? Can consumers expect a lowering of prices and continuous improvements in services? The rest of the paper examines the consistency of policy objectives and strategies, and how these may affect the development path of the sector.

FLAWS IN THE SERVICE AREA SCHEME

The Public Telecommunications Policy Act, RA 7925, states that the fundamental objective of reforming the sector is "to develop and maintain a viable, efficient, reliable, and universal telecommunications infrastructure using the best avail-

Table 5.

Quality Indicators and Telephone Tariffs, Selected Countries, 1996

	Philippines	Thailand	Indonesia	Malaysia	Hong Kong	Taiwan	Singapore
Quality Indicators							
Waiting list for tel. lines ('000)	900.2	821.6	117.5	160.0	-	-	-
% Satisfied demand	66.5	83.6	97.3	95.9	100.0	100.0	100.0
Waiting time (years)	2.9	1.2	0.2	0.4	-	-	-
Faults per 100 mainlines/year	131.6	45.0	18.6	60.0	-	11.5	0.3
Digital main telephone lines	85.0	89.4	96.0	96.0	100.0	97.6	100.0
Telephone Tariffs							
Local call (US\$)	...	0.12	0.05	0.04		0.04	0.03
Monthly subscription							
Residential (US\$)	10.1	3.9	9.1	8.0	8.7	2.3	6.0
Business (US\$)	23.1	3.9	13.8	13.9	13.5	15.1	9.1
Ratio of bus. to res. tariff	2.28	1.0	1.52	1.74	1.55	6.57	1.52
Subscription % of GDP per cap.	11.0	1.7	10.5	2.2	0.4	0.2	0.2

Source: International Telecommunications Union.

able and affordable technologies.” The law further provides that the expansion of the telecommunications network shall be geared towards the fulfillment of the so-called universal service obligation, *i.e.*, the social goal of making the network accessible to heretofore “unserved and underserved areas at affordable rates.”

The main features of the Service Area Scheme may seem compatible with these policy objectives to the extent that it has paved the entry of new carriers which hastened infrastructure development in both urban and rural areas. A closer scrutiny of the program’s design, however, reveals at least two inherent weaknesses: the designation of service areas as a means to introduce competition in the market; and reliance on cross-subsidy of services to finance infrastructure development. These weaknesses risk the viability of reforms, and can delay, if not avert, the attainment of an efficient market structure.

CREATING ARTIFICIAL COMPETITION

A careful reading of the events that led to the formulation of the Service Area Scheme brings one to the conclusion that the scheme is more a political maneuver to accommodate competing interests than an economic solution to the problem of developing a telecommunications infrastructure. What is clear is that the program provided separate fiefdoms to big capitalists who are all bent on grabbing market opportunities presented by the liberalization of the sector. However, the regulators were blindsided on the extent scale economies were compromised by the designation of service areas. This explains why a few days after the scheme was announced in 22 September 1993, the Transportation and Communications Secretary came out in public calling for the merger of telecommunications companies.⁶

Speculations are rife that the market cannot accommodate the present number of carriers. Thus, consolidation of competing firms is anticipated, which may take the form of full mergers, acquisitions, marketing and sales partnerships, or network sharing agreements. Smart’s acquisition of 9.8 percent stake in Eastern Telecommunications Philippines, Inc. in 1997 was thought of as the harbinger to an imminent market restructuring. The real market restructuring, however, may have just unfolded with the recent takeover of PLDT by the First Pacific Holdings, the same group that controls Smart, Inc.

In general, the nature of the telecommunications business does not permit development to proceed on a haphazard *laissez-faire* regime, *i.e.*, monopoly tends to perpetuate itself unless competition is actively created. New entrants may have the

advantage over the incumbent carrier as they are without stranded costs (*i.e.*, infrastructures rendered obsolete by technological change), nimbler with a slimmer work force, and without unions to placate in case of organizational restructuring. They can undercut the incumbent under a fully deregulated market. Yet the incumbent has a bigger advantage, *i.e.*, the control over the national network to which all calls are connected. It can price squeeze the entrant by charging a high interconnection fee. In particular, PLDT's control of about 90 percent of customer connections in the local loop means that other carriers depend on PLDT's technology and cost of completing calls.

The mechanism for creating competition is therefore crucial in determining the strength that new carriers can muster to avoid being strangled by the incumbents. In this respect, the regulator has several options to consider. One model is the US telecommunications sector that kickstarted competition by introducing lines of business restrictions between long distance business and local networks. Competition in long distance is tough, but less intense in local networks to give allowance for infrastructure development. Thus, competing long distance providers are made to offer services over the existing networks to avoid the construction of unnecessary duplicate networks. For a country without a strong antitrust tradition, this model may not be too relevant. It takes a tough regulator as the Federal Communications Commission (FCC) to break up the monopoly, *i.e.*, to require the incumbent to relinquish its control either of the local network or long distance. Equally important is determining the degree of competition appropriate in local exchange to achieve the twin objectives of network development and reduction in local service prices. In the absence of such an institution, the regulator would have to forge competitive cooperation among carriers if both long distance and local network services were open to entry. Interconnection problems are bound to surface because incentive for the incumbent to cooperate is nil.

An alternative model is UK's asymmetrical regulation, *i.e.*, entrants receive more favorable treatment over the incumbent to allow them to build a parallel network. Incentives may not be sufficient for the entrants to overcome the incumbent's first mover advantage, thus British Telecom remains dominant. But smaller and aggressive entrants with slimmer overhead are still threats to the power of incumbent. The pressure from these entrants must have compelled British Telecom recently to ruminate on how it can split itself into smaller independent cost units. Moreover, network duplication can be wasteful and will not necessarily eschew interconnection problems.

A more radical option is to separate network from service provision, a strategy that has been experimented within a southern state in the US.⁷ The network owner sells services to all carriers, but refrains from directly delivering service to customers.

This scheme introduces competition in services, while protecting the asset base of the local incumbent. An assiduous regulator is required to check against possible price squeeze of the network owner, and to ensure continuous upgrading and expansion of infrastructure.

SAS is akin to the US model sans the line of business restrictions. The failure of some carriers to deliver on their service commitments is a clear signal that the imposed geographical restriction (non-overlapping franchise areas) was not sufficient guarantee for scale economies. Besides the wasteful duplication of network that resulted from the experiment, SAS engendered other problems. Foremost is the interconnection between carriers. Since none of the new carriers has a network as expansive as the incumbent's, no one has sufficient leverage to bargain with the incumbent for an efficient interconnection price. Second, the limited effective competition created by SAS kept service prices buoyant and well above costs, *i.e.*, prices have eased only slightly relative to what may be expected from liberalizing entry. This is the case for example with mobile phones whose price is still generally higher than one on a fixed line, although the capital costs for cellular are well below the wired line. If competition is less restricted as it is under SAS, then the price gap between fixed and mobile should be shrinking, and consumers should be able to reap more gains from the reform in terms of lower prices. The same argument applies to long distance calls. If new carriers who make their business from telephonic arbitrage⁸ were permitted to operate, then long distance prices would have been driven towards costs.

One recognizes that consumer welfare improved as a result of SAS, but the gain may be ephemeral. The costs imposed by SAS in terms of loss of efficiency in service provision and uneconomic duplication of facilities have to be weighed against these benefits. Ironically, the motivation for SAS is to minimize duplication of facilities that a fully liberalized market would have engendered. It will be recalled that prior to SAS, the prospective entrants announced their individual plans of building an alternative backbone. On hindsight, it turned out that many of these threats were empty. If they defaulted in putting up the much smaller capital resources required by the franchise areas, the capital requirements of a nationwide network are simply beyond their means.

FINANCING UNIVERSAL OBLIGATION THROUGH CROSS-SUBSIDIES

Universal service policy is based on an egalitarian principle that a ubiquitous communications infrastructure creates equality of opportunity and contributes to national unity. It calls for the provision of a telephone network that covers all areas,

connecting as many citizens as possible and making telephone service and access to the network affordable.

Cross subsidization of services is the traditional mechanism of providing funds for local exchange infrastructure while keeping local rates affordable to a wider segment of society. There are at least four major subsidy flows: (1) from long distance to local exchange network; (2) from business customers to residential customers due to value-of-service pricing of local telephone service⁹; (3) from light users of service to heavy users of that service as a result of bundling access and local usage under a single flat rate; and (4) from urban to rural telephone customers due to rate averaging.¹⁰

The biggest subsidy flow and likewise the most distortive is from long distance to local calls. Under the present pricing structure, local services are charged a flat monthly rate, while usage-based pricing is used for long distance calls. A telecommunications service, however, consists of two costs: the fixed costs representing the assets that comprise the local exchange (*i.e.*, customer's telephone, wires, poles, switching equipment, etc.); and variable costs that are related to the volume of traffic on the network and include expenditure to operate switches and transmit signals, among others. The fixed costs result primarily from providing customers access to both the local and long distance networks.

From the standpoint of efficiency, telephone pricing requires a two-part tariff: a fixed monthly charge to cover the fixed costs of providing the customer with access to the network; and a usage-based charge for both local and long distance services equal to the marginal costs of transmitting and switching calls over their respective networks. However, to widen the subscription base to local exchanges as is consistent with the universal service policy, the recovery of fixed costs is largely dumped on to the long distance network, thus raising the price of long distance calls. On the other hand, the price of local service does not reflect the variable costs of using the local network on a minute-of-use basis.

Ironically, countries that have corrected their pricing structure, *i.e.*, eliminate price distortions, have higher telephone penetration than those that still observe the cross-subsidy scheme. The fact is that cross subsidization of services to finance telecommunications development is incompatible with market logic. An alternative mechanism that is market-based and more conducive to development must be found for at least four reasons.

First, the system breeds inefficiency. It encourages under-usage of long distance network (since the price of a long distance call is above marginal cost), and excessive usage of local network (because local usage price is zero). The cost exacted on production is high, especially in view of the globalization of economic activities that raises the demand for long distance calls.

Second, enforcing the cross subsidy will eventually become futile as advances in transmission and switching technology enable an increasing number of long distance users to avoid the subsidies by bypassing the local network. Specifically, the artificially high prices of long distance usage caused by the subsidy drive demands for new and less expensive bypass technology such as Internet telephony. Consider that packet-switching (used in Internet) is intrinsically inferior to circuit-switching (used in regular phone) in transmitting voice, but the regulatory distortion creates demand for Internet telephony. The loss of revenue from bypass compels the legitimate long distance provider to increase the price on the remaining long distance calls in order to maintain the former level of subsidies. But such price increases encourage more bypass, resulting in further erosion of the subsidy base.

A third concern is the sustainability of the system. The recent move of the US FCC to reduce the accounting rates between US and foreign carriers should be taken as an indication that in the future, the cross subsidy system will not be tenable. The accounting rate is a form of cross-border revenue sharing scheme based on a negotiated "settlement" price between connecting carriers in two countries. When a consumer makes an international call, the local service provider carries the call to the border or to mid-ocean and delivers it to the foreign provider who then completes the call. The settlement price or accounting rate is a means of splitting the costs of carrying the calls between the two carriers. The carrier from where the call originated pays half the settlement price. This practice penalizes the lower cost carrier since more calls are likely to originate from its direction. Traffic flow is out of balance. The higher cost carrier, in effect, receives subsidy from the incoming overseas calls.

As the scheme adds to the trade deficit of the US, the FCC has lowered the accounting rate from \$1 to 72 cents (charged per minute). By year 2000, this rate will fall to 38 cents. Under SAS, international carriers are expected to finance their investments on local lines from the profits skimmed off from the long distance network. But if the tap is turned off, then domestic call charges have to be raised, or no resources can be funnelled for network development. This is the argument of PLDT in its petition to apply metering on local calls.¹¹

Finally, one questions the view that cross subsidization promotes universal service by raising demand. The rhetoric seems to run against economic logic. Consider that subscription to telephone network reflects the demand for usage. By raising the price of long distance calls and lowering that of local calls, demand for long distance calls falls while that for local calls rises. The net effect on demand for access is theoretically indeterminate, depending on the relative price elasticities of the two types of service. One may even have less demand for telephone services owing to the cross-subsidy, given that the price of long distance service with more elastic demand is kept

high, while the price of a local call with relatively inelastic demand is kept low. In this case, the basis for using the cross subsidy falters.

CONCLUSION

This paper argues for correcting the existing flaws in the telecommunications policy. Specifically, it has presented enough grounds to reduce entry barriers imposed by the SAS and to discontinue the reliance on cross subsidies to finance telecommunications development.

Two broad suggestions for reforms are offered here. The first is to place greater accent on competition to promote network development. This means opening to market competition all segments in the industry, namely: telephony, wireless communications, broadcasting, and cable TV. It is important that even when a carrier retains a dominant market position in one form (because of scale economies), there exists a range of technical alternatives that will compel the carrier to behave competitively. Restraints on foreign capital and industry cross-ownership should be reduced, and eventually removed, once an effective antitrust mechanism is in place.

Corollary to this suggestion is a plea for regulators to retool. Creating competition involves getting to grips with technical pricing, access, interconnection, and other standard issues. In addition, it would be useful to maintain a reliable database on the investment and pricing behavior of the carriers to inform them of their policies and regulatory decisions. These are essential regulatory tools without which it would be difficult to rein in the market power of former monopolists and to oversee the implementation of interconnection agreements.

The second suggestion is to consider alternatives to cross-subsidies that will reconcile greater competition with universal provision. Several mechanisms have been suggested to raise the development fund. Einhorn (1995), for example, suggested the use of a proportional tax on personal consumption, income or property, but in general, taxes are politically unpalatable. Panzar and Wildman (1995) proposed the use of telecom vouchers that would facilitate price discrimination between low income and high income subscribers. The scheme will allow for the charging of lower-than-cost rates of service to low income groups, and higher-than-cost rates to the more affluent customers. This system is socially acceptable if high income groups value being connected with the low income groups, *i.e.*, if the network externality is strong. Other countries have raised universal service funds from the contributions of carriers. Each of these options has its own merits and drawbacks. What should guide

the choice is the minimum distortion that it can impose on the outcome of a competitive market.

In all of these reforms, the regulator should ensure that competition pays in terms of improvements in the quality of service, lower prices and innovative services. It is high time that consumers earn their dividends from market reforms.

NOTES

- 1 Cable and Distler, 1995, p. 9.
- 2 DOTC, National Telecommunications Development Plan 1991-2010, p.19.
- 3 An ISDN is a communications backbone that can transmit voice, data, video, image, and text. Before its deployment, the Philippines maintained separate backbones for data and voice services. The Public Switch Telephone Network (PSTN) provided the backbone for voice applications while the Public Switch Data Network (PSDN) provided the backbone for data applications like telex and telegraph services. PLDT controls 94 percent of PSTN.
- 4 These are Islacom, Philcom, Piltel, PT&T, and ETPI.
- 5 The International Telecommunications Union defines teledensity in terms of lines in service. This differs from NTC's definition which counts on the lines installed which may or may not be in service.
- 6 8 November 1993, "Government Pushes Mergers Among Telecom Players, *Business Star*.
- 7 "A Survey of Telecommunications: A Connected World," *The Economist*, 13-19 September 1997.
- 8 These are practices that take advantage of price differentials on long distance calls between different countries, such as international simple resale (ISR), call back, call refile, etc.
- 9 This refers to a pricing scheme where a higher price is charged to a customer who values the service more than another customer, even if the cost of providing the service is the same for both.
- 10 All customers of a given service pay the same price for that service even if the costs of providing it differ. Note that the service to more densely populated urban areas is less costly than those in rural areas.
- 11 The petition was granted in 1997; its implementation was delayed to March 1999. Consumers are allotted 800 "free" minutes per month in excess of which a P0.40 per minute will be charged.

REFERENCES

- Cable, V. and C. Distler. 1996. *Global Superhighways: The Future of International Telecommunications Policy*. Royal Institute of International Affairs.
- Department of Transportation and Communication. 1993. National Telecommunications Development Plan, 1991-2010, July.
- Einhorn, M. 1995. Universal Service: Realities and Reforms. *Industrial and Corporate Change*.
- Grieve, W. and S. L. Levin. 1995. Strategies and Policy for Local Telecommunications Competition. *Industrial and Corporate Change*.
- Haring, J. 1995. Can local telecommunications be self-pricing? *Telecommunications Policy*.
- International Telecommunications Union, 1995 *World Telecommunications Development Report*.
- International Telecommunications Union, 1997 *World Telecommunications Development Report*.
- Kaserman, D. L. and J. W. Mayo. 1994. Cross-Subsidies in Telecommunications: Roadblocks on the Road to More Intelligent Telephone Pricing. *Yale Journal on Regulation*.
- Mueller, M. 1997. *Universal Service: Competition, Interconnection and Monopoly in the Making of an American Telephone System*. Cambridge, Massachusetts: MIT Press.
- National Telecommunications Commission, 1996 NTC Annual Report.
- National Telecommunications Commission, 1997 NTC Annual Report.
- Northfield, D. and T. Barr. 1995. Models of Deregulation: An International Comparison of Telecommunications Industry Development Policies. CIRCIT Policy Research Paper No. 37.
- Panzar, J. C. and S. S. Wildman. 1995. Network Competition and the Provision of Universal Service. *Industrial and Corporate Change*.
- The Economist*. 1997. A Survey of Telecommunications: A Connected World. September 13-19.



THE PHILIPPINES IN A GLOBAL ECONOMY: COMPETITION POLICY AND APEC

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ABSTRACT

As the Philippines and APEC economies embark on globalization, they face a dilemma of whether they need a competition law to complete their national economic policy framework, or if liberalization, privatization, and deregulation are sufficient to promote competition.

This paper discusses the scope, limitation, and elements of competition policy. It likewise provides an overview of Philippine laws that directly or indirectly enhance competition policy. The anti-dumping process in the Philippines is likewise described. An analysis is made on the administrative structures and functions of key agencies involved in the implementation and enforcement of competition and consumer laws in the Philippines. Finally, a comparative analysis of legal and institutional mechanisms for competition policy among APEC economies is made. In terms of individual

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action plans (IAPs) of APEC economies on competition policy, three patterns emerge: (1) advanced economies which promise to extend technical assistance to developing economies, (2) developing economies which promise to set up a comprehensive competition policy, and (3) newly industrializing economies which promise to pursue a policy of free and open market through corporatization, privatization, and deregulation.

INTRODUCTION

As member economies of the Asia Pacific Economic Cooperation (APEC) embark on liberalization and deregulation policies to foster sustained economic growth, increased employment and regional stability, a crucial question that will be faced is whether APEC economies need a competition law to complete their national economic policy framework. Some argue that liberalization, privatization, and deregulation are sufficient to promote competition. However, others assert the view that a well-designed competition law should occupy a central place in a country's economic policy framework. Reliance on regulatory controls, public enterprises, investment incentives, and trade restrictions to enhance industrial development has often led to concentration of industry, sheltered domestic markets, and distorted price signals. On the other hand, an effective competition law prevents artificial barriers to entry, facilitates market access, and inhibits anti-competitive and restrictive business practices.

During the APEC Meeting in Manila in November 1996, the Philippines offered the following: (1) to legislate anti-trust and anti-monopoly laws, (2) to establish a Fair Trade Commission, (3) to continue to review and further improve competition regime, (4) to participate actively in dialogues and exchanges of information among APEC economies to ensure transparency and enhance mutual understanding of national competition laws and policies, and (5) to avail of technical assistance within APEC to review and develop competition policies and laws (APEC 1996). Consistent with these action plans, the Philippines availed of Australia's assistance under its APEC Support Program which provides funding for a multi-phase training program in competition policy to be conducted by the senior officers of the Australian Competition and Consumer Commission (ACCC). The Philippines' participation in the APEC/Partners for Progress Seminar in Competition Policy for APEC Member Economies held in Bangkok in March 1997 (Patalinghug 1997a) is a further demonstration of its commitment to promote cooperation and to establish and operate an effective competition policy.

The individual action plans (IAPs) of advanced APEC economies (e.g. Australia, Canada, Japan, and United States) in the November 1996 meeting in Manila contain detailed descriptions of competition law and policy. It describes the institutional and administrative structures in support of effective implementation of competition policy in these economies. In addition, detailed descriptions of specific actions (e.g. providing technical assistance to APEC economies) in competition policy are discussed. In some developing APEC economies (e.g. Korea and Chinese-Taipei), a less sophisticated but operational competition policy is in place. All of these economies are convinced of the merits of a rigorous and comprehensive competition policy. On the other hand, other APEC economies (e.g. Brunei, Hong Kong, Indonesia, Malaysia, Singapore, Papua New Guinea, Thailand, and Philippines) do not have a rigorous and comprehensive competition policy.

This paper reviews the status and prospects of competition policy in the Philippines. The discussion starts with a description of the factors driving moves to enhance competition laws followed by a discussion of the scope, definition, and elements of competition policy. The paper then provides an overview of Philippine competition laws, anti-dumping authority, privatization and deregulation, an analysis of the administrative structures and functions of key agencies, and a description of competition policy in APEC. Finally, the paper concludes with a discussion on future directions for competition policy in the Philippines.

FACTORS DRIVING MOVES TO ENHANCE COMPETITION POLICIES

The emerging world economic environment of liberalization, deregulation, privatization, globalization, and international competitiveness has put pressure on formerly inward-looking and protected economies to be export-oriented and market-driven. This necessitates the need to attract foreign direct investments and the lifting of barriers to engage in foreign trade and development cooperation. International trade policy has generated regional agreements such as AFTA, multilateral agreements such as WTO and regional arrangements such as APEC that require host economies to gear its laws and policies to the dynamic needs of present economic realities. This is the environment that promotes the privatization of public utilities and the abolition of monopoly rights of those utilities as well as those of state-sanctioned public and private monopolies in other sectors.

Since market access and competition are used to achieve efficiency, the need to establish trade and competition policy is crucial to achieving international competi-

tiveness. Restrictive and anti-competitive practices are impeding the economy's ability to compete efficiently. Furthermore, competition policy is important because as anti-competitive actions by government are restrained, anti-competitive behavior by firms is not. It is this backdrop that necessitates an assessment of current conditions and the future prospects of competition policy in the Philippines.

SCOPE, DEFINITION, AND ELEMENTS OF COMPETITION POLICY

Competition policy consists of measures intended to promote a more competitive environment as well as measures designed to prevent a reduction in competition. There are two major views on competition policy. One view advocates that competition policy should be directed towards modifying market structures and imposing constraints on the behavior of firms. The other view argues that competition policy is unnecessary because efficiency prevails regardless of market structure.

Economies that have established an effective competition policy have embraced both a *market-structure view* and an *efficiency view* of competition policy. Thus, competition policy should cover all measures (laws, regulations, procedures, and policies) that directly or indirectly influence firm behavior, managerial decision-making, and industry structure. The absence of government intervention does not necessarily guarantee a more competitive market environment because anti-competitive and unfair business practices might emerge. Competition policy therefore aims at ensuring that as government barriers go down, business barriers do not go up.

An effective competition policy must have the following elements: (a) policy towards monopoly, (b) policy towards mergers, (c) policy towards restrictive and anti-competitive practices, (d) policy towards state entry barriers, and (e) policy towards consumer protection.

Policy towards monopoly tries to prevent monopoly abuses such as imposition of unfair prices, limitation of production, tie-in sales, and restriction of technology transfer. The target of this policy is to regulate behavior of monopolies that exclude competition by eliminating rivals, designing tie-in contracts, or practicing predatory pricing. This policy is usually not applied *per se*. In other words, it allows monopoly to exist in a contestable market.

Policy towards mergers is now a balanced consideration of two factors: competitive risks and efficiency advantages. A merger leading to a monopoly position is no longer automatically considered a monopoly abuse. Greater emphasis is now placed on analysis of the potential effects of mergers on competition. In short, the detrimen-

tal impact of mergers on competition must be more than offset by considerable gains in efficiency. Efficiency is measured in terms of the difference between price and marginal cost. High profitability that is due to efficiency and not to dominant market position is an acceptable efficiency indicator.

Policy towards restrictive and anti-competitive practices refers to agreements between firms that have the effect of reducing competition (restrictive practices), or activities undertaken by an individual firm which restrict, distort, or prevent competition (anti-competitive practices). Examples of these practices are price agreements, market-sharing agreements, refusal to supply customers, tie-in sales, uncompetitive discount prices, predatory pricing, and forcing the customer to stock the entire product range.

Policy towards state entry barriers covers all measures aimed at removing government-imposed obstacles (deliberate or unintentional) to the operation of the competitive process. This includes support (grants, loans, guarantees or tax concessions) given by an economy to its domestic firms. This policy is hard to implement unless economies voluntarily disclose their aid payments. However, aid and assistance to R&D of generic technologies are not a violation of this policy. State activities such as education, health services, and public utilities are likewise outside the scope of this policy.

Policy towards consumer protection includes all laws and regulations that insure truthful advertising about products, truthful information about the cost of credit, the risks of injury associated with consumer products and the workplace and about protection of the environment in general.

AN OVERVIEW OF PHILIPPINE COMPETITION LAWS

The 1987 Philippine Constitution prohibits anti-competitive practices. It applies the “rule of reason” on monopolies. Monopolies are not prohibited *per se*, only when the public interest so requires. Combinations in restraint of trade and unfair competition are prohibited without exception. However, the 1987 Constitution provides no impossible sanctions for violations of this provision.

Article 186 of the Revised Penal Code (1930) describes the acts punishable, such as monopolies and combinations in restraint of trade, and the penalties impossible, such as imprisonment or fine ranging from P200 to P6,000 (or both). Article 186 of the Revised Penal Code is similar to Section 2 of the Sherman Act (1890) which was a major legislation that brought competition law into the limelight in the US.

Other special laws and statutes contain provisions dealing with competition policy. For instance Republic Act 3247 (An Act to Prohibit Monopolies and Combinations in Restraint of Trade 1961) provides for recovery of treble damages for civil liability arising from anti-competitive behavior. Republic Act 165 (Patent Law 1947) and Republic Act 166 (Trademark Law 1947) describe the appropriate civil action which can be resorted to, and the penalties imposable. Presidential Decree 49 (Copyright Law 1972) penalizes copyright infringement; Republic Act 386 (Civil Code of the Philippines, 1949) stipulates the collection of damages arising from unfair competition; Republic Act 7581 (The Price Act 1991) protects consumers by stipulating price manipulation (hoarding, profiteering, and cartels) as illegal acts. Republic Act 7394 (The Consumer Act of the Philippines 1932) imposes penalties for such behaviors as deceptive, unfair and unconscionable sales practices in both goods and credit transactions.

The Philippine Corporation Code (1980) provides for rules and procedures to approve all combinations, mergers, and consolidations. The danger of anti-competitive mergers or acquisitions that substantially lessen competition is not a major regulatory issue at the Securities and Exchange Commission (SEC). In the first place, the threat of fines for non-compliance with annual corporate financial reports is not binding because the penalties are negligible compared to the value firms are willing to pay to keep confidential data from public scrutiny. The attitude in the SEC seems to imply that the efficiency or synergy advantages of mergers more than compensate for their competitive risks. Furthermore, SEC does not have the legal mandate to challenge mergers unless it can prove that these are against the public interest. Greater emphasis is placed on allowing friendly mergers and acquisitions that take place in the market voluntarily. A soft attitude prevails in SEC's implementation of merger policy: unless evidence against public interest exists, merger applications are automatically approved. It may take a while for this attitude to change. The era for greater emphasis on analysis of the potential effects of mergers on competition, or emphasis on procedure for pre-merger evaluation will have to wait until an effective competition policy is established in the Philippines.

While the Philippine Constitution provides legal basis for competition policy, it also contains provisions that restrict competition in certain areas such as in media, natural resources, and defense-related activities. The possible conflict between sovereignty and competition can be avoided by entering into bilateral competition agreements that allow a country to cooperate on particular competition issues on a case by case basis. Prospects for the adoption of similar competition rules among countries to be enforced by an international agency are not promising because countries are averse to entering into agreements that deal with extraterritoriality or supranational jurisdic-

tion. In the Philippine context, the recent Supreme Court rulings on privatization and oil deregulation were perceived by some observers as unnecessary intrusion by the judiciary branch into the economic policy making function of the executive branch. However, an effective competition policy requires a solid legal basis and legislation that provide substantive authority to enforcement agencies which must be able to withstand legal and constitutional challenges.

Existing competition laws are inadequate and ineffective because the imposable fines are negligible; they are mostly penal in nature which requires a quantum of evidence to prosecute; there is a lack of jurisprudence on competition law, and there is no central agency to oversee the implementation of competition law in the Philippines. However, there are legislative proposals in Congress to establish a Fair Trade Commission — an independent body that will act as a central entity to implement competition laws and policies. There are two options being considered: (1) to establish the Fair Trade Commission, and (2) to maintain the existing multi-agency setup, but ensure close coordination among them. Those favoring the first option argue that responsibility is too diffused, accountability is too difficult to locate, and there is a lack of expertise in the appreciation and implementation of competition laws under the existing setup (FTAC 1996). On the other hand, those that favor the second option argue that the different implementing agencies have no overlapping functions, have the necessary capacity and capability, and simply require close coordination to secure the smooth implementation of competition laws (Santos 1995).

ANTI-DUMPING AUTHORITY

Section 301 of the Tariff and Customs Code of the Philippines (enacted in 1978) provided the legal basis for filing anti-dumping protest. However, Section 301 has been amended several times, affecting the procedure for conducting preliminary investigation on dumping. The following describes the specifics of anti-dumping authority in the Philippines as contained in the series of laws and regulations that amended Section 301 of the Tariff and Customs Code.

In December 1985, Executive Order No. 1073 was issued which prescribes, among others, the strengthening of anti-dumping measures. Section 5 of EO 1073 authorizes the Department of Trade and Industry (DTI) “to certify the existence of a *prima facie* case of dumping,” and for the Tariff Commission to determine “the fair market value of a product which is the subject of an anti-dumping protest.”

The Anti-Dumping Act of 1994 (RA 7843) amended Section 301 of the Tariff and Customs Code. Section 3 of this Act prescribes that the Secretary (either Secretary of Finance or Secretary of Trade and Industry) shall, within 20 days from receipt of an anti-dumping petition or information, determine a *prima facie* case of dumping. Upon determination of a *prima facie* case of dumping, the Secretary shall advise the Tariff Commission and shall instruct the Commissioner of Customs to hold the release of the goods or articles in question. Upon receipt of the advice from the Secretary of Finance, the Tariff Commission shall conduct a formal investigation to determine whether a domestic industry producing like articles has suffered or is being threatened with injury. The Tariff Commission is mandated to complete its investigation within 90 days from receipt of the advice, and should submit its findings to the Special Committee on Anti-Dumping within 60 days from the termination of its investigation.

The Special Committee is composed of three members: the Secretary of Finance as Chairman, the Secretary of Trade and Industry, and the Secretary of Agriculture as the third member if the article in question is an agricultural product. Otherwise, the Secretary of Labor and Employment acts as the third committee member.

The Special Committee decides the case in question within 15 days after receipt of the findings and recommendations from the Tariff Commission. If the existence of an imminent danger caused by dumping is affirmed, the Special Committee directs the Commissioner of Customs to levy the dumping duty and other duties on the imported articles. However, if the Special Committee finds no violation of the anti-dumping law, the Commissioner of Customs is instructed to proceed to act on the importation, release, or cancellation of all anti-dumping bonds filed.

In December 1995, the Department of Finance (DOF) issued the "Rules and Regulations for the Implementation of Section 301 of the Tariff and Customs Code as Amended by RA 7843" (Department Order No. 150-95) which prescribes in Section 4 that an anti-dumping protest shall be filed with the DOF which will determine whether or not the petition complies with the documentary requirements. If the petition is proper in form or substance, the DOF shall refer the case to the Department of Trade and Industry (DTI) for preliminary investigation.

The DTI's Bureau of Import Services (BIS) carries out the function of conducting preliminary investigation to determine the existence of a *prima facie* case of dumping. The arrangement between DTI and the Tariff Commission during the preliminary investigation stage is for the BIS to issue public notification of the start of the preliminary investigation to be conducted by the DTI-BIS. Thus, the Tariff Commission starts its formal investigation only after the DTI-BIS ends its preliminary investigation on a given anti-dumping case.

PRIVATIZATION AND DEREGULATION

In December 1986, the Asset Privatization Trust (APT) was created to dispose of privatized assets under the supervision of the Committee on Privatization (COP). In 1995, APT reported that 320 out of 404 assets under its disposal were sold and generated total sales of P33.25 billion. The privatization efforts were a remarkable success in terms of generating additional revenues as well as in transforming depressed assets into productive ones. Privatization proceeds were a major contributing factor for the attainment of budgetary surpluses in 1994 and 1995 (Patalinghug 1997b). However, privatization and liberalization may be in conflict. If the government wants to maximize revenue from the sale of a public enterprise (e.g. Manila Waterworks and Sewerage System), it might be tempted to keep it as a monopoly. The privatization efforts would have produced more desirable results if it were accompanied by reforms to make the industry (to which the privatized firm belongs) more competitive, or if free entry were encouraged. A privatization scheme that simply tries to maximize revenue without altering the structure of the market towards a more competitive and market-oriented environment would not be as effective. Most probably, it would simply transform a public monopoly into a private monopoly. Thus, an adequate institutional and regulatory framework is a necessary complement to a successful privatization policy.

The Downstream Oil Deregulation Act of 1996 (RA 8180) prescribes in Section 7 that the DTI and Department of Energy (DOE) must take measures to promote fair trade practices; prevent formation of cartels, monopolies, and combinations of restraint of trade; and any unfair competition as defined in Articles 186, 188, and 189 of the Revised Penal Code. This is a classic case of privatization policy which is not coordinated with deregulation policy. Petron Corporation (the Philippines' state-owned and largest oil company) was privatized in 1994. With the deregulated market, structural barriers (capital requirements and economies of scale) have given unfair advantages to incumbents, making deregulation less effective. Had the industry been deregulated before the privatization policy was implemented, it would have produced a more competitive market structure.

In 5 November 1997, the Supreme Court declared the Oil Deregulation Act unconstitutional because it violated the equal protection clause, failed to foster a truly competitive market, embraced more than one subject not expressed in its title, and violated the constitutional provision on undue delegation of power (*Manila Bulletin*, 6 November 1997). Congress thus approved a new Oil Deregulation Act in January 1998 to address these legal infirmities.

ADMINISTRATIVE STRUCTURES AND FUNCTIONS OF KEY AGENCIES

Implementation and enforcement of Philippine competition and consumer laws, in its limited and less-developed form, can be described as the function of the following agencies: Tariff Commission, Bureau of Import Services, Bureau of Trade Regulation and Consumer Protection, and Securities and Exchange Commission.

Tariff Commission (TC) is an attached agency of the National Economic and Development Authority (NEDA) and is composed of a Chairman and two Commissioners. It is mandated to assist the Cabinet Committee on Tariff and Related Matters (TRM) in the formulation of national tariff policy, and to monitor the implementation of the Tariff and Customs Code.

Bureau of Import Services (BIS) is a staff agency of the Department of Trade and Industry (DTI). It is headed by a Bureau Director and is mandated to monitor import quantities and prices of selected sensitive items (particularly liberalized ones) to anticipate surges of imports and to assist domestic industries against unfair trade practices. DTI's mandate of undertaking preliminary investigation of an anti-dumping protest referred to them by DOF is implemented by the BIS.

Bureau of Trade Regulation and Consumer Protection (BTRCP) is a staff agency of the DTI and is headed by a Bureau Director. It is mandated to formulate and monitor the registration of business names and the licensing and accreditation of establishments; it evaluates consumer complaints and product utility failures and protects and safeguards the interests of consumers and the public with regards to health and safety implications of intrinsic product failures.

Securities and Exchange Commission (SEC) is an attached agency of the Department of Finance (DOF) and is composed of a Chairman and four Commissioners. It is mandated to administer corporate governance laws such as the approval and registration of corporate consolidations, mergers and combinations. It also implements the Securities Act of 1982 which penalizes fraudulent acts in connection with the sale of securities (e.g. price manipulation, inside trading, short selling, failure to disclose, delayed disclosures, etc.).

Among these key agencies, none is specially geared towards the formulation and implementation of fair trade laws, adoption of policies on monopolies, and restraint of trade; undertaking price surveillance and monitoring; overlooking compliance with Article 186 of the Revised Penal Code; and adjudicating access disputes. However, the Tariff Commission is the only agency with organizational experience and structure to investigate any contravention of business practices, adjudicate anti-dumping and countervailing protests, determine the extent of injury to domestic industry due to import surge, and ascertain the difference between the export price and the normal

value of the imported goods. The creation of the proposed Fair Trade Commission will either be based on merging or coordinating the functions of these existing key agencies, or creating an entirely new independent body that would enforce compliance with monopoly laws, merger laws, laws on restrictive and anti-competitive practices, market access laws, and consumer protection laws. If institutional and organizational learning take sometime to bear fruit, existing agencies (e.g. Tariff Commission) with the most exposure to enforcing, adjudicating and implementing laws and policies will be in the best position to make up the core staff of the new Fair Trade Commission or to function provisionally (via some organizational restructuring) as the *de facto* Fair Trade Commission in the absence of required legislative action.

Existing institutions that are doing mainly trade-related functions such as implementing anti-dumping, safeguards, and countervailing measures must be ready to face a different policy perspective. For instance, competition policy and anti-dumping laws have conflicting objectives because the former is concerned with maximizing economic efficiency and raising net national welfare, while the latter is designed to remove a perceived inequity in international trade through government enforced restrictions on competition. Consumer welfare is also a concern of competition policy even if domestic firms are adversely affected. In contrast, the anti-dumping law is focused on protecting domestic producers from the adverse effects of competition, effectively a competition-reducing policy. Furthermore, attitudes and institutions explain significantly successful implementation of economic policies, and "getting the right institution in the right place does matter" (Sharp and Pavitt 1993).

COMPETITION POLICY AND APEC

The objective of APEC is to enhance the competitive environment in the region by introducing or maintaining effective and adequate competition policy, ensuring transparency of competition laws, and promoting cooperation among APEC economies (see Appendix 1). However, the 18 members of APEC have varying levels of development in their respective competition policy regimes. Appendix 2 shows that Australia, Canada, Japan, and the United States have maintained an effective and adequate competition policy and enforcement mechanism. On the other hand, New Zealand, Korea, Chinese-Taipei, Chile, Mexico, and China are introducing competition policy in their domestic economies. The other APEC members (Brunei, Hong Kong, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, and Thailand) have no specific legislation governing competition policy, or have no specific

institution tasked to enforce a comprehensive competition policy. What they currently have are industry-specific regulations instead of relying on general rules which apply across sectors. The admission of three new members (Peru, Russia, and Vietnam) in 1998 will not change this current structure.

Brunei, Hong Kong, Indonesia, Malaysia, and Singapore are pursuing the policy of a free and open market through corporatization, privatization, deregulation and liberalization to ensure a competitive environment in their domestic economies. Their competition policy action plans for APEC (see Appendix 3) do not promise the introduction of competition laws or strengthening of existing laws but simply promise to continue its market-friendly policies. Privatization, deregulation, and liberalization should be treated as complements rather than substitutes for competition policy. On the other hand, the individual action plans (IAPs) of Papua New Guinea, the Philippines and Thailand promise to establish an appropriate and effective competition policy. Papua New Guinea promises to introduce a Business Practices Act, the Philippines promises to enact an Antitrust Law, and Thailand promises to amend its Price Fixing and Anti-Monopoly Act of 1979 to allow greater competition.

Japan and Korea have committed to undertake measures for the more vigorous implementation of competition policy such as a review of the exemption provision under its competition laws and a review of provisions on notification of mergers, acquisitions, and interlocking directorates.

With regard to implementing the commitment to extend technical assistance to other APEC members in terms of policy development, legislative drafting, and structure of enforcement agencies, Japan, Australia, Canada, and Korea are seriously satisfying this obligation. Chinese Taipei is trying hard to fulfill its commitment of putting up a competition policy database. The US needs to actively extend its technical assistance commitment, particularly to the less developed APEC economies which indicated their willingness to establish an effective competition policy regime.

Since there exist considerable differences in competition laws among the APEC economies, a regional competition law is unattainable. However, areas of minimal harmonization must be identified. A general consensus on considering cartels illegal is possible. However, one view argues that cooperative arrangements among companies (e.g. R&D cooperation) should not be considered anti-competitive because they are efficiency-enhancing (Takigawa 1997). But another view argues that the conduct of industrial policy should not eliminate competition to a significant degree in a domestic market (Bourgeois and Demaret 1995). Currently, harmonization of competition policy is possible among Australia, Canada, Japan, New Zealand, Korea, and the United States which have some similarities in their competition law standards. APEC cooperation in competition enforcement is another area for enhancing a re-

gional competition policy. Cooperation on mutual legal assistance, notification of cases where another APEC member's interests are affected, and the exchange of non-confidential information is achievable because these forms of cooperation allow each APEC member to maintain its own national competition laws. The treatment of confidential information creates some problems in enhancing international cooperation because most countries legally restrict their competition authorities from disclosing firm-specific information obtained in the process of an antitrust investigation. The US enacted a law to allow greater cooperation in the exchange of confidential information on a reciprocal basis which led to bilateral agreements with Australia, Canada, and Germany. Rather than aim at harmonization of competition laws in the APEC region, a competition of competition laws is suggested to allow APEC members to experiment with new policy approaches.

Unfortunately, the prospects of APEC as a model for enhancing regional or international cooperation in competition law are not promising. Mutual agreement among APEC economies to allow the extraterritorial application of competition law is unlikely because a system of overlapping jurisdictions could work only in highly integrated economies with similar legal systems. In other words, progress in economic integration (tariff and non-tariff measures) and harmonization of standards, customs procedures, rules of origin, and investment laws is a necessary condition for the extraterritorial application of competition policy in the Asia-Pacific region. An editorial of *Business Day* on 9 April 1997 (an English language daily in Bangkok) had this banner: "APEC: Too Much Talk and Too Little Action." It described APEC meetings as "high on ideas, low on substance, and nothing at all on the action front." APEC's voluntary principles and collaborative initiatives are labeled as "a euphemism for inaction and an excuse for doing nothing." It suggested that APEC meetings must show tangible results to realize their long range goal of free trade.

FUTURE DIRECTIONS

Future prospects for competition policy in the Philippines are good. Average overall nominal tariff has dropped sharply from 42 percent in 1981 to 13.43 percent in 1997. It is expected to drop further to only 8.21 percent by year 2000. Average nominal tariff for manufacturing will decline from 13.96 percent in 1995 to 7.47 percent in the year 2000. The import liberalization program has lifted import restrictions that reduced the number of items under import restrictions from 1829 in 1983 to 609 in 1988. In 1992, only 164 items remained restricted. This import liberalization policy lifted import restrictions from 33 percent of total commodity lines in 1983

to 2.9 percent of total commodity lines in 1992. Tariff rates will come down to a uniform 5 percent by the year 2004. Effective protection rates (EPR) have declined from 49.3 percent in 1985 to 31.3 percent in 1995, improving the efficiency performance of some protected industries. Liberalization and deregulation policies are being implemented in banking, shipping, airlines, telecommunications, and mining. In addition, an Intellectual Property Code (RA 8293) was enacted by Congress in 1997 to encourage innovation, transfer of technology, and foreign investments.

The establishment and fostering of an effective competition policy is an important agenda for the future. But it requires effective legislation that provides substantive authority to assess pre-merger notification, regulate natural monopolies, determine misuse of market power by large firms, and monitor restrictive and anti-competitive practices. A shift from industry-specific regulation to a comprehensive competition policy framework is needed. In addition, an effective competition law regime requires clear objectives: efficiency or equity. As we saw in the privatization experience, long-term efficiency was sacrificed to achieve short-term revenue gains. And finally, an effective competition policy in the Philippine setting requires that a widely respected institution be accepted as an impartial adjudicator. Institutional credibility must go along with adequate resources in terms of funds, skills, training, and technology for these agencies. In setting the agenda for future competition policy, the Philippines must aim at satisfying these requirements for an effective competition law regime.

APPENDIX I

Competition Policy in APEC: Objective and Guidelines

Objective

APEC economies will enhance the competitive environment in the Asia-Pacific region by introducing or maintaining effective and adequate competition policy and/or laws and associated enforcement policies, ensuring the transparency of the above, and promoting cooperation among APEC economies, thereby maximizing, *inter alia*, the efficient operation of markets, competition among producers and traders, and consumer benefits.

Guidelines

Each APEC economy will

- a. review its respective competition policy and/or laws and the enforcement thereof in terms of transparency;
- b. implement as appropriate technical assistance in regard to policy development, legislative drafting, and the constitution, powers and functions of appropriate enforcement agencies; and
- c. establish appropriate cooperation arrangements among APEC economies.

Source: Asia-Pacific Economic Cooperation, "Manila Action Plan for APEC", Volume I (Manila: November 1996).

APPENDIX 2

Legal and Institutional Mechanisms for Competition Policy Among APEC Economies

<u>Country</u>	<u>Competition Laws</u>	<u>Enforcement Agencies</u>
1. Australia	· Trade Practices Act of 1974 (Federal Law) · Competition Code (State Law)	· Australia Competition & Consumer Commission
2. Brunei Darussalam	· There is no specific legislation pertaining to competition policy	
3. Canada	· Competition Act (Amended in 1986)	· Competition Bureau of Industry Canada
4. Chile	· Competition Law (1973)	· National Economic Prosecutor's Office · Antitrust Commission
5. China	· Regulations on Development and Protection of Competition (1980) · The Law of the People's Republic of China for Countering Unfair Competition (1993) · The Law of the People's Republic of China for Protecting Consumer's Rights and Interests (1993)	· Industrial and Commercial Administration of China
6. Hong Kong	· There is no comprehensive competition law	
7. Indonesia	· There is no comprehensive competition law	
8. Japan	· Anti-monopoly Act (1947)	· Fair Trade Commission
9. Korea	· Monopoly Regulation and Fair Trade Act (1980)	· Korea Fair Trade Commission

<u>Country</u>	<u>Competition Laws</u>	<u>Enforcement Agencies</u>
10. Malaysia	· There is no specific Act governing competition policy at present	
11. Mexico	· Federal Law on Economic Competition (1993)	· Federal Competition Commission
12. New Zealand	· Commerce Act (1986) · Fair Trading Act (1986) · Consumer Guarantees Act (1993)	· Commerce Commission
13. Papua New Guinea	· There is no comprehensive competition law or specific institution to enforce competition policy	
14. Philippines	· There is no comprehensive competition law or specific institution to enforce competition policy	
15. Singapore	· There is no comprehensive competition law or specific institution to enforce competition policy	
16. Chinese Taipei	· Fair Trade Law (1991)	· Fair Trade Commission
17. Thailand	· There is no comprehensive competition law or specific institution to enforce competition policy	
18. United States	· Sherman Act (1890) · Clayton Act (1914) · Federal Trade Commission Act (1914) · Robinson-Patman Act (1914) · Hart-Scott-Rodino Antitrust Improvement Act (1976)	· Antitrust Division, Department of Justice · Federal Trade Commission

APPENDIX 3

Individual Action Plans of APEC Economies on Competition Policy

1. Australia

- Maintain effective, transparent national competition policy, laws and enforcement policies.
- Undertake a review of exemptions to the competitive conduct rules to commence in 1997-1998.
- Pursue a policy of competitive neutrality in respect of government-owned businesses where they compete with privately-owned businesses.
- Provide technical and policy development assistance to APEC countries as requested - subject to resource availability.
- Pursue mutual assistance agreements with APEC member countries as appropriate.

2. Brunei Darussalam

- Continually review the regulatory framework governing individual industrial sectors.
- Publish and make available any competition laws enacted in the future.
- Participate in dialogues/workshops/seminars on competition policy.
- Facilitate the establishment of a national consumer protection body.

3. Canada

- Continue to participate in domestic and international regulatory reform, privatization process and continued use of advocacy.
- Continue to offer technical assistance, participate in international cooperation and coordination efforts.
- Explore the development of an APEC-wide mechanism for notification and consultation.

4. Chile

- Strengthen the anti-trust commissions and National Economic Prosecutor's Office, especially in the regions.
- Promote cooperation between enforcement agencies in order to avoid anti-competitive practices.

- Contribute to competition policy understanding in the APEC region by promoting and participating in seminars, workshops and the like.

5. China

- Study and develop a relatively complete market competition mechanism and introduce competition mechanism with more economic sectors (e.g. transportation, energy, banking, insurance, commerce and consulting services).
- Improve the legal framework, draft and formulate anti-monopoly laws and regulations.
- Intensify training of relevant personnel.
- Formulate regulations on anti-dumping, countervailing and special safeguard measures.

6. Hong Kong

- Review its competition policy in the light of the findings of competition studies conducted by the Consumer Council.
- Review the Telecommunications Ordinance to promote fair competition and prevent anti-competitive practices by developing further the legal framework which safeguards competition and governs interconnection, accounting separation, and sharing of essential facilities among competitors in the market.
- Study the feasibility of introducing a common carrier system in Hong Kong for the supply of fuel gas for domestic water heating and cooking to promote competition.
- Seek to enact legislation to abolish mandatory fee scales for conveyances and probate work in order to promote competition and enhance consumer interests.
- Continue to participate actively in competition policy dialogues among APEC economies to enhance mutual understanding of competition policy/laws.

7. Indonesia

- Continue its efforts to promote competition through further deregulation of its economy.
- Participate in competition policy dialogues among APEC economies to enhance mutual understanding of competition policy laws.
- Review its competition environment for the purpose of identifying areas where policy changes could improve the welfare of its citizens.
- Enhance transparency with regard to competition policy.

8. Japan

- Undertake measures for more vigorous implementation of competition policy.
- Implement technical assistance with regard to policy development and the constitution and function of enforcement agencies.
- Establish cooperation arrangements among competition authorities of APEC economies.
- Develop understanding in the APEC business community of competition policy/laws, and administrative procedures.
- Dialogue with international organizations to foster cooperation between APEC and international organizations such as OECD and UNCTAD in the field of competition policy.

9. Korea

- Enforcement of the Fair Trade Act
 - Reduce the areas that are exempt from the applications of the Fair Trade Act
 - Reduce the scope of granting exemptions to anticompetitive collaborative activities
 - Strengthen examination of anticompetitive corporate mergers and raise Korean merger examinations standards to an international level
- Promoting Deregulation
 - eliminate anticompetitive elements in existing laws and regulations.
- Enhancing Fairness, Transparency, and Professionalization of Korea Fair Trade Commission's (KFTC) Procedures
 - Minimize public inconveniences in the process of filing complaints
 - Prevent the introduction of new competition-restricting laws and regulations
 - Choose fair trade monitors from the public responsible for reporting unfair business practices
 - Provide the public information on fair trade laws and regulations
- Reorganize KFTC to effectively enforce competition policy.
- Offer a training program on international competition policy to competition authorities of developing nations.
- Promote bilateral cooperation with Japan, the U.S., and other APEC economies.
- Actively participate in the exchange of information with APEC members to enhance knowledge of competition policies.

10. Malaysia

- Draw up competition policy to address unethical trade practices and abuse of market power.
- Participate in dialogue/workshop/discussions on competition policy.
- Review competition policy and identify areas where changes are needed.

11. Mexico

- Adopt complementary rules and/or guidelines to facilitate the implementation of the existing legal framework.
- Undertake periodic evaluations of its competition policy and legislation in connection with on-going privatization and deregulation processes in important sectors such as telecommunications, rail transport, basic petrochemicals, natural gas, and airport services.
- Ensure transparency of its competition laws through the publication of competition laws, regulations, and annual reports.
- Pursue a greater advocacy role of the Mexican Competition Authority in order to deepen the understanding of the competition policy and legislation among the different sectors.
- Participate in the discussion of international cooperation aspects of competition policy.
- Pursue the 1995 OECD Revised Recommendation concerning cooperation between member countries on anticompetitive practices affecting international trade.
- Promote bilateral technical assistance and multilateral international cooperation agreements with competition authorities from foreign and APEC economies.

12. New Zealand

- Continue to operate a competition policy which recognizes the importance that imports and foreign investment have in constraining market power.
- Maintain an effective and transparent competition law and well-resourced expert enforcement agency.
- Continue to provide policy and law technical assistance within the constraints of resource availability.
- Establish mutual assistance agreements to promote competition law enforcement cooperation as appropriate.
- Evaluate the potential for greater information sharing powers between the Commerce Commission and overseas law enforcement agencies.

13. Papua New Guinea

- Seek Cabinet endorsement to introduce Business Practices Act and National Competition Policy.
- Seek appropriate technical assistance with regard to policy development, legislative drafting and the constitution, powers and functions of appropriate enforcement agencies.

14 Philippines

- Review existing laws on competition with the end in view of improving the competition environment.
- Enact an anti-trust, anti-monopoly law including the establishment of the Fair Trade Commission to enforce competition laws.
- Avail of technical assistance within APEC to review and develop its competition policies and laws.
- Participate actively in dialogues and exchange of information among APEC economies to ensure transparency and enhance mutual understanding of national competition laws and policies.

15. Singapore

- Continue to maintain its free and open market to ensure a competitive environment in the domestic economy.
- Continue to review and introduce competition through privatization where appropriate for services for which the government has traditionally been the sole provider.
- Continue to participate in competition policy dialogues among APEC economies to enhance mutual understanding of competition policy and laws.

16. Chinese Taipei

- To enhance transparency.
 - Review guidelines for applications of the law with respect to various anti-competitive and unfair trade practices
 - Establish a task force to examine all other relevant laws, to complement the trade liberalization process

- Strengthen compliance education programs
 - Establish operational guidelines for investigative procedures and ensure legal rights of the parties involved
 - Establish a “Competition Policy Information and Research Center” and continue the sourcing and updating of the relevant information
 - Continue to establish and review guidelines.
- To strengthen technical assistance.
- Offer technical assistance to APEC members in the making of the relevant laws, regulations, working guidelines and compliance education.
- To strengthen cooperation.
- Set-up “windows” for communication with competition authorities of other APEC economies.
 - Continue cooperation with other members through the exchange of information, staff members, technical assistance, as well as other informal arrangements
 - Establish bilateral agreements and arrangements
 - Discuss and analyze non-binding principles relevant to competition policies/laws as contemplated in the OSAKA Action Agenda, through established bilateral coordination and cooperation agreements/arrangements.

17. Thailand

- Effectively enforce laws and regulations governing restrictive business practices under the current domestic and external environment bearing in mind the interests of producers, traders, and consumers.
- Review its respective policy and/or laws and the enforcement thereof in terms of transparency, competitiveness and facilitation.
- Establish appropriate cooperation arrangements among APEC economies.
- Seek technical assistance from APEC members with more advanced implementation of competition policies and/or laws.
- Endeavor to amend existing laws such as the Price Fixing and Anti-Monopoly Act of 1979, where appropriate, to allow greater competition.
- Organize seminars and provide training on competition policy and law to the public and private sectors.
- Continually publicize information on policies and related laws, including enforcement thereof.

- Support cooperative activities contributing to the promotion of free trade and competition.
- Provide technical assistance to other APEC member economies in developing competitive policies and/or laws, where appropriate.

18. USA.

- Continue to ensure the transparency of federal competition laws and enforcement policies through publication of antitrust laws, enforcement policy guidelines of the federal enforcement agencies, judicial opinions related to antitrust agencies, and public statements concerning enforcement policy by senior policy officials.
- Continue its strong commitment to effective enforcement of the antitrust laws and to promotion of procompetitive regulatory reform.
- Continue to apply the antitrust laws to the broadest range of economic activity possible under the laws, and to reevaluate the appropriateness of any exceptions to the coverage of the antitrust laws.
- Enforce its competition laws to ensure that U.S. markets are free of harmful unilateral and concerted anticompetitive private conduct.
- Provide assistance to the extent of available resources through exchanges of personnel, participation in seminars organized by international organizations, and the exchange of confidential information on a reciprocal basis.

Source: Asia-Pacific Economic Cooperation, "Manila Action Plan for APEC", Volume II (Manila: November 1996).

REFERENCES

- Asia-Pacific Economic Cooperation. 1996. Manila Action Plan for APEC: Individual Action Plan, Volume II, Fourth APEC Economic Leaders' Meeting. Manila, Philippines.
- Bourgeois, J. and P. Demaret. 1995. The Working of EC Policies on Competition, Industry and Trade: A Legal Analysis. In P. Buigues, A. Jacquemin, and A. Sapir (eds.) *European Competition, Trade, and Industry*. London: Edward Elgar.
- Free Trade Asia Consulting. 1996. *Setting the Agenda for Competition Policy in the Philippines*. Manila: Asia Foundation.
- Martin, S. 1988. *Industrial Economics: Economic Analysis and Public Policy*. New York: Macmillan Publishing Company.
- Patalinghug, E. 1996. Setting the National Agenda for Consumer Protection Through Competition Policy. Paper presented to a forum on Protecting the Filipino Consumer Through Competition Policy, March 18.
- Patalinghug, E. 1997a. Current Conditions and Future Prospects of Competition Policy in the Philippines. A paper presented to the APEC/PFP Seminar on Competition Policy. Bangkok, Thailand, March 18-21.
- Patalinghug, E. 1997b. Philippine Privatization Experience, Issues, and Lessons. *Journal of Asian Business*, Vol. 13, No. 1.
- Santos, G. 1995. Competition Regulation: The Philippine Experience. Paper presented to the Asian Law and Policy Studies Colloquium on Competition Regulation Within the APEC Region: Commonality and Divergence. Washington, D.C.: Georgetown University Law Center.
- SGV Consulting. 1992. Barriers to Entry Study. USAID-Manila.
- Sharp, M. and K. Pavitt. 1993. Technology Policy in the 1990s: Old Trends and New Realities. *Journal of Common Market Studies*, Vol. 31, No. 2.
- Takigawa, T. 1997. Harmonization of Competition Policies in Globalized Economy. A paper presented to the APEC/PFP Seminar on Competition Policy, Bangkok. Thailand, March 18-21.
- Tariff Commission. 1996. New Developments in Trade and Tariff Policy. Manila: PHILEXPORT